Community Health Needs Assessment 2013

KNAPP
MEDICAL CENTER

BKD LLP
CPAs & Advisors

Knapp Medical Center

Community Health Needs Assessment

June 2013

Contents

Knapp Medical Center

Community Health Needs Assessment

June 2013

Introduction

IRC Section 501(r) requires health care organizations to assess the health needs of their communities and adopt implementation strategies to address identified needs. Per IRC Section 501(r), a byproduct of the *Affordable Care Act*, to comply with federal tax-exemption requirements, a tax-exempt hospital facility must:

- Conduct a community health needs assessment every three years.
- Adopt an implementation strategy to meet the community health needs identified through the assessment.
- Report how it is addressing the needs identified in the community health needs assessment and a description of needs that are not being addressed with the reasons why such needs are not being addressed.

The community health needs assessment must take into account input from persons who represent the broad interest of the community served by the hospital facility, including those with special knowledge of or expertise in public health. The hospital facility must make the community health needs assessment widely available to the public.

This community health needs assessment, which describes both a process and a document, is intended to document Knapp Center's (Medical Center) compliance with IRC Section 501(r). Health needs of the community have been identified and prioritized so that the Medical Center may adopt an implementation strategy to address specific needs of the community.

The *process* involved:

- Collection and analysis of a large range of data, including demographic, socioeconomic, health statistics and health care resources.
- Conducting a Healthy Communities Survey.
- Review of 2011 Community Health Report and 2012 Regional Healthcare Partnership Plan.

This *document* is a summary of all the available evidence collected during the initial cycle of community health needs assessments required by the IRS. It will serve as a compliance document as well as a resource until the next assessment cycle.

Both the process and document serve as the basis for prioritizing the community's health needs and will aid in planning to meet those needs.

Summary of Community Health Needs Assessment

The purpose of the community health needs assessment is to document compliance with new federal laws outlined above.

The Medical Center engaged **BKD, LLP** to conduct a formal community health needs assessment. **BKD, LLP** is one of the largest CPA and advisory firms in the United States, with approximately 2,000 partners and employees in 30 offices. BKD serves more than 900 hospitals and health care systems across the country. The community health needs assessment was conducted during June 2013.

Based on current literature and other guidance from the treasury and the IRS, the following steps were conducted as part of Knapp Medical Center's community health needs assessment:

- The "community" served by the Medical Center was defined by utilizing inpatient data regarding patient origin. This process is further described in Community Served by the Medical Center.
- Population demographics and socioeconomic characteristics of the community were gathered and reported utilizing various third parties (see in *Appendices*). The health status of the community was then reviewed. Information on the leading causes of death and morbidity information, as well as Medical Center data, was analyzed in conjunction with health outcomes and factors reported for the community by CountyHealthrankings.org. Health factors with significant opportunity for improvement were noted.
- An inventory of health care facilities and resources was prepared.
- Community input was obtained by:
    - Distributing a Healthy Communities Questionnaire to members of the community
    - Surveys and focus groups conducted for the 2011 Community Health Report
    - Participation in the Regional Healthcare Partnership Plan
- Information gathered in the steps above was analyzed and reviewed to identify health issues of uninsured persons, low-income persons and minority groups and the community as a whole. Health needs were ranked utilizing a weighting method that weighs: 1) the size of the problem, 2) the seriousness of the problem, 3) the prevalence of common themes, 4) the impact of the issue on vulnerable populations and 5) how important the issue is to the community.
- Recommendations based on this assessment have been communicated to the Medical Center.

General Description of the Medical Center

Knapp Medical Center, a 226 bed not-for-profit hospital, serves a city and rural population of more than 200,000 people. Over 220 physicians, all independent professional practitioners serve on the Knapp Medical Staff. Knapp employs more than 900 people and provides volunteer opportunities for over 230 people.

Locations and Services

The Knapp Medical Group currently operates three clinics:

- The Clinic – In Elsa, TX
- The Clinic – In Weslaco, TX
- The Clinic – In Donna, TX

Knapp Medical Center provides the community with a wide array of medical services including the following:

- Cardiac Catheterization Service and a total of 52 cardiac monitored beds
- 16 bed Medical Intensive Care Unit
- 24-hour physician staffed Emergency Department with a Level III Trauma designation
- General surgical services for both inpatients and outpatients
- Obstetrics and gynecology
- Pediatric unit
- Imaging services including MRI, CT, Nuclear Medicine, Ultrasound, Mammography & DEXA Bone Density
- Hospice care services
- Rehabilitation services including physical therapy and speech therapy
- Diabetes Center
- Laboratory Services
- Wound Care
- Surgical Unit
- Nutrition Education/Counseling
- Cardiopulmonary Care

Community Served by the Medical Center

The Medical Center is located in the city of Weslaco, Texas in Hidalgo County. The City of Weslaco is located in the Mid-Valley area of Texas on the eastern edge of Hidalgo County, centered between McAllen to the west and Harlingen to the east. Weslaco is seven miles north of the Mexican Border City of Nuevo Progreso.

Knapp Medical Center's service area is Hidalgo County. Knapp Medical Center's Primary Service Area includes Donna east to La Feria and Monte Alto south to the Rio Grande River or what is referred to as the Mid-Valley. Hidalgo County is included in Regional Healthcare Partnership #5 (RHP5) which includes the South Texas counties of Cameron, Hidalgo, Starr and Willacy.

Defined Community

A community is defined as the geographic area from which a significant number of the patients utilizing the Medical Center's services reside. While the community health needs assessment considers other types of health care providers, the Medical Center is the single largest provider of acute care services. For this reason, the utilization of Medical Center services provides the clearest definition of the community.

Based on the patient origin of acute care discharges from fiscal year 2012, management has identified the community to include all of Hidalgo County, with nearly 96 percent of discharges originating in Hidalgo County. *Exhibit 1* presents the Medical Center's patient origin for Hidalgo County. Page 5 presents a detailed map of the Medical Center's geographical location and the footprint of the community identified in *Exhibit 1*. Demographic information for Hidalgo County in comparison the state of Texas and the United States is presented in *Exhibits 2-5*.

The geographic area of the defined community based on discharges includes all of Hidalgo County. The community health needs assessment will utilize the information at a county level.

Exhibit 1
Knapp Medical Center CHNA Community
Summary of Inpatient Discharges
July 1, 2011 to June 30, 2012

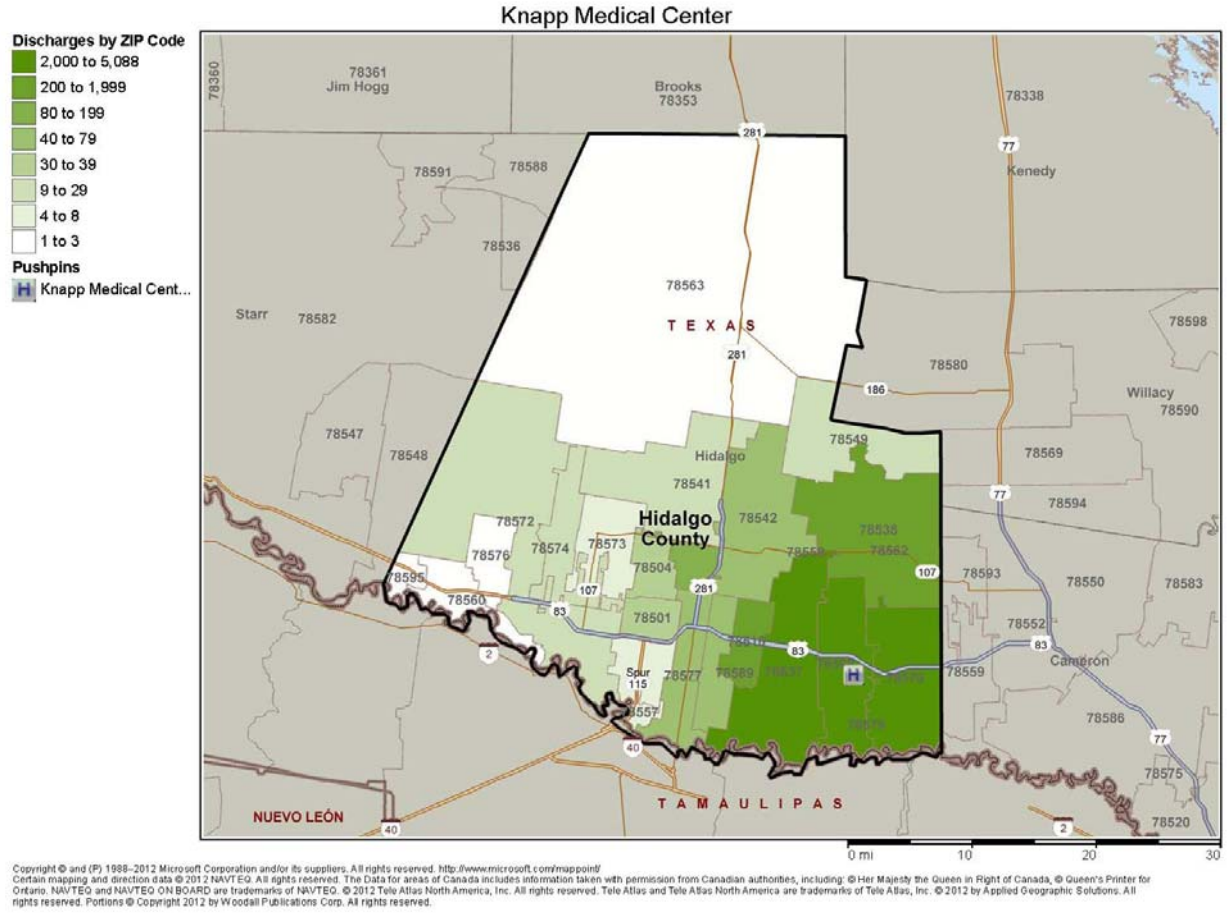
Zip Code	Discharges	Percent of Total Discharges
Hidalgo County:		
78596	5,089	41.5%
78570	2,367	19.3%
78537	2,025	16.5%
78538	534	4.3%
78543	463	3.8%
78579	366	3.0%
78516	202	1.6%
78562	119	1.0%
78599	101	0.8%
78539	89	0.7%
78577	72	0.6%
78542	55	0.4%
78589	46	0.4%
78558	39	0.3%
78501	36	0.3%
78504	31	0.3%
78572	25	0.2%
78541	16	0.1%
78549	12	0.1%
78574	9	0.1%
78573	8	0.1%
78503	5	0.0%
78557	4	0.0%
78540	3	0.0%
78560	2	0.0%
78576	2	0.0%
78502	1	0.0%
78595	1	0.0%
	11,722	95.5%
All Other	554	4.5%
Total	12,276	100.0%

Source: Knapp Medical Center

Community Details

Identification and Description of Geographical Community

The following maps geographically illustrate the Medical Center's location and community by showing Hidalgo County zip codes shaded. Nearly 96 percent of the Medical Center's discharges originate in Hidalgo County.



Community Population and Demographics

The U.S. Bureau of Census has compiled population and demographic data based on the 2010 census. The Nielsen Company, a firm specializing in the analysis of demographic data, has extrapolated this data by zip code to estimate population trends from 2013 through 2018.

Exhibit 2 illustrates that the overall population is projected to increase over the five-year period from 825,073 to 907,040. In addition, the age category that utilizes health care services the most, 65 years and over, is projected to increase from 79,814 to 93,405. The projected change to the composition of the total community, between male and female, is projected to remain approximately the same over the five-year period.

Exhibit 2
Knapp Medical Center CHNA Community
Estimated 2013 Population and Projected 2018 Population

Zip Code	City	Under 15 years	15-44 years	45-64 years	65 years and over	Total	Male	Female
				Estimated 2013 Population				
Hidalgo County		235,790	355,071	154,398	79,814	825,073	401,485	423,588
PROVIDER SERVICE AREA		235,790	355,071	154,398	79,814	825,073	401,485	423,588
				Projected 2018 Population				
Hidalgo County		252,223	381,280	180,132	93,405	907,040	441,713	465,327
PROVIDER SERVICE AREA		252,223	381,280	180,132	93,405	907,040	441,713	465,327

Source: The Nielsen Company

Exhibit 2.1 provides the percent difference for each zip code from estimated 2013 to projected 2018 as well as the ability to compare the percent difference to the state of Texas and the United States for comparison purposes. *Exhibit 2.1* illustrates that the overall population is projected to increase nearly 10 percent over the five-year period compared to projected overall increases for Texas at nearly eight percent and the United States at slightly over three percent. Note the age category that utilizes health care services the most, 65 years and over, is projected to increase by more than 17 percent. This increase in the 65 year and over category will have a dramatic impact on both the amount and type of services required by the community.

Exhibit 2.1
Knapp Medical Center CHNA Community
Estimated 2013 Population Versus Projected 2018 Population Percent Difference

Zip Code	Under 15 years	15-44 years	45-64 years	65 years and over	Total	Male	Female
				Percent Difference			
Hidalgo County	6.97%	7.38%	16.67%	17.03%	9.93%	10.02%	9.85%
PROVIDER SERVICE AREA	6.97%	7.38%	16.67%	17.03%	9.93%	10.02%	9.85%
TX 2013 Estimated (1,000s)	5,949	11,068	6,358	2,922	26,297	13,041	13,257
TX 2018 Projected (1,000s)	6,343	11,545	6,862	3,583	28,333	14,046	14,288
PERCENT DIFFERENCE	6.62%	4.31%	7.93%	22.62%	7.74%	7.71%	7.78%
U.S. 2013 Estimated (1,000s)	61,803	126,084	83,113	43,862	314,862	154,820	160,042
U.S. 2018Projected (1,000s)	63,380	126,608	84,336	50,998	325,322	160,000	165,322
PERCENT DIFFERENCE	2.55%	0.42%	1.47%	16.27%	3.32%	3.35%	3.30%

Source: The Nielsen Company

Certain characteristics of a population can be factors in determining the health care services required by a community. The following is an analysis of the age distribution of the population for the primary community. The analysis is provided for Hidalgo County and provides a comparison to Texas and the United States.

Exhibit 2.2
Knapp Medical Center CHNA Community
Estimated 2013 Population Versus Projected 2018 Population with Percent Totals

Zip Code	Under 15 years	15-44 years	45-64 years	65 years and over	Total	Male	Female
				Estimated 2013 Population			
Hidalgo County	28.58%	43.04%	18.71%	9.67%	100.00%	48.66%	51.34%
TOTAL PROVIDER SERVICE AREA	28.58%	43.04%	18.71%	9.67%	100.00%	48.66%	51.34%
				Projected 2018 Population			
Hidalgo County	27.81%	42.04%	19.86%	10.30%	100.00%	48.70%	51.30%
TOTAL PROVIDER SERVICE AREA	27.81%	42.04%	19.86%	10.30%	100.00%	48.70%	51.30%
ESTIMATED 2013 POPULATION	28.58%	43.04%	18.71%	9.67%	100.00%	49.59%	50.41%
PROJECTED 2018 POPULATION	27.81%	42.04%	19.86%	10.30%	100.00%	49.57%	50.43%
PERCENT DIFFERENCE	7.0%	7.4%	16.7%	17.0%	9.9%	10.0%	9.9%
TEXAS POPULATION 2013	22.6%	42.1%	24.2%	11.1%	100.0%	50%	50%
UNITED STATES POPULATION 2013	22.4%	40.7%	24.2%	12.6%	100.0%	50%	50%

Source: The Nielsen Company

Very similar to the more than 17 percent growth seen in the overall number of people in the 65 year and over category in *Exhibit 2.1*, *Exhibit 2.2* indicates that as a percent of total population for the community, the 65 year and over category will make up over 10 percent of the total population in 2018 compared to the 9.7 percent in 2013.

While the relative age of the community population can impact community health needs, so can the ethnicity and race of a population. The following *Exhibit 3* shows the population of the community by ethnicity by illustrating the Hispanic versus Non-Hispanic residents. Hidalgo County has a significantly higher population of Hispanic resident's in comparison to Texas as a whole; this is most likely due to the county's close proximity to the Mexican border.

Exhibit 3
Knapp Medical Center CHNA Community
Estimated 2013 Population Versus Projected 2018 Population with Percent Difference

	Estimated 2013			Projected 2018			% Difference		% Total	
Zip Code	Hispanic	Non-Hispanic	Total	Hispanic	Non-Hispanic	Total	Hispanic	Non-Hispanic	Hispanic	Non-Hispanic
Hidalgo County	752,190	72,883	825,073	834,055	72,985	907,040	10.9%	0.1%	92.0%	8.0%
PROVIDER SERVICE AREA	752,190	72,883	825,073	834,055	72,985	907,040	10.9%	0.1%	92.0%	8.0%
Texas (1,000s)	10,268	16,029	26,297	11,631	16,702	28,333	13.3%	4.2%	41.1%	58.9%
U.S. (1,000s)	54,578	260,284	314,862	61,050	264,272	325,322	11.9%	1.5%	18.8%	81.2%

Source: The Nielsen Company

Exhibit 4 shows the population of the community by race by illustrating three different categories: white, black and other residents. A review of the specific zip code areas does show a relatively low percentage of black and other residents in Hidalgo County compared to state averages.

Exhibit 4
Knapp Medical Center CHNA Community
Estimated 2013 Population Versus Projected 2018 Population with Percent Difference

Zip Code	Estimated 2013				Projected 2018				Percent Difference				Percent Total		
	White	Black	Other	Total	White	Black	Other	Total	White	Black	Other	Total	White	Black	Other
Hidalgo County	724,623	4,919	95,531	825,073	794,176	5,573	107,291	907,040	9.6%	13.3%	12.3%	9.9%	87.6%	0.6%	11.8%
PROVIDER SERVICE AREA	724,623	4,919	95,531	825,073	794,176	5,573	107,291	907,040	9.6%	13.3%	12.3%	9.9%	87.6%	0.6%	11.8%
Texas (1,000s)	18,255	3,138	4,904	26,297	19,238	3,438	5,657	28,333	5.4%	9.6%	15.4%	7.7%	67.9%	12.1%	20.0%
U.S. (1,000s)	225,086	40,007	49,770	314,863	228,212	41,797	55,313	325,322	1.4%	4.5%	11.1%	3.3%	70.1%	12.8%	17.0%

Source: The Nielsen Company

Socioeconomic Characteristics of the Community

The socioeconomic characteristics of a geographic area influence the way residents access health care services and perceive the need for health care services within society. The economic status of an area may be assessed by examining multiple variables within the community. The following exhibits are a compilation of data that includes household income, labor force, employees by types of industry, employment rates, educational attainment, and poverty for the community served by the Medical Center. These standard measures will be used to compare the socioeconomic status of the county internally as well as to the state.

Income and Employment

Exhibit 5 presents the average and median household income for households in Hidalgo County. Average household income is projected to increase 11.1 percent between 2013 and 2018. Median household income is projected to increase 10.9 percent.

Exhibit 5
Knapp Medical Center CHNA Community
Estimated Family Income and Wealth for 2013 and 2018 With Percent Difference

	Estimated 2013		Projected 2018		Percent Difference	
Zip Code	Avg. Household Income	Median Household Income	Avg. Household Income	Median Household Income	Avg. Household Income	Median Household Income
Hidalgo County	$ 49,160	$ 33,575	$ 54,636	$ 37,242	11.1%	10.9%
Texas	$ 68,955	$ 48,646	$ 71,829	$ 49,975	4.2%	2.7%
United States	$ 69,637	$ 49,297	$ 71,917	$ 49,815	3.3%	1.1%

Source: The Nielsen Company

Exhibit 6 presents the average annual resident unemployment rates for Hidalgo County in comparison to Texas and the United States. As *Exhibit 6* illustrates, unemployment rates for Hidalgo County rank unfavorably when compared to the state and national averages.

Exhibit 6
Knapp Medical Center CHNA Community
Unemployment Rates (%)
2008-2012

County	2008	2009	2010	2011	2012
Hidalgo County	7.3	10.4	12.1	12.1	11.0
Texas	4.9	7.5	8.2	7.9	6.8
United States	5.8	9.3	9.6	8.9	8.1

Source: FDIC

Exhibit 7 summarizes employment by major industry for Hidalgo County in comparison to the United States as a whole.

Exhibit 7
Knapp Medical Center CHNA Community
Employment by Major Industry
2010

Major Industries	Hidalgo County	Hidalgo %	Texas %	US %
Goods-producing	18,999	8.7%	8.8%	14.7%
Natural resources and mining	6,197	2.8%	1.4%	1.4%
Construction	6,725	3.1%	3.0%	4.3%
Manufacturing	6,077	2.8%	4.4%	9.0%
Service-providing	146,611	66.8%	36.3%	68.4%
Trade, transportation and utilities	45,274	20.6%	11.0%	19.1%
Information	1,975	0.9%	1.1%	2.1%
Financial activities	7,744	3.5%	3.3%	5.8%
Professional and business services	13,609	6.2%	6.9%	13.1%
Education and health services	54,920	25.0%	7.0%	14.6%
Leisure and hospitality	19,178	8.7%	5.4%	10.2%
Other services	3,855	1.8%	1.6%	3.4%
Unclassified	56	0.0%	0.0%	0.0%
Federal Government	3,701	1.7%	1.1%	2.3%
State Government	6,229	2.8%	1.9%	3.6%
Local Government	43,833	20.0%	6.7%	11.0%
Total Employment	219,373	100.0%	100.0%	100%

Source: U.S. Department of Census

Major employers in the community with more than 100 employees include the following:

Exhibit 8
Knapp Medical Center CHNA Community
Employment by Top Employers (> 50 Employees)

Top Employers	Industry Classification	Total # of Employees
Weslaco ISD	Education	2,825
Knapp Medical Center	Hospital	980
Woodcrafters	Manufacturer	541
Wal-Mart	Retail Dept. Store	455
H-E-B (3 Locations)	Retal Grocery	407
City of Weslaco	Government	390
Payne Auto Group	Retail Auto Sales	330
JC Penney	Retail Dept. Store	198
Lowe's	Retail	195
South Texas College	Education-College	193
Foremost Paving	Construction	166
Texas A&M	Experiment Station; Extension Service; Citrus Center	147

Source: Weslaco Chamber of Commerce

Poverty

Exhibit 9 presents the percentage of total population in poverty (including under age 18) and median household income for households in Hidalgo County versus the state of Texas and the United States.

Exhibit 9
Knapp Medical Center CHNA Community
Poverty Estimate: Percentage of Total Population in Poverty and Median Household Income
2010 and 2011

County	2010 All Persons	2010 Under Age 18	2010 Median Household Income	2011 All Persons	2011 Under Age 18	2011 Median Household Income
Hidalgo County	33.4%	44.8%	$ 33,070	37.3%	47.9%	$ 31,021
Texas	17.9%	25.7%	$ 48,622	18.5%	26.6%	$ 49,390
United States	15.3%	21.6%	$ 50,046	15.9%	22.5%	$ 50,502

Source: U.S. Census Bureau, Small Areas Estimates Branch

Exhibit 9 presents the percentage of total population in poverty and median household income. In 2011, a family of two adults and two children was considered poor if their annual household income fell below $22,350. The poverty rates for Hidalgo County are nearly double than state and national averages. Median income for Hidalgo County is also significantly lower than state and national averages.

Uninsured

Exhibit 10 presents health insurance coverage status by age (under 65 years) and income (at or below 400 percent) of poverty for Hidalgo County versus the state of Texas and the United States. Hidalgo County has a significantly higher percentage of uninsured persons compared to the state of Texas. Only four Texas counties have a higher uninsured percentage than Hidalgo County.

Exhibit 10
Knapp Medical Center CHNA Community
Health Insurance Coverage Status by Age (Under 65 years) and Income (At or Below 400%) of Poverty
2010

	All Income Levels				At or Below 400% of FPL			
County	Uninsured	Percent Uninsured	Insured	Percent Insured	Uninsured	Percent Uninsured	Insured	Percent Insured
Hidalgo	265,156	38.1%	430,906	61.9%	250,733	41.1%	359,934	58.9%
Texas	5,820,793	26.3%	16,277,413	73.7%	5,215,659	34.2%	10,042,661	65.8%

Source: U.S. Census Bureau, Small Area Insurance Estimates

Education

Exhibit 11 presents educational attainment for individuals in Hidalgo County versus the state of Texas and the United States.

Exhibit 11
Knapp Medical Center CHNA Community
Educational Attainment by Age - Total Population
2009-2011

	18-24 years old	25-34 years old	35-44 years old	45-64 years old	65 and older
Completing High School					
Hidalgo	31.7%	73.9%	65.5%	57.4%	43.6%
Texas	30.1%	82.8%	81.3%	82.3%	73.0%
United States	29.5%	87.3%	87.3%	87.7%	77.8%
Bachelor's Degree or More					
Hidalgo	4.2%	16.6%	18.2%	15.4%	12.1%
Texas	7.2%	26.1%	27.9%	27.1%	21.1%
United States	9.2%	31.2%	31.4%	28.6%	21.3%

Source: U.S. Census Bureau, Current Population Survey

Education levels obtained by community residents may impact the local economy. Higher levels of education generally lead to higher wages, less unemployment and job stability. These factors may indirectly influence community health. Hidalgo County falls below both state and national averages in every category, with the exception of high school completion for the 18-24 age group.

Winter Texans

The Winter Texan population changes the demographic for a portion of the year in South Texas. This group, for the most part, is comprised of retired individuals with a different set of healthcare needs. According to the *2008 Winter Visitor Study* completed by the University of Texas-Pan America, the average Winter Texan participating in the 2008 study was married (87 percent), Caucasian (99 percent), retired for more than a year (86 percent) and has a high school diploma (34 percent) or some college education (35 percent).

The average age of Winter Texans is 69.5 years and the average household income is around $50,000 with 69 percent of respondents' incomes falling in the$20,000 to $60,000 range. Most Winter Texans are from Minnesota (16 percent), Iowa (12 percent), Illinois (eight percent), Canada (eight percent) and Wisconsin (seven percent).

On average, a typical Winter Texan has been coming to the Valley for 9.1 years, and stays for around 4.2 months. The majority of Winter Texans live in residences they own (83 percent), with RVs and mobile homes the most popular type of housing.

Winter Texans generally enjoy good health with 90 percent of respondents reporting to be in good to excellent health, versus 73 percent of individuals 65 years of age and older nationwide.

While in the Valley, Winter Texans utilize health care facilities (doctor, hospital, emergency room) at around half the rate of usage at their permanent homes. Dentists are utilized more in Mexico border towns than in the Valley. Practically all Winter Texans have health insurance coverage.

Around 60 percent of Winter Texans are satisfied with the quality of health care received in the Valley and have high levels of trust and confidence in their treating doctor.

Community Health Care Resources

The availability of health resources is a critical component to the health of a county's residents and a measure of the soundness of the area's health care delivery system. An adequate number of health care facilities and health care providers is vital for sustaining a community's health status. Fewer health care facilities and health care providers can impact the timely delivery of services. A limited supply of health resources, especially providers, results in the limited capacity of the health care delivery system to absorb charity and indigent care as there are fewer providers upon which to distribute the burden of indigent care. This section will address the availability of health care resources to the residents of Hidalgo County.

Hospitals

There are several short-term acute care hospitals, as well as a rehabilitation hospital and a long-term care facility in the Medical Center's community. The Medical Center itself is a 227 bed, short-term acute care hospital.

Exhibit 12
Knapp Medical Center CHNA Community
Summary of Area Hospitals

		Facility Type*	Miles from Knapp*	Bed Size**
1	Mission Regional Medical Center	Short-Term Acute Care	23.4	297
2	Doctors Hospital at Renaissance	Short-Term Acute Care	19	530
3	Edinburg Regional Medical Center	Short-Term Acute Care	18.7	213
4	McAllen Heart Hospital	Short-Term Acute Care	17.3	60
5	McAllen Medical Center	Short-Term Acute Care	18	441
6	Rio Grande Regional Hospital	Short-Term Acute Care	17.4	320
7	Solara Hospital	Long-Term Care	19.8	78
8	South Texas Behavioral Center	Rehabilitation	19.2	134
+	Knapp Medical Center	Short-Term Acute Care	X	227

*Information based on latest available Medicare cost report

**Source: Information from Texas Deparment of State Health Services, Dept. of Regulator Services, 2012.

Source: Costreportdata.com

Knapp Medical Center

Area Hospitals

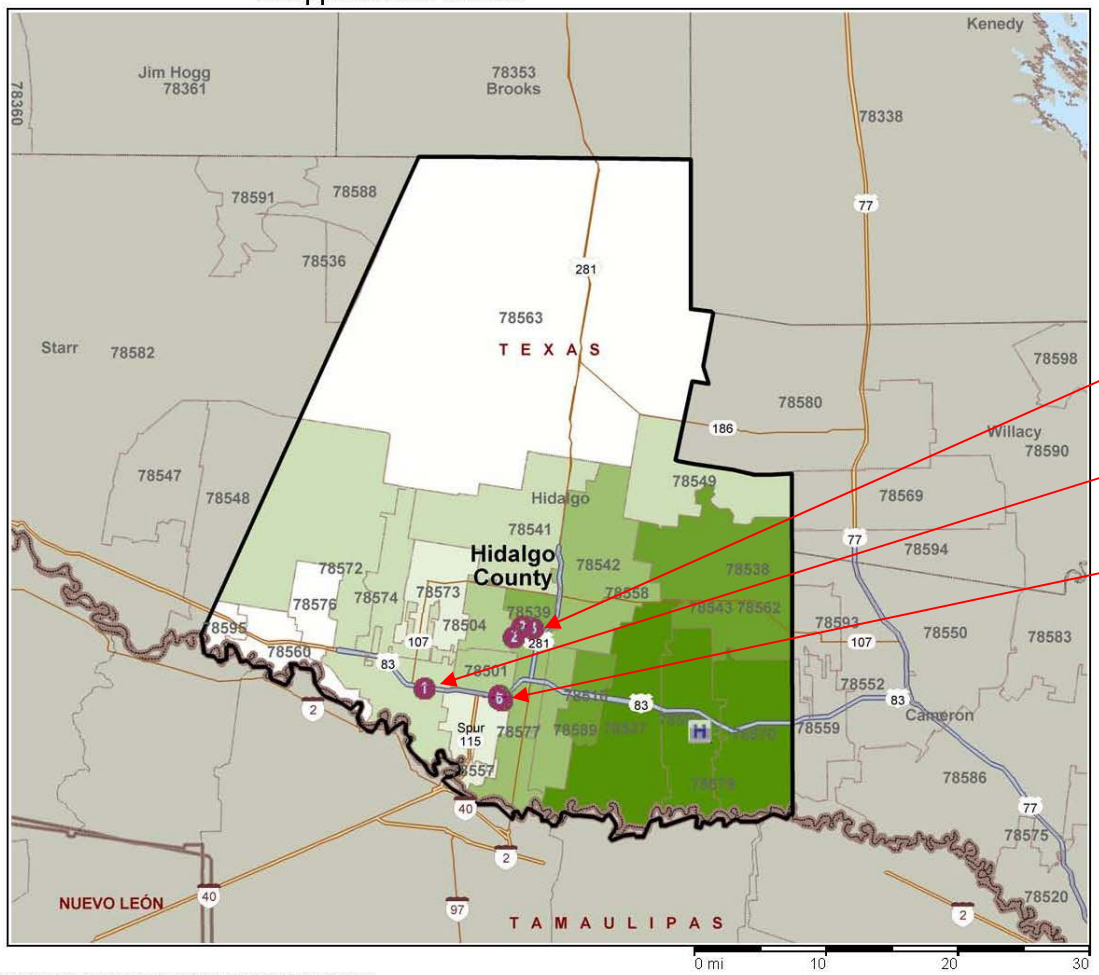
2. Doctors Hospital at Renaissance
3. Edenburg Regional Medical Cen...
4. Mcallen Heart Hospital
5. Mcallen Medical Center
1. Mission Regional Medical Center
6. Rio Grande Regional Hospital
7. South Texas Behavioral Center

Discharges by ZIP Code

- 2,000 to 5,088
- 200 to 1,999
- 80 to 199
- 40 to 79
- 30 to 39
- 9 to 29
- 4 to 8
- 1 to 3

Pushpins

- Knapp Medical Center



2, 3, 8

1

4, 5, 6, 7

Community Health Centers

There are 13 community health centers that offer a variety of medical services to the residents of Hidalgo County. These services include, but are not limited to: behavioral health services, case management, dental care, developmental screening, diabetes care, family planning, general primary medical care, HIV testing, health education, hearing screenings, immunizations, laboratory services, obstetrical care/labor and delivery, pharmacy, urgent care, women's health and X-Ray services.

Exhibit 13
Knapp Medical Center CHNA Community
Summary of Community Health Centers

Facility Name	Facility Type	Health Designations	County	Address	City	State	Zip
Nuestra Clinica del Valle	Community Health Center	HPSA/MUA	Hidalgo	804 W. First Street	San Juan	TX	78589-2276
Valley Primary Care Network	Community Health Center	N/A	Hidalgo	1106 East Tyler Avenue	Harlingen	TX	78550-7138
Valley AIDS Council, Inc.	Community Health Center	HPSA/MUA	Hidalgo	418 East Tyler Street, Suite B	Harlingen	TX	78550
Nuestra Clinica del Valle - Memorial	Community Health Center	HPSA/MUA	Hidalgo	801 W. First Street	San Juan	TX	78589-2276
Nuestra Clinica del Valle - Mercedes	Community Health Center	HPSA/MUA	Hidalgo	1500 First Street	Mercedes	TX	78570-2551
Nuestra Clinica del Valle - Donna	Community Health Center	HPSA/MUA	Hidalgo	301 S. 17th Street	Donna	TX	78537
Valley AIDS Council	Community Health Center	HPSA/MUA	Hidalgo	1217 East Chicago	McAllen	TX	78501
Nuestra Clinica del Valle - Edcouch	Community Health Center	HPSA/MUA	Hidalgo	1200 E. Santa Rosa	Edouch	TX	78538-0355
Nuestra Clinica del Valle - Mission	Community Health Center	HPSA/MUA	Hidalgo	611 N. Bryan Road	Mission	TX	78572-4245
Nuestra Clinica del Valle - San Carlos	Community Health Center	HPSA/MUA	Hidalgo	300 N. 86th Street	Edinburg	TX	78541-1838
Nuestra Clinica del Valle - San Juan	Community Health Center	HPSA/MUA	Hidalgo	801 W. 1st Street	San Juan	TX	78589-2276
Nuestra Clinica del Valle - PSJA School Base	Community Health Center	HPSA/MUA	Hidalgo	2900 North Raul Longoria Road	San Juan	TX	78589-9727
Nuestra Clinica del Valle - Women's Clinic	Community Health Center	HPSA/MUA	Hidalgo	806 W. 3rd Street	San Juan	TX	78589-2276

Source: Texas Association of Community Health Centers
http://www.tachc.org/find_healthcare_center#

Health Department

The Hidalgo County Health and Human Services Department (HCHHSD) offers residents of the county many health and human services, including: immunizations, T.B. Clinic, STD Clinic, STD/HIV Testing, Women's health, WIC nutrition program, and a Mobile Clinic offering adult health services and immunizations. The HCHHSD operates clinics in Edinburg, Elsa, Hidalgo, McAllen, Mission, Pharr and Weslaco. Interpreters /translators are available free of charge.

In addition to the local health department there is the Texas Department of State Health Services (DSHS) which is comprised of professionals across Texas whose mission is to improve health and well-being in Texas. Strategic and operational goals of DSHS are as follows:

1. Prevent and Prepare for Health Threats
2. Build Capacity for Improving Community Health
3. Promote Recovery for Persons with Infectious Disease and Mental Illness
4. Protect Consumers
5. Develop and Expand Integrated Services
6. Streamline Administrative Systems
7. Maintain and Enhance DSHS Assets
8. Nurture a Unified Workplace Culture
9. Expand the Effective Use of Health Information
10. Build and Sustain Effective Partnerships

Health Professional Shortage Areas

RHP 5 has long been a health professional shortage area with particular difficulty in recruiting and retaining primary care and specialist physicians, nurses and physician assistants. All four counties of RHP 5 have "whole county" shortage area designations for dentists and mental health professionals. Starr and Willacy counties have whole county primary care health professional shortages, while the shortage in Cameron County is designated as "partial." Poverty, remoteness, lack of an academic health educational center and cultural and language barriers all contribute to the difficulty in recruiting and retaining health care professionals in the region.

Health Care Providers

Below is a more detailed description of the health care workforce in RHP 5 for a variety of health care professionals, including but not limited to primary care, dental and mental health. The region's rates per 100,000 population are compared to those of Texas.

Community Health Workers (CHW): In RHP 5 the rate of 18.1 community health workers (CHWs) per 100,000 population is higher than the Texas rate of 5.9. This is reflective of the longstanding presence of "Promotoras," who have a tradition of serving as CHWs in Hispanic communities in South Texas. CHWs are gaining stature throughout the country as having an important role to play in supporting patient-centered care. Several DSRIP projects for RHP 5 will feature the role of CHWs in improving the delivery of cost-effective health care.

Dentists: The supply of dentists in RHP 5 is second in deficit only to mental health professionals. There are only 21 dentists per 100,000 population—less than half the rate for Texas.

Nurses and Nurse Practitioners: There are 3,659 Licensed Vocational Nurses (LVN) in RHP 5 for a rate of 274 per 100,000 population; this is only slightly lower than the rate of 282 for Texas. However, for Registered Nurses (RNs) there are only 6,623 RNs or 497 per 100,000 population available, fully 30 percent below the rate of 713 in Texas. The situation is even worse for nurse practitioners in RHP 5 where the rate is about 14 per 100,000 population compared to about 26 per 100,000 in Texas.

Physician Assistants (PA): RHP 5 is equally or better supplied with PAs than Texas as a whole. As managed care becomes more common in RHP 5 we expect the numbers of PAs to increase.

Behavioral Health Professionals (psychiatrists, psychologists, social workers): Texas has one of the lowest ratios of psychiatrists to 100,000 population of any state in the nation. RHP 5 has 2.8 psychiatrists per 100,000 population—just 40 percent of the already low level of 6.8 in Texas; similarly there are 9.2 licensed psychologists per 100,000 in RHP 5 compared to 25.8 in Texas. RHP 5 has 40 percent of the rate of mental health professionals of the state.

Two participants in the focus groups that were part of the PRC community health needs assessment articulated a patient perspective on the poor state of mental health access in the Rio Grande Valley:

"It's all crisis care, you know, so they have to get so sick they become dangerous. Even if you get hospitalized for a psychiatric problem, chances are you won't even get accepted to an in-patient facility because they're all full."

"Mental health in two areas, one even people who have insurance have trouble getting mental health services. They end up waiting for months to see a psychiatrist or a counselor."

Physicians: As of September 2011 there are 1,378 physicians in RHP 5 providing direct patient care, among whom 728 provide primary care. There are 103 direct care physicians and 54.6 primary care physicians per 100,000 population in RHP 5. These rates are 40 percent and 20 percent less, respectively, than the Texas rate, despite the very high degree of health disparities and disease burden, particularly obesity and diabetes, in the population, as discussed below. RHP 5 is 20 percent lower in primary care physicians per 100,000 population compared to Texas (54.6 v. 69.5).

There are 39 family medicine physicians, or 2.9 per 100,000 population in RHP 5—30 percent fewer compared to the rate for Texas. Similarly, there are 15.5 family practice physicians per 100,000 population, fully 25 percent lower than the Texas rate of 20.2 per 100,000 population.

RHP 5 has half the rate of general practitioners per 100,000 population compared to Texas. Pediatrics is the only area where there RHP 5 has parity or exceeds Texas in physicians per 100,000 population (13.8 v. 12.8). The supply of physicians in Internal Medicine and OB/GYN specialties lags behind Texas by 30 percent and 25 percent, respectively. The rate of Geriatrics specialists in RHP 5 is in parity with the State's rate.

Health Status of the Community

This section of the assessment reviews the health status of Hidalgo County residents. As in the previous section, comparisons are provided with the state of Texas and the United States. This in-depth assessment of the mortality and morbidity data, health outcomes, health factors and mental health indicators of the parish residents that make up the community will enable the Medical Center to identify priority health issues related to the health status of its residents.

Good health can be defined as a state of physical, mental and social well-being, rather than the absence of disease or infirmity. According to *Healthy People 2020*, the national health objectives released by the U.S. Department of Health and Human Services, individual health is closely linked to community health. Community health, which includes both the physical and social environment in which individuals live, work and play, is profoundly affected by the collective behaviors, attitudes and beliefs of everyone who lives in the community. Healthy people are among a community's most essential resources.

Numerous factors have a significant impact on an individual's health status: lifestyle and behavior, human biology, environmental and socioeconomic conditions, as well as access to adequate and appropriate health care and medical services. Studies by the American Society of Internal Medicine conclude that up to 70 percent of an individual's health status is directly attributable to personal lifestyle decisions and attitudes. Persons who do not smoke, who drink in moderation (if at all), use automobile seat belts (car seats for infants and small children), maintain a nutritious low-fat, high-fiber diet, reduce excess stress in daily living and exercise regularly have a significantly greater potential of avoiding debilitating diseases, infirmities and premature death.

The interrelationship among lifestyle/behavior, personal health attitude and poor health status is gaining recognition and acceptance by both the general public and health care providers. Some examples of lifestyle/behavior and related health care problems include the following:

Lifestyle	Primary Disease Factor
Smoking	Lung cancer Cardiovascular disease Emphysema Chronic bronchitis
Alcohol/drug abuse	Cirrhosis of liver Motor vehicle crashes Unintentional injuries Malnutrition Suicide Homicide Mental illness
Poor nutrition	Obesity Digestive disease Depression

Lifestyle	Primary Disease Factor
Driving at excessive speeds	Trauma Motor vehicle crashes
Lack of exercise	Cardiovascular disease Depression
Overstressed	Mental illness Alcohol/drug abuse Cardiovascular disease

Health problems should be examined in terms of morbidity as well as mortality. Morbidity is defined as the incidence of illness or injury and mortality is defined as the incidence of death. However, law does not require reporting the incidence of a particular disease, except when the public health is potentially endangered.

Due to limited morbidity data, this health status report relies heavily on death and death rate statistics for leading causes of death in Hidalgo County and the state of Texas. Such information provides useful indicators of health status trends and permits an assessment of the impact of changes in health services on a resident population during an established period of time. Community attention and health care resources may then be directed to those areas of greatest impact and concern.

Leading Causes of Death

Exhibit 19 reflects the leading causes of death for residents of Hidalgo County and compares the rates, per thousand, to the state of Texas average rates, per thousand.

Exhibit 14
Knapp Medical Center CHNA Community
Selected Causes of Resident Deaths: Number and Rate (2010)

	Hidalgo County Number	Rate*	Texas Number	Rate*	United States Rate*
Total Deaths, All Causes	3,642	619.5	166,059	770.3	746.2
Disease of the Heart	963	170.0	38,096	180.4	178.5
Malignant Neoplasm	716	121.1	36,652	165.6	172.5
Cerebrovascular Diseases	164	28.6	9,154	44.3	39.0
Chronic Lower Respiratory Diseases	115	21.0	8,910	43.0	42.1

* Indicates rate is age adjusted
♦ Indicates numerator too small for rate calculation
Sources: http://soupfin.tdh.state.tx.us/death10.htm

Health Outcomes and Factors

An analysis of various health outcomes and factors for a particular community can, if improved, help make that community a healthier place to live, learn, work and play. A better understanding of the factors that affect the health of the community will assist with how to improve the community's habits, culture and environment. This portion of the community health needs assessment utilizes information from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project, a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.

The County Health Rankings model is grounded in the belief that programs and policies implemented at the local, state and federal levels have an impact on the variety of factors that, in turn, determine the health outcomes for communities across the nation. The model provides a ranking method that ranks all 50 states and the counties within each state, based on the measurement of two types of health outcomes for each county: how long people live (mortality) and how healthy people feel (morbidity). These outcomes are the result of a collection of health factors and are influenced by programs and policies at the local, state and federal levels.

Counties in each of the 50 states are ranked according to summaries of a variety of health measures. Those having high ranks, *e.g.* 1 or 2, are considered to be the "healthiest". Counties are ranked relative to the health of other counties in the same state on the following summary measures:

- Health Outcomes--rankings are based on an equal weighting of one length of life (mortality) measure and four quality of life (morbidity) measures.
- Health Factors--rankings are based on weighted scores of four types of factors:
  - Health behaviors (six measures)
  - Clinical care (five measures)
  - Social and economic (seven measures)
  - Physical environment (four measures)

A more detailed discussion about the ranking system, data sources and measures, data quality and calculating scores and ranks can be found at the website for County Health Rankings (www.countyhealthrankings.org).

As part of the analysis of the needs assessment for the community, the relative health status of Hidalgo County will be compared to the state of Texas as well as to a national benchmark. A better understanding of the factors that affect the health of the community will assist with how to improve the community's habits, culture and environment.

The following tables, from County Health Rankings, summarize the 2013 health outcomes for Hidalgo County which comprise the majority of the community of Knapp Medical Center. Each measure is described and includes a confidence interval or error margin surrounding it – if a measure is above the state average and the state average is beyond the error margin for the county, then further investigation is recommended.

Health Outcomes--rankings are based on an equal weighting of one length of life (mortality) measure and four quality of life (morbidity) measures.

Exhibit 15
Knapp Medical Center CHNA Community
County Health Rankings - Health Outcomes (2013)

	Hidalgo County	TX	National Benchmark¤
Mortality			
Rank out of 232 Texas Counties	**18**		
Premature death - Years of potential life lost before age 75 per 100,000 population (age-adjusted)	5,745	6,928	5,317
Morbidity			
Rank out of 232 Texas Counties	**144**		
Poor or fair health - Percent of adults reporting fair or poor heatlh (age-adjusted)	27%	18%	10%
Poor physical health days - Average number of physically unhealthy days reported in past 30 days (age-adjusted)	4.4	3.7	2.6
Poor mental health days - Average number of mentally unhealthy days reported in past 30 days (age-adjusted)	3.2	3.3	2.3
Low birthweight - Percent of live births with low birthweight (<2500 grams)	7.6%	8.4%	6.0%

¤ 90th percentile, i.e., only 10% are better
Note: X indicates unreliable or missing data

Source: Countyhealthrankings.org

A number of different health factors shape a community's health outcomes. The County Health Rankings model includes four types of health factors: health behaviors, clinical care, social and economic and the physical environment.

A review of the health factors for Hidalgo County in the tables above and below, which are highlighted in yellow, indicate the county has significant room for improvement in that particular health factor-area in comparison to state averages.

Exhibit 15.1
Knapp Medical Center CHNA Community
County Health Rankings - Health Factors (2013)

	Hidalgo County	TX	National Benchmark¤
Health Behaviors			
Rank out of 221 Texas Counties	**74**		
Adult smoking - Percent of adults that report smoking at least 100 cigarettes and that they currently smoke	13.0%	18.0%	13.0%
Adult obesity - Percent of adults that report a BMI >= 30	30.0%	29.0%	25.0%
Physical inactivity - percent of adults aged 20 and over reporting no leisure time physical activity	24.0%	25.0%	21.0%
Excessive drinking - Percent of adults that report excessive drinking in the past 30 days	15.0%	16.0%	7.0%
Motor vehicle crash death rate - Motor vehicle deaths per 100K population	13.0	15.0	10.0
Sexually transmitted infections - Chlamydia rate per 100K population	410.0	476.0	92.0
Teen birth rate - Per 1,000 female population, ages 15-19	87.0	60.0	21.0
Clinical Care			
Rank out of 221 Texas Counties	**191**		
Uninsured adults - Percent of population under age 65 without health insurance	38%	26%	11%
Primary care physicians - Ratio of population to primary care physicians	2,235:1	1,766:1	1,067:1
Dentists - Ratio of population to dentists	4,799:1	2,200:1	1,516:1
Preventable hospital stays - Hospitalization rate for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	82.0	72.0	47.0
Diabetic screening - Percent of diabetic Medicare enrollees that receive HbA1c screening	82%	82%	90%
Mammography screening - Percent of female Medicare enrollees that receive mammography screening	58%	61%	73%
Social & Economic Factors			
Rank out of 221 Texas Counties	**229**		
High school graduation - Percent of ninth grade cohort that graduates in 4 years	81.0%	86.0%	X
Some college - Percent of adults aged 25-44 years with some post-secondary education	42.0%	57.0%	70.0%
Unemployment - percent of popluation 16+ unemployed but seeking work	12.0%	7.9%	5.0%
Children in poverty - Percent of children under age 18 in poverty	48.0%	27.0%	14.0%
Inadequate social support - Percent of adults without social/emotional support	30.0%	23.0%	14.0%
Children in single-parent households - Percent of children that live in household headed by single parent	32.0%	33.0%	20.0%
Violent crime rate - violent crime rate per 100,000 population (age-adjusted)	360.0	483.0	66.0
Physical Environment			
Rank out of 221 Texas Counties	**189**		
Daily fine particulate matter - The average daily measure of fine particulate matter in grams per cubic meter (PM2.5) in a county	9.30	10.2	8.80
Drinking water safety - Percentage of population exposed to water exceeding a violation limit during the past year	20.0%	6.0%	0.0%
Limited access to healthy foods - percent of population who are low-income nad do not live close to a grocery store	27.0%	9.0%	1.0%
Fast food restaurants - percent of all restaurants that are fast food establishments	49.0%	52.0%	27.0%
Access to recreational facilities - Rate of recreational facilities per 100,000 population	4.0	7.0	16.0

¤ 90th percentile, i.e., only 10% are better
Note: X indicates unreliable or missing data

Source: Countyhealthrankings.org

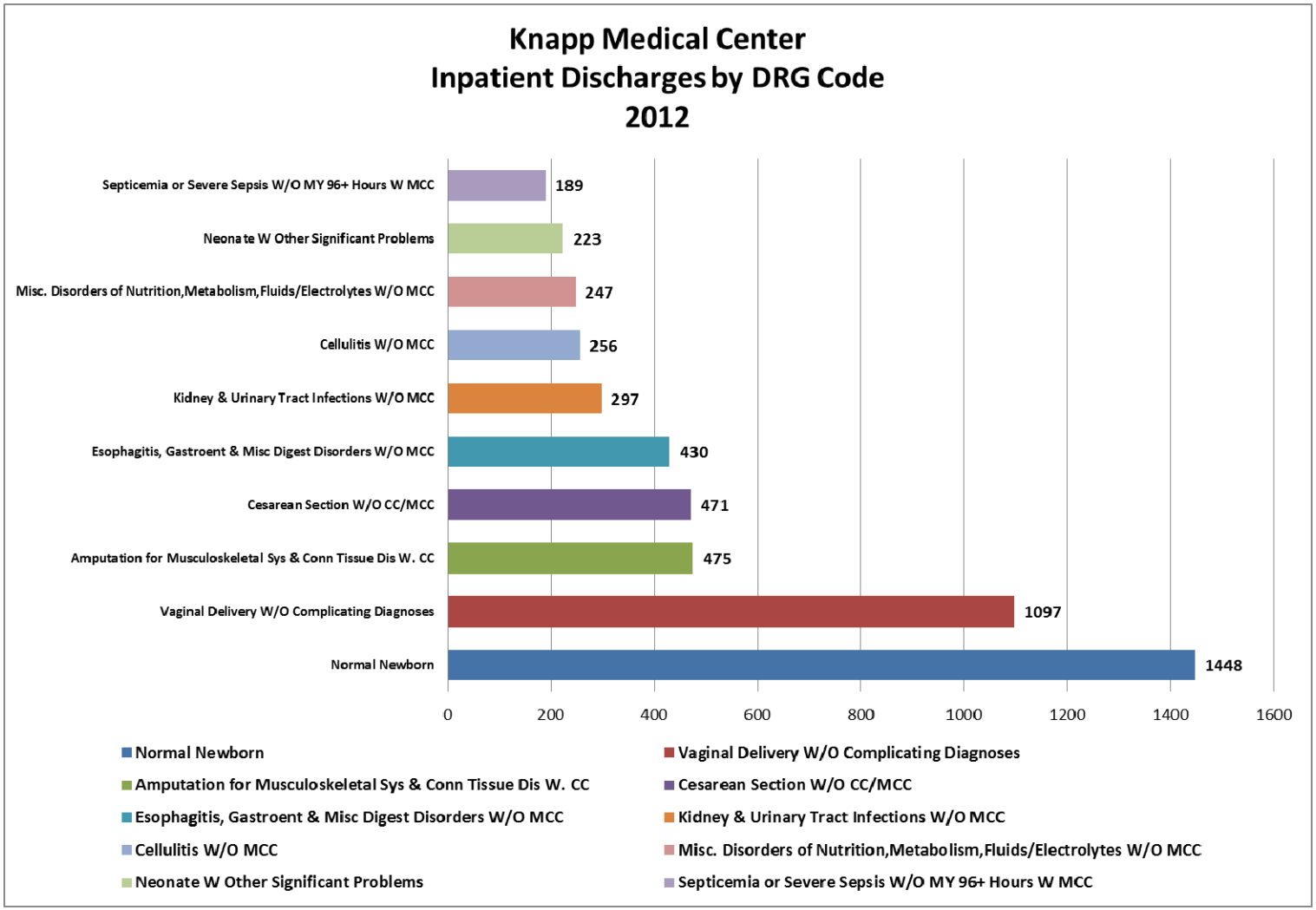
Summary of Hospital Services

Inpatient Discharges by Diagnoses Related Group Code

The following table shows the top 10 causes for inpatient hospitalization by diagnoses related group (DRG) code.

The most common diagnoses for inpatient hospitalization are related to the following:

- Women's and children's services
- Musculoskeletal system and connective tissue disorders
- Digestive disorders
- Kidney and urinary tract infections
- Joint replacements/spinal surgeries


Knapp Medical Center
Inpatient Discharges by DRG Code
2012
Septicemia or Severe Sepsis W/O MY 96+ Hours W MCC
189
Neonate W Other Significant Problems
223
Misc. Disorders of Nutrition,Metabolism,Fluids/Electrolytes W/O MCC
247
Cellulitis W/O MCC
256
Kidney & Urinary Tract Infections W/O MCC
297
Esophagitis, Gastroent & Misc Digest Disorders W/O MCC
430
Cesarean Section W/O CC/MCC
471
Amputation for Musculoskeletal Sys & Conn Tissue Dis W. CC
475
Vaginal Delivery W/O Complicating Diagnoses
1097
Normal Newborn
1448
0
200
400
600
800
1000
1200
1400
1600
Normal Newborn
Vaginal Delivery W/O Complicating Diagnoses
Amputation for Musculoskeletal Sys & Conn Tissue Dis W. CC
Cesarean Section W/O CC/MCC
Esophagitis, Gastroent & Misc Digest Disorders W/O MCC
Kidney & Urinary Tract Infections W/O MCC
Cellulitis W/O MCC
Misc. Disorders of Nutrition,Metabolism,Fluids/Electrolytes W/O MCC
Neonate W Other Significant Problems
Septicemia or Severe Sepsis W/O MY 96+ Hours W MCC

Community Input – Healthy Communities Questionnaire

As part of the 2012 Report to the Community, which was compiled by Knapp Medical center, a Healthy Communities Questionnaire was created and distributed to members of the community.

Distribution Methods

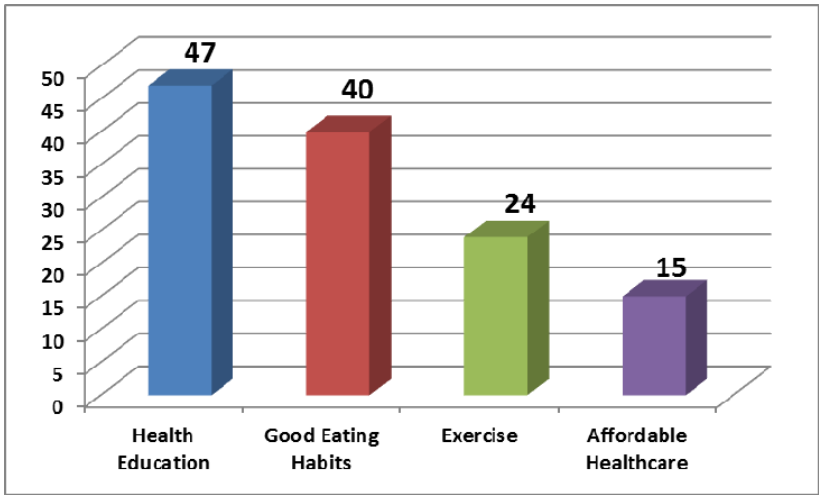
Questionnaires were distributed at the Weslaco Chamber of Commerce Texas Onionfest on March 24, 2012. Participants were asked to pick 6 answers that they felt have the most negative impact on our community. They also answered two fill in the blank questions with top answers shown. A total of 117 questionnaires were completed. Not everyone who answered a questionnaire answered all questions. A total of 89 females and 28 males answered a questionnaire. Of that group 5 were under 20 years of age, 19 from 21-49 years of age, 60 from 50-70 years of age and 34 over 71 years.

Participants answered questions by computer at the Knapp Medical Center Fit N Fun Fall Festival on October 31, 2012. Participants were asked to pick six answers that they felt have the most negative impact on our community. They also answered two fill in the blank questions with top answers shown.

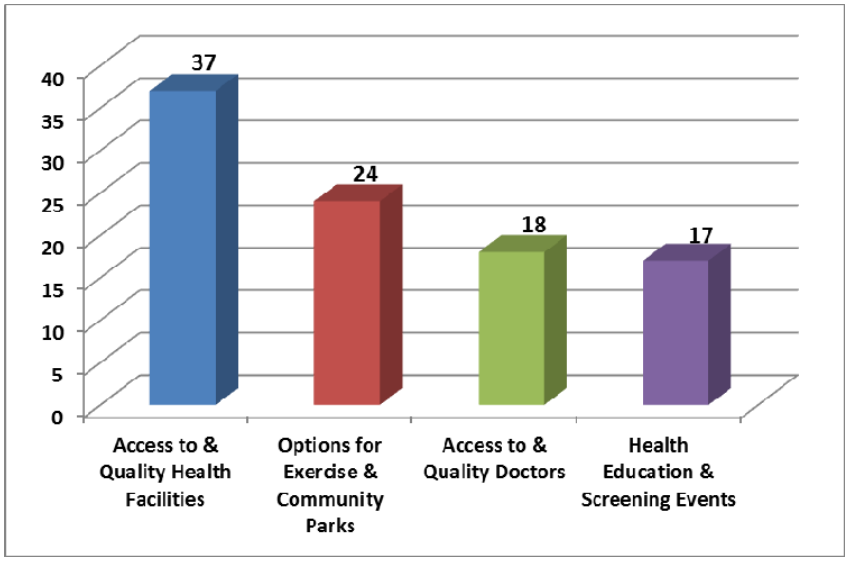
A total of 41 questionnaires were completed of which 3 were completed in Spanish. Not everyone who answered a questionnaire answered all questions. A total of 29 females and 12 males answered a questionnaire. Of that group 6 were 18-24 years of age, 8 from 25-34, 16 from 35-44, 5 from 45-54, 2 from 55 to 64, 1 from 65-74 and 3 were 75 or older.

Questions and Results

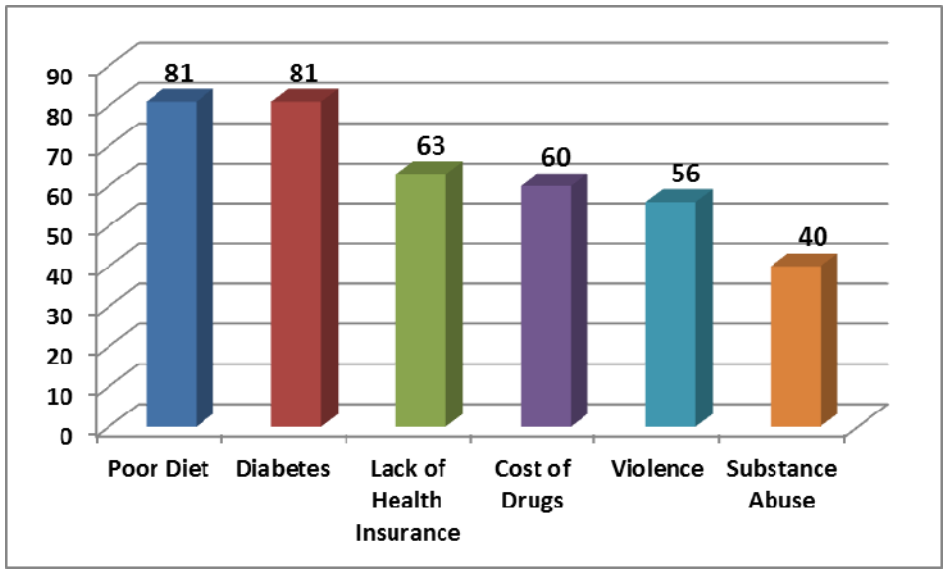
1. What do you believe is the greatest need in your community in order to have a “healthy community”?



2. What do you believe is the most positive feature of your community as it relates to health?



3. Healthy Communities Question: The third question asked each person to choose six answers from a provided list to the question: Please check 6 items you feel have the most negative impact on the health of people in your community. Below are the top six answers.



Comments

"*Moving or more active community. Our obesity count has sky rocketed in the past 3 years*"

"Tener reuniones en grupo para educarnos en la comida y ejercicios etc…..
(educate groups on eating and exercise)"

"I think that Weslaco should change its infrastructure. Here are a few suggestions! 1. Implement sidewalks in more than 50% of Weslaco roads 2. Implement bike lanes for at least 50% of Weslaco roads"

"More help for those who don't have money for health (care)"

Comments showed increased awareness for better nutrition, more activity, and lowering rates of obesity.

- The word "obesity" was mentioned six times and had not been used in former surveys.
- Education, both traditional education for children and health education, usually ranks high for mentions in previous surveys. In 2012, health education ranked first in top of mind comments when answering the fill in the blank question: What do you believe is the greatest need in your community in order to have a healthy community? However, when given a list to choose from, healthy diet and diabetes rose to the top.
- Exercise made the list of top comments for the first time ranking third for greatest need and options for exercise/good community parks ranking second in most positive community feature.
- Healthcare cost concerns continue to rank high.
- Although comments cited better diet, more exercise, more health fairs /screenings and affordable access to healthcare in response to greatest need for a healthy community, violence and substance abuse also made the top six list for most negative impact on the community.

Community Input – 2011 Community Health Report

Knapp Medical Center sponsored a Community Health Assessment in 2011 which was conducted by Professional Research Consultants.

Methodology

This assessment incorporated data from three distinct sources: quantitative primary research, qualitative primary research and quantitative secondary research.

There were 400 completed telephone surveys representing a random sample of individuals 18 and over. Additionally, four focus groups were held in the defined community. The focus groups included meetings with 44 key informants in the community, including physicians, other health professionals, social services providers, employers and other community leaders.

Survey Instrument

The survey instrument used for this study is based largely on the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), as well as various other public health surveys and customized questions. The final survey instrument was developed by Knapp Medical Center and Professional Research Consultants.

Summary of Findings

The following "health priorities" represent recommended areas of intervention based on the information gathered through the 2011 Community Health Assessment. A complete copy of the 2011 Community Health Report is included in the *Appendices*.

Areas of Opportunity Identified Through This Assessment	
Access to Healthcare	• Insurance Coverage & Instability • Barriers to Healthcare Access • Prescription Affordability • Specific Source of Ongoing Medical Care • Routine Medical Checkups (Adults) • ER Utilization • Ratings of Local Healthcare Services
Cancer	• Age-/Gender-Appropriate Screenings
Diabetes	• Prevalence of Diabetes
Family Planning	• Births to Teenagers
Heart Disease & Stroke	• Blood Pressure Screenings • Cholesterol Screenings
HIV Testing	• HIV Testing
Immunization & Infectious Disease	• Mumps Incidence • Pertussis Incidence • Tuberculosis Incidence • Flu Vaccinations (High-Risk Adults Under 65) • Pneumonia Vaccinations (Adults 65+)
Injury & Violence Prevention	• Use of Bike Helmets (Children 5-17) • Violent Crime Victimization
Mental Health	• "Fair/Poor" Mental Health • Chronic Depression • Seeking Professional Help
Nutrition & Overweight	• Fruit & Vegetable Consumption • Overweight & Obesity (Adults & Children)
Oral Health	• Dental Care (Adults) • Dental Insurance Coverage
Physical Activity	• Moderate & Vigorous Physical Activity • Screen Time (Children)
Substance Abuse	• Drug Abuse & Availability of Treatment Services (From Key Informant Focus Groups)
Tobacco Use	• Cigar Smoking
Vision	• Blindness/Trouble Seeing • Recent Eye Exams

Texas Healthcare Transformation and Quality Improvement Program – Regional Healthcare Partnership (RHP) Plan

The South Texas counties of Regional Healthcare Partnership (RHP) 5 are Cameron, Hidalgo, Starr and Willacy. This rapidly growing population of the Lower Rio Grande Valley, home to 1.26 million residents, is relatively young, predominately Hispanic and is characterized by high poverty rates and high rates of adults without a high school education.

Among the counties of the Lower Rio Grande Valley, Cameron and Hidalgo are designated as urban counties, possessing 32 percent and 61 percent of the area's population, respectively. Starr and Willacy each carry a rural county designation, with only five percent and two percent of the area's population, respectively. The municipalities of the Lower Rio Grande Valley are diverse, including some urban areas, many rural communities, and numerous "colonias." Colonias are the unincorporated subdivisions found along the U.S.-Mexico border comprised of small housing lots with little or no infrastructure occupied by individuals and families with very low incomes. These "neighborhoods" pose a potentially serious challenge to the public health and quality of life of their residents, primarily due to their lack of appropriate infrastructure for wastewater and safe drinking water, crowded living conditions and lack of access to primary health services. The Lower Rio Grande Valley of South Texas has the highest concentration of colonias in Texas.

Key Health Challenges Facing RHP 5

The health challenges of South Texas are rooted in extreme levels of economic and health disparities. Major issues identified in the RHP 5 Report were:

Diabetes and overweight/obesity: The unprecedented epidemics of chronic disease in RHP 5—particularly diabetes and related chronic conditions—are fueled by high levels of adult and childhood obesity. Based on a multi-year, random sample of 2,000 Mexican American adults who called the Cameron County Hispanic Cohort, or CCHC, researchers at the University Of Texas School Of Public Health, Brownsville, found that 31 percent of participants have diabetes and 81 percent are either obese (49 percent) or overweight (32 percent). Researchers estimated that 273,831 Mexican Americans in the RHP 5 have diabetes, which is the third leading cause of mortality in the region, behind heart disease and cancer.

Diabetes is an underlying component of over half of hospital admissions for heart attack, hypertension, sepsis and stroke, based on a 2011 analysis of admissions at six hospitals in RHP 5. This analysis found that diabetes contributes to more than 16,000 extra bed days per year at an additional cost of $49 million to $83 million annually.

Other chronic diseases: RHP 5 has one of the highest renal dialysis rates in Texas and one of the highest rates of chronic liver disease (non-alcohol fatty liver disease). Furthermore, testing results from the CCHC study suggest that 292,271 adults in RHP 5 have hypertension but only half are being treated and that 441,634 adults have elevated cholesterol levels for which 85% are not receiving treatment.

Mental health and substance abuse: Compared to national statistics, self-reported rates of fair or poor mental health in RHP 5 are much higher (20% v. 12%), as are rates of chronic depression (40% v. 27%). At the same time, the entire region has a shortage of mental health professionals, in a state that has the lowest per capita spending on mental health services in the country. Texans with a serious mental illness

are eight times more likely to be incarcerated in jails than treated in hospitals, at tremendous public and personal cost.

Access barriers to care: A lack of access to and utilization of needed health care services—across the region—is exacerbated by low levels of health insurance. In a state with the highest uninsured rate in the country, uninsured rates are even higher in RHP 5, topping 80% among non-elderly Mexican American adults surveyed in the CCHC. Additionally, the region faces a shortage of primary care and dental professionals to serve a growing population, with only half to three-quarters of the physician-to-population ratios of Texas for primary care specialists (e.g., family practice, general practice, OB/GYN). The current delivery system does not have the capacity to identify individuals with or at risk for chronic conditions and to navigate them into appropriate programs to help prevent, diagnosis and manage their health conditions.

Patient centered care: A lack of access to and utilization of needed health care services—across the region—is exacerbated by low levels of health insurance. In a state with the highest uninsured rate in the country, uninsured rates are even higher in RHP 5, topping 80% among non-elderly Mexican American adults surveyed in the CCHC. Additionally, the region faces a shortage of primary care and dental professionals to serve a growing population, with only half to three-quarters of the physician-to-population ratios of Texas for primary care specialists (e.g., family practice, general practice, OB/GYN). The current delivery system does not have the capacity to identify individuals with or at risk for chronic conditions and to navigate them into appropriate programs to help prevent, diagnosis and manage their health conditions.

RHP 5's Vision for Healthcare Delivery System Transformation

The RHP 5 partners comprise a wide assortment of public and private institutions coming together to address the region's heavy burden of chronic disease and health disparities and its demonstrated need for enhanced access to primary and behavioral health care services. The overarching vision for the region includes the following goals:

- Leverage and improve on existing programs and infrastructure to ensure that the health care delivery system will be adequately developed to meet the primary and specialty care needs of residents throughout a rapidly growing, yet historically underserved region.
- Increase access to primary and specialty care services in the short-term, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition, regardless of where they live or their ability to pay.
- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of technology and best-practices to improve access and timely utilization of appropriate care, including behavioral health services, particularly in our rural communities.
- Transform health care delivery to a patient-centered, coordinated and integrated delivery model that improves patient satisfaction and health outcomes, reduces unnecessary emergency department use and duplicative services, and expands on the accomplishments of our existing health care system.

Health Issues of Vulnerable Populations

Based on information obtained through key informant interviews and the community health survey, the following populations are considered to be vulnerable or underserved in the community:

- Uninsured
    - Lack of Health Knowledge
    - Access to Care
    - Poor Nutrition
- Persons Living in Poverty
    - Lack of Health Knowledge
    - Access to Care
    - Poor Nutrition

According to key informants the above populations suffer from lack of access to health care due to their various circumstances.

Prioritization of Identified Health Needs

Using findings obtained through the community survey and collection of primary and secondary data enabled Knapp Medical Center completed an analysis of these inputs (see *Appendices*) to identify community health needs. The following data was analyzed to identify health needs for the community:

Leading Causes of Death

Leading causes of death for the community were reviewed and the death rates for the leading causes of death for each county within the Knapp Medical Center CHNA community were compared to U.S. adjusted death rates. Causes of death in which the county rate compared unfavorably to the U.S. Adjusted death rate resulted in a health need for the Knapp Medical Center CHNA Community.

Primary Causes for Inpatient Hospitalization

The primary causes for inpatient hospitalization resulted in an identified health need for the community.

Health Outcomes and Factors

An analysis of the County Health Rankings health outcomes and factors data was prepared for each county within the Knapp Medical Center CHNA Community. County rates and measurements for health behaviors, clinical care, social and economic factors and the physical environment were compared to national benchmarks. County rankings in which the county rate compared unfavorably (by greater than 30 percent of the national benchmark) resulted in an identified health need.

Primary Data

Health needs identified through community surveys and focus groups were included as health needs. Needs for vulnerable populations were separately reported on the analysis in order to facilitate the prioritization process.

To facilitate prioritization of identified health needs, a ranking and prioritization process was used. Health needs were ranked based on the following five factors. Each factor received a score between 0 and 5.

1) **How many people are affected by the issue or size of the issue?** For this factor ratings were based on the percentage of the community who are impacted by the identified need. The following scale was utilized: >25% of the community= 5; >15% and <25%=4; >10% and <15%=3; >5% and <10%=2 and <5%=1.
2) **What are the consequences of not addressing this problem?** Identified health needs which have a high death rate or have a high impact on chronic diseases received a higher rating for this factor.

3) **The impact of the problem on vulnerable populations.** Needs identified which pertained to vulnerable populations were rated for this factor.

4) **How important the problem is to the community**. Needs identified through community surveys and/or focus groups were rated for this factor**.**

5) **Prevalence of common themes.** The rating for this factor was determined by how many sources of data (Leading Causes of Death, Primary Causes for Inpatient Hospitalization, Health Outcomes and Factors and Primary Data) identified the need.

Each need was ranked based on the five prioritization metrics. As a result, the following summary list of needs was identified:

Exhibit 16

Knapp Medical Center

Prioritization of Health Needs

	How Many People Are Affected by the Issue?	What Are the Consequences of Not Addressing This Problem?	What is the Impact on Vulnerable Populations?	How Important is it to the Community?	How Many Sources Identified the Need?	Total Score *
Lack of access to services (cost)	5	3	5	4	3	**20**
Obesity	5	5		5	4	**19**
Uninsured/Limited Insurance	5	4		5	4	**18**
Limited Access to Healthy Foods	4	4	5		5	**18**
Diabetes	4	5		5	4	**18**
Lack of Health Knowledge	4	3	5	2	3	**17**
Substance Abuse	3	3		5	4	**15**
Cardiovascular Disease	4	5		4	2	**15**
Excessive Drinking	2	3		5	4	**14**
High Cost of Prescription Drugs	3	4		4	3	**14**
Cancer	4	5		3	2	**14**
High Blood Pressure	5	4		2	2	**13**
Lack of Primary Care Physicians	3	4		2	3	**12**
Mental Illness	3	3		4	2	**12**
Kidney Disease	4	5		2	1	**12**
Children in Poverty	5	5			1	**11**
Chronic Liver Disease	4	4		2	1	**11**
Shortage of Mental Health Professionals	3	3		2	2	**10**
Children in Single-Parent Households	5	3			1	**9**
High Utilization of Emergency Room	3	3		2	1	**9**
Elevated Cholesterol	3	3		2	1	**9**
Shortage of Dentists	3	3			1	**7**
Violent Crime Rate	1	2		2	2	**7**
Low Mammography Screening Rate	3	3			1	**7**
Sexually Transmitted Infections	1	2			1	**4**
Teen Birth rate	1	2			1	**4**

*Highest potential score = 25

Knapp Medical Center's management plans to review the prioritized list included on *Exhibit 16* to determine priorities Knapp Medical Center should focus on for fiscal years 2014-2016. The Medical Center will prepare an Implementation Strategy which will be adopted by the governing board prior to November 15, 2013.

APPENDICES

TEXAS HEALTHCARE TRANSFORMATION AND QUALITY IMPROVEMENT PROGRAM – REGIONAL HEALTHCARE PARTNERSHIP (RHP) PLAN

Texas Healthcare Transformation and Quality Improvement Program

REGIONAL HEALTHCARE PARTNERSHIP (RHP) PLAN

November 16, 2012

RHP 5/South Texas

RHP Lead Contact: *Eddie Olivarez*
Chief Administrative Officer
Hidalgo County Health & Human Services Department
1304 S. 25th Avenue
Edinburg, Texas 78542
956-383-8858
Eddie.olivarez@hchd.org

Contents

Section I. RHP Organization

RHP Participant Type	**Texas Provider Identifier** (TPI)	**Texas Identification Number** (TIN)	**Ownership Type** (state owned, non-state public, private)	**Organization Name**	**Lead Representative**	**Lead Representative Contact Information** (address, email, phone number)
Anchoring Entity (specify type of Anchor, e.g. public hospital, governmental entity)						
County governmental entity		1746000717 0 000	Non-state, public	Hidalgo County	Eddie Olivarez	1304 South 25th Avenue Edinburg, Texas 78542 eddie.olivarez@hchd.org 956-383-8858
IGT Entities (specify type of government entity, e.g. county, hospital district)						
CMHA (Community Mental Health Center)	1219891-02	1742944931 1 000	Non-state, public	Border Region Behavioral Health	Daniel G. Castillon	1500 Pappas Street Laredo, Texas 78041 danielc@borderregion.org 956-794-3003
Hospital District		1746000604 6 000	Non-state, public	Nueces County Hospital District	Jonny Hipp	555 N. Carancahua, Suite 950 Corpus Christi, Texas 78401-0835 jonny.hipp@nchdcc.org (361) 808-3300
Hospital District	136332705	1741794256 6 501	Non-state, public	Starr County Hospital District, DBA Starr County Memorial Hospital	Rafael Olivares	P O Box 78 Rio Grande City, Texas 78582 rol78582@yahoo.com (956) 487-9025

RHP Participant Type	**Texas Provider Identifier** (TPI)	**Texas Identification Number** (TIN)	**Ownership Type** (state owned, non-state public, private)	**Organization Name**	**Lead Representative**	**Lead Representative Contact Information** (address, email, phone number)
CMHA (Community Mental Health Center)	138708601	1741565510 3 006	Non-state, public	Tropical Texas Behavioral Health	Jim Banks	1901 S 24th Avenue Edinburg, Texas 78540 jbanks@ttbh.org 956-289-7292
UT Health Science Center	085144601	1741586031 5 000	State-owned	UT Health Science Center - San Antonio	Dr. Joseph B McCormick	2102 Treasure Hills Blvd Harlingen, Texas 78550 McCormickJ@uthscsa.edu 956-365-8823
Performing Providers (specify type of provider, e.g. public or private hospital, children's hospital, CMHC, that will receive DSRIP payments under the RHP plan, some of which may also receive UC)						
CMHC	121989102	1742944931 1 000	Non-state public	Border Region Behavioral Health Center	Daniel G. Castillon	1500 Pappas Street Laredo, Texas 78041 danielc@borderregion.org 956-794-3003
Private Hospital	160709501	1742802643 3 000	Private	Doctors Hospital at Renaissance	Israel Rocha	P O Box 3293 McAllen, Texas 78502 i.rocha@dhr-rgv.com 956-362-3088
Children's Hospital	132812205	1742577746 7 000	Private	Driscoll Children's Hospital	Shane Casady	3533 Alameda St Corpus Christi, Texas 78411 shane.casady@dchstx.org 361-694-6523

RHP Participant Type	**Texas Provider Identifier** (TPI)	**Texas Identification Number** (TIN)	**Ownership Type** (state owned, non-state public, private)	**Organization Name**	**Lead Representative**	**Lead Representative Contact Information** (address, email, phone number)
County Hospital	136332705	1741794256 6 501	Non-state, public	Starr County Memorial Hospital	Rafael Olivares	P O Box 78 Rio Grande City, Texas 78582 rol78582@yahoo.com 956-487-5561
CMHC	138708601	1741565510 3 006	Non-state public	Tropical Texas Behavioral Health	Jim Banks	1901 S 24th Avenue Edinburg, Texas 78540 jbanks@ttbh.org 956-289-7292
UT Health Science Center	085144601	1741586031 5 000	State-owned	UT Health Science Center San Antonio	Dr. Joseph B. McCormick	2102 Treasure Hills Blvd Harlingen, Texas 78550 McCormickj@uthscsa.edu 956-882-5152
UC - only Hospitals (list hospitals that will only be participating in UC)						
Private Hospital	112716902	62-1656022	Private	Columbia Rio Grande Healthcare LP DBA: Rio Grande Regional Hospital	Charles Mallon, CFO	101 East Ridge Road McAllen, Texas 78503 charles.mallon@hcahealthcare.com 956-632-6101
Private Hospital	135035706	74-1393060	Private	Knapp Medical Center	Dinah L. Gonzalez, CFO	P O Box 1110 Weslaco, Texas 78596 dinah.gonzalez@knappmed.org 956-969-5112
Private Hospital	094113001	23-3069260	Private	McAllen Hospitals LP DBA: South Texas Health Systems	Lorenzo Olivarez Jr. CFO	1400 W Trenton Road Edinburg, Texas 78539 lorenzoolivarezjr@uhsrgv.com 956-388-2126
Private Hospital	112679902	74-2206635	Private	Mission Hospital, Inc. DBA: Mission Regional Medical Center	Javier Iruegas, CEO	900 South Bryan Mission, Texas 78572 jiruegas@missionrmc.org 956-323-9103

RHP Participant Type	**Texas Provider Identifier** (TPI)	**Texas Identification Number** (TIN)	**Ownership Type** (state owned, non-state public, private)	**Organization Name**	**Lead Representative**	**Lead Representative Contact Information** (address, email, phone number)
Private Hospital	020947001	10-4326770	Private	Valley Regional Medical Center	Susan Andrews	100 E. Alton Gloor Blvd Brownsville, Texas 78526 susan.andrews@hcahealthcare.com 956-350-7106
Private Hospital	1184911877	45-2663071	Private	Valley Baptist Medical Center Brownsville Hospital Co. LLC	Leslie Bingham	1040 W Jefferson Harlingen, Texas 78520 leslie.bingham@valleybaptist.net 956-698-5421
Private Hospital	1154618742	45-26692980	Private	Valley Baptist Medical Center Harlingen Hospital Co. LLC	Bill Adam, Sr. VP, CEO	2121 Pease Street Harlingen, Texas 78550 bill.adams@valleybaptist.net 956-389-1674
Other Stakeholders (specify type)						
County Medical Association				Cameron-Willacy Medical Society	Javier Vazquez, Executive Director	2224 77 Sunshine Strip Suite 96, PMB 117 Harlingen, Texas 78550 jmnc28@gmail.com 956- 421-5980
County Medical Association				Hidalgo Starr Medical Society	Amanda Rodriquez	1901 S 1st Street McAllen, TX 78503 hscms@att.net 956-994-3175
Regional Public Health Director				Hidalgo County Health & Human Services Department	Eddie Olivarez	1304 South 25th Avenue Edinburg, Texas 78542 eddie.olivarez@hchd.org 956-383-8858
Regional Public Health Director				Cameron County Department of Health and Human Services	Yvette Salinas	1390 West Expressway 83 San Benito, TX 78586 ysalinas@cameron.co.tx.us 956-247-3693

RHP Participant Type	**Texas Provider Identifier** (TPI)	**Texas Identification Number** (TIN)	**Ownership Type** (state owned, non-state public, private)	**Organization Name**	**Lead Representative**	**Lead Representative Contact Information** (address, email, phone number)
Other significant safety net provider -Hospital				Harlingen Medical Center	Tod Mann, CEO	5501 S Expressway 77 Harlingen, Texas 78550 tmann@primehealthcare.com 956-365-1000
Other safety net provider – FQHC				Nuestra Clinica del Valle	Lucy Ramirez	801 W. 1st Street San Juan, TX 78589 hchcc@hiline.net 956-787-8915
Other – Health Sciences Center				Texas A&M Health Science Center	Olga C. Gabriel, MPH	2101 South McColl McAllen, TX 78503 gabriel@srph.tamhsc.edu 956-668-6300
Other – Community Association				Lower Rio Grande Valley Development Council	Jose L. Gonzalez	301 W Railroad Weslaco, TX 78596 jgonzalez@lrgvdc.org 956-682-3481
Other – Hospital District				Willacy Hospital District	Jim Darling	623 S 15th Street Raymondville, Texas 78580 J.Darling@dhr-rgv.com 956-68-6565

Section II. Executive Overview of RHP Plan

Overview of Regional HealthCare Partnership 5/South Texas

The South Texas counties of Regional Healthcare Partnership (RHP) 5 are Cameron, Hidalgo, Starr and Willacy. This rapidly growing population of the Lower Rio Grande Valley, home to 1.26 million residents, is relatively young, predominately Hispanic and is characterized by high poverty rates and high rates of adults without a high school education.

Among the counties of the Lower Rio Grande Valley, Cameron and Hidalgo are designated as urban counties, possessing 32% and 61% of the area's population, respectively. Starr and Willacy each carry a rural county designation, with only 5% and 2% of the area's population, respectively. The municipalities of the Lower Rio Grande Valley are diverse, including some urban areas, many rural communities, and numerous "colonias." Colonias are the unincorporated subdivisions found along the U.S.-Mexico border comprised of small housing lots with little or no infrastructure occupied by individuals and families with very low incomes. These "neighborhoods" pose a potentially serious challenge to the public health and quality of life of their residents, primarily due to their lack of appropriate infrastructure for wastewater and safe drinking water, crowded living conditions and lack of access to primary health services. The Lower Rio Grande Valley of South Texas has the highest concentration of colonias in Texas.

The economy of the region is heavily dependent on the health care and education sectors and local government for employment. There are 13 for-profit hospitals and two non-profit hospitals, but no major public safety net hospital. The region is home to three Federally Qualified Health Clinics with multiple satellite locations; two community mental health centers; local county health departments and private practitioners that form the health care safety net for the region. Approximately 1400 physicians provide direct care and 728 are primary care providers.

Key Health Challenges Facing RHP 5

The key health challenges of South Texas are rooted in extreme levels of economic and health disparities.

Diabetes and Overweight/Obesity

The unprecedented epidemics of chronic disease in RHP 5—particularly diabetes and related chronic conditions—are fueled by high levels of adult and childhood obesity. Based on a multi-year, random sample of 2000 Mexican American adults called the Cameron County Hispanic Cohort, or CCHC, researchers at the University of Texas School of Public Health, Brownsville, found that 31% of participants have diabetes and 81% are either obese (49%) or overweight (32%). Researchers estimated that 273,831 Mexican Americans in the RHP 5 have diabetes, which is the third leading cause of mortality in the region, behind heart disease and cancer.

Diabetes is an underlying component of over half of hospital admissions for heart attack, hypertension, sepsis and stroke, based on a 2011 analysis of admissions at six hospitals in RHP 5. This analysis found that diabetes contributes to more than 16,000 extra bed days per year at an additional cost of $49 million to $83 million annually.

High rates of diabetes are also associated with RHP 5 having the highest rates of tuberculosis in the country, because diabetes compromises the immune response to tubercle bacillus. RHP 5 requires strong systems of surveillance and care management for both conditions.

Other Chronic Diseases
RHP 5 has one of the highest renal dialysis rates in Texas and one of the highest rates of chronic liver disease (non-alcohol fatty liver disease). Furthermore, testing results from the CCHC study suggest that 292,271 adults in RHP 5 have hypertension but only half are being treated and that 441,634 adults have elevated cholesterol levels for which 85% are not receiving treatment.

Mental Health and Substance Abuse
Compared to national statistics, self-reported rates of fair or poor mental health in RHP 5 are much higher (20% v. 12%), as are rates of chronic depression (40% v. 27%). At the same time, the entire region has a shortage of mental health professionals, in a state that has the lowest per capita spending on mental health services in the country. Texans with a serious mental illness are eight times more likely to be incarcerated in jails than treated in hospitals, at tremendous public and personal cost.

Access Barriers to Care
A lack of access to and utilization of needed health care services—across the region—is exacerbated by low levels of health insurance. In a state with the highest uninsured rate in the country, uninsured rates are even higher in RHP 5, topping 80% among non-elderly Mexican American adults surveyed in the CCHC. Additionally, the region faces a shortage of primary care and dental professionals to serve a growing population, with only half to three-quarters of the physician-to-population ratios of Texas for primary care specialists (e.g., family practice, general practice, OB/GYN). The current delivery system does not have the capacity to identify individuals with or at risk for chronic conditions and to navigate them into appropriate programs to help prevent, diagnosis and manage their health conditions.

Patient-Centered Care
Residents of RHP 5 who participated in focus groups for 2011 community health needs assessment identified health education as a high priority for their communities. Helping patients with low health literacy understand their health conditions, treatment options, and how to navigate the health care system is critical to improving patient outcomes. Residents of RHP 5 are essentially asking for patient-centered care.

RHP 5's Vision for Healthcare Delivery System Transformation

The RHP 5 partners comprise a wide assortment of public and private institutions coming together to address the region's heavy burden of chronic disease and health disparities and its demonstrated need for enhanced access to primary and behavioral health care services. The overarching vision for the region includes the following goals:

- Leverage and improve on existing programs and infrastructure to ensure that the health care delivery system will be adequately developed to meet the primary and specialty care needs of residents throughout a rapidly growing, yet historically underserved region.

- Increase access to primary and specialty care services in the short-term, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition, regardless of where they live or their ability to pay.
- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of technology and best-practices to improve access and timely utilization of appropriate care, including behavioral health services, particularly in our rural communities.
- Transform health care delivery to a patient-centered, coordinated and integrated delivery model that improves patient satisfaction and health outcomes, reduces unnecessary emergency department use and duplicative services, and expands on the accomplishments of our existing health care system.

RHP 5 DSRIP Projects to Support Delivery System Transformation

In response to community input from providers, local researchers and residents, based on regional meetings, local research results, needs assessments involving resident surveys and focus groups, as well as state and federally-supported health and demographic statistics on the region, RHP 5 has developed DSRIP projects designed to:

1. Expand the workforce of qualified primary care and specialty care providers to reduce health care workforce shortages and thus reduce delays in care seeking and reduce inappropriate emergency department utilization, as well as improve patient satisfaction.
2. Increase the availability of and access to behavioral health services by expanded mental health workforce capacity and the use of technologies to reach patients in rural communities to help prevent admission/readmission to inpatient psychiatric care.
3. Improve the integration of care for people with multiple chronic diseases, including those with co-occurring physical and behavioral health conditions as part of our region's transformation to a quality-based health care system.
4. Increase the capacity of safety net providers in the region to provide patient-centered care and care management, particularly for patients with chronic conditions, to improve health literacy, self-care management skills, and more effectively access or navigate the health care system appropriately.

The project listed in the summary table below are tailored to meet the unique needs of specific populations in our region and will be designed by local providers using best practices and proven strategies to improved patient outcomes and satisfaction.

RHP 5: Summary of Categories 1-2 Projects

Project Title (include unique RHP project ID number for each project.)	Brief Project Description	Related Category 3 Outcome Measure(s) (include unique Category 3 Improvement Target (IT) Identifier specific to RHP and outcome title)	Estimated Incentive Amount (DSRIP) for DYs 2-5
Category 1: Infrastructure Development			
[121989102].1.1 Implement technology-assisted services (telehealth, telemonitoring, telementoring, or telemedicine) to support, coordinate, or deliver behavioral health services Border Region Behavioral Health Center 121989102	This project (1.11.2) will establish telemedicine service in Starr County to provide access to psychiatric and medical services for AMH and CMH clients for residents in Starr County.	[121989102].3.1 IT 2.4 Behavioral Health/Substance Abuse (BH/SA) Admission Rate (Standalone measure)	$74,520
[121989102].1.2 Develop Workforce enhancement initiatives to support access to behavioral health providers in underserved markets and areas Border Region Behavioral Health Center 121989102	This project (1.14.1) will recruit, hire or contract, and train LPHAs, psychiatrists, RNs for residents in Starr County.	[121989102].3.2 IT 2.4 Behavioral Health/Substance Abuse (BH/SA) Admission Rate (Standalone measure)	$1,751,211
[160709501].1.1 Establish Primary Care/Internal Medicine Residency Training Program Doctors Hospital Renaissance 160709501	This project (1.2.4) will establish a new Internal Medicine residency training program at DHR: recruit program directors; conduct primary care gap analysis; write and submit PIF; pass review by RRC; recruit medical students; onboard 1st class of 6 in July 2015; recruit and onboard 2nd class of 6 in July 2016.	[160709501].3.1 IT 14.1 Number of practicing primary care physicians per 100,000 individuals in HPSA or MUA	$10,851,520
[160709501I].1.2 Establish Primary Care/Family Medicine Residency Training Program Doctors Hospital Renaissance 160709501	This project (1.2.4) will establish a new Family Medicine residency training program at DHR: recruit program directors; conduct primary care gap analysis; write and submit PIF; pass review by RRC; recruit medical students; onboard 1st class of 4 in July 2015; recruit and onboard 2nd class of 4 in July 2016.	[160709501].3.2 IT 14.1 Number of practicing primary care physicians per 100,000 individuals in HPSA or MUA	$10,851,520

Project Title (include unique RHP project ID number for each project.)	Brief Project Description	Related Category 3 Outcome Measure(s) (include unique Category 3 Improvement Target (IT) Identifier specific to RHP and outcome title)	Estimated Incentive Amount (DSRIP) for DYs 2-5
[160709501].1.3 Establish Ob/Gyn Residency Training Program Doctors Hospital Renaissance 160709501	This project (1.2.4) will expand high impact specialty care capacity in most impacted medical specialties. Establish a new Ob/Gyn residency training program at DHR: recruit program directors; conduct primary care gap analysis; write and submit PIF; pass review by RRC; recruit medical students; onboard 1st class of 3 in July 2015; recruit and onboard 2nd class of 3 in July 2016.	[160709501].3.3 IT 14.1 Number of practicing primary care practitioners per 100,000 individuals in HPSA or MUA	$10,851,520
[160709501].1.4 Establish General Surgery Residency Training Program Doctors Hospital Renaissance 160709501	This project (1.9.1) will expand high impact specialty care capacity in most impacted medical specialties. Establish a new General Surgery residency training program at DHR: recruit program directors; conduct primary care gap analysis; write and submit PIF; pass review by RRC; recruit medical students; onboard 1st class of 2 in July 2015; recruit and onboard 2nd class of 2 in July 2016.	[160709501].3.4 IT 14.1 Number of practicing specialty care practitioners per 100,000 individuals in HPSA or MUA	$10,851,520
[132812205].1.1 Increase, Expand, and Enhance Oral Health Services Driscoll Children's Hospital 132812205	This project (1.8.12) will implement an innovative and evidence based intervention that will lead to improvements in Oral Health services delivery for providers that have demonstrated need or unsatisfactory performance in this area.	[132812205].3.1 IT-7.10 Other outcome: Urgent dental care needs in children	$4,455,000
[136332705].1.1 Increase OB Primary Care Starr County Memorial Hospital 136332705	This project (1.1.4) will recruit a family practice physician that is also able to practice obstetrical care for the community. In addition to providing services at the rural clinic, he/she will be recruited to perform OB delivery services at Starr County Memorial Hospital.	[136332705].3.1 IT-1.10– Diabetes Care: HbA1c Poor Control	$1,353,550
[136332705].1.2 Expand Surgery Service Capacity Starr County Memorial Hospital 136332705	This project (1.9.5) will allow Starr County Memorial Hospital to contract a general surgeon to provide full-time surgical services in our facility.	[136332705].3.2 IT-1.13 – Diabetes: Care Foot Exam [136332705].3.3 IT-6.1 Patient Satisfaction [136332705].3.4 IT-4.1 Improvement in PPC rate [136332705].3.5 IT-4.4 Surgical Site Infections	$2,772,838

Project Title (include unique RHP project ID number for each project.)	Brief Project Description	Related Category 3 Outcome Measure(s) (include unique Category 3 Improvement Target (IT) Identifier specific to RHP and outcome title)	Estimated Incentive Amount (DSRIP) for DYs 2-5
[138708601].1.1 Expand Primary Care Capacity Tropical Texas Behavioral Health 138708601	This project (1.1.2) will expand behavioral health service capacity at all TTBH clinic locations to provide services to individuals currently on TTBH waiting lists.	[138708601].3.1 IT-6.1 Percent improvement over baseline of patient satisfaction scores	$13,765,914
[138708601].1.2 Expand Primary Care Capacity Tropical Texas Behavioral Health 138708601	This project (1.1.2) will increase access to Co-Occurring Psychiatric and Substance Use Disorder (COPSD) services for persons with co-occurring mental health and substance use diagnoses through the addition of 4 COPSD Specialists at each of TTBH's 3 main clinic locations.	[138708601].3.2 IT-6.1 Percent improvement over baseline of patient satisfaction scores	$4,986,935
[138708601].1.3 Development of behavioral health crisis stabilization services as alternatives to hospitalization. Tropical Texas Behavioral Health 138708601	This project (1.13.2) will add 2 Mobile Crisis Outreach Team (MCOT) staff at each of TTBH's main clinics trained in the delivery of crisis services to individuals with co-occurring IDD and behavioral health needs; provide respite services in collaboration with Rio Grande State Center; provide emergency crisis respite in collaboration with Wood Group Crisis Respite Unit (with 1:1 staffing as needed); Facilitate behavior management for individuals with IDD who have co-occurring behavioral health needs, to prevent admission/readmission to inpatient psychiatric care.	[138708601].3.3 IT-6.1 Percent improvement over baseline of patient satisfaction scores	$2,444,817
[085144601].1.1 Improving Primary Care Access through expansion of internal medicine residency UTHSCSA 085144601	The primary goal of this DSRIP project (1.2.4) is to increase the number of internal medicine faculty and residents in the existing internal medicine residency of Valley Baptist Medical System. Obtain RRC approval and recruit first 5 residents in July 2015. The project will train more workforce members to serve as primary care providers to help address the substantial primary care workforce shortage.	[085144601].3.1 IT-14.1 Number of practicing primary care practitioners per 100,000 individuals in HPSA or MUA	$11,877,837

Project Title (include unique RHP project ID number for each project.)	Brief Project Description	Related Category 3 Outcome Measure(s) (include unique Category 3 Improvement Target (IT) Identifier specific to RHP and outcome title)	Estimated Incentive Amount (DSRIP) for DYs 2-5
[085144601].1.2 Expand high impact specialty care capacity in Behavioral Health UTHSCSA 085144601	The primary goal of this DSRIP project (1.9.1) will be to expand specialty care in behavioral health by establishing a psychiatry residency program that will address the severe shortage of behavioral health professionals and create a pipeline for the future.	[085144601].3.2 IT-14.1 Number of practicing primary care practitioners per 100,000 individuals in HPSA or MUA	$11,877,837
[085144601].1.3 New faculty for family medicine residency UTHSCSA 085144601	The primary goal of this project (1.2.4) is to increase the number of Family Medicine Faculty in an HPSA region thus increasing access and capacity. This will occur by providing more faculty to improve the quality and variety of training of family medicine residents.	[085144601].3.3 IT-14.1 Number of practicing primary care practitioners per 100,000 individuals in HPSA or MUA	$11,877,837
[085144601].1.4 Expand high impact specialty care capacity in most impacted medical specialties (Pediatric Urology) UTHSCSA 085144601	The proposed project (1.9.2) will provide funds to recruit an additional fellowship-trained pediatric urologist for Region 6 that will also travel several times a month to Doctors Hospital at Renaissance (DHR) in Hidalgo County that services Regions 5 and 20. This individual will deliver pediatric urology services to the underserved child population in the Rio Grande Valley.	[085144601].3.4 IT-10.1 Quality of Life	$2,520,328
Category 2: Program Innovation and Redesign			
[121989102].2.1 Design, implement, and evaluate projects that provide integrated primary and behavioral health care services. Border Region Behavioral Health Center 121989102	This project (2.15.1) will identify clients with co-morbid conditions and provide integrated primary and behavioral services for residents in Starr County	121989102.3.3 IT 2.4 Behavioral Health/Substance Abuse (BH/SA) Admission Rate (Standalone measure)	$1,900,250
[132812205].2.1 Implement Evidence-based Disease Prevention Programs Driscoll Children's Hospital 132812205	This project (2.7.1) will establish a Fetal Echocardiogram Program.	[132812205].3.2 IT-8.9 Early Detection of Fetal Anomalies	$11,880,000

Project Title (include unique RHP project ID number for each project.)	Brief Project Description	Related Category 3 Outcome Measure(s) (include unique Category 3 Improvement Target (IT) Identifier specific to RHP and outcome title)	Estimated Incentive Amount (DSRIP) for DYs 2-5
[132812205].2.2 Implement Evidence-based Health Promotion Programs Driscoll Children's Hospital 132812205	This project (2.6.2) will improve maternal and fetal medicine care to pregnant women who also are diabetics, individuals with asthma, tobacco or alcohol users, and other chronic conditions	[132812205].3.3 IT-8.9 Reduce the Neonatal Length of Stay for targeted population	$ 7,425,000
[138708601].2.1 Integrate Primary and Behavioral Health Care Services Tropical Texas Behavioral Health 138708601	This project (2.15.1) will add a Primary Care Physician (PCP), nurse and support staff at each of TTBH's 3 main clinic locations (serving Hidalgo, Cameron and Willacy Counties) to provide primary care services to the behavioral health population served.	[138708601].3.4 IT-6.1 Percent improvement over baseline of patient satisfaction scores	$16,810,467
[138708601].2.2 Provide an intervention for a targeted behavioral health population to prevent unnecessary use of services in a specified setting (i.e., the criminal justice system, ER, urgent care etc.). Tropical Texas Behavioral Health 138708601	This project (2.13.2) will: recruit and hire 18 certified Mental Health Officers to serve on a mental health taskforce serving all counties in TTBH's catchment area; increase opportunities to divert individuals with mental illness from the criminal justice system to treatment alternatives as appropriate.	[138708601].3.5 IT-6.1 Percent improvement over baseline of patient satisfaction scores	$13,443,573
[138708601].2.3 Integrate Primary and Behavioral Health Care Services Tropical Texas Behavioral Health 138708601	This project (2.15.1) will: co-locate primary care services at TTBH's main clinic locations; reduce the use of local emergency departments for medical clearances required for psychiatric hospital admissions.	[138708601].3.6 OD-6 Patient Satisfaction, IT-6.1 Percent improvement over baseline of patient satisfaction scores	$106,488
[138708601].2.4 Expand Chronic Care Management Models Tropical Texas Behavioral Health 138708601	This project (2.2.5) will add 1 Nurse Care Manager at each of TTBH's main clinics and implement a patient self-management program for specified individuals with co-morbid chronic medical and mental illnesses.	[138708601].3.7 OD-6 Patient Satisfaction, IT-6.1 Percent improvement over baseline of patient satisfaction scores	$12,360,811

Project Title (include unique RHP project ID number for each project.)	Brief Project Description	Related Category 3 Outcome Measure(s) (include unique Category 3 Improvement Target (IT) Identifier specific to RHP and outcome title)	Estimated Incentive Amount (DSRIP) for DYs 2-5
[085144601].2.1 Implement medical homes in HPSA and other rural and impoverished areas. UTHSCSA 085144601	This project (2.1.3) will support the creation of patient centered medical homes in a community clinic (Su Clinica Familiar) located in an HPSA region.	[085144601].3.5 IT-1.10 Diabetes care: HbA1c poor control (>9.0%)233- NQF 0059 (Standalone measure)	$4,519,209
[085144601].2.2 Expand Model of Management of Chronic Diseases in Lower Valley of RHP 5 UTHSCSA 085144601	This project (2.2.1) is designed to expand proactive, ongoing care to keep patients with chronic diseases healthy. It will also empower them to self-manage their conditions. The ultimate goal is to prevent worsening health precipitating the need for Emergency Department or Inpatient care.	[085144601].3.6 IT-1.10 Diabetes care: HbA1c poor control (>9.0%)233- NQF 0059 (Standalone measure)	$13,036,178
[085144601].2.3 Establish/Expand a Patient Care Navigation Program based on a Mobile Clinic model UTHSCSA 085144601	This project (2.9.1) expands the use of an existing Mobile Clinic in a customized van providing primary care in underserved rural areas by enhancing and expanding its impact with Patient Navigators.	[085144601].3.7 IT-12.5 Other USPSTF-endorsed screening outcome measures (diabetes, hypertension and hypercholesterolemia)	$3,476,314
[085144601].2.4 Implement Evidence-based Health Promotion Programs UTHSCSA 085144601	This project (2.6.3) will implement the evidenced-based Community Wide Campaign (CWC) which will include community health worker outreach, self-management education, text-message support for lifestyle changes, and evidenced based environmental changes to support maintenance of health.	[085144601].3.8 IT-1.7 Controlling high blood pressure (NCQA-HEDIS 2012, NQF 0018)228 (Standalone measure)	$7,452,303

Section III. Community Needs Assessment

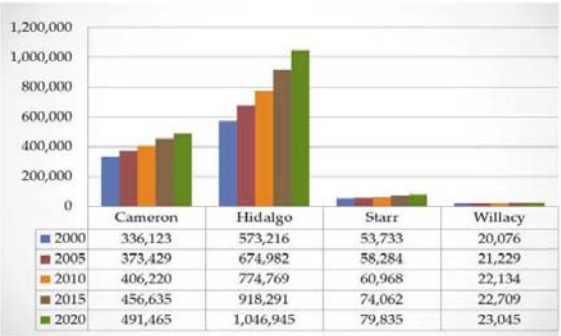
Demographics

RHP 5 is comprised of the four counties in the Rio Grande Valley of South Texas: Cameron, Hidalgo, Starr and Willacy (Figure 1.)

The population of RHP 5 was 1.26 million in 2010, an increase of 29% since 2000. Hidalgo County, which includes the McAllen-Edinburg-Mission metropolitan statistical area (MSA), has the largest population among the four counties (Figure 2). Population projections indicate that the rate of growth is expected to continue to increase rapidly over the coming years.

Figure 1. Counties of Region 5

Figure 2. Population Growth of the Counties of RHP 5



	Cameron	Hidalgo	Starr	Willacy
2000	336,123	573,216	53,733	20,076
2005	373,429	674,982	58,284	21,229
2010	406,220	774,769	60,968	22,134
2015	456,635	918,291	74,062	22,709
2020	491,465	1,046,945	79,835	23,045

Race/Ethnicity

The population of the counties of RHP 5 is predominately Hispanic, mostly Mexican American, ranging from 87% in Cameron County to 98% in Starr County, as of 2009.[1] By contrast 38% of the state's population is Hispanic. The proportion of African Americans across the region is under 1%, which is very different from many other Texas regions.

Language

Spanish is widely spoken in the region. Nearly all (96%) residents over age 5 in Starr County speak Spanish, with rate of 73% and 84% in Cameron and Hidalgo Counties, respectively.[2] Just under half of Willacy County residents speak Spanish (48%). In Texas, the rate is 29%.

Age and Gender

The population of RHP 5 is relatively young compared to Texas, for which the median age is 33.6. The median age of RHP 5 ranges from 28.3 in the populous Hidalgo County to 32.1 in the sparsely populated Willacy County. However, the region mirrors state and national trends of an aging population. In three of the four RHP 5 counties, the proportion of population that is female is between 51% and 52%, but in Willacy County, the rate is 46%, according to 2011 Census estimates.

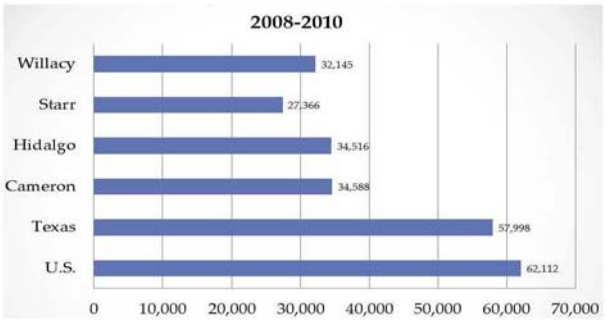
[1] Texas Department of State Health Services, Center for Health Statistics. See: https://www.dshs.state.tx.us/chs/healthcurrents/

[2] U.S. Census Bureau. See: http://quickfacts.census.gov/qfd/states/48/48427.html

Income

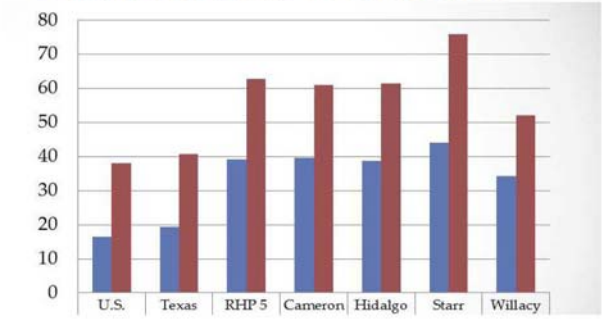
Median family income in RHP 5 ranges from $27,000 in Starr County to $34,500 in Hidalgo and Cameron Counties (Figure 3). This is between 45% and 59% of the Texas median income of $57,008, and 40% to 55% of the US median family income of $62,112. Nearly half (47%) of families in RHP 5 earn less than $25,000 annually.

Figure 3. Median Family Income of RHP 5 Counties, Texas and the U.S.



Additionally, 40% of all families live below the federal poverty line—twice the poverty rate for Texas and 2.5 times the U.S. poverty rate. The McAllen–Edinburg–Mission metropolitan statistical area ranks last among the nation's 361 MSAs, with a per capita income of $15,184.[3] Among families with a single female head of household, over 60% live below the poverty line, half again the proportion in Texas and the U.S. (Figure 4).

Figure 4. Percentage of Families Living below the Federal Poverty Level in RHP 5 Counties, Texas and the U.S., 2008-2010



Education

Educational attainment in RHP 5 is below that of Texas; it is also distributed unequally among the RHP 5 counties. The percentage of adults age 25 and older without a high school education ranges from 38% in Cameron County to 54% in Starr County, compared to 21% statewide (Table 1).[4] The proportion of adults with a high school education ranges from 23% in Starr County to 28% in Willacy County; the rate for Texas is 26%. Those with some college ranges from 13% in Starr County to 17% in Cameron County; the rate for Texas is 22%.

Table 1. Educational Attainment among RHP 5 Counties, 2005-2009

Adults Age 25 and Older Who:	Cameron	Hidalgo	Starr	Willacy	Texas
Did Not Complete High School	38%	41%	54%	45%	21%
Completed High School Graduate	24%	24%	23%	28%	26%
Have Some College	17%	16%	13%	14%	22%

Source: U.S. Census Bureau, American Community Survey, 2005-2009.

[3] Dynamic Growth in the Rio Grande Valley. Dallas Federal Reserve Bank, 2006. See: http://www.dallasfed.org/assets/documents/research/swe/2006/swe0602c.pdf

[4] Texas Department of Health Services, reporting on county data from the American Community Survey (2005-2009). See: https://www.dshs.state.tx.us/hcquery/report/?mode=demo&areas=31_266_255

Employment, Large Employers

Unemployment rates across RHP 5 ranged from 8.7% to 11.2% among adults age 16 and older in 2011.[5] The largest employers in the region, particularly in the McAllen-Edinburg-Mission MSA are in education (local school districts and higher education), health care (two medical centers) and government (city, county and U.S. Customs).[6] According to the Texas Workforce Commission (TWC), health care firms are among the top private sector employers in both the McAllen and Brownsville-Harlingen MSAs. For McAllen-Edinburgh-Mission, health care firms comprise seven of the area's ten largest private employers.[7]

Insurance Coverage

Total Population Covered by Medicaid

According to state data, for the period July 2010, about one-quarter of the populations of Cameron, Hidalgo and Willacy counties were enrolled in any form of Medicaid. For Starr County, the rate was nearly one-third, compared to 12% for Texas (Table 2).

Table 2. Number and Percentage of Population on Any Medicaid Program, RHP 5 Counties and Texas, 2010

	Cameron	Hidalgo	Starr	Willacy	Texas
Number	97,670	195,283	19,581	5,636	3,040,879
Percentage	24%	25%	32%	25%	12%

Source: Texas Health and Human Services Commission. Percentages derived from 2010 Census Bureau counts.

Uninsured Non-elderly Population

Within Texas, which has the highest under-65 uninsured rate in the country—26% in 2010—RHP 5 has even higher uninsured rates. According to federal statistics, only Willacy County has an under-65 uninsured rate that is less than 30%. Among the other three counties of RHP 5, the uninsured rates range between 36% and 38% (Table 3).[8]

Table 3. Number and Percentage of Non-elderly Uninsured, RHP 5 Counties and Texas, 2010

	Cameron	Hidalgo	Starr	Willacy	Texas
Number	134,358	265,156	19,259	4,779	5,820,793
Percentage	38%	38%	36%	29%	26%

Source: U.S. Census Bureau, 2010.

Sources of Coverage among Non-elderly Adults

Among non-elderly adults (ages 18 to 64), uninsured rates are higher than for the entire non-elderly population because children have more expansive eligibility criteria for obtaining Medicaid coverage compared to adults. A 2011 local community health assessment in the region found that uninsured rates were 61% for non-elderly adults in Willacy County, 47% in Hidalgo County and 37% for Cameron County non-elderly adults. The overall uninsured rate was 41% for the region, compared to 31% for

[5] U.S. Census Bureau, American Community Survey 2009-2011 3-year estimates. See: http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t

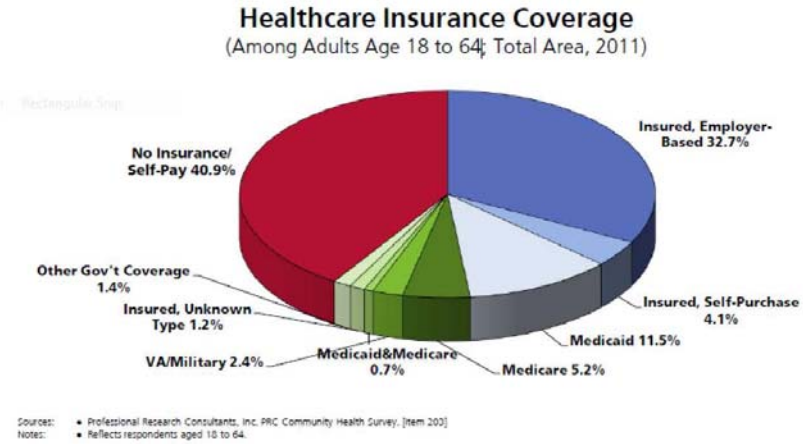
[6] McAllen Economic Development Corporation. Data from 2010. See: http://www.mcallenedc.org/mcallen-top-employers.php

[7] Texas Comptroller's Office. Undated. Texas in Focus: South Texas. http://www.window.state.tx.us/specialrpt/tif/southtexas/healthcare.html

[8] U.S. Census, Small Area Health Insurance Estimates, 2010. See: http://www.census.gov/did/www/sahie/data/interactive/

the State of Texas.[9] Likewise, 60% of non-elderly adults reported having some kind of health coverage, but only one-third (33%) were covered by employer-sponsored insurance (ESI), as shown below (Figure 5). This compares to a statewide rate of 54% with ESI among non-elderly adults.[10]

Figure 5. Source of Coverage for Non-elderly Adult Respondents in a 2011 Health Needs Assessment Survey



Insurance Coverage among Mexican Americans along the U.S.- Mexican Border. The University of Texas School of Public Health in Brownsville has been conducting the Cameron County Hispanic Cohort (CCHC) study, since 2003. Results from face-to-face interviews with 2000 Mexican-Americans in the border community of Brownsville from 2003 to 2008, showed that only 20% of non-elderly adults had any insurance; 14% had private coverage, 5% had Medicaid and 2% had Medicare (Figure 6).[11]

Figure 6. Distribution of health insurance status among 2000 CCHC participants, by age and sex, 2003-2008.

Category	Insurance status			
	All types %	Private %	Medicaid %	Medicare %
All Participants	31.4	11.9	8.3	11.0
Males	36.0	14.4	8.5	13.0
Females	27.7	9.9	8.2	9.4
18-64 years	20.4	13.8	4.6	1.8
≥65 years	87.8	2.0	27.4	58.4

Healthcare Infrastructure

Health System Overview

RHP 5 includes 13 private, for-profit hospitals and two non-profit hospital systems. These hospitals provide a safety net for the region's population. There are three Federally Qualified Health Clinics with satellite locations throughout RHP 5[12], as well as two local community mental health centers, and other clinics and private practitioners that constitute the remainder of the region's health care

[9] 2011 PRC Community Health Report. This health needs assessment was sponsored by Valley Baptist Health System and conducted by Professional Research Consultants, Omaha, Nebraska. The survey included 400 adults in in Cameron County and 100 each in Willacy County and Hidalgo County. Residents of Starr County were not included.

[10] See the Kaiser Family Foundation website: http://www.statehealthfacts.org/profileind.jsp?ind=130&cat=3&rgn=45

[11] Fisher-Hoch SP, Vatcheva KP, Laing ST et al. Missed opportunities for diagnosis and treatment of diabetes, hypertension, and hypercholesterolemia in a mexican american population, cameron county Hispanic cohort, 2003-2008. *Prev Chronic Dis* 2012;9:E135.

[12] Texas Department of State Health Services, Office of Primary Care. See: https://www.dshs.state.tx.us/chpr/fqhcmain.shtm

safety net. Specialty care is provided in RHP 5 where possible, but many people are referred to University of Texas Medical Branch at Galveston or other large medical centers, often through funds from the county indigent care program. These funds are limited and often consumed within a few months of each fiscal year. Finally, many people cross the border to Mexico for a range of services from diagnostic, to treatment including the purchase of prescription drugs that are available without prescription in border towns.

Health Professional Shortage Areas

RHP 5 has long been a health professional shortage area with particular difficulty in recruiting and retaining primary care and specialist physicians, nurses and physician assistants. All four counties of RHP 5 have "whole county" shortage area designations for dentists and mental health professionals (Table 4).[13] Starr and Willacy counties have whole county primary care health professional shortages, while the shortage in Cameron County is designated as "partial." Poverty, remoteness, lack of an academic health educational center, and cultural and language barriers all contribute to the difficulty in recruiting and retaining health care professionals in the region.

Table 4. Health Professional Shortage Area Designations in RHP 5, 2010

	Health Professional Shortage Area Designations		
	Primary Care	**Dental**	**Mental Health**
RHP 5 County			
Cameron	Partial County	Whole County	Whole County
Hidalgo	Not Designated	Whole County	Whole County
Starr	Whole County	Whole County	Whole County
Willacy	Whole County	Whole County	Whole County

Source: Texas Department of State Health Services, 2010

Health Care Providers

Below is a more detailed description of the health care workforce in RHP 5 for a variety of health care professionals, including but not limited to primary care, dental and mental health.[14] The region's rates per 100,000 population are compared to those of Texas.

Community Health Workers (CHW). In RHP 5 the rate of 18.1 community health workers (CHWs) per 100,000 population is higher than the Texas rate of 5.9 (Table 5). This is reflective of the longstanding presence of "Promotoras," who have a tradition of serving as CHWs in Hispanic communities in South Texas. CHWs are gaining stature throughout the country as having an important role to play in supporting patient-centered care. Several DSRIP projects for RHP 5 will feature the role of CHWs in improving the delivery of cost-effective health care.

Dentists. The supply of dentists in RHP 5 is second in deficit only to mental health professionals. There are only 21 dentists per 100,000 population—less than half the rate for Texas.

[13] Texas Department of State Health Services, 2010. See: http://www.dshs.state.tx.us/Layouts/ContentPage.aspx?PageID=35614&id=66988&terms=shortage

[14] Texas DSHS Center for Health Statistics, 2011. See http://www.dshs.state.tx.us/chs/hprc/health.shtm
Rates were based on a population of 1,334,042 for RHP 5, and 25,883,999 for Texas.

Nurses and Nurse Practitioners. There are 3,659 Licensed Vocational Nurses (LVN) in RHP 5 for a rate of 274 per 100,000 population; this is only slightly lower than the rate of 282 for Texas. However, for Registered Nurses (RNs) there are only 6,623 RNs or 497 per 100,000 population available, fully 30% below the rate of 713 in Texas. The situation is even worse for nurse practitioners in RHP 5 where the rate is about 14 per 100,000 population compared to about 26 per 100,000 in Texas.

Physician Assistants (PA). RHP 5 is equally or better supplied with PAs than Texas as a whole. As managed care becomes more common in RHP 5 we expect the numbers of PAs to increase.

Behavioral Health Professionals (psychiatrists, psychologists, social workers). Texas has one of the lowest ratios of psychiatrists to 100,000 population of any state in the nation. RHP 5 has 2.8 psychiatrists per 100,000 population—just 40% of the already low level of 6.8 in Texas; similarly there are 9.2 licensed psychologists per 100,000 in RHP 5 compared to 25.8 in Texas. RHP 5 has 40% of the rate of mental health professionals of the state.

Two participants in the focus groups that were part of the PRC community health needs assessment articulated a patient perspective on the poor state of mental health access in the Rio Grande Valley: [15]

> *"It's all crisis care, you know, so they have to get so sick they become dangerous. Even if you get hospitalized for a psychiatric problem, chances are you won't even get accepted to an in-patient facility because they're all full."*
>
> *"Mental health in two areas, one even people who have insurance have trouble getting mental health services. They end up waiting for months to see a psychiatrist or a counselor."*

Physicians. As of September 2011 there are 1,378 physicians in RHP 5 providing direct patient care, among whom 728 provide primary care. There are 103 direct care physicians and 54.6 primary care physicians per 100,000 population in RHP 5. These rates are 40% and 20% less, respectively, than the Texas rate, despite the very high degree of health disparities and disease burden, particularly obesity and diabetes, in the population, as discussed below. RHP 5 is 20% lower in primary care physicians per 100,000 population compared to Texas (54.6 v. 69.5).

Table 5. **Health Workforce Supply and Distribution RHP 5 and Texas, 2011**

Category	N	Population/ Worker	Workers/ 100,000 Population	Ratio RHP 5/ Texas
Community Health Workers				
RHP 5	241	5,535	18.1	3.10
Texas	1,527	16,951	5.9	
Dentists				
RHP 5	286	4,664	21.4	0.47
Texas	11,751	2,203	45.4	
Nurses (LVNs)				
RHP 5	3,659	365	274.3	0.97
Texas	72,921	355	281.7	
Nurses (RNs)				

[15] 2011 PRC Community Health Report. Professional Research Consultants. p. 42.

Category		N	Population/ Worker	Workers/ 100,000 Population	Ratio RHP 5/ Texas
	RHP 5	6,623	201	496.5	0.70
	Texas	184,467	140	712.7	
Nurse Practitioners					
	RHP 5	190	7,021	14.2	0.55
	Texas	6,676	3,877	25.8	
Physician Assistants					
	RHP 5	281	4,747	21.1	1.00
	Texas	5,372	4,818	20.8	
Psychiatrists					
	RHP 5	37	36,055	2.8	0.41
	Texas	1,766	14,657	6.8	
Psychologists					
	RHP 5 (2010)	119	10,924	9.2	0.36
	Texas (2010)	6,547	3,876	25.8	
Direct Care MDs					
	RHP 5	1,378	968	103.3	0.63
	Texas	42,716	606	165	
Primary Care MDs					
	RHP 5	728	1,832	54.6	0.79
	Texas	17,996	1,438	69.5	

Source: Texas Department of State Health Services, Center for Health Statistics, 2011

There are 39 family medicine physicians, or 2.9 per 100,000 population in RHP 5—30% fewer compared to the rate for Texas (Table 6).[16] Similarly, there are 15.5 family practice physicians per 100,000 population, fully 25% lower than the Texas rate of 20.2 per 100,000 population.

RHP 5 has half the rate of general practitioners per 100,000 population compared to Texas. Pediatrics is the only area where there RHP 5 has parity or exceeds Texas in physicians per 100,000 population (13.8 v. 12.8). The supply of physicians in Internal Medicine and OB/GYN specialties lags behind Texas by 30% and 25%, respectively. The rate of Geriatrics specialists in RHP 5 is in parity with the State's rate.

Table 6. Primary Care Physicians by Specialty, RHP 5 and Texas, 2011

	Family Medicine	Family Practice	General Practice	Pediatrics	Internal Medicine	Obstetrics and Gynecology	Geriatrics	Total
				Number of Physicians				
RHP 5	39	207	18	184	191	86	2	728
Texas	1053	5216	664	3321	5293	2188	33	17,996

[16] Texas Department of State Health Services, 2011. See: http://www.dshs.state.tx.us/chs/hprc/tables/2011-Primary-Care-Physicians-by-County-of-Practice-and-Specialty/. Rates were based on a population of 1,334,042 for RHP 5, and 25,883,999 for Texas.

	Family Medicine	Family Practice	General Practice	Pediatrics	Internal Medicine	Obstetrics and Gynecology	Geriatrics	Total
Physicians per 100,000 population								
RHP 5	2.9	15.5	1.3	13.8	14.3	6.4	0.1	54.6
Texas	4.1	20.2	2.6	12.8	20.4	8.5	0.1	69.5
Ratio: RHP 5/ Texas	0.71	0.77	0.50	1.08	0.70	0.75	1.00	0.79

Source: Texas Department of State Health Services, 2011.

Hospital Bed Capacity and Ownership Status

Hospitals in RHP 5 range in size from 48 beds to over 800 beds across three counties (Table 7). Many are full service hospitals but none has a trauma unit designated under level 3.[17]

Table 7. Inpatient Hospitals and Medical Centers in the Counties of RHP 5, 2012

Hospitals and Medical Centers	Beds	Trauma Level	Status
Cameron County			
Valley Baptist Health System	866	III	For Profit
Harlingen Med Center	112		For Profit
Valley Regional Hospital	214	III	For Profit
Solara Hospital	41		
South Texas Rehabilitation Hospital	40		For Profit
Total Beds Cameron County	**1273**		
Hidalgo County			
Mission Regional Medical Center	297	IV	Non-Profit
Doctors Hospital at Renaissance	530	III	For Profit
Edinburg Regional medical Center	213		For Profit
McAllen Heart Hospital	60		For Profit
McAllen Medical Center	441		For Profit
Rio Grande Regional Hospital	320	III	For Profit
Solara Hospital	78		For Profit
Knapp Medical Center	227	III	Non-Profit
South Texas Behavioral Center	134		
Total Beds Hidalgo County	**2300**		
Starr County			
Starr County Memorial Hospital	**48**	IV	Non-profit, Hospital District
Willacy County			
Total Beds Willacy County	**0**		
Total Inpatient Beds RPH 5	**3621**		

Source: Texas Department of State Health Services, Dept. of Regulatory Services, 2012.

[17] Texas Department of Regulatory Services, October, 2012. See: http://www.dshs.state.tx.us/HFP/apps.shtm#hosp_gen_spec

Health Service Costs

The costs of health services are heavily weighted toward Medicare and Medicaid in RHP 5. Because of the lack of access to preventive health services and the high burden of chronic diseases, people in RHP 5 are often seen in crisis in emergency departments with advanced manifestations of chronic disease; this drives up the overall cost of treatment and adds to the burden of indigent care that hospitals and health systems provide.

For example, based on admissions data from hospitals in RHP 5, Table 8 shows that the estimated annual impact of diabetes on length of hospitalization is substantial and accounts for 2,126 extra days in the ICU, and 14,087 extra days from medical/surgical bed days. The estimated annual excess costs of these extra bed days, as a result of diabetes, range from $49 million to $83 million.

Table 8. Estimated Annual Excess Hospital Days and Cost Due to Diabetes among RHP 5 Hospitals, 2011

	No. of Patients (N) and Average Length of Stay (ALOS) in Days			
	Diabetes		No Diabetes	
Type of Admission	N	ALOS	N	ALOS
ICU Admissions	2,934	8.38	3,565	7.66
Medical/Surgical Admissions	18,830	5.69	24,562	4.94
All Admissions (ICU and Med/Surg)	20,666	4.18	26,828	3.54
	Annual Excess Utilization and Cost Due to Diabetes			
	Extra Hospital Days per Year	Estimated Cost Per Day	Low Estimate	High Estimate
ICU Admissions for Patients with Diabetes	2,126	$12000-$18000	$25,517,831	$38,276,746
Medical/Surgical Admissions for Patients with Diabetes	14,194	$1650-$3161	$23,243,292	$44,528,513
All Admissions: Total Annual Estimated Excess Cost			$48,761,123	$82,805,260

Source: University of Texas Health Science Center-San Antonio; analysis of date from six hospitals in RHP 5, 2011.

Key Health Challenges in RHP 5

Overall Health Status

Based on self-reported health status results from the 2011 community health assessment in RHP 5, 82% of those surveyed said their health was excellent, very good or good; 28% said their health was fair to poor, which is much higher than the Texas and national averages of 17% each. Among Willacy County residents surveyed, 40% rated their health status as fair or poor.[18]

Leading Causes of Mortality

The five leading causes of death for adults in the counties of RHP 5 are heart disease, cancer, diabetes, strokes, accidents (including motor vehicle) (Figure 7).[19] Other leading causes include

[18] 2011 PRC Community Health Report. Professional Research Consultants, Omaha, Nebraska. The survey included 400 adults in Cameron County and 100 each in Willacy County and Hidalgo County. Residents of Starr County were not included.
[19] Texas Department of Health, Texas Vital Statistics, 2008.

septicemia, liver disease, renal disease, Alzheimer's disease, suicide and homicide. These statistics do no fully reflect the extent to which diabetes and obesity likely contribute to these causes of death.

Figure 7. Leading Causes of Mortality for RHP 5, 2008

Rank	1	2	3	4	5	6	7
Cause	Heart	Cancer	Diabetes	Stroke	Accidents	Lung disease	Septicemia
Rate/100K	181.53	127.56	31.58	31.30	26.10	21.87	16.03
Rank	8	9	10	11	12	13	
Cause	Liver disease	Kidney Disease	Alzheimer	Hyper-tension	Suicide	Homicide	
Rate/100K	15.80	15.47	8.90	5.22	5.21	4.39	

Diabetes

Results from the Cameron County Hispanic Cohort (CCHC) study, a population-based, randomly selected surveillance survey that directly measured diabetes among 2000 participants showed a large pool of undiagnosed patients with diabetes; the overall prevalence of diabetes in RHP 5 is about 31% of adults. This rate is much higher than results from the Behavioral Risk Factor Surveillance System (BRFSS) which find that 14.3% of adults self-report having diabetes, compared to 9.7% for Texas and 9.3% for the U.S.[20] The CCHC estimate is more likely to reflect the full extent of the prevalence of diabetes in RHP 5 since it is not self-reported but rather, measured in a population-based, randomly selected surveillance study of the population.

Table 9. Hospital Admissions in RHP 5, by Diagnosis and Proportion with Type 2 Diabetes, 2011

Major Reason for Admission	Total Admissions	Admissions for which Patient has Diabetes	
		N	%
1. Hypertension	7,899	4,326	54.8
2. Renal Disease	5,394	3,561	66.0
3. Heart Failure	3,391	2,152	63.5
4. Sepsis	3,075	1,648	53.6
5. Cancer	2,138	683	31.9
6. Stroke	1,639	837	51.1
7. Depression	1,187	509	42.9
8. Heart Attack	1,178	686	58.2
9. Leg or Foot Ulcer	712	472	66.3
10. Peripheral Neuropathy	649	577	88.9
11. Alzheimer's Disease	604	292	48.3
12. Birth <36 weeks	472	3	0.6

Source: University of Texas School of Public Health, Brownsville.

[20] Behavioral Risk Factor Surveillance System Prevalence and Trends Data: Texas 2010, from the Centers for Disease Control and Prevention (CDC). Data are for Public Health Region 11, which (includes all the RHP 5 counties and several others in South Texas. Query page from the Texas Dept. of State Health Services: http://www.dshs.state.tx.us/chs/brfss/query/brfss_form.shtm

Because diabetes is often well down the list of ICD-9 diagnoses it is very often missed in reporting on hospital admissions. The estimated impact of diabetes on hospital care in RHP is illustrated, below, based on local researchers' analyses from six hospitals in the region (Table 9). For each major reason for admission, the number and percentage for which the patient also has diabetes was examined. The analysis showed that two-thirds of renal disease and nearly two-thirds of heart failure admissions include patients who also have diabetes. More than half of admissions for heart attack, hypertension, sepsis, stroke are for patients who also have diabetes.

Overweight and Obesity

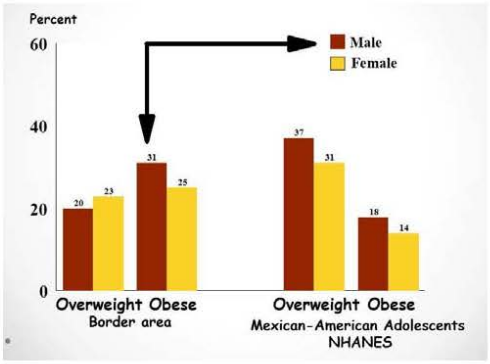
Results from the 2011 health needs assessment for the region found 76% of adults to be overweight or obese, compared to 66.5% for Texas and 70% for the U.S.[21] Obesity is implicated in many diseases, including diabetes, heart disease, and cancers. Programs to reduce obesity and prevent the onset of diabetes can play a major role, along with early detection in preventing other illnesses.

Figure 8. Rates of overweight, obesity and diabetes among 2000 CCHC Respondents and Mexican Americans, Nationally

	Hispanic Cohort	(NHANES 1999-2002)	
	Total	All US %	Mexican Americans %
BMI			
Overweight (BMI 25-29)	33.2	34.1	39.0
Obese (BMI≥30)	48.5	32.3	36.8
Extreme obesity (BMI≥40)	7.9	4.8	4.5
2010 Diabetes definition			
Diagnosed Diabetes	13.7	8.3%	10.4%
Undiagnosed Diabetes	17.0	3.0%	3.0%
Total diabetes	30.7	11.3%	13.4%

Overweight and Obesity among Mexican American Adults. Figure 8 shows the prevalence of obesity to be 48.5% of the adult population among participants in the Cameron County Hispanic Cohort (CCHC) Study, compared to 36.8% of Mexican Americans nationally.[22] Altogether, over 80% of the population of RHP 5 is estimated to be obese or overweight, and therefore at high risk for other medical conditions especially diabetes. Rates of diagnosed and undiagnosed diabetes in the predominately Mexican American community of RHP 5 is 30% compared to 13.4% for Mexican Americans nationally. Well over 30% of CCHC respondents said they had no physical activity in the past month compared to 24% in Texas. Less than half of respondents reported physical activity levels that meet the minimum recommended requirements.

Figure 9. Overweight and obesity among Mexican-American Adolescents in RHP 5



Overweight and Obesity among Mexican American Adolescents. More than half of RHP 5 (border area) adolescents are overweight or obese, which contributes to diabetes and other health issues throughout youth and into adulthood. More adolescents are obese than overweight (Figure 9).[23]

[21] 2011 PRC Community Health Report.

[22] Fisher-Hoch SP, Rentfro AR, Salinas JJ et al. Socioeconomic status and prevalence of obesity and diabetes in a Mexican American community, Cameron County, Texas, 2004-2007. *Prev Chronic Dis* 2010;7:A53.

[23] Rentfro AR, Nino JC, Pones RM et al. Adiposity, biological markers of disease, and insulin resistance in Mexican American adolescents, 2004-2005. *Prev Chronic Dis* 2011;8:A40

Other Chronic Diseases

Cardiovascular Disease. The death rate from acute cardiovascular diseases such as heart attacks and strokes is substantially lower in RHP 5 compared to Texas and the nation. However, heart failure is among the top diseases resulting in hospitalization in RHP 5, as noted above. It appears that heart failure is very common, and likely underdiagnosed. Similar to diabetes, people can go for some time with insidious heart failure without a proper diagnosis. Based on data from the ongoing CCHC study in South Texas, as many as 30% of Mexican American adults in the region have evidence of heart failure.[24,25,26]

Kidney Disease. Renal disease is the second leading cause of hospital admissions in RHP 5, as noted in Table 9, above. Renal dialysis rates in RHP 5 are also among the highest in Texas.[27] Chronic kidney disease and end-stage renal disease are significant health problems in RHP 5, responsible for premature death, a major source of suffering, poor quality of life and high costs.[28]

Chronic Liver Disease. South Texas has one of the highest rates of chronic liver disease in the country.[29] Among participants in the CCHC study, 47% have elevated liver enzymes. Two recent publications from this population strongly point to non-alcoholic fatty liver disease (NAFLD) as the likely culprit.[30,31] NAFLD leads to non-alcoholic steatohepatitis, cirrhosis and liver cancer.[32]

Elevated Cholesterol. The 2011 PRC Community Health Report found that 31% of respondents reported a physician had told them they had high cholesterol. In the Cameron County Hispanic Cohort (CCHC), 48% of the Mexican American participants tested had elevated cholesterol levels.

Based on CCHC Study results, researchers estimate that 273,831 Mexican Americans in the RHP 5 have diabetes, for which 56% are not being treated; 292,271 have hypertension for which 50% are not being treated; and 441,634 have elevated cholesterol for which 85% are not receiving treatment.[33]

Mental Health and Substance Abuse

One-fifth of those recently surveyed in the region considers their mental health to be fair or poor, compared to less than 12% in the United States.[34] Additionally, 39% said they had experienced chronic depression (two or more years in their lives when they felt depressed or sad on most days) compared to 27% in the U.S.

---

[24] Fisher-Hoch SP, Vatcheva KP, Laing ST et al. 2012.

[25] Laing ST, Smulevitz B, Vatcheva KP et al. High Prevalence of Subclinical Atherosclerosis by Carotid Ultrasound among Mexican Americans: Discordance with 10-Year Risk Assessment using the Framingham Risk Score. *Echocardiography* 2012.

[26] Queen SR, Smultevitz BE, Rentfro AR et al. Electrocardiographic Abnormalities among Mexican Americans: Correlations with Diabetes, Obesity and the Metabolic Syndrome. *World Journal of Cardiovascular Diseases*. In press.

[27] U.S.Department of Health and Human Services. CDC WONDER online databases.

[28] Perez A, Anzaldua M, McCormick J, Fisher-Hoch SP. High frequency of chronic end-stage liver disease and hepatocellular carcinoma in a Hispanic population. *J Gastroenterol Hepatol* 2004;19:289-295.

[29] Ibid.

[30] Li Q, Qu HQ, Rentfro AR et al. PNPLA3 Polymorphisms and Liver Aminotransferase Levels in a Mexican American Population. *Clin Invest Med* 2012;35:E237.

[31] Pan JJ, Qu HQ, Rentfro A, McCormick JB, Fisher-Hoch SP, Fallon MB. Prevalence of metabolic syndrome and risks of abnormal serum alanine aminotransferase in Hispanics: a population-based study. *PLoS One* 2011;6:e21515.

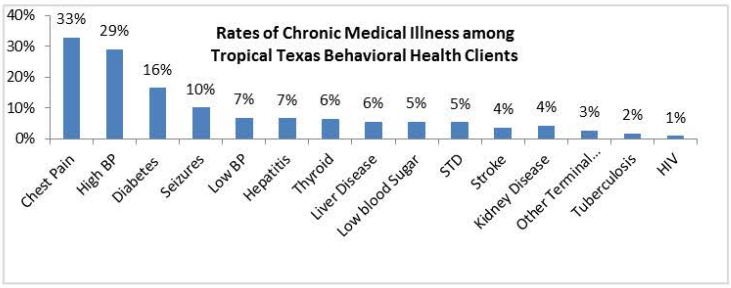
[32] Angulo P. Nonalcoholic fatty liver disease. *N Engl J Med* 2002;346:1221-31.

[33] See citations 25-27.

[34] 2011 PRC Community Health Report.

Mental health and physical health are closely connected and mental illness is also often accompanied by underlying chronic medical conditions. This is illustrated in Figure 10, which presents survey results from clients of Tropical Texas Behavioral Health (TTBH), a performing provider in RHP 5. Substance abuse is also a common disorder among individuals with severe mental illness, highlighting the need to increase prevention efforts and improve access to treatment for substance abuse and co-occurring disorders.

Figure 10 Rates of self-reported chronic disease among clients of Community Mental Health Center in RHP 5, 2012



Expanding the behavioral health workforce is critical in a region with a severe shortage of mental health professionals. Untreated mental illnesses and substance use disorders increase state spending in other areas including: emergency rooms, hospitals, jails, prisons, and detention centers, education, and homeless shelters.[35] Texans with a serious mental illness are eight times more likely to be incarcerated in jails than treated in hospitals, according to the National Alliance on Mental Illness. Texas spends $38 per capita (2009) on mental health services compared to the U.S. average of $123 per capita, making Texas last in state per capita spending for treatment of mental illness.[36] Community-based services are cost-effective in lessening costs in other areas of state expenditures. Integrating behavioral health services with physical health services is an important priority for improving the coordination and quality of care for individuals with co-occurring conditions.

Infectious Diseases and Disease Prevention

One of the important issues in the RHP 5 population is the increased susceptibility to infectious diseases found in people with diabetes, particularly concerning tuberculosis, influenza, and pneumonia. This region has the highest rates in the nation. In 2009, the prevalence of tuberculosis was 12.8 cases per 100,000 population compared to 6.2 in Texas and 4.4 in U.S. Diabetes is the biggest risk factor for tuberculosis in our area and it accounts for about one-third of TB cases.[37,38] At the same time, only 45% of elderly adults in the region have had pneumococcal vaccine compared to 69% in Texas and 68% in the U.S. Among non-elderly adults (18 to 64) only 35% received flu vaccinations compared to 52% nationally.

Oral Health

Only 48% of adults in RHP 5 saw a dentist or dental clinic during the past year, well under the rate for Texas (62%) or the U.S. (67%).[39] Being male, under 65 and living in poverty were risk factors for lower

[35] The National Council for Community Behavioral Health Care (n.d). See: http://www.namitexas.org/homecontent/Spill_Over_Effect_on_State_Budgets.pdf

[36] Kaiser Family Foundation. (n.d.). State Mental Health Agency (SMHA), per capita mental health services expenditures, FY 2009. See: http://www.statehealthfacts.org/comparemaptable.jsp?yr=90&typ=4&ind=278&cat=5&sub=149&sortc=1&o=a

[37] Fisher-Hoch SP. Diabetes and tuberculosis: a twenty-first century plague? *Int J Tuberc Lung Dis* 2011;15:1422.

[38] Restrepo BI, Camerlin AJ, Rahbar MH et al. Cross-sectional assessment reveals high diabetes prevalence among newly-diagnosed tuberculosis cases. *Bull World Health Organ* 2011;89:352-359 PMCID: PMC3089389.

[39] 2011 PRC Community Health Report.

rates of dental care. The proportion of children who visited a dentist over the past year was 85%, above the state rate of 79%.[40] Higher pediatric rates are a result of children under age of 21 having better access to Medicaid than adults. Only 35% of adults in the region (ranging from 17% to 38% among the RHP 5 counties) have dental insurance compared to 61% in the U.S. It is commonplace for residents in RHP 5 with dental problems to visit the hospital emergency room or seek dental care in Mexico. However, due to the recent escalation of violence fewer people now go to Mexico.

Emergency Department Utilization

Just under 7% of adults surveyed for the 2011 Community Needs Report reported going to a hospital emergency room more than once in the past year for their own health. Of those using the ER, 23% said the visit was due to a reason other than an emergency or life-threatening situation, such as making a visit during after-hours or on the weekend, or not having another place to go.[41] Additionally, 10% of respondents in a 2012 survey of community mental health center clients in RHP 5 reported using the ER for non-emergencies, such as getting a check-up or seeking sick care.[42]

Health Education and Patient-Centered Care

Participants in the focus groups that were part of the PRC community health needs assessment were asked individually to identify their top five health priorities for their community. Health Education was ranked number 4, behind diabetes and obesity, mental health, and substance abuse concerns. In focus group discussions, participants described a high level of health illiteracy in the community. They emphasized a strong need for patients to get more follow up support about their medications and other ways to actively engage in their own care, as illustrated by this comment:[43]

> *"Patients don't understand their medical problem; they don't understand their treatment plan; they don't understand the goals; and they don't understand how the medical system works."*

Delivery System Reform Initiatives

Within RHP 5, only one of the performing provider has received federal funding to support recent health care reform initiatives under CMS Innovation Center Grants, HITECH payments, HRSA grants, SAMSHA funding or CDC state grants. Tropical Texas Behavior Health is participating in the Substance Abuse Prevention and Treatment Block Grant initiatives sponsored by SAMSHA and will apply for funding in January 2013 to receive EHR incentive payments. Additionally, the Center of Excellence on Diabetes in Americans of Mexican Descent at the University of Texas School of Public Health, Brownsville, is supported by a grant from the National Institute for Minority Health and Health Disparities.

Expected Changes During the Waiver Period of FFY 2012 – FFY 2016

There is every reason to believe that the population growth of the area will continue, particularly given the situation south of the border that is causing many citizens or legal residents to come to the US. With the passage of federal health care reform, there could be an improvement in insurance

[40] 2011 PRC Community Health Report.
[41] Ibid.
[42] Tropical Texas Behavioral Health Center. Survey of 2,150 clients across multiple sites, July 2012.
[43] 2011 PRC Community Health Report.

coverage and access to care over the next four years due to the expansion of Medicaid eligibility if Texas proceeds with implementation. If plans to start a new medical school in this region materialize, this effort would enhance the DSRIP residency expansion projects in producing more locally trained medical professionals who remain in the area.[44]

Approach and Sources Used to Complete Needs Assessment

The goal of this RHP 5 Needs Assessment was to guide the health care reform strategic planning process by providing information to guide stakeholder decisions in selecting DSRIP projects for the region. In this process we engaged the community and key partners to identify health concerns, priorities, strengths, and opportunities for DSRIP projects.

Key sources of demographic, health care infrastructure, and health survey information that supported this Needs Assessment came from the Texas Department of State Health Services (DSHS), Center for Health Statistics, which is a major source of information for local community health assessment and public health planning. The Center's website is a repository of federal health surveys that have demographic, health and workforce statistics available at the state, MSA or county level, as well as state-based surveys and vital statistics at the state and county level.

The *2011 Community Health Report*, prepared by Professional Research Consultants (PRC), and sponsored by Valley Baptist Health System, which is located in RHP 5, also provided recent statistics on self-reported health care coverage, health status and disease diagnoses, and results from focus groups, as referenced throughout this needs assessment.

Since 2003, the University of Texas School of Public Health, Regional Campus at Brownsville, has been conducting the *Cameron County Hispanic Cohort* study of 2000 Mexican Americans residing in the Brownsville metropolitan area. Results from published research in peer-reviewed journals was incorporated into the Needs Assessment to highlight the high burden of chronic conditions and lack of insurance coverage among this particularly poor and vulnerable population.

Several other locally conducted analyses contributed to the Needs Assessments. The University of Texas School of Public Health, Regional Campus at Brownsville analyzed admissions from six participating hospitals in RHP 5 to better understand the impact of diabetes on inpatient hospital utilization and costs in the region. Tropical Texas Behavioral Health, a community mental health center in RHP 5, conducted a survey of clients across multiple clinic sites to examine rates of co-occurring conditions, client's reliance on the ER for non-emergencies, and other health care issues.

The Needs Assessment also drew on policy, research and or advocacy organizations that collect and report various state health coverage, access, cost and utilization statistics from federal and state resources. Examples include the Kaiser Family Foundation and the National Alliance on Mental Illness to provide background on mental health.

[44] "Cigarroa Unveils Plans for Rio Grande Medical School," *San Antonio Business Journal*, August 17, 2012. See: http://www.bizjournals.com/sanantonio/news/2012/08/17/cigarroa-unveils-plans-for-rio-grande.html

Summary of Community Needs

Identification Number	Brief Description of Community Needs Addressed through RHP Plan	Data Source for Identified Need
CN.1	Shortage of primary and specialty care providers and inadequate access to primary or preventive care	Texas Department of State Health Services, 2011. http://www.dshs.state.tx.us/chs/hprc/tables/2011-Primary-Care-Physicians-by-County-of-Practice-and-Specialty/ Texas Department of State Health Services, 2010, for health care workforce shortage designations made by HRSA. See: http://www.dshs.state.tx.us/Layouts/ContentPage.aspx?PageID=35614&id=66988&terms=shortage Behavioral Risk Factor Surveillance System Prevalence and Trends Data: Texas 2010, from the Centers for Disease Control and Prevention (CDC) http://www.dshs.state.tx.us/chs/brfss/query/brfss_form.shtm Published articles by the University of Texas School of Public Health, Brownsville, from the Cameron County Hispanic Cohort, 2003-2008.
CN.2	Shortage of behavioral health care professionals and inadequate access to behavioral health care	Texas Department of State Health Services, 2011. http://www.dshs.state.tx.us/chs/hprc/tables/2011-Primary-Care-Physicians-by-County-of-Practice-and-Specialty/ 2011 PRC Community Health Report. Professional Research Consultants, Omaha, Nebraska. Tropical Texas Behavioral Health Survey of 2,150 clients in July 2012. State-based research conducted by the National Alliance on the Mentally Ill (NAMI).
CN.3	Inadequate integration of care for individuals with co-occurring medical and mental illness or multiple chronic conditions	UT School of Public Health, Brownsville, analyses of hospital admissions among six participating hospitals in RHP 5, 2011. Tropical Texas Behavioral Health Survey of 2,150 clients in July 2012. 2011 PRC Community Health Report. Professional Research Consultants, Omaha, Nebraska.
CN.4	Lack of Patient-Centered Care	2011 PRC Community Health Report. Professional Research Consultants, Omaha, Nebraska.

Section IV. Stakeholder Engagement

A. RHP Participants Engagement

Since October 2011, Performing Providers and IGT entities in RHP 5 have been actively engaged in stakeholder communications about the 1115 waiver, DSRIP projects and UC payments, as described below. The anchor, Hidalgo County, has led most of these communication efforts. In addition to the activities described below, RHP 5 providers have been participating in a weekly conference call since August 2012, to discuss progress in defining the Pass 1 DSRIP projects for RHP 5 and completing this RHP 5 Plan. Plans for ongoing engagement are also described below.

Hidalgo County, Anchor
In October of 2011, the Hidalgo County Judges offices met to discuss the 1115 waiver and the possibility of Hidalgo County being appointed the anchor.

Starting in November of 2011, Hidalgo County began holding monthly meetings at the county's Health and Human Services Department. At these meetings, providers from RHP 5 discuss the status of the 1115 Waiver, contributions to IGT, agreements, and regional health plans related to their projects and proposals for Region 5. Starting in the spring of 2012, Hidalgo County increased the frequency of its meetings with the providers of the 1115 Waiver Group. In April, May, July, August and September, the group met three times each month. In October 2012 the group met once and held discussion via four conference calls organized by the Anchor.

Future Plans

Hidalgo County anticipates that the RHP 5 group will continue to meet monthly to discuss RHP plan updates in 2013. Hidalgo County will continue to provide updates on the RHP 5 Plan and 1115 Waiver developments on the RHP 5 website, www.southtexasrhp.com, and on the Cameron County Department of Health website, www.hchd.org, to make RHP 5 planning documents readily available to RHP 5 participants.

Cameron County Department of Health and Human Services (CCDHHS)
In January 2012, the Cameron County Health and Human Services Department (CCDHHS) held a DSRIP Projects Planning Meeting for its supervisors.

In March 2012, CCDHHS participated in a conference call and meeting with HHSC and RHP 5 performing providers to review the 1115 Waiver.

In April 2012, CCDHHS hosted two Medicaid 1115 subcommittee meetings; hosted a South Texas Region Webinar to outline key information about the Waiver and DSRIP Projects; held a DRSIP Projects Planning meeting for HHS supervisors; and attended an Executive Waiver Committee Meeting.

In May 2012, CCDHHS participated in an Executive Waiver Committee meeting and conference call with Texas HHSC.

In addition to the anchor and CCDHHS, IGT entities and local university, hospital and behavioral health centers organized meetings to consider IGT match-funding to support potential project collaborations. Examples are described below.

University of Texas Health and Sciences Center San Antonio (UTHSCSA)
In April 2012, University of Texas Health Sciences Center San Antonio (UTHSCSA), HHSC and RHP 5 providers met at Harlingen Valley Baptist Medical Center (VBMC) to discuss general waiver plans and answer questions from RHP 5 providers.

In May 2012, representatives from UTHSCSA, VBMC, South Texas Health System (STHS), and Doctor's Hospital (DHR) met to discuss graduate medical education, and part of this discussion was the relationship of the 1115 waiver to medical education in Texas. In late May 2012, UT representatives for relevant RHPs in Texas met at the UT System Office in Austin to discuss the role of UT in the 1115 waiver.

In June 2012, UTHSCSA representatives from RHP 5 met on two occasions: first, with Valley Primary Care Network directors to discuss the potential role of the primary care clinics in 1115 waiver programs; second, with CCDHHS representatives to discuss Cameron County Performing Provider roles and partnerships.

In July 2012, representatives from UTHSCSA, along with the Regional Academic Health Center (RAHC) Harlingen met to discuss increasing access to primary care and specialty care through the expansion of residency programs under the 1115 waiver. Also in July, a UTHSCSA representative from RHP 5 and UTHSCSA faculty met with Verite consultants, VBMC Harlingen, and RAHC to discuss the creation of a new psychiatry residency and an expansion of an existing internal medicine residency program as part of the RHP 5 plan.

In August 2012, UTHSCSA sent representatives to a two day meeting with HHSC to outline the protocol for the 1115 waiver plan. Also in August, 32 people from Cameron County Department of Health and Human Services met at the UT School of Public Health-Brownsville campus to plan a project for integrated chronic disease management in RHP 5, working with an existing integrated care organization (ICare). Representatives from UTHSCSA participated in two phone conferences in August: one with Mr. Eddie Olivares, RHP 5 Anchor Leader, to discuss a needs assessment in the region; and one with Ms. Yvette Salinas, Director of Cameron County Department of Health and Human Services, to discuss organizing a Cameron County community meeting to discuss the waiver process.

In September 2012, UTHSCA representatives were involved in 13 participant engagement activities: nine in-person meetings to discuss the details of 1115 waiver projects; three phone conferences to discuss project details and the RHP's community needs assessment; and one HHSC webinar with updates on protocol details.

In October 2012, faculty, system personnel, and other representatives from UTHSCSA met with representatives from RHP 5 on two occasions to finalize and discuss new plans to increase access to primary care through expanded and new residency programs.

Future Plans

UTHSCSA anticipates that it will hold monthly or quarterly reviews of projects with leaders of Valley Baptist Medical Center, Cameron County Department of Health and Human Services, participating city representatives, and leaders of Su Clinica Familiar. It also anticipates that quarterly, there will be a review of the overall 1115 Waiver programs at the Regional Academic Health Center and UTHSCSA.

Rio Grande Regional Hospital
In January 2012, administrators at Rio Grande Regional Hospital discussed the status of the 1115 Waiver Program and the regional plan at the hospital's weekly Tuesday morning senior management meeting.

Future Plans

Rio Grande's administrators anticipate that they will discuss the status of the waiver and regional plan at future weekly morning management meetings.

B. Public Engagement

The RHP 5 anchor, Hidalgo County, and Cameron County Department of Health and Human Services (CCDHHS) have led many public meetings around the four-county region to educate local public officials and other stakeholders about opportunities and plans in implementing the 1115 waiver in RHP 5. The University of Texas Health Science Center San Antonio has also held public meetings and forums to build public awareness and understanding. Hidalgo County will continue to engage stakeholders on a regular basis throughout the next year, as described below.

Hidalgo County, Anchor
Hidalgo County has provided several opportunities for the public to learn about and provide input in the 1115 Waiver plans and processes in RHP 5. In March 2012, Hidalgo and the Texas HHSC held a public hearing in Cameron County. In May, Proyecto Azteca sponsored a meeting with Mr. Eddie Olivarez, RHP 5 Anchor Lead, Ann Cass, Executive Director of Proyecto Azteca, and the Equal Voices Group. In August 2012, the county held a public forum at Texas A&M Health Sciences Center. In late September and then again in early October, Hidalgo presented on the 1115 Waiver RHP plan sections 1-3 at the Commissioners Court. In early November, Hidalgo County held two public hearings on a draft of the RHP 5 Plan.

Future Plans

Going forward, Hidalgo County will hold quarterly public meetings at the county's Health and Human Services Department to provide updates on the 1115 Waiver RHP Plan for Region 5. It will also continue to update www.southtexasrhp.com and www.hchd.org on a daily basis.

Cameron County Health and Human Services Department
In October of 2011, Cameron County Judge, Carlos Cascos, met with Texas HHSC officials to discuss the upcoming changes regarding the Texas 1115 Medicaid Waiver Program.

In November 2011, CCDHHS officials attended an RHP 5 forum with Hidalgo County, HHSC, and other officials where the groups collaborated on developing DSRIP projects, learned about the waiver

transformation process in California, and ultimately produced a draft for the Texas DRSIP project menu.

Also in December 2011, CCDHHS presented to Cameron County Commissioners Court on the Texas Healthcare Transformation and Quality Improvement Program 1115 Waiver Proposal.

In March 2012, CCDHHS held three meetings with hospitals, local governments, and health officials to discuss 4-year planning for the 1115 Waiver. CCDHHS also presented on the Texas Medicaid 1115 Waiver before the City of Rio Hondo Council, and held a public hearing on the 1115 Waiver at the end of the month.

In April 2012, CCDHHS held a county-wide public hearing and presented on the Waiver at four separate city council meetings.

In May 2012, CCDHHS presented on the 1115 Waiver before six city council meetings.

In July 2012, CCDHHS participated in a county-wide public hearing on the 1115 Waiver at Regional Academic Health Center.

In August 2012, attended the HHSC RHP planning summit agenda; and engaged in a county-wide public hearing on the 1115 Waiver.

In November 2012, CCDHHS placed a public notice about the 1115 Waiver in the Cameron County Newspaper, Valley Morning Star, and Brownsville Herald. CCDHHS also held a public hearing in November.

University of Texas Health and Sciences Center San Antonio (UTHSCSA):
In February 2012 and again in April 2012, the UT School of Public Health and the Community Advisory Board included the 1115 Waiver as an agenda in their meeting at the Brownsville Community Health Center.

Section V. DSRIP Projects

A. RHP Plan Development

Based on the Texas DSRIP Program Funding and Mechanics Protocol (FMP) requirements, RHP 5 is classified as a Tier 4 region. As a Tier 4 regional healthcare partnership, Region 5 is required to select a minimum of 4 projects from Category 1 and 2 combined, with at least 2 of the 4 projects selected from Category 2. This RHP 5 Plan meets these requirements with at least 16 Category 1 and 11 Category 2 projects.

All of the projects are targeted to serve individuals and families on Medicaid and medically indigent individuals in RHP 5 communities, and have been selected from the RHP Planning Protocol.

Approach to Developing and Selecting Projects

The selection of Pass 1 projects was a community-wide effort that involved dozens of individuals representing all 4 counties in the region. In anticipation of the Texas Health and Human Services Commission (HHSC) receiving approval of its 1115 waiver, the planning process began in November 2011. Stakeholders continued to meet in early 2012 to initiate local planning and discussions related to DSRIP, to discuss the opportunities and requirements of DSRIP, inform the public about the 1115 wavier, as described above, and identify activities that would need to be completed in order to develop a regional plan, as HHSC began providing information about DSRIP requirements.

With region-wide input from stakeholders, Region 5 began reviewing community needs and identifying current documentation for a Region 5 community needs assessment. A list of specific needs was developed, some of which were common throughout all areas of the region and others that were specific to particular locales. Through these discussions and meetings, Region 5 stakeholders collaborated to identify common goals and needs, and ways in which projects could be constructed to leverage existing infrastructure and maximize the use of regional partnerships.

Stakeholder participation played a key role in the identification and selection of projects. This process occurred over an extended period and began with a review of community needs and identification of specific projects that providers, consumers, local government officials, and health care advocates identified as priority concerns. As more information became available from the State, participants began focusing more closely on project ideas that met the DSRIP participation criteria. Some projects were dismissed when they were no longer included in the RHP Planning Protocol or could not meet the protocol requirements; others underwent significant revisions in order to meet the requirements. The Section VII. Addendum attachments include a list of projects that were considered but not included in this RHP 5 Plan.

Based on community needs and availability of funding, Performing Providers made project selection decisions and began drafting Pass 1 projects. As needed, Performing Providers met with stakeholders to develop specific project components and finalize drafts for submission to the Anchor. Based on requirements within each county and/or public entities participating in the region, project proposals were also subject to review and approval by various governmental organizations with interests in the region, before being finalized to include in the Pass 1 submission. Pass 1 projects were posted for public review and comment on the Anchor's website.

This Plan currently does not include any Pass 2 projects. Stakeholders will reconvene after November 16 to discuss projects that were not included in Pass 1 that may be finalized for Pass 2 submission.

RHP Goals and Community Needs

The community needs assessment has played a critical role in the development of Region 5's efforts to focus on projects that will truly transform the delivery of health care to the individuals and communities served in RHP 5. Throughout stakeholder discussions and identification of community needs, a key criterion used to evaluate various project options was the ability to fulfill specific needs. To further support the planning process, the following overarching goals were established with an emphasis on ensuring patients receive the most efficacious care possible in the right place and at the right time. These goals include:

- Leveraging and improving on existing programs and infrastructure to ensure that the health care delivery system will be adequately developed to meet the primary and specialty care needs of residents throughout a rapidly growing, yet historically underserved region.
- Increasing access to primary and specialty care services in the short-term, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition, regardless of where they live or their ability to pay.
- Nurturing a culture of ongoing quality improvement and innovation that maximizes the use of technology and best-practices to improve access and timely utilization of appropriate care, including behavioral health services, particularly in our rural communities.
- Transforming health care delivery to a patient-centered, coordinated and integrated delivery model that improves patient satisfaction and health outcomes, reduces unnecessary emergency department use and duplicative services, and expands on the accomplishments of our existing health care system.

As part of this Plan's development, Performing Providers' project proposals include identification of how their project is related to specific community needs identified through the community needs assessment and how the projects support other initiatives within the region. The identification of community needs guided the selection of projects during phases of plan development. Throughout the planning and drafting phases, participants focused on inclusion of project components and implementation activities that can address needs based on the local healthcare conditions and system infrastructure. The Anchor facilitated sharing of information and scheduling of meetings to enable collaboration throughout the planning process. As a result, Region 5 stakeholders believe that the selected projects will significantly improve the delivery of health care throughout the region, and will result in healthier lives and lower health care costs over time.

Seeking Transformation

Providers selected and designed their projects to fulfill these goals by building on existing resources and new opportunities that can be leveraged in transforming the healthcare delivery system in South Texas. Therefore, the Plan includes a number of projects to expand the availability of the medical workforce in the Rio Grande Valley, through new or expanded residency programs and new hiring, to begin to address the region's severe shortage of health professionals in primary care and various specialties. Plans for a new medical school in RHP 5 will enhance the value these projects bring to the

community and create valuable synergy in retaining future medical providers in South Texas. All of the projects are integrated in their focus on expanding access to primary and specialty care, particularly for individuals with chronic illnesses, including behavioral health conditions, in a region with a very high rate of unmet needs, as evidenced by high rates of diabetes and obesity, for example. Adopting patient-centered care and evidence-based practices are central to these projects and future learning collaboratives.

Category 4 Reporting Exemption
Starr County Memorial Hospital is exempt from Category 4 Reporting based on the criteria provided in paragraph 11e. in the Program Funding and Mechanics Protocol.

No Duplication of Federal Funding
DSRIP payments to RHP 5 projects will not duplicate federal initiatives funded by the U.S. Department of Health and Human Services. Current or anticipated initiatives are described above in the Needs Assessment.

B. Project Valuation

Valuation of projects was based on a number of factors, which varied across projects. As outlined in the Program Funding and Mechanics Protocol, performing providers worked with stakeholders and the anchor to identify factors that could impact the value of a project. While the anchor did not prescribe a specific methodology or process, participants used the same guidelines and factors to determine overall project values and milestone values. While each of these factors was individually considered for each project, it is the unique combination of factors that ultimately determines the valuations and contributes to variation among projects.

The following identifies and describes the primary factors considered for project valuation:

Project Scope
Project values reflect the level of complexity and comprehensiveness of an individual project, the various components that are required in implementation, as well as the number of staff involved in planning and implementation. Projects with a larger scope of activities or that involve multiple levels of activity and coordination may reflect higher values.

Community Benefit
Project values will reflect the extent to which the project will both directly and indirectly impact the community as a whole, in the initial or short term and in the long term. For example, improving access to behavioral health care services may reduce the number of patients arrested for criminal violations, which increases costs in the criminal justice system. While these are indirect benefits of expanding health care services, they represent significant community benefits that enhance quality of life for the entire community and reduce public costs for other services.

Cost Avoidance
Cost avoidance is a critical component that is hard to estimate until baseline information is established. In establishing expected value, providers are relying on existing population data, cost information associated with typical episodes of care for the population served, long term impact of

the project intervention, and based on published research, a very general estimation of future costs that may be avoided as a result of the services provided through the project.

Priority Community Needs
All projects address identified community needs, and many projects address multiple community needs. Project values take into account the intensity of the community need and the potential number of individuals who may be served by the project, and the priority of the project across the spectrum of community needs within the region.

Type of Provider
Each Performing Provider was responsible for ensuring that its projects meet the Program Funding and Mechanics Protocol funding distribution requirements across Categories 1-4 throughout years 2-5 of the waiver. These requirements vary for Hospital Performing Providers and Non-Hospital Performing Providers, which could contribute to variations in values of similar projects among various Performing Providers.

Populations Served
Each project will vary in the type of population served and the number of individuals, depending, in part, on the local community in which the project is located and the population typically served by the provider. The value of the project also takes into account anticipated population growth and the potential to serve larger numbers of people over time.

Most importantly, project values among Performing Providers for similar project are impacted by the level of IGT funds allocated to a Performing Provider and the number of projects selected by the provider. Providers with lower allocations and lower levels of IGT available will obviously be more restricted in their project values, particularly if they are involved in multiple projects. These Performing Providers also usually serve smaller populations, which is a factor that impacts differences in values across Performing Providers with similar projects.

Likewise, Performing Providers with higher allocations and higher levels of IGT generally serve larger numbers of people and will, therefore, often have higher associated values. These projects also may be larger in scope and complexity, and may have more significant community benefit based on the size of the population served. Each of these factors can contribute to variations in value among Performing Providers with similar projects.

C. Category 1: Infrastructure Development

The following narratives describe each Pass 1 Category 1 project of Performing Providers, in alphabetical order of provider.

Border Region – Category 1: Infrastructure Development

Project Title: Implement technology-assisted services (telehealth, telemonitoring, telementoring, or telemedicine) to support, coordinate, or deliver behavioral health services

Unique RHP Project Identification Number: 121989102.1.1

Performing Provider/TPI: Border Region Behavioral Health Center/121989102

Project Option: 1.11.2 Implement technology assisted services to support, coordinate or deliver behavioral health services (From psychologists, psychiatrists, substance abuse counselors, peers and other qualified providers)

Project Description:

Border Region Behavioral Health Center will expand telemedicine services to all counties of Border Region's rural service area, one of which is in Region 5.

These services will be available for children and adults and will include psychiatric evaluation, medication management and crisis intervention. Because the region is sparsely populated, it is a challenge to provide accessible behavioral health services to the population. The availability of behavioral health providers is extremely limited. Via telemedicine is the only way some parts of Region 5 will have access to behavioral health care.

Goals and Relationship to Regional Goals:

This project supports the Regional Goal of expanding access to specialty services. As many of these may only be available via telemedicine services for the foreseeable future. Region 5 has only 41% the rate of psychiatrists per 100,000 workers as the rest of Texas.

By building on the current system operating in Webb County, Region 20, this project leverages and improves on existing programs and infrastructure.

Telecommunication technology also permits participation mentoring for providers and assists in nurturing a culture of ongoing quality improvement and innovation that maximizes the use of technology.

Telemedicine will be an important component in transforming health care delivery to a patient-centered, coordinated and integrated delivery model that improves patient satisfaction and health outcomes.

Border Region Behavioral Health Center plans to expand access to behavioral health services via telemedicine. The goals of this project are to:

- Improve the time between initial request for services and first appointment
- Decrease transportation costs of traveling providers and clients for crisis intervention
- Reduce staff time lost to travel, and ensure more service delivery and improved billing of staff time

- Enables clients from Starr County to benefit from additional services available after implementation of Project Option 1.14.1 and 2.15.1

Challenges and how addressed:

The first challenge in expanding telemedicine service to Starr County will be to assure new technologies purchased have compatibility with the telemedicine infrastructure currently in use at the Border Region main office in Webb County (Region 20). Components and vendors will be selected with the requirement. Component will be tested upon receipt to assure compatibility and not impede the implementation timeline for this project. Vendors will also be evaluated on their ability to provide on-site maintenance and component exchange time.

Staff will need to be trained in the areas of equipment operations, clinical protocols and billing document as it is expected none will have experience in telemedicine. Training will be provided by IT staff, clinical staff and billing/data entry staff.

The long distance from the Webb County main office to the clinic in Starr County will present challenges to on-site maintenance. To reduce delays in telemedicine service delivery, contracts with Region 5 technicians from the Harlingen/McAllen/Edinburg area may supplement the main office IT personnel.

Patient/staff acceptance of telemedicine may also present a challenge. Input from both will be collected and reviewed to determine if additional supports are required to win the systems acceptance.

5 year expected outcome:

We expect to see an increase in the number of patients accessing/receiving behavioral health services through telemedicine and due to the increased availability and ease of access we also expect to see increased patient satisfaction with telemental services.

Starting Point/Baseline:

Border Region currently has in place Telemedicine technology to support Laredo and nearby communities. This project will expand telemedicine technology to Starr County, which currently has no capacity for telemedicine.

Rationale:

This project is required to make other proposed projects feasible. Given the physical distance from the metropolitan areas of Laredo and McAllen/Harlingen (themselves designated as Health Professional Shortage Areas), and given that DSRIP incentive payment are insufficient to fund professional positions full time, the only way to achieve improved access to specialty providers is via telemedicine.

Even without the funding of the additionally proposed projects (expand workforce and implement integrated primary and behavioral healthcare), telemedicine will improve services for clients

currently being served. Children and adolescents have no access to a Child Psychiatrist and no timely psychiatric assessment is available in crisis situations.

Project Components:

Border Region Behavioral Health Center will address all of the project components:

- Border Region will utilize the administrative and clinical protocols in place for Laredo in all counties
- Telemedicine has been piloted in Laredo
- Qualified behavioral health providers and peers will be identified and trained to provide provider to patient, provider to provider and peer to peer connections.
- Modifiers to track telehealth encounters are already in use.
- Fulfilled–Data collection and reporting are already in place.
- Interventions that impact on specialty services will be reviewed for increased treatment compliance lowered waiting times for services and factors which limit participation for safety-net populations.
- The program may be scaled up, as per findings in f) above, for services related to the safety-net population's other health needs and extended to other community providers
- Patient satisfaction data will be collected and analyzed weekly. Patient specific inpatient admission trends as well as overall county inpatient trends will be collected as feedback to determine the effectiveness of the services at keeping individuals from being hospitalized and possible system improvements.

Milestones and Metrics:

The following milestones and metrics were chosen for the Border telemedicine project based on the core components and the needs of the target population:

Process Milestones and Metrics: P-4 (P-4.1); P-8 (P-8.1); P-11 (P-11.1)

Improvement Milestones and Metrics: I-15 (I-15.1)

Unique community need identification number the project addresses:

This project relates to Community Need Number 2, shortage of behavioral health professionals and inadequate access to behavioral health care.

How the project represents a new initiative or significantly enhances an existing delivery system reform initiative:

Residents of Starr County have no access to telemedicine services or the access to specialty providers telemedicine makes possible. With telemedicine, child psychiatry services and timely crisis evaluation become possible. If DSRIP projects for enhancing the workforce and integrated primary and

behavioral health are approved, telemedicine will be the cornerstone of bringing more specialty services to Starr County.

Related Category 3 Outcome Measure(s):

Outcome Domain IT 2.4 – Potentially Preventable Inpatient Admissions

Telemedicine technology will help our Community Mental Health clinic in Starr County deliver outpatient services at the same level as the Laredo clinic. The Laredo clinic has telemedicine technology operatives. Adult clients at the Region 5 office of Border Region Behavioral Health Center receive 35% less psychiatric visits per year than individuals in Laredo do. Child Clients in Region 5 receive 30% fewer visits than those in Laredo do. By providing more care in the outpatient setting via telemedicine, Border Region will be able to reduce preventable inpatient admissions.

Inpatient admission rates to state behavioral health hospitals for adults and children in Starr County are 12% higher than rates in Webb County.

Relationship to other Projects:

This project supports both other Border projects being requested. Patients in outlying counties may participate in the integrated primary/behavioral health project if they meet the criteria for the patient panel. All consumers will be able to access in house and contracted specialty care providers made available under the Workforce enhancement initiatives.

Telemedicine for mental health care has been demonstrated to have the same level of patient satisfaction as face-to-face visits and should prove satisfactory for consumers in this region. (Patient Satisfaction with Telemedicine Consultation in Primary Care: Comparison of Ratings of Medical and Mental Health Applications, Callahan, et. Al. Telemedicine Journal Volume: 4 Issue 4: January 29, 2009).

Relationship to Other Performing Providers' Projects in the RHP:

This project is unique to the Border region of Starr County as this county currently does not have telemedicine services. Other performing providers have not included this as a project option.

Plan for Learning Collaborative:

We plan to participate in a region-wide learning collaborative(s) as offered by the Anchor entity for Region 5, Hidalgo County. Our participation in this collaborative with other Performing Providers within the region that have similar projects will facilitate sharing of challenges and testing of new ideas and solutions to promote continuous improvement in our Region's healthcare system.

Project Valuation:

Starr County, located across the Rio Grande River from Mexico, is home to 62,000 people. The population is spread out over its 1,225 square miles, with a population density of 50 persons per square miles. This geographic dispersion, limits access to both physical and behavioral health care on a routine basis, resulting in neglected conditions which usually begin their resolution at the Emergency Room. 2010 data from the Texas Health and Human Services Commission reports almost 10,000 (9,987) emergency room visits.

This project should increase access to less intensive levels of care. This will represent a more complete utilization of dollars already allotted rather than increasing costs. Costs of intensive crisis care, both physical and psychiatric should be decreased.

Value will result from savings due to decreased transportation costs from licensed personnel traveling over great distances and being unavailable for patients during the travel time. Further there is a savings in locum tenen (temporary, contract) physicians because contracting with telemedicine physicians is cheaper than contracting for physicians.

121989102.1.1	1.11.2	1.11.2 A-H	Implement technology-assisted services (telehealth, telemonitoring, telementoring, or telemedicine) to support, coordinate, or deliver behavioral health services	
[Border Region Behavioral Health Center]				121989102.1.1
Related Category 3 Outcome Measure(s):	121989102.3.1	IT-2.4	Potentially Preventable Admissions- Behavioral Health/ Substance Abuse Admission Rate	
Year 2 (10/1/2012 – 9/30/2013)	Year 3 (10/1/2013 – 9/30/2014)		Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
Milestone 1 P-4 Procurement of telehealth, telemedicine, telementoring, and telemonitoring equipment **Metric 1** P-4.1.Inventory of new equipment purchased **Data Source:** Review of inventory or receipts for purchase of equipment **Baseline**: No equipment or lines exist in Starr County **Goal:** Establish working telemedicine hardware. Data Source: Center inventory Milestone 1 Estimated Incentive Payment *(maximum amount):* $ $17,586	**Milestone 2** P-8 Training for providers/peers on use of equipment /software Metric 1 P-8.1. Documentation of completions of training on use of equipment/ software **Data Source:** Training roster. **Baseline: TBA/Goal:** Establish baseline for first operational years use. Milestone 2 Estimated Incentive Payment: $18,346		**Milestone 3** P-11: Individuals residing in underserved areas that have used telemedicine, telehealth, telementoring, and / or telemonitoring services for treatment of mental illness or alcohol and drug dependence. Metric 1 P-11.1: TBA% increase in number of individuals residing in underserved areas of the health partnership region who have used telemedicine, telehealth and telemonitoring services for treatment of mental illness or alcohol and drug dependence. **Goal:** Begin telemedicine encounters **Data Source:** Anasazi Client Encounter system Milestone 3 Estimated Incentive Payment: $19,626	**Milestone 4** [I-15]: Satisfaction with telemedicine services Metric 1 [I-15.1]: TBA % of consumer, peer and provider surveys indicate satisfaction with telemedicine services **Goal**: TBA **Data Source:** batched and analyzed survey data Milestone 4 Estimated Incentive Payment: $ $18,962

45

121989102.1.1	1.11.2	1.11.2 A-H	Implement technology-assisted services (telehealth, telemonitoring, telementoring, or telemedicine) to support, coordinate, or deliver behavioral health services	
[Border Region Behavioral Health Center]				121989102.1.1
Related Category 3 Outcome Measure(s):	121989102.3.1	IT-2.4	Potentially Preventable Admissions- Behavioral Health/ Substance Abuse Admission Rate	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Year 2 Estimated Milestone Bundle Amount: *(add incentive payments amounts from each milestone):* $17,586	Year 3 Estimated Milestone Bundle Amount: $18,346		Year 4 Estimated Milestone Bundle Amount: $19,626	Year 5 Estimated Milestone Bundle Amount: $18,962
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $ $74,520				

46

Project Title: Develop Workforce enhancement initiatives to support access to behavioral health providers in underserved markets and areas
Unique RHP Project ID number: 121989102.1.2
Performing Provider/TPI: Border Region Behavioral Health Center/121989102
Project Option 1.9.1

Project Description:
This project is designed to address the lack of licensed Behavioral Health providers and other Behavioral Health workers residing in and serving Region 5. Licensed positions have been historically under filled. New initiatives and changes in the health care law will exacerbate this situation unless new efforts can be initiated to recruit and train behavioral health care and primary care workers. The project will involve hiring a physician, a RN, a coordinating case worker, and a LPHA (licensed practitioner of the healing arts), and a telemedicine 0.11 child psychiatrist and 0.11 adult psychiatrist.

Border Region will begin this effort by analyzing the delivery system to quantify and prioritize areas of need. The process will include input from local stakeholders about how to best attract or recruit and train the positions identified. Contracted telemedicine resources will be investigated as viable alternatives to face-to-face encounters.

Quality Improvement processes will be included in the project regarding program performance to develop and test new solutions. Results will be shared with programs and findings may be exported to other providers/programs with similar problems.

Goals and Relationship to Regional Goals:
Workforce expansion is in response to community input from providers, local researchers and residents, based on regional meetings, local research results, needs assessments involving resident surveys and focus groups, as well as state and federally-supported health and demographic statistics on the region. It addresses RHP 5 need for projects designed to expand the workforce of qualified primary care and specialty care providers to reduce health care workforce shortages and thus reduce delays in care seeking and reduce inappropriate emergency department utilization, as well as improve patient satisfaction.
Goals of this project is to enhance access and reduce shortages in behavioral health and improve integration of Border Region-Starr county services into the overall health delivery system; improve consumer choice and increase availability of effective, lower-cost alternatives to inpatient care and prevent inpatient admission where possible and promote recovery from behavioral health disorders.

Challenges:

- Competition for licensed people from school system
- Difficulty attracting people to live in borderlands.
- Lack of patient data on access to care provided by other agencies.

In addition to expanding behavioral health workers, primary care providers will be provided with training to assist them in addressing the behavioral health needs of individuals beyond the scope of

their usual practice. We will coordinate training and provide opportunities for ongoing support to attract and retain the professionals required in support of this project.

5 Year Expected Outcome for Provider and Patients:
We expect to track and monitor the number of behavioral health providers servicing this population and see an increase in the number of professionals providing these services. Through our gap analysis we will identify the priority areas and increase staff accordingly.

Starting Point/Baseline:
Typically in this Region one part time contract Licensed Practitioner of the Healing Arts is available for approximately 520 clients. No child psychiatrist is available for the over 175 clients in the children's program. Children and adults are served by the same psychiatrist.
One Licensed Vocational Nurse provides the nursing services for the behavioral health clients in Region 5.

Rationale:
Overall there is a lack of behavioral health staff serving Region 5. Staff shortages cause frequent delays in service delivery and screening for services. LPHAs are needed for authorization, CBT and utilization review.
Project 2.15.1 for integrating primary and behavioral health care will create additional demand for LPHA, Intensive Case Manager, nursing and medical staff. Additional staff such as Community Health Workers will also be utilized. The part time LPHA on contract is used only for service authorization. Other specialties required for effective treatment, such as a Family Partner for Children's services are not available. No RN is available for Active Community Treatment services.

Currents needs for licensed staff for programs in place identified as:

Child Psychiatrist: .1 FTE (via telemedicine)
Adult Psychiatrist .1 FTE (via telemedicine)
LPHA: 1 FTE
RN: .5 FTE (via telemedicine)
LVN: 2 FTE

Project Components:

a. Conduct a qualitative and quantitative gap analysis to identify needed behavioral health specialty vocations lacking in the health care region and the issues contributing to the gaps. Border Region will conduct a gap analysis
b. Develop plan to remediate gaps identified and data reporting mechanism to assess progress toward goal. Border Region will develop a plan for remediation of needs addressed by the gap analysis. The plan will specify recruitment targets by specialty over time, and specific recruitment strategies. For primary care staff that may be hired or contracted, training will be

provided in behavioral health client and service delivery, as well as principals and protocols for the integration project.

c. Assess and refine strategies implemented using quantitative and qualitative data. Qualitative and quantitative data will be collected as a routine part of Milestone 4, Evaluate and Continuously Improve Strategies. As appropriate, strategies may be exported to other needs identified in the gap analysis for serving the safety-net population.

Milestones & Metrics:
The following milestones and metrics were chosen for the workforce enhancement initiative based on the core components and the needs of the target population:

- Process Milestones and Metrics: P-3 (P-3.1); P-4 (P-4.1); P-5 (P-5.1)
- Improvement Milestones and Metrics: I-11 (I-11.1, I-11.2)

Unique community need identification number the project addresses:

- CN.1 - Shortage of primary and specialty care providers and inadequate access to primary or preventive care
- CN.2 - Shortage of behavioral health care professionals and inadequate access to behavioral health care

How the project represents a new initiative or significantly enhances an existing delivery system reform initiative:
This project changes the focus of the current clinic from medication management and case management to a clinic with a greater array of clinical interventions and selection of providers. Telemedicine with appropriate nursing assistance will be available, clinic centered crisis management will help reduce dependence on law enforcement and the hospital and cognitive behavioral therapy can be offered for ACT clients.

Related Category 3 Outcome Measure(s):
Outcome Domain 2 – Potentially Preventable Inpatient Admissions. With additional behavioral health services, populations in Region 5 should be able to avoid preventable inpatient admissions. National statistics demonstrate on average more than 68% of adults with a mental disorder had at least one medical condition, and 29% of those with a medical disorder also had a mental health condition. People with schizophrenia and bipolar disorder are up to three times more likely to have three or more chronic conditions compared to people without these disorders.

Research has shown that those patients affected by mental illness and suffering from chronic disease are dying 25 years earlier than the rest of the population[45]. Co-occurring mental and physical health issues are common in the general population but are significant for persons with serious mental illness.

[45] Freeman, E, Yoe, J. The Poor health status of consumers of mental healthcare: Behavioral disorders and chronic disease, Presentation to NASMHPD Medical Directors Work Group,

Relationship to other Projects:
This project relates to 1.11.2 - Implement technology assisted behavioral health services from psychologists, psychiatrists, substance abuse counselors, peers and other qualified provider, and to 2.15.1 - Design, implement, and evaluate projects that provide integrated primary and behavioral health care services. It is expected that some specialty providers will be available only via telemedicine and trainings may be done with the same technology infrastructure. This will be especially true for provider and clients in the outlying counties of Jim Hogg and Zapata. Project 2.15.1 will rely on personnel hired or contracted and trained through this project almost entirely. Current DSHS state contract does not provide for treatment of primary care needs.

Relationship to Other Performing Providers' Projects in the RHP:
This project is unique to the region but does provide the increased access and availability to behavioral health care services as other projects planned for this region. This project specifically aims to reduce the community shortage of behavioral health care professionals.

Plan for Learning Collaborative:
We plan to participate in a region-wide learning collaborative(s) as offered by the Anchor entity for Region 5, Hidalgo County. Our participation in this collaborative with other Performing Providers within the region that have similar projects will facilitate sharing of challenges and testing of new ideas and solutions to promote continuous improvement in our Region's healthcare system.

Project Valuation:
Psychiatric inpatient costs attributed to Starr county are approximately $586, 730 per year and reflect a combination of State Hospital and private psychiatric care. Approximately 173 admissions come from Starr County annually with an average length of stay of 5.7 days. Inpatient cost per day is $595 per based on Center for Medicare Services research (www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Reports/downloads/cromwell_2005_3.pdf).

Patient data is not reported by the local medical hospital (48 beds), but if usual regional data is applied for treatment of diabetes, it can be anticipated 25% of this population also suffers from behavioral health issues. Diabetes may complicate and increase the cost of psychiatric inpatient stays as well.

121989102.1.2	1.14.1	1.14.1.A-C	Develop Workforce enhancement initiatives to support access to behavioral health providers in underserved markets and areas	
Border Region Behavioral Health Center				121989102
Related Category 3 Outcome Measure(s): 121989102.3.2	121989102.3.2	IT-2.4	Potentially Preventable Admissions	
Year 2 (10/1/2012 – 9/30/2013)		Year 3 (10/1/2013 – 9/30/2014)	Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
Milestone 1 P-3 Resource Identification **Metric 1** P-3.1 Identify specific disciplines and knowledge base that would assist primary care providers to expand their score of practice to address the needs of individuals with complex behavioral health conditions **Baseline: TBA/Goal:** **Data Source:** Written plan from Regional Partnerships Milestone 1 Estimated Incentive Payment *(maximum amount):*		**Milestone 2** P-4 Evaluate and continuously improve strategies **Metric 1** P-4.1 Project planning and implementation documentation describes plan, do, study act quality improvement cycles **Data Source:** Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement **Baseline: TBA/Goal:** Establish baseline for first operational years use. **Data Source**: Project reports including examples of how real-time data is used for rapid-cycle improvement to	**Milestone 3** P-5 Number of behavioral health providers serving medically indigent public health clients **Metric 1** 5.1 Track and report the number of behavioral health providers serving medically indigent public health clients by provider type on at least a quarterly basis. **Goal: TBA** **Data Source:** Webb County Indigent Health Program Diagnosis and provider billing records Milestone 3 Estimated Incentive Payment: $230,603	**Milestone 5** P-5 Number of behavioral health providers serving medically indigent public health clients **Metric 1** 5.1 Track and report the number of behavioral health providers serving medically indigent public health clients by provider type on at least a quarterly basis. **Goal: TBA** **Data Source:** batched and analyzed survey data Milestone 5 Estimated Incentive Payment: $222,805 **Milestone 6** I-11 Consumer

51

121989102.1.2	1.14.1	1.14.1.A-C	Develop Workforce enhancement initiatives to support access to behavioral health providers in underserved markets and areas	
Border Region Behavioral Health Center				121989102
Related Category 3 Outcome Measure(s): 121989102.3.2	121989102.3.2	IT-2.4	Potentially Preventable Admissions	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3** (10/1/2013 – 9/30/2014)		**Year 4** (10/1/2014 – 9/30/2015)	**Year 5** (10/1/2015 – 9/30/2016)
$413,267	guide continuous quality improvement Milestone 2 Estimated Incentive Payment: $431,128		**Milestone 4** I-11 Consumer satisfaction with Care Metric 1 I-11.1 TBA% People reporting satisfaction with care Data Source: Provider registration and survey data. Metric 2 I-11.2 TBA% State Psychiatric Facility Bed Utilization Milestone 4 Estimated Incentive Payment: $230,603	satisfaction with Care **Metric 1** I-11.1 TBA% People reporting satisfaction with care **Data Source:** Provider registration and survey data. **Metric 2** I-11.2 TBA% State Psychiatric Facility Bed Utilization Milestone 6 Estimated Incentive Payment: $222,805
Year 2 Estimated Milestone Bundle Amount: *(add incentive payments amounts from each milestone):* $413,267	Year 3 Estimated Milestone Bundle Amount: $431,128		Year 4 Estimated Milestone Bundle Amount: $461,206	Year 5 Estimated Milestone Bundle Amount: $445,610
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $1,751,211				

52

Doctors Hospital Renaissance – Category 1: Infrastructure Development

Title: Establish Primary Care/Internal Medicine Residency Training Program
Unique Project ID: 160709501.1.1
Performing Provider/TPI: Doctors Hospital at Renaissance / 160709501
Project Option 1.2.4

PROJECT DESCRIPTION:
Doctors Hospital at Renaissance proposes to establish a primary care/Internal Medicine residency training program.

This project is designed to improve patient access to primary care by increasing the physician workforce in RHP 5, a designated health care provider shortage area (HPSA). Doctors Hospital at Renaissance (DHR) will establish a new primary care/Internal Medicine residency training program in partnership with The University of Texas Health Science Center at San Antonio's Regional Academic Health Center (UTHSCSA RAHC). The resident trainees, the graduates, and the new faculty will expand the workforce, allaying the shortage of primary care providers thereby reducing delays in care seeking, reducing inappropriate and costly emergency department utilization, and increasing patient satisfaction.

When fully implemented in 2018, the new Internal Medicine residency will have the capacity to train as many as 24 residents – 8 residents in each of three classes. The DHR Internal Medicine residency training program will complement other new residency programs at DHR in Family Medicine, Obstetrics & Gynecology, and General Surgery to fulfill DHR's goal to become a teaching hospital for the region. DHR's new Internal Medicine residency training program will also complement the existing and expanding Internal Medicine residency training program and the new Psychiatry and General Surgery residency training programs at Valley Baptist in Cameron County. The DHR program will also complement the existing UTHSCSA Family Medicine program affiliated with McAllen Medical Center in Hidalgo County.

Goals and Relationship to Regional Goals:
This project has the following goals:

- To create an Internal Medicine Residency program with residents, graduates, and faculty members who will increase patients' access to care;
- To create and implement an innovative curriculum that incorporates population health management, chronic disease management, and clinical safety and effectiveness training;
- To transition Doctors Hospital at Renaissance to be a primary teaching hospital for UTHSCSA RAHC in South Texas;
- To create a continuity clinic for the residency program to focus on transitions of care, reduce hospital readmissions and function as a patient-centered medical home;
- To conduct quality improvement projects to continuously improve clinical outcomes and efficiency; and
- To collaborate with other new and expanding residency training programs in the region to transform the delivery system for the South Texas community.

This project meets the following regional goals:

- By combining the resources of DHR as a major safety net hospital and The University of Texas, leverage and improve on existing programs and infrastructure to ensure that the health care delivery system will be adequately developed to meet the primary care needs of residents throughout a rapidly growing, yet historically underserved region.
- Increase access to primary care services in the short-term with new faculty, in the intermediate term with resident trainees, and in the long-term with graduate physicians, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition.
- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of technology and best-practices to improve access and timely utilization of appropriate care.
- Transform health care delivery to a patient-centered, coordinated and integrated delivery model that improves patient satisfaction and health outcomes, reduces unnecessary emergency department use and duplicative services, and expands on the existing health care system.

Challenges and issues:
Creating a new residency program from the ground up is time consuming and requires approval of the Accreditation Council on Graduate Medical Education (ACGME). The Internal Medicine Residency Review Committee (IM-RRC) meets to review proposals only a few times each year. Residency programs must be either near-approval or accredited before the programs can begin to recruit fourth-year medical students who will enter the residency training program in the following academic year.

Addressing the challenges:
DHR will partner with UTHSCSA RAHC. UTHSCSA RAHC will provide the Program Director and core faculty for the Internal Medicine Residency Program. UTHSCSA faculty and staff have extensive experience with the accreditation process. DHR and UTHSCSA will work together collaboratively to establish an innovative curriculum including the patient-centered medical home model and chronic care disease management to address the unique needs of RHP5.

5-year expected outcome for Performing Provider and patients:
By the end of the Demonstration Period in September 2016, DHR will be well on the road to establishing itself as a teaching hospital. The second cohort of six to eight Internal Medicine residents will have joined the initial cohort of six to eight residents who start in July 2015. The initial cohort of residents will complete the program and enter practice in 2018. Supervised residents will begin providing care to patients in 2015. The Program Directors and core faculty members will dedicate 25-50% of their time to clinical care. Primary care capacity and patients' access to primary care will increase as the program matures to full, maximum build-out of 24 Internal Medicine residents at DHR (8 PG1; 8 PG2; and 8 PG3).

STARTING POINT/BASELINE

DHR currently hosts no residency programs. In all of RHP 5, existing residency training programs include an internal medicine program with 15 residents at Valley Baptist in Cameron County and a family medicine program with 18 residents at McAllen Medical Center.

RATIONALE

In 2010, Texas had 176 patient care physicians per 100,000 population and 70 primary care physicians per 100,000 population with a state ranking of 46 and 47, respectively. (Comparable ratios for US Total are 219.5 and 90.5, respectively.) From 2001 to 2011, the Texas physician workforce grew 32.3%, exceeding the population growth of 25.1%. Primary care physician workforce, however, grew only 25% in the same period. From 2002 to 2011, Texas increased medical school enrollment 31% from 1,342 to 1,762, in line with the national call by the Association of American Medical Colleges to increase medical school enrollments by 30%. In 2011, there were 1,445 medical school graduates. Coincidentally, there were 1,445 allopathic entry-level GME positions offered in Texas in the annual National Resident Matching program. (There were 31 osteopathic slots.) The Texas Higher Education Coordinating Board recommends a ratio of 1.1 entry-level GME positions for each Texas medical school graduate. The number of Texas medical school graduates is expected to peak at over 1,700 in 2015. This implies a need for 400 additional GME positions in 2015. The shortage of GME positions or residency slots may be the single most problematic bottleneck in Texas' efforts to alleviate the state's physician shortage.

In South Texas excluding Bexar County, there are only 43 primary care physicians per 100,000 population, according to an April 2012 report by the Texas Higher Education Coordinating Board. This compares to 65 per 100,000 for greater South Texas including Bexar County and 78 per 100,000 for Central Texas.

The University of Texas' Board of Regents and the Texas Legislature have authorized the development of UTHSCSA RAHC into a future medical school in RHP 5. The first cohort of students for the South Texas medical school will matriculate in the fall of 2014 in San Antonio, later transitioning to and graduating from an independent, freestanding regional medical school in South Texas. In order to retain the future graduates of the new medical school in RHP 5 for eventual community practice, new residency training programs must be established and existing programs must be expanded. The *2011 State Physician Workforce Data Book* published by the Association of American Medical Colleges Center for Workforce Studies shows that among students who complete both their undergraduate and graduate medical education in Texas, 80.2% remained in the state to practice. In Texas, combining the effect of in-state graduate medical education with in-state undergraduate medical education increases the retention rate by approximately twenty percentage points.

Project components:

This project has several components:

- Identify high impact services and gaps in care and coordination
- Recruit Internal Medicine Program Directors and core faculty

55

- Create innovative curriculum including population health management, chronic disease registries, team-based community care, data analytics, and quality improvement projects using the PDSA and other methodologies contained in the UT System CS&E course.
- Develop and organize inpatient and ambulatory clinical training/patient care opportunities for Internal Medicine resident education at DHR.
- Complete and submit the Program Information Form (PIF) to the RRC
- Attain ACGME approval for the program
- Recruit and enroll Internal Medicine residents

Unique community need identification number the project addresses:

- CN.1 – Shortage of primary and specialty care providers and inadequate access to primary or preventive care

How the project represents a new initiative or significantly enhances an existing delivery system reform initiative:
Currently, RHP 5 has no teaching hospital, and no residency training programs exist at DHR. The faculty for the Internal Medicine residency program at DHR will collaborate with the faculty for the other new training programs at DHR as well as with the faculty for the new and existing residency programs in RHP 5.

Data Driving this Project:
The need for enhanced primary care in this health disparity population is difficult to overstate and is extensively documented. Data published by the United States Census Bureau in 2012 show that 88.1% (Cameron County) and 90.7% (Hidalgo County) of the population is Mexican American or Latino in origin and that 34.7% live below the poverty line (compared with 16.8% for Texas and 13.8% nationally: http://quickfacts.census.gov/qfd/states/00000.html). Currently only 31.4% of RHP5 citizens have insurance of any kind, more than half of which is Medicare or Medicaid. Obesity is the underlying and exacerbating issue. Published data (Fisher-Hoch et al, 2012) from our locally recruited, randomized community cohort show that the prevalence of obesity is 48.5% and that 8.0% are morbidly obese. The prevalence of diabetes is an alarming 30.7% in adults 18 years or over. Eighty-four percent of those with hypertension are diagnosed, but only half of those with diabetes or hypercholesterolemia are diagnosed and under care. Many participants with diabetes (55.5%) and hypertension (50.0%) are untreated as are 85% of those with hypercholesterolemia. Multiple complications of diabetes and obesity include renal failure requiring dialysis, and heart failure, and at least 12% have evidence of liver disease associated with obesity and diabetes leading to liver failure and liver cancer.

Related Category 3 Outcome Measure(s):
OD-14 Primary Care Workforce

Stand-alone:
IT - 14.1 Number of practicing primary care physicians per 100,000 individuals in HPSA or MUA

Non-stand-alone but related:
Bundle of 3:
IT - 14.6 Percent of trainees who have spent at least 5 years living in a health-professional shortage area (HPSA) or medically underserved area (MUA)
IT - 14.7 Percent of trainees who report that they plan to practice in HPSAs or MUAs based on a systematic survey
IT – 14.8 Percent of trainees who report that they plan to serve Medicaid populations based on a systematic survey

Rationale for selecting the outcome measures:
It is challenging to select outcome measures in the early stages of planning the residency program, given the lack of clarity and complete plans about when and where faculty will practice, the part-time nature of that practice, and the fact that three or more years of training are required before the first-matriculated residents will begin independent clinic practice.

Because the Program Directors and core faculty will be recruited and in place even before the programs are accredited and will dedicate 25-50% of their time to clinical care, they will have an impact on the number of practicing primary care physicians per 100,000 individuals in RHP 5.

Relationship to other Projects:
This project is related to the following DHR projects:

- 160709501.1.2 Establish Primary Care/Family Medicine Training Program;
- 160709501.1.3 Establish Primary Care/Obstetrics & Gynecology Training Program; and
- 160709501.1.4 Expand high impact specialty care capacity in most impacted medical specialties (Establish General Surgery Training Program).

Relationship to Other Performing Providers' Projects in the RHP:
The project is related to UTHSCSA's Projects in RHP 5:

- 085144601.1.1 Expand Primary Care/Internal Medicine Training Program at Valley Baptist - Harlingen;
- 085144601.1.2 Expand high impact specialty care capacity in Behavioral Health at Valley Baptist - Brownsville; and
- 085144601.1.3 Increase faculty to support an expanded Family Medicine residency program at McAllen Medical Center.

Plan for Learning Collaborative:
All of the new and existing residency training programs in RHP 5 will be/are directed by UTHSCSA faculty. The University of Texas System and UTHSCSA, specifically, have a nationally known Clinical Safety & Effectiveness (CS&E) training program embedded in their medical schools and clinical facilities. CS&E is a training course with PDSA at the heart of the curriculum; a strategic improvement project is required as part of the course. Many faculty and staff adopt CS&E into their ongoing activities after graduation from the training. In addition, UTHSCSA requires all new resident trainees to complete the core curriculum of the IHI Open School prior to joining the training programs. All of the residency training programs will feature innovative curriculum components focused on population health management, team-based community care, the use of chronic disease registries,

and the application of data analytics. The Program Directors will meet quarterly to discuss and share quality improvement efforts within the context of the CS&E program as well as the common core curriculum components related to population health management, chronic disease registries, team-based community care, and data analytics.

Project Valuation:
DHR has chosen to dedicate the majority of its Pass One allocation to the four new residency training programs and the related Category 3 metrics in keeping with its strategic plan to become the primary teaching hospital for the South Texas region and in Hidalgo County. South Texas has historically been a medically underserved area. The University of Texas System has committed to expand medical education in South Texas and graduate the first class of medical students in 2018. These graduates will be far more likely to stay and practice in South Texas if they complete their residency training programs locally. The DHR residency projects, along with the other new and expanding residency projects can transform the medical community and the healthcare delivery system in South Texas. With innovative curricula designed to meet community needs, UT faculty will train new physicians for practice, engage community physicians as preceptors, and embed the UT Clinical Safety & Effectiveness program in local hospitals.

Unique Identifier: 160709501.1.1	*RHP PP Reference number:* 1.2.4	*Project Component(s):*	*Establish primary care/Internal Medicine Training Program*	
Doctors Hospital at Renaissance				TPI: 160709501
Related Category 3 Outcome Measure(s):	160709501.3.1	IT-14.1	Number of practicing primary care physicians per 100,000 individuals in HPSA or MUA	
Year 2 (10/1/2012 – 9/30/2013)		**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1 [P-1]: Conduct a primary care gap analysis to determine workforce needs. Metric 1 [P-1.1]: Gap assessment of workforce shortages and delivery system, i.e., patient-centered medical homes, disease registries, HIE. Goal: Produce a comprehensive report documenting existing and needed primary care resources. Data Source: Assessment results. Milestone 1 Estimated Incentive Payment: $1,193,867 **Milestone 2** [P-2]: Expand primary care training for primary care physicians. Metric 1 [P-2.X]: Hire the Program Director, Associate Program Director, and two Core Faculty members by 7/1/2013. Baseline: At the beginning of DY 2, no faculty are in place for the residency program. Goal: Build the founding faculty infrastructure for the residency to begin the accreditation process. Data Source: Human Resources documents. Milestone 2 Estimated Incentive		**Milestone 3** [P-2]: Expand primary care training for primary care physicians. Metric 1 [P-2.1]: Expand the primary care residency training programs. Baseline: Program does not exist at beginning of DY 2. Goal: Program Information Form (PIF) to be submitted by no later than 2/2014 for Residency Review Committee (RRC) 9/2014 meeting. Data Source: Training program documentation. Metric 2 [P-2.2.]: Hire additional precepting faculty members in various specialties, as required for accredited programs. Baseline: At the beginning of DY 2, no faculty are in place for the residency program. Goal: increased training faculty members. Data Source: Human Resources documents. Milestone 3 Estimated Incentive Payment: $787,228 **Milestone 4** [P-9]: Develop/disseminate clinical teaching tools for primary care. Metric 1 [P-9.1]: Clinical teaching tools. Baseline: No clinical teaching tools	**Milestone 7** [P-10]: Obtain approval from the Accreditation Council for Graduate Medical Education (ACGME) to increase the number of primary care residents. Metric 1 [P-10.1]: Documentation of ACGME approval for residency program accreditation and position expansion. Baseline : No accredited residency program exists at the beginning of DY 2. Goal: ACGME approval. Data Source: ACGME documentation. Milestone 7 Estimated Incentive Payment: $801,163 **Milestone 8** [P-3]: Expand positive primary care exposure for residents. Metric 1 [P-3.1] Develop mentoring program with practicing primary care physicians/faculty and new residents. Baseline: No mentoring program exists currently. Goal: Develop mentoring program for residents with practicing primary care physicians. Data Source: Mentoring program curriculum and/or program participant list. Metric 2 [P-3.2] Train residents in the medical home model, chronic care model and/or disease registry use;	**Milestone 11** [I-11]: Increase primary care training and/or rotations. Metric 1 [I-11.4]: Increase the number of primary care residents and/or trainees, as measured by absolute number over baseline. Baseline: No residents prior to DY2 or in DY2-3. Cohort 1 begins in DY 4. Goal: Enroll second cohort of 6 as of 7/15/2015. Total residents in Cohorts 1 and 2 = 12. Data Source: Program enrollment records. Metric 2 [I-11.2]: Increase the number of primary care trainees rotating at the Performing Provider's facilities. Baseline: No residents prior to DY2 or in DY2-3. Goal: Enroll second cohort of 6 as of 7/15/2015. Total residents in Cohorts 1 and 2 = 12. Data Source: Program enrollment records. Milestone 11 Estimated Incentive Payment: $527,555 **Milestone 12** [I-15]: Increase primary care training in Continuity Clinics. Metric 1 [I-15.1]: Increase number of Continuity Clinic sessions available for primary care residents. Baseline: No training program or

59

Unique Identifier: 160709501.1.1	***RHP PP Reference number:*** 1.2.4	***Project Component(s):***	***Establish primary care/Internal Medicine Training Program***	
Doctors Hospital at Renaissance				TPI: 160709501
Related Category 3 Outcome Measure(s):	160709501.3.1	IT-14.1	Number of practicing primary care physicians per 100,000 individuals in HPSA or MUA	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Payment: $1,193,867	exist at the beginning of DY2. Goal: Documentation and dissemination of clinical teaching tools. Data source: Clinical teaching tools documents/ materials. Milestone 4 Estimated Incentive Payment: $787,228 **Milestone 5** [P-8] Establish a faculty development program. Metric 1 [P-8.1] Enrollment of faculty staff into primary care education and training program. Baseline: No faculty development program exists currently. Goal: Better prepared faculty will create a better training program. Data Source: Program documents. Milestone 5 Estimated Incentive Payment: $787,228 **Milestone 6** [I-14] Increase the number of faculty staff completing educational courses. Metric 1 [I-14.1] Number of faculty staff completing Clinical Safety & Effectiveness (CS&E) course. Baseline: No faculty in place or trained in CS&E as of DY2. Goal: Two faculty members complete the CS&E training. Data Source: Program records.		have primary care trainees participate in medical homes by managing panels. Baseline: No training exists currently. Goal: Primary care training program should reflect evolving delivery models. Data Source: Curriculum, rotation hours, and/or patient panels assigned to residents. Metric 3 [P-3.3] Include residents in quality improvement projects. Baseline: No training exists currently. Goal: Resident participation in QI efforts. Data source: Curriculum or QI project documentation. Milestone 8 Estimated Incentive Payment: $801,163 **Milestone 9** [I-11]: Increase primary care training and/or rotations. Metric 1 [I-11.4]: Increase the number of primary care residents, as measured by absolute number over baseline. Baseline: No residents prior to DY2 or in DY2-3. Goal: Enroll first cohort of 6 residents as of 7/15/2015. Data Source: Program enrollment records. Metric 2 [I-11.2]: Increase the number of primary care trainees rotating at the Performing Provider's	Continuity Clinic in DY2. Goal: Documented increase over baseline and as compared to DY 4. Data Source: Number of resident office visits from EHR or claims data. Metric 2 [I-15.2]: Increase number of patients assigned to primary care residents' panels. Baseline: No training program or Continuity Clinic in DY2. Goal: Documented increase over baseline and as compared to DY 4. Data Source: Patient panel, registry, or EHR. Milestone 12 Estimated Incentive Payment: $527,556 **Milestone 13** [P-4] Develop and implement a curriculum for residents to use their practice data to demonstrate skills in quality assessment and improvement. Baseline: no curriculum exists in DY2. Goal: Provide training and practicum opportunity for residents to master QI methodology. Metric 1 [P-4.1] Quality assessment and improvement curriculum and practicum for residents. Data Source: Curriculum and practicum documentation.

60

Unique Identifier: 160709501.1.1	***RHP PP Reference number:*** 1.2.4	***Project Component(s):***	***Establish primary care/Internal Medicine Training Program***	
Doctors Hospital at Renaissance				TPI: 160709501
Related Category 3 Outcome Measure(s):	160709501.3.1	IT-14.1	Number of practicing primary care physicians per 100,000 individuals in HPSA or MUA	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
	Milestone 6 Estimated Incentive Payment: $787,229		facilities. Baseline: No residents prior to DY2 or in DY2-3. Goal: 6 PY1 trainees in rotation at DHR. Data Source: Resident training schedule. Milestone 9 Estimated Incentive Payment: $801,163 **Milestone 10** [I-14] Increase the number of faculty staff completing educational courses. Metric 1 [I-14.1] Number of faculty staff completing Clinical Safety & Effectiveness (CS&E) course. Baseline: No faculty in place or trained in CS&E as of DY2. Goal: Two faculty members complete the CS&E training. Data Source: Program records. Milestone 10 Estimated Incentive Payment: $801,162	Milestone 13 Estimated Incentive Payment: $527,555 **Milestone 14** [I-14] Increase the number of faculty staff completing educational courses. Metric 1 [I-14.1] Number of faculty staff completing Clinical Safety & Effectiveness (CS&E) course. Baseline: No faculty in place or trained in CS&E as of DY2. Goal: Two faculty members complete the CS&E training. Data Source: Program records. Milestone 14 Estimated Incentive Payment: $527,556
Year 2 Estimated Milestone Bundle Amount: $2,387,734	Year 3 Estimated Milestone Bundle Amount: $3,148,913		Year 4 Estimated Milestone Bundle Amount: $3,204,651	Year 5 Estimated Milestone Bundle Amount: $2,110,222
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $10,851,520				

61

Title: Establish Primary Care/Family Medicine Residency Training Program
Unique Project ID: 160709501.1.2
Performing Provider/TPI: Doctors Hospital at Renaissance / 160709501
Project Option 1.2.4

PROJECT DESCRIPTION:
Doctors Hospital at Renaissance proposes to establish a primary care/Family Medicine residency training program.

This project is designed to improve patient access to primary care by increasing the physician workforce in RHP 5, a designated health care provider shortage area (HPSA). Doctors Hospital at Renaissance (DHR) will establish a new primary care/Family Medicine residency training program in partnership with The University of Texas Health Science Center at San Antonio's Regional Academic Health Center (UTHSCSA RAHC). The resident trainees, the graduates, and the new faculty will expand the workforce, allaying the shortage of primary care providers thereby reducing delays in care seeking, reducing inappropriate and costly emergency department utilization, and increasing patient satisfaction.

When fully implemented in 2018, the new Family Medicine residency will have the capacity to train as many as 18 residents – 6 residents in each of three classes. The DHR Family Medicine residency training program will complement other new residency programs at DHR in Internal Medicine, Obstetrics & Gynecology, and General Surgery to fulfill DHR's goal to become a teaching hospital for the region. DHR's new Family Medicine residency training program will also complement the existing and expanding Internal Medicine residency training program and the new Psychiatry and General Surgery residency training programs at Valley Baptist in Cameron County. The DHR program will also complement the existing UTHSCSA Family Medicine program affiliated with McAllen Medical Center in Hidalgo County.

Goals and Relationship to Regional Goals:
This project has the following goals:

- To create a Family Medicine Residency program with residents, graduates, and faculty members who will increase patients' access to care;
- To create and implement an innovative curriculum that incorporates population health management, chronic disease management, and clinical safety and effectiveness training;
- To transition Doctors Hospital at Renaissance to be a primary teaching hospital for UTHSCSA RAHC in South Texas;
- To create a Family Practice Center for the residency program to focus on transitions of care, reduce hospital readmissions and function as a patient-centered medical home;
- To conduct quality improvement projects to continuously improve clinical outcomes and efficiency; and
- To collaborate with other new and expanding residency training programs in the region to transform the delivery system for the South Texas community.

This project meets the following regional goals:

- By combining the resources of DHR as a major safety net hospital and The University of Texas, leverage and improve on existing programs and infrastructure to ensure that the health care delivery system will be adequately developed to meet the primary care needs of residents throughout a rapidly growing, yet historically underserved region.
- Increase access to primary care services in the short-term with new faculty, in the intermediate term with resident trainees, and in the long-term with graduate physicians, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition.
- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of technology and best-practices to improve access and timely utilization of appropriate care.
- Transform health care delivery to a patient-centered, coordinated and integrated delivery model that improves patient satisfaction and health outcomes, reduces unnecessary emergency department use and duplicative services, and expands on the existing health care system.

Challenges and issues:
Creating a new residency program from the ground up is time consuming and requires approval of the Accreditation Council on Graduate Medical Education (ACGME). The Family Medicine Residency Review Committee (FM-RRC) meets to review proposals only a few times each year. Residency programs must be either near-approval or accredited before the programs can begin to recruit fourth-year medical students who will enter the residency training program in the following academic year.

Addressing the challenges:
DHR will partner with UTHSCSA RAHC. UTHSCSA RAHC will provide the Program Director and core faculty for the Family Medicine Residency Program. UTHSCSA faculty and staff have extensive experience with the accreditation process. DHR and UTHSCSA will work together collaboratively to establish an innovative curriculum including the patient-centered medical home model and chronic care disease management to address the unique needs of RHP5.

5-year expected outcome for Performing Provider and patients:
By the end of the Demonstration Period in September 2016, DHR will be well on the road to establishing itself as a teaching hospital. The second cohort of four to six Family Medicine residents will have joined the initial cohort of four to six residents who start in July 2015. The initial cohort of residents will complete the program and enter practice in 2018. Supervised residents will begin providing care to patients in 2015. The Program Directors and core faculty members will dedicate 25-50% of their time to clinical care. Primary care capacity and patients' access to primary care will increase as the program matures to full, maximum build-out of 18 Family Medicine residents at DHR (6 PG1; 6 PG2; and 6 PG3).

STARTING POINT/BASELINE

DHR currently hosts no residency programs. In all of RHP 5, existing residency training programs include an internal medicine program with 15 residents at Valley Baptist in Cameron County and a family medicine program with 18 residents at McAllen Medical Center.

RATIONALE

In 2010, Texas had 176 patient care physicians per 100,000 population and 70 primary care physicians per 100,000 population with a state ranking of 46 and 47, respectively. (Comparable ratios for US Total are 219.5 and 90.5, respectively.) From 2001 to 2011, the Texas physician workforce grew 32.3%, exceeding the population growth of 25.1%. Primary care physician workforce, however, grew only 25% in the same period. From 2002 to 2011, Texas increased medical school enrollment 31% from 1,342 to 1,762, in line with the national call by the Association of American Medical Colleges to increase medical school enrollments by 30%. In 2011, there were 1,445 medical school graduates. Coincidentally, there were 1,445 allopathic entry-level GME positions offered in Texas in the annual National Resident Matching program. (There were 31 osteopathic slots.) The Texas Higher Education Coordinating Board recommends a ratio of 1.1 entry-level GME positions for each Texas medical school graduate. The number of Texas medical school graduates is expected to peak at over 1,700 in 2015. This implies a need for 400 additional GME positions in 2015. The shortage of GME positions or residency slots may be the single most problematic bottleneck in Texas' efforts to alleviate the state's physician shortage.

In South Texas excluding Bexar County, there are only 43 primary care physicians per 100,000 population, according to an April 2012 report by the Texas Higher Education Coordinating Board. This compares to 65 per 100,000 for greater South Texas including Bexar County and 78 per 100,000 for Central Texas.

The University of Texas' Board of Regents and the Texas Legislature have authorized the development of UTHSCSA RAHC into a future medical school in RHP 5. The first cohort of students for the South Texas medical school will matriculate in the fall of 2014 in San Antonio, later transitioning to and graduating from an independent, freestanding regional medical school in South Texas. In order to retain the future graduates of the new medical school in RHP 5 for eventual community practice, new residency training programs must be established and existing programs must be expanded. The *2011 State Physician Workforce Data Book* published by the Association of American Medical Colleges Center for Workforce Studies shows that among students who complete both their undergraduate and graduate medical education in Texas, 80.2% remained in the state to practice. In Texas, combining the effect of in-state graduate medical education with in-state undergraduate medical education increases the retention rate by approximately twenty percentage points.

Project components:

This project has several components:

- Identify high impact services and gaps in care and coordination
- Recruit Family Medicine Program Directors and core faculty
- Create innovative curriculum including population health management, chronic disease registries, team-based community care, data analytics, and quality improvement projects using the PDSA and other methodologies contained in the UT System CS&E course

- Develop and organize inpatient and ambulatory clinical training/patient care opportunities for Family Medicine resident education at DHR
- Complete and submit the Program Information Form (PIF) to the RRC
- Attain ACGME approval for the program
- Recruit and enroll Family Medicine residents

Unique community need identification number the project addresses:

- CN.1 – Shortage of primary and specialty care providers and inadequate access to primary or preventive care

How the project represents a new initiative or significantly enhances an existing delivery system reform initiative:
Currently, RHP 5 has no teaching hospital, and no residency training programs exist at DHR. The faculty for the Family Medicine residency program at DHR will collaborate with the faculty for the other new training programs at DHR as well as with the faculty for the new and existing residency programs at other hospitals in RHP 5.

Data Driving this Project:
The need for enhanced primary care in this health disparity population is difficult to overstate and is extensively documented. Data published by the United States Census Bureau in 2012 show that 88.1% (Cameron County) and 90.7% (Hidalgo County) of the population is Mexican American or Latino in origin and that 34.7% live below the poverty line (compared with 16.8% for Texas and 13.8% nationally: http://quickfacts.census.gov/qfd/states/00000.html). Currently only 31.4% of RHP5 citizens have insurance of any kind, more than half of which is Medicare or Medicaid. Obesity is the underlying and exacerbating issue. Published data (Fisher-Hoch et al, 2012) from our locally recruited, randomized community cohort show that the prevalence of obesity is 48.5% and that 8.0% are morbidly obese. The prevalence of diabetes is an alarming 30.7% in adults 18 years or over. Eighty-four percent of those with hypertension are diagnosed, but only half of those with diabetes or hypercholesterolemia are diagnosed and under care. Many participants with diabetes (55.5%) and hypertension (50.0%) are untreated as are 85% of those with hypercholesterolemia. Multiple complications of diabetes and obesity include renal failure requiring dialysis, and heart failure, and at least 12% have evidence of liver disease associated with obesity and diabetes leading to liver failure and liver cancer.

Related Category 3 Outcome Measure(s):
OD-14 Primary Care Workforce

Stand-alone:
IT - 14.1 Number of practicing primary care physicians per 100,000 individuals in HPSA or MUA

Non-stand-alone but related: Bundle of 3:
IT - 14.6 Percent of trainees who have spent at least 5 years living in a health-professional shortage area (HPSA) or medically underserved area (MUA)

IT - 14.7 Percent of trainees who report that they plan to practice in HPSAs or MUAs based on a systematic survey
IT – 14.8 Percent of trainees who report that they plan to serve Medicaid populations based on a systematic survey

Rationale for selecting the outcome measures:
It is challenging to select outcome measures in the early stages of planning the residency program, given the lack of clarity and complete plans about when and where faculty will practice, the part-time nature of that practice, and the fact that three or more years of training are required before the first-matriculated residents will begin independent clinic practice.

Because the Program Directors and core faculty will be recruited and in place even before the programs are accredited and will dedicate 25-50% of their time to clinical care, they will have an impact on the number of practicing primary care physicians per 100,000 individuals in RHP 5.

Relationship to other Projects:
This project is related to the following DHR projects:

- 160709501.1.1 Establish Primary Care/Internal Medicine Training Program;
- 160709501.1.3 Establish Primary Care/Obstetrics & Gynecology Training Program; and
- 160709501.1.4 Expand high impact specialty care capacity in most impacted medical specialties (Establish General Surgery Training Program).

Relationship to Other Performing Providers' Projects in the RHP:
The project is related to UTHSCSA's Projects in RHP 5:

- 085144601.1.1 Expand Primary Care/Internal Medicine Training Program at Valley Baptist - Harlingen;
- 085144601.1.2 Expand high impact specialty care capacity in Behavioral Health at Valley Baptist - Brownsville; and
- 085144601.1.3 Increase faculty to support an expanded Family Medicine residency program at McAllen Medical Center.

Plan for Learning Collaborative:
All of the new and existing residency training programs in RHP 5 will be/are directed by UTHSCSA faculty. The University of Texas System and UTHSCSA, specifically, have a nationally known Clinical Safety & Effectiveness (CS&E) training program embedded in their medical schools and clinical facilities. CS&E is a training course with PDSA at the heart of the curriculum; a strategic improvement project is required as part of the course. Many faculty and staff adopt CS&E into their ongoing activities after graduation from the training. In addition, UTHSCSA requires all new resident trainees to complete the core curriculum of the IHI Open School prior to joining the training programs. All of the residency training programs will feature innovative curriculum components focused on population health management, team-based community care, the use of chronic disease registries, and the application of data analytics. The Program Directors will meet quarterly to discuss and share quality improvement efforts within the context of the CS&E program as well as the common core curriculum components related to population health management, chronic disease registries, team-based community care, and data analytics.

Project Valuation:
DHR has chosen to dedicate the majority of Pass One allocation to the four new residency training programs and the related Category 3 metrics in keeping with its strategic plan to become the primary teaching hospital for the South Texas region and in Hidalgo County. South Texas has historically been a medically underserved area. The University of Texas System has committed to expand medical education in South Texas and graduate the first class of medical students in 2018. These graduates will be far more likely to stay and practice in South Texas if they complete their residency training programs locally. The DHR residency projects, along with the other new and expanding residency projects can transform the medical community and the healthcare delivery system in South Texas. With innovative curricula designed to meet community needs, UT faculty will train new physicians for practice, engage community physicians as preceptors, and embed the UT Clinical Safety & Effectiveness program in local hospitals.

Unique Identifier: 160709501.1.2	Reference Number: 1.2.4	Project Component(s):	Establish Primary Care/Family Medicine Training Program	
Performing Provider Name: Doctors Hospital at Renaissance				TPI - 160709501
Related Category 3 Outcome Measure(s):	160709501.3.2	IT-14.1	Number of practicing primary care physicians per 100,000	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1 [P-1]: Conduct a primary care gap analysis to determine workforce needs. Metric 1 [P-1.1]: Gap assessment of workforce shortages and delivery system, i.e., patient-centered medical homes, disease registries, HIE. Goal: Produce a comprehensive report documenting existing and needed primary care resources. Data Source: Assessment results. Milestone 1 Estimated Incentive Payment: $1,193,867 **Milestone 2** [P-2]: Expand primary care training for primary care physicians. Metric 1 [P-2.X]: Hire the Program Director, Associate Program Director, and two Core Faculty members by 7/1/2013. Baseline: At the beginning of DY 2, no faculty are in place for the residency program. Goal: Build the founding faculty infrastructure for the residency to begin the accreditation process. Data Source: Human Resources documents. Milestone 2 Estimated Incentive Payment: $1,193,867	**Milestone 3** [P-2]: Expand primary care training for primary care physicians. Metric 1 [P-2.1]: Expand the primary care residency training programs. Baseline: Program does not exist at beginning of DY 2. Goal: Program Information Form (PIF) to be submitted by no later than 2/2014 for Residency Review Committee (RRC) 10/2014 meeting Data Source: Training program documentation. Metric 2 [P-2.2.]: Hire additional precepting faculty members in various specialties, as required for accredited programs. Baseline: At the beginning of DY 2, no faculty are in place for the residency program. Goal: Increased training faculty members. Data Source: Human Resources documents. Milestone 3 Estimated Incentive Payment: $787,228 **Milestone 4** [P-9]: Develop/disseminate clinical teaching tools for primary care. Metric 1 [P-9.1]: Clinical teaching tools. Baseline: No clinical teaching tools exist at the beginning of DY2. Goal:		**Milestone 7** [P-10]: Obtain approval from the Accreditation Council for Graduate Medical Education (ACGME) to increase the number of primary care residents. Metric 1 [P-10.1]: Documentation of ACGME approval for residency program accreditation and position expansion. Baseline : No accredited residency program exists at the beginning of DY 2. Goal: ACGME approval. Data Source: ACGME documentation. Milestone 7 Estimated Incentive Payment: $801,163 **Milestone 8** [P-3]: Expand positive primary care exposure for residents. Metric 1 [P-3.1] Develop mentoring program with practicing primary care physicians/faculty and new residents. Baseline: No mentoring program exists currently. Goal: Develop mentoring program for residents with practicing primary care physicians. Data Source: Mentoring program curriculum and/or program participant list. Metric 2 [P-3.2] Train residents in the medical home model, chronic care model and/or disease registry use; have primary care trainees	**Milestone 11** [I-11]: Increase primary care training and/or rotations. Metric 1 [I-11.4]: Increase the number of primary care residents and/or trainees, as measured by absolute number over baseline. Baseline: No residents prior to DY2 or in DY2-3. Cohort 1 begins in DY 4. Goal: Enroll second cohort of 4 as of 7/15/2015. Total residents in Cohorts 1 and 2 = 8. Data Source: Program enrollment records. Metric 2 [I-11.2]: Increase the number of primary care trainees rotating at the Performing Provider's facilities. Baseline: No residents prior to DY2 or in DY2-3. Goal: Enroll second cohort of 4 as of 7/15/2015. Total residents in Cohorts 1 and 2 = 8. Data Source: Program enrollment records. Milestone 11 Estimated Incentive Payment: $527,556 **Milestone 12** [I-15]: Increase primary care training in Family Practice Center. Metric 1 [I-15.1]: Increase number of Family Practice Center sessions available for primary care residents. Baseline: No training program or

68

Unique Identifier: 160709501.1.2	Reference Number: 1.2.4	Project Component(s):	Establish Primary Care/Family Medicine Training Program	
Performing Provider Name: Doctors Hospital at Renaissance				TPI - 160709501
Related Category 3 Outcome Measure(s):	160709501.3.2	IT-14.1	Number of practicing primary care physicians per 100,000	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
	Documentation and dissemination of clinical teaching tools. Data source: Clinical teaching tools documents/ materials. Milestone 4 Estimated Incentive Payment: $787,228 **Milestone 5** [P-8] Establish a faculty development program. Metric 1 [P-8.1] Enrollment of faculty staff into primary care education and training program. Baseline: No faculty development program exists currently. Goal: Better prepared faculty will create a better training program. Data Source: Program documents. Milestone 5 Estimated Incentive Payment: $787,228 **Milestone 6** [I-14] Increase the number of faculty staff completing educational courses. Metric 1 [I-14.1] Number of faculty staff completing Clinical Safety & Effectiveness (CS&E) course. Baseline: No faculty in place or trained in CS&E as of DY2. Goal: Two faculty members complete the CS&E training. Data Source: Program records. Milestone 6 Estimated Incentive Payment: $787,229		participate in medical homes by managing panels. Baseline: No training exists currently. Goal: Primary care training program should reflect evolving delivery models. Data Source: Curriculum, rotation hours, and/or patient panels assigned to residents. Metric 3 [P-3.3] Include residents in quality improvement projects. Baseline: No training exists currently. Goal: Resident participation in QI efforts. Data source: Curriculum or QI project documentation. Milestone 8 Estimated Incentive Payment: $801,163 **Milestone 9** [I-11]: Increase primary care training and/or rotations. Metric 1 [I-11.4]: Increase the number of primary care residents, as measured by absolute number over baseline. Baseline: No residents prior to DY2 or in DY2-3. Goal: Enroll first cohort of 4 residents as of 7/15/2015. Data Source: Program enrollment records. Metric 2 [I-11.2]: Increase the number of primary care trainees rotating at the Performing Provider's facilities. Baseline: No residents prior to DY2	Family Practice Center in DY2. Goal: Documented increase over baseline and as compared to DY 4. Data Source: Number of resident office visits from EHR or claims data. Metric 2 [I-15.2]: Increase number of patients assigned to primary care residents' panels. Baseline: No training program or Family Practice Center in DY2. Goal: Documented increase over baseline and as compared to DY 4. Data Source: Patient panel, registry, or EHR. Milestone 12 Estimated Incentive Payment: $527,555 **Milestone 13** [P-4] Develop and implement a curriculum for residents to use their practice data to demonstrate skills in quality assessment and improvement. Baseline: no curriculum exists in DY2. Goal: Provide training and practicum opportunity for residents to master QI methodology. Metric 1 [P-4.1] Quality assessment and improvement curriculum and practicum for residents. Data Source: Curriculum and practicum documentation. Milestone 13 Estimated Incentive

69

Unique Identifier: 160709501.1.2	*Reference Number:* 1.2.4	*Project Component(s):*	*Establish Primary Care/Family Medicine Training Program*	
Performing Provider Name: Doctors Hospital at Renaissance				TPI - 160709501
Related Category 3 Outcome Measure(s):	160709501.3.2	IT-14.1	Number of practicing primary care physicians per 100,000	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
			or in DY2-3. Goal: 4 PY1 trainees in rotation at DHR. Data Source: Resident training schedule. Milestone 9 Estimated Incentive Payment: $801,163 **Milestone 10** [I-14] Increase the number of faculty staff completing educational courses. Metric 1 [I-14.1] Number of faculty staff completing Clinical Safety & Effectiveness (CS&E) course. Baseline: No faculty in place or trained in CS&E as of DY2. Goal: Two faculty members complete the CS&E training. Data Source: Program records. Milestone 10 Estimated Incentive Payment: $801,162	Payment: $527,556 **Milestone 14** [I-14] Increase the number of faculty staff completing educational courses. Metric 1 [I-14.1] Number of faculty staff completing Clinical Safety & Effectiveness (CS&E) course. Baseline: No faculty in place or trained in CS&E as of DY2. Goal: Two faculty members complete the CS&E training. Data Source: Program records. Milestone 14 Estimated Incentive Payment: $527,555
Year 2 Estimated Milestone Bundle Amount: $2,387,734	Year 3 Estimated Milestone Bundle Amount: $3,148,913		Year 4 Estimated Milestone Bundle Amount: $3,204,651	Year 5 Estimated Milestone Bundle Amount: $2,110,222
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $10,851,520				

70

Title: Establish Primary Care/Obstetrics & Gynecology Residency Training Program
Unique Project ID: 160709501.1.3
Performing Provider/TPI: Doctors Hospital at Renaissance / 160709501
Project Option 1.2.4

PROJECT DESCRIPTION:
Doctors Hospital at Renaissance proposes to establish a primary care/Obstetrics & Gynecology residency training program.

This project is designed to improve patient access to primary care by increasing the physician workforce in RHP 5, a designated health care provider shortage area (HPSA). Doctors Hospital at Renaissance (DHR) will establish a new primary care/Obstetrics & Gynecology residency training program in partnership with The University of Texas Health Science Center at San Antonio's Regional Academic Health Center (UTHSCSA RAHC). The resident trainees, the graduates, and the new faculty will expand the workforce, allaying the shortage of primary care providers thereby reducing delays in care seeking, reducing inappropriate and costly emergency department utilization, and increasing patient satisfaction.

When fully implemented in 2019, the new Obstetrics & Gynecology residency will have the capacity to train as many as 16 residents – 4 residents in each of four classes. The DHR Obstetrics & Gynecology residency training program will complement other new residency programs at DHR in Internal Medicine, Family Medicine, and General Surgery to fulfill DHR's goal to become a teaching hospital for the region. DHR's new Obstetrics & Gynecology residency training program will also complement the existing and expanding Internal Medicine residency training program and the new Psychiatry and General Surgery residency training programs at Valley Baptist in Cameron County. The DHR program will also complement the existing UTHSCSA Family Medicine program affiliated with McAllen Medical Center in Hidalgo County.

Goals and Relationship to Regional Goals:
This project has the following goals:

- To create an Obstetrics & Gynecology Residency program with residents, graduates, and faculty members who will increase patients' access to care;
- To create and implement an innovative curriculum that incorporates population health management, chronic disease management, and clinical safety and effectiveness training;
- To transition Doctors Hospital at Renaissance to be a primary teaching hospital for UTHSCSA RAHC in South Texas;
- To create a continuity clinic for the residency program to focus on women's health, perinatal care, and transitions of care, reduce hospital readmissions and function as a patient-centered medical home;
- To conduct quality improvement projects to continuously improve clinical outcomes and efficiency; and
- To collaborate with other new and expanding residency training programs in the region to transform the delivery system for the South Texas community.

This project meets the following regional goals:

- By combining the resources of DHR as a major safety net hospital and The University of Texas, leverage and improve on existing programs and infrastructure to ensure that the health care delivery system will be adequately developed to meet the primary care needs of residents throughout a rapidly growing, yet historically underserved region.
- Increase access to primary care services in the short-term with new faculty, in the intermediate term with resident trainees, and in the long-term with graduate physicians, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition.
- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of technology and best-practices to improve access and timely utilization of appropriate care.
- Transform health care delivery to a patient-centered, coordinated and integrated delivery model that improves patient satisfaction and health outcomes, reduces unnecessary emergency department use and duplicative services, and expands on the existing health care system.

Challenges and issues:
Creating a new residency program from the ground up is time consuming and requires approval of the Accreditation Council on Graduate Medical Education (ACGME). The Obstetrics & Gynecology Residency Review Committee (OG-RRC) meets to review proposals only a few times each year. Residency programs must be either near-approval or accredited before the programs can begin to recruit fourth-year medical students who will enter the residency training program in the following academic year.

Addressing the challenges:
DHR will partner with UTHSCSA RAHC. UTHSCSA RAHC will provide the Program Director and core faculty for the Obstetrics & Gynecology Residency Program. UTHSCSA faculty and staff have extensive experience with the accreditation process. DHR and UTHSCSA will work together collaboratively to establish an innovative curriculum including the patient-centered medical home model and chronic care disease management to address the unique needs of RHP5.

5-year expected outcome for Performing Provider and patients:
By the end of the Demonstration Period in September 2016, DHR will be well on the road to establishing itself as a teaching hospital. The second cohort of three to four Obstetrics & Gynecology residents will have joined the initial cohort of three to four residents who start in July 2015. The initial cohort of residents will complete the program and enter practice in 2019. Supervised residents will begin providing care to patients in 2015. The Program Directors and core faculty members will dedicate 25-50% of their time to clinical care. Primary care capacity and patients' access to primary care will increase as the program matures to full, maximum build-out of 16 Obstetrics & Gynecology residents at DHR (4 PG1, 4 PG2, 4 PG 3, and 4 PG4).

STARTING POINT/BASELINE

DHR currently hosts no residency programs. In all of RHP 5, existing residency training programs include an internal medicine program with 15 residents at Valley Baptist in Cameron County and a family medicine program with 18 residents at McAllen Medical Center.

RATIONALE

In 2010, Texas had 176 patient care physicians per 100,000 population and 70 primary care physicians per 100,000 population with a state ranking of 46 and 47, respectively. (Comparable ratios for US Total are 219.5 and 90.5, respectively.) From 2001 to 2011, the Texas physician workforce grew 32.3%, exceeding the population growth of 25.1%. Primary care physician workforce, however, grew only 25% in the same period. From 2002 to 2011, Texas increased medical school enrollment 31% from 1,342 to 1,762, in line with the national call by the Association of American Medical Colleges to increase medical school enrollments by 30%. In 2011, there were 1,445 medical school graduates. Coincidentally, there were 1,445 allopathic entry-level GME positions offered in Texas in the annual National Resident Matching program. (There were 31 osteopathic slots.) The Texas Higher Education Coordinating Board recommends a ratio of 1.1 entry-level GME positions for each Texas medical school graduate. The number of Texas medical school graduates is expected to peak at over 1,700 in 2015. This implies a need for 400 additional GME positions in 2015. The shortage of GME positions or residency slots may be the single most problematic bottleneck in Texas' efforts to alleviate the state's physician shortage.

In South Texas excluding Bexar County, there are only 43 primary care physicians per 100,000 population, according to an April 2012 report by the Texas Higher Education Coordinating Board. This compares to 65 per 100,000 for greater South Texas including Bexar County and 78 per 100,000 for Central Texas.

The University of Texas' Board of Regents and the Texas Legislature have authorized the development of UTHSCSA RAHC into a future medical school in RHP 5. The first cohort of students for the South Texas medical school will matriculate in the fall of 2014 in San Antonio, later transitioning to and graduating from an independent, freestanding regional medical school in South Texas. In order to retain the future graduates of the new medical school in RHP 5 for eventual community practice, new residency training programs must be established and existing programs must be expanded. The *2011 State Physician Workforce Data Book* published by the Association of American Medical Colleges Center for Workforce Studies shows that among students who complete both their undergraduate and graduate medical education in Texas, 80.2% remained in the state to practice. In Texas, combining the effect of in-state graduate medical education with in-state undergraduate medical education increases the retention rate by approximately twenty percentage points.

Project components:

This project has several components:

- Identify high impact services and gaps in care and coordination
- Recruit Obstetrics & Gynecology Program Directors and core faculty

- Create innovative curriculum including population health management, chronic disease registries, team-based community care, data analytics, and quality improvement projects using the PDSA and other methodologies contained in the UT System CS&E course
- Develop and organize inpatient and ambulatory clinical training/patient care opportunities for Obstetrics & Gynecology resident education at DHR
- Complete and submit the Program Information Form (PIF) to the RRC
- Attain ACGME approval for the program
- Recruit and enroll Obstetrics & Gynecology residents

Unique community need identification number the project addresses:

- CN.1 – Shortage of primary and specialty care providers and inadequate access to primary or preventive care

How the project represents a new initiative or significantly enhances an existing delivery system reform initiative:
Currently, RHP 5 has no teaching hospital, and no residency training programs exist at DHR. The faculty for the Obstetrics & Gynecology residency program at DHR will collaborate with the faculty for the other new training programs at DHR as well as with the faculty for the new and existing residency programs in RHP 5.

Data Driving this Project:
The need for enhanced primary care in this health disparity population is difficult to overstate and is extensively documented. Data published by the United States Census Bureau in 2012 show that 88.1% (Cameron County) and 90.7% (Hidalgo County) of the population is Mexican American or Latino in origin and that 34.7% live below the poverty line (compared with 16.8% for Texas and 13.8% nationally: http://quickfacts.census.gov/qfd/states/00000.html). Currently only 31.4% of RHP5 citizens have insurance of any kind, more than half of which is Medicare or Medicaid. Obesity is the underlying and exacerbating issue. Published data (Fisher-Hoch et al, 2012) from our locally recruited, randomized community cohort show that the prevalence of obesity is 48.5% and that 8.0% are morbidly obese. The prevalence of diabetes is an alarming 30.7% in adults 18 years or over. Eighty-four percent of those with hypertension are diagnosed, but only half of those with diabetes or hypercholesterolemia are diagnosed and under care. Many participants with diabetes (55.5%) and hypertension (50.0%) are untreated as are 85% of those with hypercholesterolemia. Multiple complications of diabetes and obesity include renal failure requiring dialysis, and heart failure, and at least 12% have evidence of liver disease associated with obesity and diabetes leading to liver failure and liver cancer.

Related Category 3 Outcome Measure(s):
OD-14 Primary Care Workforce

Stand-alone:
IT - 14.1 Number of practicing primary care physicians per 100,000 individuals in HPSA or MUA

Non-stand-alone but related: Bundle of 3:

IT - 14.6 Percent of trainees who have spent at least 5 years living in a health-professional shortage area (HPSA) or medically underserved area (MUA)
IT - 14.7 Percent of trainees who report that they plan to practice in HPSAs or MUAs based on a systematic survey
IT – 14.8 Percent of trainees who report that they plan to serve Medicaid populations based on a systematic survey

Rationale for selecting the outcome measures:
It is challenging to select outcome measures in the early stages of planning the residency program, given the lack of clarity and complete plans about when and where faculty will practice, the part-time nature of that practice, and the fact that three or more years of training are required before the first-matriculated residents will begin independent clinic practice.

Because the Program Directors and core faculty will be recruited and in place even before the programs are accredited and will dedicate 25-50% of their time to clinical care, they will have an impact on the number of practicing primary care physicians per 100,000 individuals in RHP 5.

Relationship to other Projects:
This project is related to the following DHR projects:

- 160709501.1.1 Establish Primary Care/Internal Medicine Training Program;
- 160709501.1.2 Establish Primary Care/ Family Medicine Training Program; and
- 160709501.1.4 Expand high impact specialty care capacity in most impacted medical specialties (Establish General Surgery Training Program).

Relationship to Other Performing Providers' Projects in the RHP:
The project is related to UTHSCSA's Projects in RHP 5:

- 085144601.1.1 Expand Primary Care/Internal Medicine Training Program at Valley Baptist - Harlingen;
- 085144601.1.2 Expand high impact specialty care capacity in Behavioral Health at Valley Baptist - Brownsville; and
- 085144601.1.3 Increase faculty to support an expanded Family Medicine residency program at McAllen Medical Center.

Plan for Learning Collaborative:
All of the new and existing residency training programs in RHP 5 will be/are directed by UTHSCSA faculty. The University of Texas System and UTHSCSA, specifically, have a nationally known Clinical Safety & Effectiveness (CS&E) training program embedded in their medical schools and clinical facilities. CS&E is a training course with PDSA at the heart of the curriculum; a strategic improvement project is required as part of the course. Many faculty and staff adopt CS&E into their ongoing activities after graduation from the training. In addition, UTHSCSA requires all new resident trainees to complete the core curriculum of the IHI Open School prior to joining the training programs. All of the residency training programs will feature innovative curriculum components focused on population health management, team-based community care, the use of chronic disease registries, and the application of data analytics. The Program Directors will meet quarterly to discuss and share quality improvement efforts within the context of the CS&E program as well as the common core

curriculum components related to population health management, chronic disease registries, team-based community care, and data analytics.

Project Valuation:
DHR has chosen to dedicate the majority of its Pass One allocation to the four new residency training programs and the related Category 3 metrics in keeping with its strategic plan to become the primary teaching hospital for the South Texas region and in Hidalgo County. South Texas has historically been a medically underserved area. The University of Texas System has committed to expand medical education in South Texas and graduate the first class of medical students in 2018. These graduates will be far more likely to stay and practice in South Texas if they complete their residency training programs locally. The DHR residency projects, along with the other new and expanding residency projects can transform the medical community and the healthcare delivery system in South Texas. With innovative curricula designed to meet community needs, UT faculty will train new physicians for practice, engage community physicians as preceptors, and embed the UT Clinical Safety & Effectiveness program in local hospitals.

Unique Identifier: 160709501.1.3	Reference Number: 1.2.4	Project Component(s):	Establish primary care/Obstetrics & Gynecology Training Program	
Performing Provider Name: Doctors Hospital at Renaissance				TPI: 160709501
Related Category 3 Outcome Measure(s):	160709501.3.3	IT-14.1	Number of practicing primary care physicians per 100,000	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1 [P-1]: Conduct a primary care gap analysis to determine workforce needs. Metric 1 [P-1.1]: Gap assessment of workforce shortages and delivery system, i.e., patient-centered medical homes, disease registries, HIE. Goal: Produce a comprehensive report documenting existing and needed primary care resources. Data Source: Assessment results. Milestone 1 Estimated Incentive Payment: $1,193,867 **Milestone 2** [P-2]: Expand primary care training for primary care physicians. Metric 1 [P-2.X]: Hire the Program Director, Associate Program Director, and two Core Faculty members by 7/1/2013. Baseline: At the beginning of DY 2, no faculty are in place for the residency program. Goal: Build founding faculty infrastructure for the residency to begin the accreditation process. Data Source: Human Resources documents. Milestone 2 Estimated Incentive Payment: $1,193,867	**Milestone 3** [P-2]: Expand primary care training for primary care physicians. Metric 1 [P-2.1]: Expand the primary care residency training programs. Baseline: Program does not exist at beginning of DY 2. Goal: Program Information Form (PIF) to be submitted by no later than 4/2014 for Residency Review Committee (RRC) 10/2014 meeting Data Source: Training program documentation. Metric 2 [P-2.2.]: Hire additional precepting faculty members in various specialties, as required for accredited programs. Baseline: At the beginning of DY 2, no faculty are in place for the residency program. Goal: Increased training faculty members. Data Source: Human Resources documents. Milestone 3 Estimated Incentive Payment: $787,228 **Milestone 4** [P-9]: Develop/disseminate clinical teaching tools for primary care. Metric 1 [P-9.1]: Clinical teaching tools. Baseline: No clinical teaching tools		**Milestone 7** [P-10]: Obtain approval from the Accreditation Council for Graduate Medical Education (ACGME) to increase the number of primary care residents. Metric 1 [P-10.1]: Documentation of ACGME approval for residency program accreditation and position expansion. Baseline : No accredited residency program exists at the beginning of DY 2. Goal: ACGME approval. Data Source: ACGME documentation. Milestone 7 Estimated Incentive Payment: $801,163 **Milestone 8** [P-3]: Expand positive primary care exposure for residents. Metric 1 [P-3.1] Develop mentoring program with practicing primary care physicians/faculty and new residents. Baseline: No mentoring program exists currently. Goal: Develop mentoring program for residents with practicing primary care physicians. Data Source: Mentoring program curriculum and/or program participant list. Metric 2 [P-3.2] Train residents in the medical home model, chronic care model and/or disease registry use; have primary care trainees	**Milestone 11** [I-11]: Increase primary care training and/or rotations. Metric 1 [I-11.4]: Increase the number of primary care residents and/or trainees, as measured by absolute number over baseline. Baseline: No residents prior to DY2 or in DY2-3. Cohort 1 begins in DY 4. Goal: Enroll second cohort of 3 as of 7/15/2015. Total residents in Cohorts 1 and 2 = 6. Data Source: Program enrollment records. Metric 2 [I-11.2]: Increase the number of primary care trainees rotating at the Performing Provider's facilities. Baseline: No residents prior to DY2 or in DY2-3. Goal: Enroll second cohort of 3 as of 7/15/2015. Total residents in Cohorts 1 and 2 = 6. Data Source: Program enrollment records. Milestone 11 Estimated Incentive Payment: $527,556 **Milestone 12** [I-15]: Increase primary care training in Continuity Clinics. Metric 1 [I-15.1]: Increase number of Continuity Clinic sessions available for primary care residents. Baseline: No training program or Continuity Clinic in DY2. Goal:

77

Unique Identifier: 160709501.1.3	Reference Number: 1.2.4	Project Component(s):	Establish primary care/Obstetrics & Gynecology Training Program	
Performing Provider Name: Doctors Hospital at Renaissance				TPI: 160709501
Related Category 3 Outcome Measure(s):	160709501.3.3	IT-14.1	Number of practicing primary care physicians per 100,000	

Year 2 (10/1/2012 – 9/30/2013)	Year 3 (10/1/2013 – 9/30/2014)	Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
	exist at the beginning of DY2. Goal: Documentation and dissemination of clinical teaching tools. Data source: Clinical teaching tools documents/materials. Milestone 4 Estimated Incentive Payment: $787,228 **Milestone 5** [P-8] Establish a faculty development program. Metric 1 [P-8.1] Enrollment of faculty staff into primary care education and training program. Baseline: No faculty development program exists currently. Goal: Better prepared faculty will create a better training program. Data Source: Program documents. Milestone 5 Estimated Incentive Payment: $787,228 **Milestone 6** [I-14] Increase the number of faculty staff completing educational courses. Metric 1 [I-14.1] Number of faculty staff completing Clinical Safety & Effectiveness (CS&E) course. Baseline: No faculty in place or trained in CS&E as of DY2. Goal: Two faculty members complete the CS&E training. Data Source: Program records.	participate in medical homes by managing panels. Baseline: No training exists currently. Goal: Primary care training program should reflect evolving delivery models. Data Source: Curriculum, rotation hours, and/or patient panels assigned to residents. Metric 3 [P-3.3] Include residents in quality improvement projects. Baseline: No training exists currently. Goal: Resident participation in QI efforts. Data source: Curriculum or QI project documentation. Milestone 8 Estimated Incentive Payment: $801,163 **Milestone 9** [I-11]: Increase primary care training and/or rotations. Metric 1 [I-11.4]: Increase the number of primary care residents, as measured by absolute number over baseline. Baseline: No residents prior to DY2 or in DY2-3. Goal: Enroll first cohort of 3 residents as of 7/15/2015. Data Source: Program enrollment records. Metric 2 [I-11.2]: Increase the number of primary care trainees rotating at the Performing Provider's facilities. Baseline: No residents prior to DY2	Documented increase over baseline and as compared to DY 4. Data Source: Number of resident office visits from EHR or claims data. Metric 2 [I-15.2]: Increase number of patients assigned to primary care residents' panels. Baseline: No training program or Continuity Clinic in DY2. Goal: Documented increase over baseline and as compared to DY 4. Data Source: Patient panel, registry, or EHR. Milestone 12 Estimated Incentive Payment: $527,555 **Milestone 13** [P-4] Develop and implement a curriculum for residents to use their practice data to demonstrate skills in quality assessment and improvement. Baseline: no curriculum exists in DY2. Goal: Provide training and practicum opportunity for residents to master QI methodology. Metric 1 [P-4.1] Quality assessment and improvement curriculum and practicum for residents. Data Source: Curriculum and practicum documentation. Milestone 13 Estimated Incentive Payment: $527,556

78

Unique Identifier: 160709501.1.3	*Reference Number:* 1.2.4	*Project Component(s):*	*Establish Primary Care/Obstetrics & Gynecology Training Program*	
Performing Provider Name: Doctors Hospital at Renaissance				TPI: 160709501
Related Category 3 Outcome Measure(s):	160709501.3.3	IT-14.1	Number of practicing primary care physicians per 100,000	
Year 2 (10/1/2012 – 9/30/2013)		**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
		Milestone 6 Estimated Incentive Payment: $787,229	or in DY2-3. Goal: 3 PY1 trainees in rotation at DHR. Data Source: Resident training schedule. Milestone 9 Estimated Incentive Payment: $801,163 **Milestone 10** [I-14] Increase the number of faculty staff completing educational courses. Metric 1 [I-14.1] Number of faculty staff completing Clinical Safety & Effectiveness (CS&E) course. Baseline: No faculty in place or trained in CS&E as of DY2. Goal: Two faculty members complete the CS&E training. Data Source: Program records. Milestone 10 Estimated Incentive Payment: $801,162	**Milestone 14** [I-14] Increase the number of faculty staff completing educational courses. Metric 1 [I-14.1] Number of faculty staff completing Clinical Safety & Effectiveness (CS&E) course. Baseline: No faculty in place or trained in CS&E as of DY2. Goal: Two faculty members complete the CS&E training. Data Source: Program records. Milestone 14 Estimated Incentive Payment: $527,555
Year 2 Estimated Milestone Bundle Amount: $2,387,734		Year 3 Estimated Milestone Bundle Amount: $3,148,913	Year 4 Estimated Milestone Bundle Amount: $3,204,651	Year 5 Estimated Milestone Bundle Amount: $2,110,222
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $10,851,520				

79

Title: Establish General Surgery Residency Training Program
Unique Project ID: 160709501.1.4
Performing Provider/TPI: Doctors Hospital at Renaissance / 160709501
Project Option 1.9.1

PROJECT DESCRIPTION:
Doctors Hospital at Renaissance proposes to expand specialty care capacity by establishing a General Surgery residency training program.

This project is designed to improve patient access to specialty care by increasing the physician workforce in RHP 5, a designated health care provider shortage area (HPSA). Doctors Hospital at Renaissance (DHR) will establish a new General Surgery residency training program in partnership with The University of Texas Health Science Center at San Antonio's Regional Academic Health Center (UTHSCSA RAHC). The resident trainees, the graduates, and the new faculty will expand the workforce, allaying the shortage of specialty care providers thereby reducing delays in care seeking, reducing inappropriate and costly emergency department utilization, and increasing patient satisfaction.

When fully implemented in 2020, the new General Surgery residency will have the capacity to train as many as 20 residents – 4 residents in each of five classes. The DHR General Surgery residency training program will complement other new residency programs at DHR in Internal Medicine, Family Medicine, and Obstetrics & Gynecology to fulfill DHR's goal to become a teaching hospital for the region. DHR's new General Surgery residency training program will also complement the existing and expanding Internal Medicine residency training program and the new Psychiatry and General Surgery residency training programs at Valley Baptist in Cameron County. The DHR program will also complement the existing UTHSCSA Family Medicine program affiliated with McAllen Medical Center in Hidalgo County.

Goals and Relationship to Regional Goals:
This project has the following goals:

- To create an General Surgery Residency program with residents, graduates, and faculty members who will increase patients' access to care;
- To create and implement an innovative curriculum that incorporates integration of primary care and specialty care and clinical safety and effectiveness training;
- To transition Doctors Hospital at Renaissance to be a primary teaching hospital for UTHSCSA RAHC in South Texas;
- To create a continuity clinic for the residency program to focus on transitions of care, reduce hospital readmissions and integrate with the patient-centered medical home;
- To conduct quality improvement projects to continuously improve clinical outcomes and efficiency; and
- To collaborate with other new and expanding residency training programs in the region to transform the delivery system for the South Texas community.

This project meets the following regional goals:

- By combining the resources of DHR as a major safety net hospital and The University of Texas, leverage and improve on existing programs and infrastructure to ensure that the health care delivery system will be adequately developed to meet the primary and specialty care needs of residents throughout a rapidly growing, yet historically underserved region.
- Increase access to specialty care services in the short-term with new faculty, in the intermediate term with resident trainees, and in the long-term with graduate physicians, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition.
- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of technology and best-practices to improve access and timely utilization of appropriate care.
- Transform health care delivery to a patient-centered, coordinated and integrated delivery model that improves patient satisfaction and health outcomes, reduces unnecessary emergency department use and duplicative services, and expands on the existing health care system.

Challenges and issues:
Creating a new residency program from the ground up is time consuming and requires approval of the Accreditation Council on Graduate Medical Education (ACGME). The General Surgery Residency Review Committee (GS-RRC) meets to review proposals only a few times each year. Residency programs must be either near-approval or accredited before the programs can begin to recruit fourth-year medical students who will enter the residency training program in the following academic year.

Addressing the challenges:
DHR will partner with UTHSCSA RAHC. UTHSCSA RAHC will provide the Program Director and core faculty for the General Surgery Residency Program. UTHSCSA faculty and staff have extensive experience with the accreditation process. DHR and UTHSCSA will work together collaboratively to establish an innovative curriculum including integrate primary and specialty care in the patient-centered medical home model and chronic care disease management to address the unique needs of RHP5.

5-year expected outcome for Performing Provider and patients:
By the end of the Demonstration Period in September 2016, DHR will be well on the road to establishing itself as a teaching hospital. The second cohort of three to four General Surgery residents will have joined the initial cohort of three to four residents who start in July 2015. The initial cohort of residents will complete the program and enter practice in 2020. Supervised residents will begin providing care to patients in 2015. The Program Directors and core faculty members will dedicate 25-50% of their time to clinical care. Specialty care capacity and patients' access to specialty care will increase as the program matures to full, maximum build-out of 20 General Surgery residents in RHP 5 (4 PG1, 4 PG2, 4 PG3, 4 PG4, and 4 PG5).

STARTING POINT/BASELINE

DHR currently hosts no residency programs. In all of RHP 5, existing residency training programs include an internal medicine program with 15 residents at Valley Baptist in Cameron County and a family medicine program with 18 residents at McAllen Medical Center.

RATIONALE

In 2010, Texas had 176 patient care physicians per 100,000 population and 70 primary care physicians per 100,000 population with a state ranking of 46 and 47, respectively. (Comparable ratios for US Total are 219.5 and 90.5, respectively.) From 2001 to 2011, the Texas physician workforce grew 32.3%, exceeding the population growth of 25.1%. Primary care physician workforce, however, grew only 25% in the same period. From 2002 to 2011, Texas increased medical school enrollment 31% from 1,342 to 1,762, in line with the national call by the Association of American Medical Colleges to increase medical school enrollments by 30%. In 2011, there were 1,445 medical school graduates. Coincidentally, there were 1,445 allopathic entry-level GME positions offered in Texas in the annual National Resident Matching program. (There were 31 osteopathic slots.) The Texas Higher Education Coordinating Board recommends a ratio of 1.1 entry-level GME positions for each Texas medical school graduate. The number of Texas medical school graduates is expected to peak at over 1,700 in 2015. This implies a need for 400 additional GME positions in 2015. The shortage of GME positions or residency slots may be the single most problematic bottleneck in Texas' efforts to alleviate the state's physician shortage.

In South Texas excluding Bexar County, there are only 43 primary care physicians per 100,000 population, according to an April 2012 report by the Texas Higher Education Coordinating Board. This compares to 65 per 100,000 for greater South Texas including Bexar County and 78 per 100,000 for Central Texas.

The University of Texas' Board of Regents and the Texas Legislature have authorized the development of UTHSCSA RAHC into a future medical school in RHP 5. The first cohort of students for the South Texas medical school will matriculate in the fall of 2014 in San Antonio, later transitioning to and graduating from an independent, freestanding regional medical school in South Texas. In order to retain the future graduates of the new medical school in RHP 5 for eventual community practice, new residency training programs must be established and existing programs must be expanded. The *2011 State Physician Workforce Data Book* published by the Association of American Medical Colleges Center for Workforce Studies shows that among students who complete both their undergraduate and graduate medical education in Texas, 80.2% remained in the state to practice. In Texas, combining the effect of in-state graduate medical education with in-state undergraduate medical education increases the retention rate by approximately twenty percentage points.

Project components:

This project has several components:

- Identify high impact services and gaps in care and coordination
- Recruit General Surgery Program Directors and core faculty
- Create innovative curriculum including population health management, chronic disease registries, team-based community care, data analytics, and quality improvement projects using the PDSA and other methodologies contained in the UT System CS&E course.

- Develop and organize inpatient and ambulatory clinical training/patient care opportunities for General Surgery Medicine resident education at DHR.
- Complete and submit the Program Information Form (PIF) to the RRC
- Attain ACGME approval for the program
- Recruit and enroll General Surgery residents

Unique community need identification number the project addresses:

- CN.1 – Shortage of primary and specialty care providers and inadequate access to primary or preventive care

How the project represents a new initiative or significantly enhances an existing delivery system reform initiative:
Currently, RHP 5 has no teaching hospital, and no residency training programs exist at DHR. The faculty for the General Surgery residency program at DHR will collaborate with the faculty for the other new training programs at DHR as well as with the faculty for the new and existing residency programs in RHP 5.

Data Driving this Project:
The need for enhanced specialty care in this health disparity population is difficult to overstate and is extensively documented. Data published by the United States Census Bureau in 2012 show that 88.1% (Cameron County) and 90.7% (Hidalgo County) of the population is Mexican American or Latino in origin and that 34.7% live below the poverty line (compared with 16.8% for Texas and 13.8% nationally: http://quickfacts.census.gov/qfd/states/00000.html). Currently only 31.4% of RHP 5 citizens have insurance of any kind, more than half of which is Medicare or Medicaid. Obesity is the underlying and exacerbating issue. Published data (Fisher-Hoch et al, 2012) from our locally recruited, randomized community cohort show that the prevalence of obesity is 48.5% and that 8.0% are morbidly obese. The prevalence of diabetes is an alarming 30.7% in adults 18 years or over. Eighty-four percent of those with hypertension are diagnosed, but only half of those with diabetes or hypercholesterolemia are diagnosed and under care. Many participants with diabetes (55.5%) and hypertension (50.0%) are untreated as are 85% of those with hypercholesterolemia. Multiple complications of diabetes and obesity include renal failure requiring dialysis, and heart failure, and at least 12% have evidence of liver disease associated with obesity and diabetes leading to liver failure and liver cancer.

Related Category 3 Outcome Measure(s):
OD-14 Physician Workforce

Stand-alone:
IT - 14.1 Number of practicing specialty care physicians per 100,000 individuals in HPSA or MUA

Non-stand-alone: Bundle of 3:
IT - 14.6 Percent of trainees who have spent at least 5 years living in a health-professional shortage area (HPSA) or medically underserved area (MUA)

IT - 14.7 Percent of trainees who report that they plan to practice in HPSAs or MUAs based on a systematic survey
IT – 14.8 Percent of trainees who report that they plan to serve Medicaid populations based on a systematic survey

Rationale for selecting the outcome measures:
It is challenging to select outcome measures in the early stages of planning the residency program, given the lack of clarity and complete plans about when and where faculty will practice, the part-time nature of that practice, and the fact that three or more years of training are required before the first-matriculated residents will begin independent clinic practice.

Because the Program Directors and core faculty will be recruited and in place even before the programs are accredited and will dedicate 25-50% of their time to clinical care, they will have an impact on the number of practicing specialty care physicians per 100,000 individuals in RHP 5.

Relationship to other Projects:
This project is related to the following DHR projects:

- 160709501.1.1 Establish Primary Care/Internal Medicine Training Program;
- 160709501.1.2 Establish Primary Care/Family Medicine Training Program; and
- 160709501.1.3 Establish Primary Care/Obstetrics & Gynecology Training Program.

Relationship to Other Performing Providers' Projects in the RHP:
The project is related to UTHSCSA's Projects in RHP 5:

- 085144601.1.1 Expand Primary Care/Internal Medicine Training Program at Valley Baptist - Harlingen;
- 085144601.1.2 Expand high impact specialty care capacity in Behavioral Health at Valley Baptist - Brownsville; and
- 085144601.1.3 Increase faculty to support an expanded Family Medicine residency program at McAllen Medical Center.

Plan for Learning Collaborative:
All of the new and existing residency training programs in RHP 5 will be/are directed by UTHSCSA faculty. The University of Texas System and UTHSCSA, specifically, have a nationally known Clinical Safety & Effectiveness (CS&E) training program embedded in their medical schools and clinical facilities. CS&E is a training course with PDSA at the heart of the curriculum; a strategic improvement project is required as part of the course. Many faculty and staff adopt CS&E into their ongoing activities after graduation from the training. In addition, UTHSCSA requires all new resident trainees to complete the core curriculum of the IHI Open School prior to joining the training programs. All of the residency training programs will feature innovative curriculum components focused on population health management, team-based community care, the use of chronic disease registries, and the application of data analytics. The Program Directors will meet quarterly to discuss and share quality improvement efforts within the context of the CS&E program as well as the common core curriculum components related to population health management, chronic disease registries, team-based community care, and data analytics.

Project Valuation:
DHR has chosen to dedicate the majority of its Pass One allocation to the four new residency training programs and the related Category 3 metrics in keeping with its strategic plan to become the primary teaching hospital for the South Texas region and in Hidalgo County. South Texas has historically been a medically underserved area. The University of Texas System has committed to expand medical education in South Texas and graduate the first class of medical students in 2018. These graduates will be far more likely to stay and practice in South Texas if they complete their residency training programs locally. The DHR residency projects, along with the other new and expanding residency projects can transform the medical community and the healthcare delivery system in South Texas. With innovative curricula designed to meet community needs, UT faculty will train new physicians for practice, engage community physicians as preceptors, and embed the UT Clinical Safety & Effectiveness program in local hospitals.

Unique Identifier: 160709501.1.4	*Reference Number:* 1.9.1	*Component(s):* 1.9.1 (A-D)	*Establish Specialty Care Training Program*	
Performing Provider Name: Doctors Hospital at Renaissance				TPI: 160709501
Related Category 3 Outcome Measure(s):	160709501.3.4	IT-14.1	Number of practicing specialty care physicians per 100,000	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1 [P-1]: Conduct specialty care gap assessment based on community need. Metric 1 [P-1.1]: Documentation of gap assessment. Goal: Produce a comprehensive report documenting existing and needed specialty care resources. Data Source: Assessment results. Milestone 1 Estimated Incentive Payment: $1,193,867 **Milestone 2** [P-14]: Expand targeted specialty care (TSC) training. Metric 1 [P-14.X]: Hire the Program Director, Associate Program Director, and two Core Faculty members by 7/1/2013. Baseline: At the beginning of DY 2, no faculty are in place for the residency program. Goal: Build founding faculty infrastructure for the residency to begin the accreditation process. Data Source: Human Resources documents. Milestone 2 Estimated Incentive Payment: $1,193,867	**Milestone 3** [P-14]: Expand targeted specialty care (TSC) training. Metric 1 [P-14.1]: Expand the TSC residency training program. Baseline: Program does not exist at beginning of DY 2. Goal: Program Information Form (PIF) to be submitted by no later than 5/2014 for Residency Review Committee (RRC) 11/2014 meeting Data Source: Training program documentation. Metric 2 [P-14.2.]: Hire additional precepting TSC faculty members. Baseline: At the beginning of DY 2, no faculty are in place for the residency program. Goal: Increased training faculty members. Data Source: Human Resources documents. Milestone 3 Estimated Incentive Payment: $787,228 **Milestone 4** [P-X]: Develop/disseminate clinical teaching tools for TSC training program. Metric 1 [P-X.1]: Clinical teaching tools. Baseline: No clinical teaching tools exist at the beginning of DY2. Goal: Documentation and dissemination of clinical teaching tools. Data source: Clinical teaching tools documents/		**Milestone 7** [P-16]: Obtain approval from the Accreditation Council for Graduate Medical Education (ACGME) to increase the number of TSC residents. Metric 1 [P-16.1]: Documentation of ACGME approval for residency program accreditation and position expansion. Baseline: No accredited residency program exists at the beginning of DY 2. Goal: ACGME approval. Data Source: ACGME documentation. Milestone 7 Estimated Incentive Payment: $801,163 **Milestone 8** [P-3]: [I-22] Increase the number of specialist providers, clinic hours and/or procedure hours available for General Surgery. Metric 1 [I-22.1] Increase the number of specialist providers, clinic hours and/or procedure hours available for General Surgery. Baseline: No faculty in place in DY2. Goal: Improvement in absolute numbers. Data Source: Program records. Milestone 8 Estimated Incentive Payment: $801,163 **Milestone 9** [I-31]: Increase TSC training and/or rotations.	**Milestone 11** [I-31]: Increase TSC training and/or rotations. Metric 1 [I-31.4]: Increase the number of TSC residents, as measured by absolute number over baseline. Baseline: No residents prior to DY2 or in DY2-3. Goal: Enroll first cohort of 3 residents as of 7/15/2015. Data Source: Program enrollment records. Metric 2 [I-31.2]: Increase the number of TSC trainees rotating at the Performing Provider's facilities. Baseline: No residents prior to DY2 or in DY2-3. Goal: 3 PY1 trainees in rotation at DHR. Data Source: Resident training schedule. Milestone 11 Estimated Incentive Payment: $527,555 **Milestone 12** [I-32]: Recruit/hire more trainees to TSC positions in the Performing Provider's facilities or practices. Metric 1 [I-32.1]: Percent change in number of trainees accepting positions in the Performing Provider's facilities or practices over baseline. Baseline: No trainees in DY2. Goal: Documented increase over baseline and as compared to DY 4. Data Source: Number of resident office

86

UNIQUE IDENTIFIER: 160709501.1.4	REFERENCE NUMBER: 1.9.1	COMPONENT(S): 1.9.1 (A-D)	ESTABLISH SPECIALTY CARE TRAINING PROGRAM	
Performing Provider Name: Doctors Hospital at Renaissance				TPI: 160709501
Related Category 3 Outcome Measure(s):	160709501.3.4	IT-14.1	Number of practicing specialty care physicians per 100,000	

Year 2 (10/1/2012 – 9/30/2013)	Year 3 (10/1/2013 – 9/30/2014)	Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
	materials. Milestone 4 Estimated Incentive Payment: $787,228 **Milestone 5** [P-12] Implement a specialty care access plan to include such components as statement of problem, background and methods, findings, implication of findings in short and long term, conclusions. Metric 1 [P-12.1] Documentation of specialty care access plan. Baseline: No baseline data exists currently. Goal: Better prepared faculty will create a better training program. Data Source: Plan documents. Milestone 5 Estimated Incentive Payment: $787,228 **Milestone 6** [I-22] Increase the number of specialist providers, clinic hours and/or procedure hours available for General Surgery. Metric 1 [I-22.1] Increase the number of specialist providers, clinic hours and/or procedure hours available for General Surgery. Baseline: No faculty in place in DY2. Goal: Improvement in absolute numbers. Data Source: Program records. Milestone 6 Estimated Incentive	Metric 1 [I-31.4]: Increase the number of TSC residents, as measured by absolute number over baseline. Baseline: No residents prior to DY2 or in DY2-3. Goal: Enroll first cohort of 3 residents as of 7/15/2015. Data Source: Program enrollment records. Metric 2 [I-31.2]: Increase the number of TSC trainees rotating at the Performing Provider's facilities. Baseline: No residents prior to DY2 or in DY2-3. Goal: 3 PY1 trainees in rotation at DHR. Data Source: Resident training schedule. Milestone 9 Estimated Incentive Payment: $801,163 **Milestone 10** [P-21] Participate in face-to-face learning at least twice per year with other providers and the RHP to promote collaborative learning around share or similar projects. Metric 1 [PI-21.1] Participate in semi-annual face-to-face meetings organized by the RHP (may be CS&E training sessions and/or project discussions). Baseline: No faculty in place or trained in CS&E as of DY2. Goal: Two face-to-face meetings per year. Data	visits from EHR or claims data. Milestone 12 Estimated Incentive Payment: $527,556 **Milestone 13** [P-X] Develop and implement a curriculum for residents to use their practice data to demonstrate skills in quality assessment and improvement. Baseline: No curriculum exists in DY2. Goal: Provide training and practicum opportunity for residents to master QI methodology. Metric 1 [P-X.1] Quality assessment and improvement curriculum and practicum for residents. Data Source: Curriculum and practicum documentation. Milestone 13 Estimated Incentive Payment: $527,555 **Milestone 14** [I-X] Increase the number of faculty staff completing educational courses. Metric 1 [I-X.1] Number of faculty staff completing Clinical Safety & Effectiveness (CS&E) course. Baseline: No faculty in place or trained in CS&E as of DY2. Goal: Two faculty members complete the CS&E training. Data Source: Program records. Milestone 14 Estimated Incentive

87

Unique Identifier: ***160709501.1.4***	***Reference number:*** ***1.9.1***	***Component(s):*** ***1.9.1 (a-d)***	***Establish specialty care Training Program***	
Performing Provider Name: Doctors Hospital at Renaissance				TPI: 160709501
Related Category 3 Outcome Measure(s):	160709501.3.4	IT-14.1	Number of practicing specialty care physicians per 100,000	
Year 2 (10/1/2012 – 9/30/2013)		**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
		Payment: $787,229	Source: Documentation of meetings including meeting agendas, slides from presentations, etc. Milestone 10 Estimated Incentive Payment: $801,162	Payment: $527,556
Year 2 Estimated Milestone Bundle Amount: $2,387,734		Year 3 Estimated Milestone Bundle Amount: $3,148,913	Year 4 Estimated Milestone Bundle Amount: $3,204,651	Year 5 Estimated Milestone Bundle Amount: $2,110,222
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $10,851,520				

88

Driscoll Children's Hospital – Category 1 Infrastructure Development

Project Title: Increase, Expand, and Enhance Oral Health Services
Unique ID: 132812205.1.1
Identifying Project and Provider Information: Driscoll Children's Hospital/132812205
Project Option 1.8.12: Other Project Option to implement an evidence-based intervention to enhance oral health services.

Project Description:
Driscoll Children's Hospital is a tertiary care regional referral center offering complex and comprehensive medical and surgical care for children. The hospital's medical staff is comprised of pediatric specialists in more than 32 medical and 13 surgical specialties. For nearly 60 years, Driscoll Children's Hospital has shown a commitment to pediatric healthcare for the children of South Texas. Through the generosity and vision of its founder, Clara Driscoll, the pediatric hospital became one of the first – and today still remains the only – free-standing children's hospital in South Texas. Remembering always our commitment to relieve suffering and meet the needs of children, it is the mission of Driscoll Children's Hospital to offer hope and healing in an environment of trust, compassion and care. Unique to our rural location, the population we serve in south Texas is one of the poorest in the United States. In FY 2012, Medicaid patients accounted for more than 70 percent of inpatient days (24,236) at Driscoll Children's Hospital --the highest percentage in Texas.

The hospital is part of the Driscoll Health System, a freestanding nonprofit system, which is also comprised of Driscoll Health Plan, Four Physician Groups (501(c)(3)'s comprised of pediatric subspecialists), The Driscoll Children's Hospital Auxiliary, and the Driscoll Children's Hospital Development Foundation. With the Hospital, Health Plan, and Pediatric Subspecialty Physician groups all under the Driscoll Health System umbrella, Driscoll is uniquely positioned to meet the health care needs of South Texas and to implement innovative, DRSIP projects that improve patient care and outcomes across the care continuum.

The DSRIP project will improve access to oral health services for children by significantly expanding a successful Oral Health project that provides pediatric preventive dental care and education to patients in a primary care provider's (PCP's) office. In the U.S., millions of children are predisposed to dental disease because of dietary, behavioral, and socio-environmental factors that overwhelm preventive interventions available to them. For children with extreme dental disease, dental caries frequently contribute to distracted behavior and associated poor educational performance. Chronically poor oral health is associated with failure to thrive in toddlers, compromised nutrition in children, and cardiac and obstetric dysfunctions in adulthood.

Today, Driscoll Children's Hospital collaborates with Driscoll Children's Health Plan and Primary Care Provider (PCP) to offer dental fluoride varnish treatments to Medicaid-enrolled children in the office of their PCP. By offering preventive dental care at the PCP office, more children will gain access to crucial preventative oral health care services, thereby reducing the incidence of serious oral health disease that often must be treated with surgery. The Pediatric Oral Health program provides children

in low-income households with a source of preventive and basic dental services while encouraging an ongoing relationship among PCP, parent, child, dentist, and dental program.

To further enhance the Oral Health Program, Driscoll Health System will form an Oral Health Services Task Force that will hold quality improvement meetings twice a year. The task force will be multidisciplinary in composition and will assess progress on the Oral Health services milestones and metrics. The task force meeting will serve as a structure for activity such as: identifying project impacts and "lessons learned", reviewing opportunities to adjust project target patient population, identifying any special considerations needed for safety-net populations, and reviewing challenges identified to date. Information identified in these meetings will be used to make improvements, adjustments, etc. to the Oral Health Services Project.

Project Goals and Challenges
Expanding access to education and preventive dental care to children in a PCP's office will improve and promote better oral health care for low-income children and help to prevent severe dental caries that often result in loss of teeth and surgical interventions.

By the end of year 5, the Oral Health project will accomplish the following:

- Increase, expand, and enhance oral health services performed by PCPs in the Driscoll's delivery service area by 20 percent over the baseline (State Fiscal Year 2012)
- Train 15 additional providers to perform dental education and fluoride varnish treatments in a PCP office over the baseline (SFY12), which represents an increase of more than 16 percent.
- Prevent number of children requiring surgical intervention to treat severe dental caries.

This project advances Region 5 goals identified in the RHP Plan and in the Community Needs Assessment of expanding access to oral health services and reducing preventable health care complications that result from poor oral health, such as severe dental caries that often must be treated with surgery. The project also promotes care coordination between PCPs and traditional oral health care providers.

Driscoll faces several challenges and barriers to implement the fluoride varnish program; including the high rate of early childhood dental caries in our target population, a need to reach underserved populations to deliver preventative services; the need to educate PCPs in appropriate evaluation and preventive oral health.

Starting Point/Baseline:
For Project option 1.8.12, Driscoll provided 4,200 dental education and fluoride varnish treatments for State Fiscal year 2012 baseline metric. Today, ninety-three trained medical providers of our target provider population in the Driscoll service area are qualified to perform Driscoll oral health services today.

Rationale:
The United States Surgeon General identified tooth decay as the most common chronic childhood disease in a 2000 report, "Oral Health in America." Tooth decay is five times more common than asthma. In Texas, less than 1 in 5 children between 6 to 36 months of age who are covered by

Medicaid access dental care until dental caries are severe or the child experiences other medical conditions. In Medicaid populations, the incidence of dental caries approaches nearly 80%. Many parents and even physicians do not understand the importance of healthy primary teeth. Chronically poor oral health is associated with failure to thrive in toddlers, compromised nutrition in children, and cardiac and obstetric dysfunctions in adulthood.

Data suggest a high utilization of dental procedures in the operating room and acute care services by low-income pediatric patients who would be the target population for this initiative. Expansion of pediatric primary care oral health services is one key to improving overall health care delivery and health outcomes in the region. The project goal is to increase access to dental fluoride varnish treatments in our service delivery area. Driscoll Children's Hospital does not include any project components or receive any initiatives that may have related activities that are funded by the U.S. Department of Health and Human Services.

Based on the Community Needs Assessment (CNA) for Region 5 of the State of Texas 1115 Waiver, only 48% of those in RHP 5 had seen a dentist or dental clinic during the past year, well under the proportion of Texas (62%) or the US (67%). Since only 35% of RHP5 (ranging from 17% to 38% in counties) have dental insurance compared to 61% in the US it is commonplace for individuals with dental problems to visit the hospital emergency room or seek care in Mexico for dental care. RHP 5 Plan and Community Needs Assessment expressed a strong need for primary care and specialist physicians, nurses and physician assistants. The supply of dentists in RHP 5 is second in deficit only to mental health professionals. There are only 21 dentists per 100,000 populations—less than half the rate for Texas. Consistent with this assessment this project addresses CN.1 (Shortage of primary and specialty care providers and inadequate access to primary or preventive care).

Related Category 3 Outcome Measure(s):
OD-7 Oral Health –IT-7.10 Other Outcome Improvement Target, Urgent Dental Care Needs in Children.

Driscoll Children's Hospital has selected an Oral Health outcome improvement target (IT-7.10) to prevent severe dental caries that result in operative interventions in the Driscoll Service area by 5%.

The outcomes of Pediatric Oral Health program are evidence that early intervention and education do play a significant role in preventing severe caries and the need for preventable surgeries. Dental cases comprised of approximately 30% of all cases performed in the operating room for Calendar Year 2011 in other markets. Application of dental education and fluoride varnish treatments will prevent dental operating procedures. The preventive treatment of dental education and fluoride varnish versus dental operating room procedures creates significant value to our community.

Relationship to other Projects:
Project 1328122051.1, Expand Access to Oral Health Services, complements other projects that expand access to services for children, including 132812205.2.1, Implement Evidence-based Health Promotion Programs, and 132812205.2.2, Implement Evidence-based Disease Prevention Programs. The Oral Health project does not have a corresponding Category 4 Population-focused measure.

Relationship to Other Performing Providers' Projects in the RHP:
This is the only project in the RHP addressing oral health needs in the community targeted to children.

Plan for Learning Collaborative:
We plan to participate in a region-wide learning collaborative, as offered by the Anchor entity for Region 5, Hidalgo County. Our participation in this collaborative with other Performing Providers within the region that have similar projects will facilitate sharing of challenges and testing of new ideas and solutions to promote continuous improvement in our Region's healthcare system.

Project Valuation:
We believe the Oral Health project is a highly valuable initiative in the RHP 5 Region in terms of cost avoidance, population served, and community benefit and need. In 2011, Medicaid spent $4.6 million at Driscoll Hospital on operating room (OR) and related follow up services to treat children with severe dental caries. Dental cases account for 30 percent of all OR cases at Driscoll hospital. A large share of these surgical procedures and costs could have been avoided if the patients had access to appropriate preventive dental care. Over the demonstration period, the proposed DSRIP project will expand Driscoll's oral health program by 20 percent, serve more children, and reduce even further surgical interventions and cost to treat severe dental caries. In addition, the project will significantly expand qualified providers in the Driscoll area to perform dental education and fluoride varnish treatments in a PCP's office by more than 30 percent. These improvements will have a significant impact on improving health status of under-served, low-income children in our region. Based on these reasons, the value of the Oral Health project is $6,000,000 (inclusive of Categories 3 and 4).

Unique Project ID: 132812205.1.1	*RHP PP Reference number:* 1.8.12	*Project Components:* N/A	**Expand and Improve Pediatric Oral Health**	
Performing Provider Name: Driscoll Children's Hospital				*TPI: 132812205*
Related Category 3 Outcome Measure(s):	*132812205.3.1*	*IT-7.10*	Other outcome: Urgent dental care needs in children	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1 [P-X]: Appoint an interdisciplinary Task Force to provide oversight for expanding, increasing, and enhancing pediatric oral health services performed by a primary care provider **Metric 1** [P-X.1]: Documentation of Task Force establishment **Data Source:** Hospital/health plan record **Milestone 1**: Estimated Incentive Payment *(maximum amount):* $ 318,750 **Milestone 2:** [P- X1]: Develop plan to increase training of PCP providers on how to administer dental education and fluoride varnish treatments for pediatric patients. **Metric 2** [**P-X1.1**]: Copy of the plan. **Data Source:** Roster/ attendance sheets for grand rounds and training **Milestone 2**: Estimated Incentive Payment *(maximum amount):* $318,750 **Milestone 3:** [P-X2]: Conduct an initial assessment to expand,	**Milestone 5** [P-X3]: Task Force leads quality improvement initiative for oral health care project. **Metric 5a** [P-X3.1]: Documentation of Quality Improvement meetings held twice per year **Metric 5b**: [P- X3.2] Documentation of Task Force report, findings and/or action plan to further enhance oral health project. **Data Source:** Hospital/health plan record **Milestone 5**: Estimated Incentive Payment *(maximum amount):* $ 400,000 **Milestone 6** [I-11]: Increase dental care training **Metric 6** [I-11.3]: Train an additional 5 providers to perform dental education and fluoride varnish treatments in a PCP office above the SFY 2012 baseline. **Data Source:** Enrollment/ attendance at training **Milestone 6**: Estimated Incentive Payment *(maximum amount):* $ 400,000		**Milestone 8** [P- X3]: Task Force leads quality improvement initiative for oral health care project **Metric 8a** [P- X3.1]: Documentation of Quality Improvement meetings held twice per year **Metric 8.b** [P- X3.2]: Documentation of Task Force report(s), findings, and/or action plan to further enhance oral health project **Data Source:** Hospital/health plan record **Milestone 8**: Estimated Incentive Payment *(maximum amount): $ 375,000* **Milestone 9** [I-11]: Increase dental care training **Metric 9** [I-11.3]: Train an additional 10 providers to perform dental education and fluoride varnish treatments in a PCP office above SFY 2012 baseline. **Data Source:** Enrollment/ attendance at training **Milestone 11**: Estimated Incentive Payment *(maximum amount):* $	**Milestone 11** [P- X3]: Task Force leads quality improvement initiative for oral health care project **Metric 11a** [P- X3.1]: Documentation of Quality Improvement meetings held twice per year **Metric 11b** [P- X3.2]**:** Documentation of Task Force report(s), findings, and/or action plan to further enhance oral health project **Data Source:** Hospital/health plan record **Milestone 11**: Estimated Incentive Payment *(maximum amount): $ 285,000* **Milestone 12** [I-11]: Increase dental care training **Metric 12** [I-11.3]: Train an additional 15 providers to perform dental education and fluoride varnish treatments in a PCP office above the SFY 2012 baseline. **Data Source:** Enrollment/ attendance at training **Milestone 12**: Estimated Incentive Payment *(maximum amount):* $

93

Unique Project Id: 132812205.1.1	*RHP PP Reference number:* 1.8.12	*Project Components:* N/A	**Expand and Improve Pediatric Oral Health**	
Performing Provider Name: Driscoll Children's Hospital				*TPI: 132812205*
Related Category 3 Outcome Measure(s):	*132812205.3.1*	*IT-7.10*	Other outcome: Urgent dental care needs in children	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
increase, and enhance pediatric oral health services performed by a primary care provider. **Metric 3:** [P- X2.1]: Documentation of plan assessment **Data Source**: Hospital/health plan records **Milestone 3**: Estimated Incentive Payment *(maximum amount):* $318,750 **Milestone 4:** [I-X]: Expand Preventive Dental services by PCP. **Metric 4:** [I- X.1]: Goal: Increase the number of education and dental fluoride varnish treatments performed by PCP in Driscoll's delivery service area by 5% above the SFY 2012 baseline. **Data Source**: Hospital/health plan records **Milestone 4**: Estimated Incentive Payment: $ 318,750	**Milestone 7:** [I-X]: Expand Preventive Dental services performed by PCP office. **Metric 7:** [I- X.1]: Goal: Increase the number of dental education and fluoride varnish treatments performed by PCP in Driscoll's delivery service area by 10% above the SFY 2012 baseline **Data Source**: Hospital/health plan records **Milestone 7**: Estimated Incentive Payment: $ 400,000		375,000 **Milestone 10:** [I- X]: Expand Preventive Dental services performed by PCP office. **Metric 10:** [I- X.1]: Goal: Increase the number of dental education and fluoride varnish treatments performed by PCP in Driscoll's delivery service area by 15% above the SFY 2012 baseline **Data Source**: Hospital/health plan records **Milestone 10:** Estimated Incentive Payment: $ 375,000	285,000 **Milestone 13:** [I- X]: Expand Preventive Dental services performed by PCP office. **Metric 13:** [I- X.1]: Goal: Increase the number of dental education and fluoride varnish treatments performed by PCP in Driscoll's delivery service area by 20% above the SFY 2012 baseline **Data Source**: Hospital/health plan records **Milestone 13**: Estimated Incentive Payment: $ 285,000
Year 2 Estimated Milestone Bundle Amount: $ 1,275,000	Year 3 Estimated Milestone Bundle Amount: $ 1,200,000		Year 4 Estimated Milestone Bundle Amount: $ 1,125,000	Year 5 Estimated Milestone Bundle Amount: $ 855,000
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $ 4,455,000				

94

Starr County Memorial Hospital - Category 1: Infrastructure Development

Project Title: Increase OB Primary Care
Unique RHP Project Identification Number: 136332705.1.1
Performing Provider Name/TPI: Starr County Memorial Hospital/136332705
Project Option 1.1.2

Project Description:
The Rio Grande City Rural Health Clinic in Starr County sees approximately 10,000 patients per year.[46] With a low physician to patient ratio, the clinic has Advanced Nurse Practitioners (ANPs) see many of its patients. While Nurse Practitioners are quality providers, many patients need the in-depth medical knowledge possessed by a physician. This project's purpose is to recruit a family practice physician who is also able to offer obstetric care for the surrounding community. The recruited physician will provide comprehensive care at the rural clinic and perform deliveries at Starr County Memorial Hospital.

The project will also provide health care education for patients with diabetes. There will be a set schedule of classes related to diabetes; sign-in sheets and a CPT code will allow the diabetes services to be bundled in with the visit. HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) surveys will be conducted with focus on the education outreach and newly added physician services. The new family practitioner will also help diabetic pregnant women control their HbA1C scores, which will promote the healthy development of babies and prevent mothers from having labor complications. Diabetic patients' HbA1c scores will be monitored with each visit to the new family practitioner.

Goals:
The goal of the project will be to increase the volume of family medicine services currently available to the community. This project will also aim to increase the OB care available for woman at Rio Grande City Rural Health Clinic and at the Starr County Memorial Hospital.

Challenges/Issues:
Due to the limited availability of Ob/Gyn and Family Medicine services in Starr County, patient demand quickly exceeds physician resources. Of the 10,000 patients (on average) seen in Rio Grande Valley City Rural Clinic, approximately 70% were serviced by advanced nurse practitioners.[47] The socioeconomic status and payer mix of residents in Starr County make recruiting new physicians to the area difficult.

Issue Resolution:

[46] Starr County Proprietary Information
[47] Starr County Proprietary Information

Increasing the number of physicians where they are severely lacking, with adequate mid-level staffing, can dramatically increase the volume of patients that can see doctors. More patients will now be able to receive quality health care in their local community.

5 year expected outcome for provider and patients:
The addition of a family practitioner will increase the clinic encounters by 5% in DY 3 and 3% in DY 4 and DY 5 consecutively. We anticipate improved health outcomes for the target population over the five-year period due to increased access to primary and preventive care services.

Starting Point/Baseline:
The baseline for this project will be established once the program is operational during DY 3.

Rationale:
Starr County is a federally-designated Medically Underserved Area and Health Professional Shortage Area. Adding a physician in the county will better serve the community and create a foundation of care that is crucial.

The project will also add a diabetes educator. As noted elsewhere in the Region 5 plan, diabetes is prevalent in the region and county. Milestone 1 & 2 are both "P-5" so that there will be adequate time to recruit both a physician and a qualified educator in DY3.

Due to the nature of this project, improvement milestones can be implemented rather quickly. Patient satisfaction, milestone I-11, is a cornerstone of this project and a key improvement milestone. Monitoring satisfaction levels will allow the Rio Grande Rural Health Clinic and Starr County Memorial Hospital to see whether the program is heading in the right direction. Once the clinic has added the physician and educator, improvement milestone I-12, Increase in primary care clinic volume of visits and evidence of improved access for patients seeking services, can be documented.

Milestone I-3 in DY 5 will focus how Rio Grande Rural Health Clinic's diabetic educator and increased access to primary care is affecting the health status of the diabetic population in Starr County, especially "high risk" diabetic pregnant women. This project will increase the volume of patients treated at the clinic, and also provide education, prevention, and maintenance of diabetic conditions for a community where such services are not readily available. The project will help high-risk diabetic patients control their HbA1c levels, and help ensure others don't become "high-risk."

The project will address each of project option 1.1.2's required components:

- The expansion of office space
- The expansion of hours
- The expansion of clinic staffing

Milestones and Metrics:

The process and improvement milestones and metrics are related to the hiring of additional staff and expanding Rio Grande Rural Health Clinic's capacity to provide additional services. They consist of: P-5, I-11 and I-15.

Unique community need identification number the project addresses:
This project addresses RHP 5 Community Need 1, a shortage of primary and specialty care providers and inadequate access to primary or preventive care.

How the project represents a new initiative or significantly enhances an existing delivery system reform initiative:
The project represents an innovative approach to addressing a unique health problem in our community, the prevalence of diabetes among pregnant women.

Related Category 3 Outcome Measures:
The recruitment of a family physician in a medically underserved area with a high volume of indigent patients is related to the outcome measure of OD-1, Primary Care and Chronic Disease Management. Access to quality primary care is also likely to improve the rate of potentially preventable admissions, outcome measure OD-2.

OD-1.IT-10 (HbA1c control) will be an important milestone for the Rio Grande Rural Health Clinic, where a high percentage of the 10,000 patients seen each year are diabetic. Diabetes rates in Starr County are exceptionally high. A full 50% of adults over the age of 35 in Starr County either have diabetes themselves or have a first degree relative with the disease.[48] In 2007, Starr County had a live birthrate of 1,468.[49] Improvement Target (IT: 1.10) will focus on decreasing HbA1c levels. To accomplish this goal, the clinic will include: group classes for diabetic education; segmented one-on-one meetings with nurse practitioners/physicians and diabetic women; and follow-up plans to ensure that patients' HbA1c levels improve. Diabetes education at the clinic will not only improve the lives of high risk diabetics, it will create an environment of prevention and knowledge about diabetes for the next generation.

Relationship to other projects:
Starr County is relatively isolated - the closest major hospital to Starr County Memorial Hospital is 51minutes away.[50] The projects associated with Starr County Memorial Hospital both increase access to care through increased staffing of healthcare professionals.

Project 136332705.1.2, Increasing Surgery Capacity, will aim to prevent adverse conditions and provide timely access to general surgery services. It also includes a diabetic foot exam component to help prevent adverse conditions from developing in diabetic patients. Projects 136332705.1.1 and 136332705.1.2 will support each other: follow ups and referrals will be sent to-and-from the clinic and

[48] http://txtell.lib.utexas.edu/stories/d0006-full.html
[49] http://www.plannedparenthood.org/ppahc/files/Hidalgo-County/Valley_Family_Planning_Stats_05-07.pdf
[50] http://maps.google.com/maps?q=south%20texas%20uninsured&oe=utf-8&aq=t&rls=org.mozilla:en-US:official&client=firefox-a&um=1&ie=UTF-8&hl=en&sa=N&tab=wl

hospital, each organization attempting to increase access to care and improve the health status of diabetics in Starr County.

This project aligns itself with the overarching goals of RHP5 by increasing accessibility to healthcare services, increasing patient satisfaction, and providing the right care in the right setting. Due to Starr County's geographical location, its projects will be unable to include learning collaborations.

Project Valuation:
This project is valued around the prevention of costly complications, admissions, and readmissions that accompany a community's lack of family care and specialty access. Diabetic education in Starr County will give diabetic patients an opportunity to self-manage their conditions, reducing the probabilities of advancing conditions and hospital admissions. The expansion of obstetric services will focus on decreasing unwanted, costly pregnancy complications such as premature birth.

The United States spends on average $13,000 on each person with diabetes, compared to $2,500 on a non-diabetic. Diabetics incur higher medical expenses that are 2.4 times higher than non-diabetics.[51] We can assume that the high prevalence of diabetes in Starr County increases healthcare spending in the area.

Studies show that HbA1c levels over 7%, diabetic levels, have been associated with preterm delivery.[52] The cost of just one premature baby averages $49,000[53] in the child's first year of life. When there is prevalence of inadequate diabetes control, prematurity rates can range from 30-50 percent. Prematurity may contribute to problems such as cerebral palsy, vision problems, learning disabilities, and developmental delays. Decreasing these numbers through better management of expecting mothers' Hba1c levels may decrease costs in the long term and provide an increased quality of life for mothers and children.[54]

Culturally-sensitive patient education, with a goal of greater patient self-management, will also have considerable community benefit. With an increase in Ob/Gyn availability, woman will have access to more adequate follow-up care. A combination of Ob/Gyn access, a diabetic stabilizing initiative, and patient education can improve health outcomes for the community.

[51] http://www.foh.dhhs.gov/NYCU/diabetescost.asp
[52] http://care.diabetesjournals.org/content/27/12/2824.full
[53] http://www.cnn.com/2009/HEALTH/03/17/premature.babies/index.html
[54] http://www.ncbi.nlm.nih.gov/pubmed/11398596

136332705.1.1	1.1.2	1.1.2 (a) – (c)	Expand existing primary care capacity	
Starr County Memorial Hospital				136332705
Related Category 3 Outcome Measure(s):	136332705.3.1	IT-1.10	Diabetes Care: Poor Hba1c Control (>9%)	

Year 2 (10/1/12 - 9/30/13)	Year 3 (10/1/13-9/30/14)	Year 4 (10/1/14-9/30/15)	Year 5 (10/1/15 - 9/30/16)
Milestone 1: (P-5) Hire additional primary care provider **Metric 1 (P-5.1)** Documentation of all project plans; Physician contractual documentation **Baseline/Goal:** Addition of 1 extra physician; 5% unique patient consultation at end of DY3 over baseline of patients consulted by a physician in FY11. **Data Source:** Patient documentation and billing for physician. ***$164,052.50*** **Milestone 2: (P-5):** Hire additional primary care staff (educator) **Metric 1:** (P-5.1): Contractual documentation of diabetes educator **Baseline/Goal:** Create baseline of average number of patients attending class per month at the end of DY2 **Data Source:** Sign-in Documentation and/or billing code on consultation ***$164,052.50***	**Milestone 3 [I-11]:** Patient satisfaction with primary care services **Metric [I-11.1]:** Patient Satisfaction scores, specific ranges and items to be determined by assessment tool scores. **Baseline/Goal:** Create baseline at the end of DY2 for DY3 comparison: goal will be an average increase of satisfaction to start with and adjust percentage improvement or maintenance from new baseline. **Data Source:** CG-CAHPS or other developed evidence based satisfaction assessment tool, available in formats and language to meet patient population. ***$370,055.00***	**Milestone 4 [I-15]:** Increase primary care clinic volume of visits and evidence of improved access for patients seeking services. **Metric 1 [I-15.1]:** Documentation of increased number of visits. Demonstrate improvement over prior reporting period (DY2 baseline) **Baseline/Goal: DY 3 baseline/**Net 8% percent increase in unique patient provider encounters. **Data Source:** Claims history for reporting period; EMR registry (if applicable) ***$184,860*** **Milestone 5 [I-3]:** Increase primary care clinic volume of visits and evidence of improved access for *diabetic* patients seeking services. **Metric 1 [I-3.1]:** Documentation of increased number of visits. Demonstrate improvement over prior reporting period (DY2 baseline) Baseline/**Goal: DY 3 baseline/**15% of diabetic patients given physician priority with emphasis on pregnant woman.	**Milestone 6 [I-15]:** Increase primary care clinic volume of visits and evidence of improved access for patients seeking services. **Metric 1 [I-15.1]:** Documentation of increased number of visits. Demonstrate improvement over prior reporting period (DY2 baseline) **Baseline/Goal: DY 3 baseline/**Net 11% percent increase in unique patient provider encounters. (3% increase from DY 3) **Data Source:** Claims history for reporting period; EMR registry (if applicable) ***$142,835.00*** **Milestone 7 [I-3]:** Increase primary care clinic volume of visits and evidence of improved access for *diabetic* patients seeking services. **Metric 1 [I-3.1]:** Documentation of increased number of visits. Demonstrate improvement over prior reporting period (DY2 baseline) Baseline/**Goal: DY 3/** 15% of diabetic patients given physician priority with emphasis on pregnant woman. **Data Source:** Claims history for reporting

136332705.1.1	1.1.2	1.1.2 (a) – (c)	Expand existing primary care capacity	
Starr County Memorial Hospital				136332705
Related Category 3 Outcome Measure(s):	136332705.3.1	IT-1.10	Diabetes Care: Poor Hba1c Control (>9%)	
Year 2 (10/1/12 - 9/30/13)	Year 3 (10/1/13-9/30/14)		Year 4 (10/1/14-9/30/15)	Year 5 (10/1/15 - 9/30/16)
			Data Source: Claims history for reporting period; EMR registry (if applicable) ***$184,860***	period; EMR registry (if applicable) ***$142,835.00***
$328,105.00	***$370,055.00***		***$369,720.00***	***$285,670.00***
Total Estimated Incentive Payments for 4-Year Period (add milestone bundle amounts over Years 2-5): $1,353,550.00				

Title: *Expand Surgery Service Capacity*

Unique RHP Project ID Number: *136332705.1.2*

Performing Provider/TPI: *Starr County Memorial Hospital/136332705*

Project Option 1.9.5

Project Description:
Starr County Memorial Hospital wants to contract with a general surgeon in an effort to provide full-time surgical services in their facility for the community. Starr County currently has two operating rooms (ORs) and would like to increase their utilization. As this service becomes readily available, processes and protocols regarding full-time general surgery will naturally be evolved and streamlined to increase efficiency. To create increased utilization of current resources, two more OR techs will need to be staffed as well as a Certified Registered Nurse Anesthetist (CRNA). The addition of these support staff positions will allow surgical services to be rendered simultaneously in both operating rooms creating further accessibility and utilization.

Because of the prevalence of diabetes in Starr County, and diabetes' associated foot problems, foot exams will be conducted with every surgical patient. A nurse will inspect a patient's feet for any minor cuts, rashes, abrasions, etc. If a patient is diabetic (self-reported or on file) extra precaution will be taken during the exam. If there are any injuries to the foot, they will also be addressed by the surgeon and nurse to decrease possibly preventable conditions (PPCs) and increase quality of life for the patient.

Goals:
Currently, surgical services are only available within Star County Memorial Hospital two days of the week. With the addition of a full-time general surgeon, service will be available to the community five days out of the week.

Challenges/Issues:
Surgery services are generally out of reach in this community. Right now, Starr County Memorial Hospital is able to provide surgery services only two days out of the week. The emergency department is therefore forced to transfer, on average, 10 patients per month to other facilities.[55] The nearest major hospital to Starr County Memorial Hospital is 51 minutes away.[56] Due to these circumstances, capacity is wasted, patients are not able to be seen in a timely manner, quality is compromised, and patient satisfaction decreases.

Issue Resolution:
Recruitment of a general surgeon will open up the surgical service line capacity directly at Starr County Memorial Hospital. Fewer patients will have to be transferred out of the emergency department; more patients can be seen more often; patient satisfaction will increase; and PPCs will decrease.

Expected Outcomes:

[55] Starr County Proprietary Information

[56] http://maps.google.com/maps?q=south%20texas%20uninsured&oe=utf-8&aq=t&rls=org.mozilla:en-US:official&client=firefox-a&um=1&ie=UTF-8&hl=en&sa=N&tab=wl

Starr County Memorial Hospital expects this project will be of great value to the community over the next five years and onward. With increased revenues from the service line capacity and fewer patients transferred, over the course of this project we expect that surgery services will be available five days out of the week and that Starr will be able to serve every admitted patient whose condition falls within the surgeon's capabilities. Processes will be created to ensure efficiency of the provider's time. With increased service availability, admissions and readmissions will be expected to decrease..

Starting Point/Baseline:
The baseline for this project will be developed during the first full year of operations.

Rationale:
Starr County Memorial Hospital chose this project as a necessity because it does not currently have a full-time general surgeon in its facility or region. Starr County Memorial Hospital is the only hospital in Starr County and thus serves 60,000 people. The current lack of full-time surgery capacity is unsustainable and costly. At present, surgery services are only offered two days out of the week, necessitating an average of 10 referrals to other facilities each month.[57] The nature of project 136332705.1.2 is straightforward with clear-cut milestones: it will increase the service availability for surgical care at Starr County Memorial Hospital.

The initial scope of the project revolves around the recruitment of a specialist, fitting into project option 1.9.5, design workforce enhancement initiatives to increase the availability of targeted specialty providers. The project fits in well with Category 1.9, expanding specialty services capacity.

To justify the necessity of this physician, this project uses metric P-12 in DY2 to demonstrate the unsustainable current state of the surgery services at Starr County Memorial Hospital. The project will implement a specialty care access plan that will assess the overall problems associated with a lack of surgery services, including background on the issue and short and long-term implications. Improvement milestone I-22 in DY2 will mark when the hospital comes into a contractual agreement with a new full-time surgery provider.

In an effort for continuous quality improvement (CQI), milestone P-3, collect baseline data for wait times, will be implemented at the beginning of the project. Collecting baseline data will make milestone I-27, increase in patient satisfaction, more meaningful throughout the demonstration years (DY). With feedback, Starr County Memorial Hospital can continue its process of improvement.

Milestone I-23, increase specialty care volume of visits, was selected because increased access to care is the driving goal for the project and Starr County Memorial Hospital. CQI will create efficiencies that will allow for an increased volume of services under a new specialty provider.

Project 136332705.1.2's milestones will all work together to create a successful general surgery program where the hospital is able to provide accessible healthcare services for its patients with increasing volume and improved quality.

[57] Starr County Proprietary Information

Related Category 3 Outcome Measures:
We intend to monitor the impact of this project through patient satisfaction, or OD-6. With surgery services difficult for many patients to access, there are many frustrations throughout the community. Starr County Memorial Hospital does not currently offer timely surgical care, appointments, or even information, and its patient satisfaction in surgery services is understandably low. With suppressed patient satisfaction, disenfranchised patients do not come to the hospital for a service unless it is an emergency. Therefore, **IT-6.1**, percent improvement over baseline of patient satisfaction scores, is a major focus of the project.

As general surgery's availability is increased from 2 to 5 days out of the week, chances of surgical site infections (SSI) will increase in proportion to the increase of services rendered. **IT-4.4,** reduction in Surgical Site Infections (SSI)**,** was selected so that continuous quality improvements will be sought after to keep the SSI percentages low preventing possible adverse conditions and readmissions. **IT-4.1**, improvement in risk adjusted PPCs, correlates will with IT-4.4 as they both revolve around continuous quality improvements (CQI).

We are also looking at **OD-1.IT-1.13**, Diabetes Care Foot Exam. A simple foot exam was incorporated into the project due to its potential for reducing diabetes complications. Catching a wound in its early stages for a diabetic can help prevent some serious complications in the long-run, often leading to further readmissions in the emergency department.

Relationship to Other Projects:
Project 136332705.1.1, Increasing OB Care, will aim to increase access to physician services in Starr County, improve delivery services at Starr County Memorial Hospital, and provide increased care to diabetic patients, especially diabetic pregnant women. Projects 136332705.1.1 and 136332705.1.2 will support each other: follow ups and referrals will be sent to-and-from the clinic and hospital, each organization attempting to increase access to care and improve the health status of diabetics in Starr County.

Project Valuation:
This project's valuation revolves around the potential savings that accompany accessible, preventative care. With the increased availability of surgery services, fewer patients have to be transferred to other facilities. Keeping patients at Starr County Memorial Hospital will result in faster turnaround and follow-up care for patients, which may reduce preventable conditions and readmissions. Transportation costs are also reduced. Diabetic foot exams will also reduce costs: any minor wounds found in the operating room can be addressed on the spot, preventing potentially costly conditions.

136332705.1.2	1.9.1	1.9.1	Increase Surgical Care Availability	
Starr County Memorial Hospital				136332705
Related Category 3 Outcome: OD1, OD4, OD6	136332705.3.2 136332705.3.3 136332705.3.4 136332705.3.5	IT-1.13 IT-6.1 IT-4.1 IT-4.4	Diabetes: Care Foot Exam Patient Satisfaction Improvement in PPC rate Surgical Site Infections	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1: (P-12) Implement a specialty care access pan to include such components as the state of the surgery services problem, background and methods, findings, implication of findings in short and long term, conclusions **Metric (P-12.1)** Documentation of specialty care access plan **Baseline/Goal:** Assess complications and cost not adding an additional surgeon. **Data Source:** Documentation of provider plan. ***Milestone 1 Estimated Incentive Payment: $214,422.67*** **Milestone 2: (P-3)** Collect baseline data for wait times, backlog, and/or return appointments **Metric (P-3.1)** Establish baseline for performance indicators **Data Source:** Average wait time and patient transfer numbers for FY2011 (baseline) ***Milestone 2 Estimated Incentive Payment: $214,422.67***	**Milestone 4 [I-23]** Increase volume of visits and evidence of improved access for services. **Metric [I-23.1]** documentation of increased number of visits. Demonstrate improvement over DY2. (total number of visits for reporting period) **Data Source:** Registry, HER, Claims ***Milestone 4 Estimated Incentive Payment : $370,055*** **Milestone 5 [I-27]:** Patient satisfaction with primary care services **Metric [I-27.1]:** Patient satisfaction scores: Ave. reported patient satisfaction scores. Specific ranges and items to be determined by assessment tool scores. ***Numerator:*** sum of all survey scores ***Denominator:*** Number of surveys completed **Data Source:** CG-CAHPS41 or other developed evidence based tool,		**Milestone 6 [I-23]** Increase volume of visits and evidence of improved access for services over DY3 *(Continuous Improvement)* **Metric [I-23.1]** documentation of increased number of visits. Demonstrate improvement over DY3 if thresholds haven't been met. (total number of visits for reporting period) **Data Source:** Registry, HER, Claims ***Milestone 6 Estimated Incentive Payment: $385,253.50*** **Milestone 7 [I-27]:** Patient satisfaction with primary care services – Improvement over DY3 **Metric [I-27.1]:** Patient satisfaction scores: Ave. reported patient satisfaction scores. Specific ranges and items to be determined by assessment tool scores. ***Numerator:*** sum of all survey scores ***Denominator:*** Number of surveys completed **Data Source:** CG-CAHPS41 or other developed evidence based tool, available in formats and language to	**Milestone 8 [I-23]** Increase volume of visits and evidence of improved access for services over DY4 *(Continuous Improvement)* **Metric [I-23.1]** documentation of increased number of visits. Demonstrate improvement over DY4 if thresholds haven't been met. (total number of visits for reporting period) **Data Source:** Registry, HER, Claims ***Milestone 8 Estimated Incentive Payment: $309,476.50*** **Milestone 9 [I-27]:** Patient satisfaction with primary care services – Improvement over DY4 **Metric [I-27.1]:** Patient satisfaction scores: Ave. reported patient satisfaction scores. Specific ranges and items to be determined by assessment tool scores. ***Numerator:*** sum of all survey scores ***Denominator:*** Number of surveys completed **Data Source:** CG-CAHPS41 or other

136332705.1.2	1.9.1	1.9.1	Increase Surgical Care Availability	
Starr County Memorial Hospital				136332705
Related Category 3 Outcome: OD1, OD4, OD6	136332705.3.2 136332705.3.3 136332705.3.4 136332705.3.5	IT-1.13 IT-6.1 IT-4.1 IT-4.4	Diabetes: Care Foot Exam Patient Satisfaction Improvement in PPC rate Surgical Site Infections	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 3: (I-22): Hire additional surgeon & support staff for Starr County Memorial Hospital **Metric 1:** (P-22.1): Increase in number of providers and availability of surgical specialty in Starr County Memorial Hospital. **Numerator:** Increase of number of specialist providers in targeted specialty **Denominator:** Number of providers in specialty at the baseline. **Baseline/Goal:** Baseline will be created by how many patients were turned away on average per month in FY11 **Data Source:** Documentation of services rendered & staff contractual documentation ***Milestone 3 Estimated Incentive Payment: $214,422.67***	available in formats and language to meeting patient population. ***Milestone 5 Estimated Incentive Payment: $370,055***		meeting patient population. ***Milestone 7 Estimated Incentive Payment: $385,253.50***	developed evidence based tool, available in formats and language to meeting patient population. ***Milestone 9 Estimated Incentive Payment: $309,476.50***
Year 2 Estimated Milestone Bundle Amount: **$643,268.00**	Year 3 Estimated Milestone Bundle Amount: **$740,110.00**		Year 4 Estimated Milestone Bundle Amount: **$770,507**	Year 5 Estimated Milestone Bundle Amount: **$618,953**
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD $2,772,838				

Tropical Texas Behavioral Health (TTBH) - Category 1: Infrastructure Development

Identifying Project and Provider Information:
Expand Primary Care Capacity
Unique RHP Project identification number: 138708601.1.1
Performing Provider/TPI: Tropical Texas Behavioral Health/138708601
Project Option 1.1.2

Project Description:
Expand the capacity of primary care to better accommodate the needs of the regional patient population and community, as identified by the RHP needs assessment, so that patients have enhanced access to services, allowing them to receive the right care at the right time in the right setting. TTBH will expand capacity to deliver additional services primary to our mission as the LMHA for the Rio Grande Valley, namely community-based services addressing the behavioral health needs of individuals who meet criteria for a diagnosis of severe mental illness to 900 new individuals by the end of the waiver period. TTBH will also expand access to transportation services with this project.

All services funded by this waiver will be monitored through TTBH's Quality Management (QM) and Utilization Management (UM) structures. The QM/UM programs utilize several internal committees including but not limited to the Performance Improvement and Compliance and Utilization Management Committees, and the support of the Management of Information Systems (MIS) and Quality Management (QM) Departments, to continuously monitor performance indicators related to service quality, health outcomes and business performance through a plan, do, study, act quality improvement process. In addition to specified Category 3 Waiver outcome targets, relevant data will be evaluated regularly against the Center's past performance, national benchmarks, state mandated performance targets and applicable accreditation standards to drive performance improvement activities when indicated. Recommendations for identified performance improvement actions are routed to TTBH's Executive Management and Board of Trustees when necessary. In keeping with TTBH's existing quality improvement structures, and as recommended by the Texas Health and Human Services Commission (HHSC) and the Centers for Medicare and Medicaid Services, prescribed and customized quality improvement process milestones reflecting plan, do, study, act quality improvement cycles have been incorporated into this plan.

Goal(s) and Relationship to Regional Goal(s):
Project goals:

- Expanded behavioral health service capacity at TTBH clinics across the Valley through the expansion of clinic space and staffing.
- Expanded availability of transportation to appropriate levels of care, in particular, for indigent persons in need of routine behavioral health services.
- Provision of behavioral health services to at least 900 new individuals including those meeting the state's clinical eligibility criteria to receive ongoing behavioral health services but who are currently on waiting lists due to resource limitations.
- Increased access to the right care at the right time in the right setting.

- Increased utilization of routine behavioral health services.
- Improved health outcomes and experience of care.
- Decreased need for costly emergency interventions by mobile crisis teams, law enforcement and hospital emergency departments.

This project meets the following regional goals:

- Improve on existing programs and infrastructure to ensure that the health care delivery system will be adequately developed to meet the primary and specialty care needs of residents throughout a rapidly growing, yet historically underserved region.
- Increase access to primary and specialty care services, including behavioral health services, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition, regardless of where they live or their ability to pay.
- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of best practices to improve access to and timely utilization of appropriate care, including behavioral health services, particularly in our rural communities.
- Expand the workforce of qualified primary care and specialty care providers to reduce health care workforce shortages and thus reduce delays in care seeking and inappropriate emergency department utilization, help prevent admission/readmission to inpatient psychiatric care and improve patient satisfaction.

Challenges and How Addressed:

Challenges:

- Appropriate space for additional behavioral health staff and persons served.
- Recruitment and retention of behavioral health providers.
- Equipment necessary for expansion of services at all clinic locations, including vehicles for expanded transportation.

Addressed by:

- Continued progress on the planned expansion of three outpatient clinics to increase capacity to serve all counties in the TTBH catchment area.
- Competitive hiring and salary structure based on years of experience.
- Structured career ladder advancement opportunities for each position.
- Productivity incentive opportunities.
- Marketing strategies for recruitment.
- Recruitment incentives through the agency's Health Professional Shortage Area (HPSA) designation with the National Health Service Corps.
- Tuition reimbursement opportunities.
- Re-location reimbursement.
- Opportunities for training and education to enhance staff competencies and promote professional development.

5-Year Expected Outcome for Provider and Patients:

TTBH will expand behavioral health service capacity to enhance access to the right care at the right time in the right setting and improve behavioral health outcomes and the experience of care for those served. By Waiver Demonstration Year (DY) 5, TTBH will expand behavioral health service capacity at our three largest clinic locations across the Valley through the expansion of clinic space

and staffing, and provide services to at least 900 new individuals, including those meeting the state's clinical eligibility criteria to receive ongoing behavioral health services but are on waiting lists due to resource limitations. Over the term of the waiver, TTBH will significantly reduce the number of people waiting to access comprehensive and culturally sensitive preventative behavioral health services, resulting in increased utilization of routine behavioral health services, improved health outcomes and experience of care, and decreased need for more costly emergency interventions by mobile crisis teams, law enforcement and hospital emergency departments.

Starting Point/Baseline:
In FY 2011 TTBH had approximately 820 persons on waiting lists for behavioral health services.

Rationale:
In 2003, Texas began rationing state-provided mental health services in order to address budget shortfalls. Ongoing mental health services were targeted primarily to people with schizophrenia, bipolar disorder and major depression. Those with other illnesses, such as anxiety and post-traumatic stress disorder, and the uninsured, were placed on waiting lists for months, or longer, awaiting access to essential services including medication, therapy and substance abuse care. As a result, according to the Department of State Health Services (DSHS), more than 6,800 adults and children with schizophrenia, bipolar disorder and major depression were on waiting lists for community mental services statewide in 2009. This number peaked at 10,354 in 2010, and has hovered at a quarterly average of over 9,400 people waiting for necessary services since then.

TTBH has expanded our array of services and service capacity since 2007 through state and alternative funding sources, and consistently exceeded our state-mandated monthly targets for the number of adults and children served by an average of 115% and 475%, respectively, during the same period. In spite of this, similar to statewide trends, TTBH's waiting lists for adults and children have risen steadily since 2005, peaking at approximately 850 combined individuals in 2010, and have remained relatively constant in the years since.

Delays in the ability to access appropriate behavioral health care have been linked to disproportionately high rates of a range of negative and expensive consequences for people diagnosed with mental illness including disability, unemployment, homelessness, substance abuse, incarceration, hospital emergency department visits, psychiatric and medical inpatient hospitalization, preventable complications of co-morbid medical illnesses and suicide. From a financial perspective, evidence suggests that delays in accessing community-based mental health services can translate to significantly greater costs to intervene with an individual with mental illness in other, often less appropriate, settings. In their 2011 study of proposed budget cuts to community-based mental health services, Health Management Associates found the average per day cost of community-based services is $12 for adults and $13 for children, as compared to $401 for a State Hospital bed, $137 for a jail bed for an inmate with mental illness, and $986 for an emergency room visit.

TTBH's planned expansion of service capacity will also address longstanding transportation barriers to service access. Many residents of the Rio Grande Valley, in particular those seeking behavioral health services, experience significant barriers to reliable transportation due to the disabling effects of poverty and the complications associated with using public transit systems including service coverage

areas and schedules that limit users' ability to get where they need to go when they choose. Individuals with mental illness often don't know about available transportation opportunities or how to use them, and uninsured residents with mental illness aren't eligible to participate in transportation programs that are limited to people with Medicaid or other insurance. Among the areas of unmet public transportation needs identified by the Lower Rio Grande Valley Development Council in its 2011 Human Service-Public Transit Coordination Plan were insufficient fixed-route public transportation vehicles for the more than 600,000 residents of the Mission, McAllen, Edinburg, Pharr area; difficulty using the existing transit systems to travel from one city to another; lack of regularly scheduled transit services for those residing in the many low-income colonias throughout the Valley; the extra burden on existing transit systems from the growing number of Mexican nationals using the systems and inadequate availability of transit from rural areas like Willacy County to cities like Harlingen.

In July 2012, 2150 adults served by TTBH responded to survey questions concerning patterns of health care use and ability to access care. Forty three percent (43%) reported that they lacked health insurance; more than 25% indicated their home was 10 or more miles from the nearest medical facility; 30% reported that they had only occasionally reliable transportation or none at all; only 3% reported using public transportation to get to their appointments; and although a majority of respondents said they relied on personal vehicles or the support of family or friends to get to their appointments, nearly half (48%) indicated they did not access routine checkups or preventative care on a regular basis.

Project Components:
We propose to meet the required project components a) Expand primary care clinic space and c) Expand primary care clinic staffing. TTBH will increase behavioral heath service infrastructure and capacity through the expansion of clinic space and staffing at our 3 largest clinics in the Rio Grande Valley. Insofar as TTBH stakeholder input does not support extended operating hours at our behavioral health clinics and doing so would require a more comprehensive and expensive expansion of staffing than is currently planned, TTBH will not extend our clinic hours at this time. Through the expansion of our behavioral health service capacity including expanded clinic space and staffing and the implementation of contracted services to increase transportation to appropriate care for low-income and uninsured persons, TTBH will significantly reduce our waiting lists, increase access to and utilization of evidence-based preventative health care services, increase opportunities for recovery and wellness, and decrease avoidable costs associated with delays in accessing care.

Milestones and Metrics:
The following milestones and metrics were chosen for TTBH's project to Expand Primary Care Capacity based on the core components and the needs of the target population:

- Process Milestones and Metrics: P-1 (P-1.1); P-X (P-X.1)
- Improvement Milestones and Metrics: I-12 (I-12.1)

Unique Community Needs Identification Number:
This project addresses community need CN. 2, related to shortage of behavioral health professionals and inadequate access to behavioral health care.

How the Project Represents a New Initiative or Significantly Enhances an Existing Delivery System Reform Initiative:
By increasing service capacity at our clinics across the Lower Rio Grande Valley, this project will expand on the accomplishments of our existing behavioral health care delivery system including maximizing the use of best practices. In so doing, it will better ensure that the system is adequately developed to address the routine behavioral health care needs of our rapidly growing, yet historically underserved service area and reduce the unnecessary use of costly emergency psychiatric interventions.

Related Category 3 Outcome Measure(s):
TTBH will measure outcomes for each of our proposed projects by assessing the satisfaction of persons served across several treatment and health related domains. Ultimately, the individuals served are at the center of health care delivery reform efforts and their experience of the care they receive is critical. Although a patient's perception of the quality of treatment is influenced by many aspects of their care, a growing body of evidence supports the use of patient satisfaction as a legitimate measure of treatment outcomes. Research has demonstrated strong positive relationships between patients' reported satisfaction and characteristics of the service delivery system including the amount of time providers spend with patients, the amount of information given to the patient, continuity of provider and when providers show personal interest in their patients. Higher levels of satisfaction have also been shown to be predictive of increased adherence to treatment recommendations and increased health-seeking behaviors, while lower levels of satisfaction with and confidence in the quality of services correlates with an increase in complaints and a decreased willingness to seek care, potentially leading to serious health complications. Accordingly, focusing on the satisfaction of those served is directly linked to ensuring that the services provided not only improve the experience of care, but meet the individual needs of the person served and promote wellness and recovery-oriented behaviors in the individual as well.

Relationship to Other Projects:
Expanding behavioral health care capacity is fundamental to the success of related projects to expand and enhance TTBH's behavioral health services including projects to provide necessary behavioral health services to an increasing number of individuals diverted from the criminal justice system (Project 138708601.2.2), to persons with co-occurring substance use disorders (Project 138708601.1.2) and/or to persons with co-occurring Intellectual and Developmental Disabilities (IDD) (Project 138708601.1.3).

Relationship to Other Performing Providers' Projects in the RHP:
TTBH will coordinate with Border Region Behavioral Health Center, the LMHA serving Starr County, to develop and participate in a learning collaborative related to our respective projects to expand behavioral health care services.

Plan for Learning Collaborative:
TTBH will host bi-weekly conference calls with regional partners engaged in similar transformation projects to review data, discuss ideas and share challenges, solutions and the results of performance improvement activities. TTBH will make its website available for web-based information sharing and reporting. TTBH will request that the Texas Council of Community Centers consider coordinating bi-annual face-to-face learning meetings related to health care transformation initiatives.

Project Valuation:

- Jail Diversion is a key component of our proposed projects. According to the Treatment Advocacy Center, 40% of individuals with serious mental illnesses have been in jail or prison at some time in their lives. In DY2 TTBH foresees a savings of $10,960 per jail diversion based on an average incarceration of 80 days at a cost of $137/day. The overall value for jail diversions by the end of DY5 is calculated to be $7,352,230.
- Homelessness: Of our current mental health population served, 5% were identified as at risk or homeless by either our PATH (Projects for Assistance in Transition from Homelessness) or Supported Housing programs. According to a two-year University of Texas survey of homeless individuals, each homeless person costs taxpayers $14,480 per year. The overall value is calculated to be $1,214,191.
- Hospital: According to the Hogg Foundation, 18.6% of admissions to medical hospitals are due to mental health conditions. Our data indicate that approximately 1.2 % of TTBH's service population is admitted to medical hospitals, and an estimated 17.4% of those served are kept out of the hospital. Texas Hospital Association sponsors Texas PricePoint as a resource for information on Texas hospitals. From this resource, we gathered psychiatric care data pertaining to our local counties, and calculated a weighted average hospital stay of 5.3 days and a weighted average collection cost of $678. The overall value is calculated to be $1,047,854.
- Emergency Room: Our service population admitted into the hospital visits the emergency room before hospitalization occurs. Therefore, our projected numbers are a reflection of our hospital data with a cost of $986 per visit and a total emergency room valuation of $287,522.
- Transportation: With transportation readily accessible to our high use clients we anticipate of seeing a reduction not only in hospital and emergency room visits, but homelessness and jail diversion as well. The overall value is calculated to be $3,864,117
- Overall Project Valuation: The total project valuation is $13,765,914.

Project Option ***1.1.2***	***Project Component(s)*** ***1.1.2.a, 1.1.2.c***	***Expand Primary Care Capacity***	
Tropical Texas Behavioral Health			*138708601*
138708601.3.1	*3.IT-6.1*	*Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)*	
2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
/relocate f ed hours line is 0. plan for rvice uilding novation, ıry uitment, f staff. ientation ne frames. ntive ıt): and ces anning ientation dy, act t reports of how	**Milestone 4** [I-12]: Increase in primary care clinic volumes of visits and evidence of improved access for patients seeking services. Metric 1 [I-12.1]: Documentation of increased number of visits. • Goal: Add 275 new individuals (above DY2) from waiting lists into services. • Data Source: MBOW Waiting List reports. Milestone 4 Estimated Incentive Payment *(maximum amount):* $1,517,080 **Milestone 5** [P-X]: Evaluate and continuously improve services Metric 1: [P-X.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement.	**Milestone 6** [I-12]: Increase in primary care clinic volumes of visits and evidence of improved access for patients seeking services. Metric 1 [I-12.1]: Documentation of increased number of visits. • Goal: Add 275 new individuals (above DY3) from waiting lists into services. • Data Source: MBOW Waiting List reports. Milestone 6 Estimated Incentive Payment *(maximum amount):* $1,599,830 **Milestone 7** [P-X]: Evaluate and continuously improve services Metric 1: [P-X.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement.	**Milestone 8** [I-12]: Increase in primary care clinic volumes of visits and evidence of improved access for patients seeking services. Metric 1 [I-12.1]: Documentation of increased number of visits. • Goal: Add 275 new individuals (above DY4) from waiting lists into services. • Data Source: MBOW Waiting List reports. Milestone 8 Estimated Incentive Payment *(maximum amount):* $1,203,633.50 **Milestone 9** [P-X]: Evaluate and continuously improve services Metric 1: [P-X.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement.

PROJECT 138708601.1.1	*PROJECT OPTION* 1.1.2	*PROJECT COMPONENT(S)* 1.1.2.a, 1.1.2.c	*EXPAND PRIMARY CARE CAPACITY*	
	Tropical Texas Behavioral Health			*138708601*
Related Category 3 Outcome Measure(s):	*138708601.3.1*	*3.IT-6.1*	*Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)*	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
improvement. Milestone 2 Estimated Incentive Payment *(maximum amount):* $1,708,275.67 **Milestone 3** [I-12]: Increase in primary care clinic volumes of visits and evidence of improved access for patients seeking services. Metric 1 [I-12.1]: Documentation of increased number of visits. • Baseline/Goal: In FY 2011 TTBH had approximately 820 people on waiting lists for behavioral health services. The goal is to add 100 new individuals from waiting lists into services. • Data Source: DSHS Mental Retardation and Behavioral Health Outpatient Warehouse (MBOW) Waiting List reports. Milestone 3 Estimated Incentive Payment *(maximum amount):* $1,708,275.67				
Year 2 Estimated Milestone Bundle Amount: $5,124,827	Year 3 Estimated Milestone Bundle Amount: $3,034,160		Year 4 Estimated Milestone Bundle Amount: $3,199,660	Year 5 Estimated Milestone Bundle Amount: $2,407,267
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $13,765,914				

Identifying Project and Provider Information:
Expand Primary Care Capacity
Unique RHP Project identification number: 138708601.1.2
Performing Provider/TPI: Tropical Texas Behavioral Health/138708601
Project Option 1.1.2

Project Description:
Expand the capacity of primary care to better accommodate the needs of the regional patient population and community, as identified by the RHP needs assessment, so that patients have enhanced access to services, allowing them to receive the right care at the right time in the right setting. TTBH will expand behavioral health service capacity at three of our clinic locations across the Valley. The added clinic space will allow us to hire additional staff to include 4 trained Co-occurring Psychiatric and Substance Use Disorder (COPSD) Specialists at each clinic to support the delivery of integrated substance use-related treatment services to increasing numbers of individuals in our target population who struggle with co-occurring substance use disorders. Previously, we have been limited in our capacity to deliver the specialized, evidence-based services to treat the growing numbers of individuals in our target population assessed to have a co-existing substance use issue in addition to persistent mental illness, and have had to prioritize the delivery of COPSD services to those determined to be at highest risk of a poor outcome. This project will increase the availability of specially trained staff to deliver evidenced-based services shown to offer the best hope for improved outcomes to persons with substance use issues that complicate and compound the effects of their mental illness. Substance use-related treatment will be tailored to the individual's stage of change and treatment readiness as identified by standardized substance use screening and assessment instruments. The person's assessed motivation for change and treatment readiness will inform the clinician's selection of the evidence-based treatment approach shown to be most effective in helping the individual with co-occurring disorders to engage in, initiate or maintain recovery from substance use/abuse. Treatment modalities will include motivational interviewing, cognitive behavioral therapy, skills training and elements of twelve-step facilitation and peer support. Substance use-related services will be delivered in concert with services to support recovery from mental illness, and will be provided according to an integrated and collaboratively developed person-centered plan. The expansion of COPSD services will result in increased utilization of routine behavioral health services, improved health outcomes and experience of care, and a decrease in the utilization of more expensive emergency interventions by mobile crisis teams, law enforcement and hospital emergency departments.

All services funded by this waiver will be monitored through TTBH's Quality Management (QM) and Utilization Management (UM) structures. The QM/UM programs utilize several internal committees including but not limited to the Performance Improvement and Compliance and Utilization Management Committees, and the support of the Management of Information Systems (MIS) and Quality Management (QM) Departments, to continuously monitor performance indicators related to service quality, health outcomes and business performance through a plan, do, study, act quality improvement process. In addition to specified Category 3 Waiver outcome targets, relevant data will be evaluated regularly against the Center's past performance, national benchmarks, state mandated performance targets and applicable accreditation standards to drive performance improvement activities when indicated. Recommendations for identified performance improvement actions are routed to TTBH's Executive Management and Board of Trustees when necessary. In keeping with

TTBH's existing quality improvement structures, and as recommended by the Texas HHSC and the Centers for Medicare and Medicaid Services, prescribed and customized quality improvement process milestones reflecting plan, do, study, act quality improvement cycles have been incorporated into this plan.

Goal(s) and Relationship to Regional Goal(s):

Project goals:

- Expanded behavioral health service capacity at TTBH clinics across the Valley through the expansion of clinic space and staffing.
- Expanded capacity and staffing to support the delivery of integrated substance use-related treatment services to increasing numbers of individuals in our region with co-occurring substance use disorders.
- Increased access to the right care at the right time in the right setting.
- Increased utilization of routine behavioral health services.
- Improved health outcomes and experience of care.
- Decreased need for costly emergency interventions by mobile crisis teams, law enforcement and hospital emergency departments.

This project meets the following regional goals:

- Improve on existing programs and infrastructure to ensure that the health care delivery system will be adequately developed to meet the primary and specialty care needs of residents throughout a rapidly growing, yet historically underserved region.
- Increase access to primary and specialty care services, including behavioral health services, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition, regardless of where they live or their ability to pay.
- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of best practices to improve access to and timely utilization of appropriate care, including behavioral health services, particularly in our rural communities.
- Expand the workforce of qualified primary care and specialty care providers to reduce health care workforce shortages and thus reduce delays in care seeking and inappropriate emergency department utilization, help prevent admission/readmission to inpatient psychiatric and medical care and improve patient satisfaction.

Challenges and How Addressed:

Challenges:

- Appropriate space for additional behavioral health staff and persons served.
- Recruitment, retention and training of staff competent in the delivery of integrated services for individuals with co-occurring substance use disorders.

Addressed by:

- Continued progress on the planned expansion of three outpatient clinics to increase capacity to serve all counties in the TTBH catchment area.
- Competitive hiring and salary structure based on years of experience.
- Structured career ladder advancement opportunities for each position.
- Productivity incentive opportunities.

- Marketing strategies for recruitment.
- Recruitment incentives through the agency's Health Professional Shortage Area (HPSA) designation with the National Health Service Corps.
- Tuition reimbursement opportunities.
- Re-location reimbursement.
- Opportunities for training and education to enhance staff competencies and promote professional development.

5-Year Expected Outcome for Provider and Patients:
We expect to increase the volume of COPSD service encounters by 45% over baseline to 1,995 encounters by Waiver DY5.

Starting Point/Baseline:
In FY 2011, TTBH delivered 1374 COPSD service encounters.

Rationale:
Substance abuse is a common disorder among individuals with severe mental illness. Individuals with mood or anxiety disorders are reported to be twice as likely to have a substance use disorder, and vice versa, in comparison to the general population. Other estimates place the prevalence of substance abuse and dependence among those with severe mental illness from 30% to as high as 50% depending on the psychiatric diagnosis, compared to only 8% in those without mental illness. Establishing a clear causal relationship between the co-occurrence of mental and substance use disorders is difficult, but three scenarios have been offered to explain the connection: use of a particular drug results in symptoms of a mental illness; individuals suffering from a mental illness "self-medicate" with illicit drugs in an attempt to reduce symptoms of their illness; or both disorders are the result of underlying genetic and/or environmental factors. The prognosis for individuals with co-occurring mental and substance use disorders is significantly worse than for those with a mental illness or substance use disorder alone, including increased rates of relapse, medical illness, violence, hospitalization, work and school problems, incarceration, suicide and early death. While the treatment of the mental illness or the substance abuse disorder separately may reduce the risk, lessen the severity or increase a person's amenability to treatment of the co-occurring disorder, navigating separate and complex systems of care can result in barriers to treatment access and recovery. A growing body of evidence has demonstrated that integrated and concurrent treatment of both disorders results in the best possible outcomes for those with co-occurring disorders.

Project Components:
We propose to meet the required project components a) Expand primary care clinic space and c) Expand primary care clinic staffing. Insofar as TTBH stakeholder input does not support extended operating hours at our behavioral health clinics and doing so would require a more comprehensive and expensive expansion of staffing than is currently planned, TTBH will not extend our clinic hours at this time.

Milestones and Metrics:
The following milestones and metrics were chosen for TTBH's project to Expand Primary Care Capacity for the delivery of co-occurring substance use/abuse services based on the core components and the needs of the target population:

- Process Milestones and Metrics: P-1 (P-1.1); P-X (P-X.1)
- Improvement Milestones and Metrics: I-12 (I-12.1)

Unique community need identification numbers:
This project addresses community need CN.2, related to shortage of behavioral health care professionals and inadequate access to behavioral health care.

How the Project Represents a New Initiative or Significantly Enhances an Existing Delivery System Reform Initiative:
By increasing our capacity to deliver services integrating the treatment of co-occurring psychiatric and substance use-related disorders, this project will expand on the accomplishments of our existing behavioral health care delivery system including maximizing the use of best practices. In so doing, it will better ensure that the system is adequately developed to address the routine behavioral health care needs of our rapidly growing, yet historically underserved service area and reduce the unnecessary use of costly emergency psychiatric interventions.

Related Category 3 Outcome Measure(s):
TTBH will measure outcomes for each of our proposed projects by assessing the satisfaction of persons served across several treatment and health related domains. Ultimately, the individuals served are at the center of health care delivery reform efforts and their experience of the care they receive is critical. Although a patient's perception of the quality of treatment is influenced by many aspects of their care, a growing body of evidence supports the use of patient satisfaction as a legitimate measure of treatment outcomes. Research has demonstrated strong positive relationships between patients' reported satisfaction and characteristics of the service delivery system including the amount of time providers spend with patients, the amount of information given to the patient, continuity of provider and when providers show personal interest in their patients. Higher levels of satisfaction have also been shown to be predictive of increased adherence to treatment recommendations and increased health-seeking behaviors, while lower levels of satisfaction with and confidence in the quality of services correlates with an increase in complaints and a decreased willingness to seek care, potentially leading to serious health complications. Accordingly, focusing on the satisfaction of those served is directly linked to ensuring that the services provided not only improve the experience of care, but meet the individual needs of the person served and promote wellness and recovery-oriented behaviors in the individual as well.

Relationship to other Projects:
Expanded COPSD services may lead to the identification of medical issues appropriate for referral to TTBH's planned co-located primary care clinics and care management services (Projects 138708601.2.1 and 138708601.2.4). Evidence suggests it is likely that many of the individuals we serve who come into contact with law enforcement and are identified for diversion to treatment by Mental Health Officers (Project 138708601.2.2) will have COPSD related needs.

Relationship to Other Performing Providers' Projects in the RHP:
This project is unique to the region in expanding access to care for people with co-occurring mental health and substance use diagnoses.

Plan for Learning Collaborative:

N/A

Project Valuation:

- Jail Diversion is a key component of our proposed projects. According to the Treatment Advocacy Center, 40% of individuals with serious mental illnesses have been in jail or prison at some time in their lives. In DY2, TTBH foresees a savings of $10,960 per jail diversion based on an average incarceration of 80 days at a cost of $137/day. The overall value for jail diversions by the end of DY5 is calculated to be $4,220,391.
- Hospital: According to the Hogg Foundation, 18.6% of admissions to medical hospitals are due to mental health conditions. Our data indicate that approximately 1.2 % of TTBH's service population is admitted to medical hospitals, and an estimated 17.4% of those served are kept out of the hospital. Texas Hospital Association sponsors Texas PricePoint as a resource for information on Texas hospitals. From this resource, we gathered psychiatric care data pertaining to our local counties, and calculated a weighted average hospital stay of 5.3 days and a weighted average collection cost of $678. The overall value is calculated to be $601,498.
- Emergency Room: Our service population admitted into the hospital visits the emergency room before hospitalization occurs. Therefore, our projected numbers are a reflection of our hospital data with a cost of $986 per visit and a total emergency room valuation of $165,046.
- Overall Project Valuation: The total project valuation is $4,986,935.

PROJECT 138708601.1.2	PROJECT OPTION 1.1.2	PROJECT COMPONENT(S) 1.1.2.a, 1.1.2.c	EXPAND PRIMARY CARE CAPACITY	
Tropical Texas Behavioral Health				138708601
Related Category 3 Outcome Measure(s):	138708601.3.2	3.IT-6.1	Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1 [P-1]: Establish additional /expand existing/relocate primary care clinics. Metric 1 [P-1.1]: Number of additional clinics or expanded hours or space. • Baseline/Goal: Baseline is 0. Goal is to develop a plan for the expansion of service capacity including building construction and renovation, purchase of necessary equipment and recruitment, hiring and training of new COPSD staff. • Data Source: Documentation of work plan and time frames. Milestone 1 Estimated Incentive Payment *(maximum amount):* $697,680 **Milestone 2** [P-X]: Evaluate and continuously improve services Metric 1: [P-X.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement.	**Milestone 3** [I-12]: Increase in primary care clinic volumes of visits and evidence of improved access for patients seeking services. Metric 1 [I-12.1]: Documentation of increased number of visits. • Baseline/Goal: In FY 2011, TTBH delivered 1374 COPSD service encounters. Goal is to increase COPSD services by 15% over baseline to 1,580 encounters. • Data Source: Encounter data Milestone 3 Estimated Incentive Payment *(maximum amount):* $630,557.50 **Milestone 4** [P-X]: Evaluate and continuously improve services Metric 1: [P-X.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement. Milestone 4 Estimated Incentive		**Milestone 5** [I-12]: Increase in primary care clinic volumes of visits and evidence of improved access for patients seeking services. Metric 1 [I-12.1]: Documentation of increased number of visits. • Goal: Increase COPSD services by 30% over baseline to 1,786 encounters. • Data Source: Encounter data Milestone 5 Estimated Incentive Payment *(maximum amount):* $664,952.50 **Milestone 6** [P-X]: Evaluate and continuously improve services Metric 1: [P-X.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement. Milestone 6 Estimated Incentive Payment *(maximum amount):* $664,952.50	**Milestone 7** [I-12]: Increase in primary care clinic volumes of visits and evidence of improved access for patients seeking services. Metric 1 [I-12.1]: Documentation of increased number of visits. • Goal: Increase COPSD services by 45% over baseline to 1,995 encounters. • Data Source: Encounter data Milestone 7 Estimated Incentive Payment *(maximum amount):* $500,277.50 **Milestone 8** [P-X]: Evaluate and continuously improve services Metric 1: [P-X.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement. Milestone 8 Estimated Incentive Payment *(maximum amount):* $500,277.50

PROJECT 138708601.1.2	*PROJECT OPTION* 1.1.2	*PROJECT COMPONENT(S)* 1.1.2.a, 1.1.2.c	*EXPAND PRIMARY CARE CAPACITY*	
Tropical Texas Behavioral Health				*138708601*
Related Category 3 Outcome Measure(s):	*138708601.3.2*	*3.IT-6.1*	*Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)*	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 2 Estimated Incentive Payment *(maximum amount):* $697,680	Payment *(maximum amount):* $630,557.50			
Year 2 Estimated Milestone Bundle Amount: $1,395,360	Year 3 Estimated Milestone Bundle Amount: $1,261,115		Year 4 Estimated Milestone Bundle Amount: $1,329,905	Year 5 Estimated Milestone Bundle Amount: $1,000,555
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $4,986,935				

Identifying Project and Provider Information:
Development of behavioral health crisis stabilization services as alternatives to hospitalization.
Unique RHP Project identification number: 138708601.1.3
Performing Provider/TPI: Tropical Texas Behavioral Health/138708601
Project Option 1.13.2

Project Description:
Develop crisis stabilization alternatives to more expensive and preventable crisis resolution mechanisms. TTBH will add two Mobile Crisis Outreach Team (MCOT) staff at each of our three main clinics trained in the delivery of crisis services to individuals with co-occurring mental health needs and Intellectual and Developmental Disabilities (IDD), and increase the volume of crisis encounters to individuals with co-occurring behavioral health needs and IDD by 30% over baseline. Additionally, TTBH staff will collaborate with the Rio Grande State Center and the Wood Group to make respite and crisis respite services, respectively, available to this targeted population, and to implement behavior management plans when clinically indicated to prevent admission/readmission to inpatient psychiatric care. By enhancing our MCOTs through the addition of specially trained staff, TTBH will ensure more consistent identification of co-occurring mental illness in individuals with IDD who experience behavioral health crises. Based on their training and experience, these staff will have the knowledge and skills needed to comprehensively address the co-occurring disorders and recommend and coordinate levels of care appropriate to stabilize behavioral health crises in the community. This will prevent or reduce repeat cycles of higher-cost, restrictive institutional alternatives, increase utilization of routine behavioral health services, and improve health outcomes and the experience of care for the person served.

All services funded by this waiver will be monitored through TTBH's Quality Management (QM) and Utilization Management (UM) structures. The QM/UM programs utilize several internal committees including but not limited to the Performance Improvement and Compliance and Utilization Management Committees, and the support of the Management of Information Systems (MIS) and Quality Management (QM) Departments, to continuously monitor performance indicators related to service quality, health outcomes and business performance through a plan, do, study, act quality improvement process. In addition to specified Category 3 Waiver outcome targets, relevant data will be evaluated regularly against the Center's past performance, national benchmarks, state mandated performance targets and applicable accreditation standards to drive performance improvement activities when indicated. Recommendations for identified performance improvement actions are routed to TTBH's Executive Management and Board of Trustees when necessary. In keeping with TTBH's existing quality improvement structures, and as recommended by the Texas HHSC and the Centers for Medicare and Medicaid Services, prescribed and customized quality improvement process milestones reflecting plan, do, study, act quality improvement cycles have been incorporated into this plan.

Goals and Relationship to Regional Goals:
Project goals:

- TTBH will add two Mobile Crisis Outreach Team (MCOT) staff at each of our three main clinics trained in the delivery of crisis services to individuals with co-occurring mental health needs and Intellectual and Developmental Disabilities (IDD).

- Increase the volume of crisis encounters to individuals with co-occurring behavioral health needs and IDD by 30% over baseline (to be determined in DY2, based on data being collected by the Texas Department of Aging and Disability Services (DADS)).
- Collaborate with the Rio Grande State Center and the Wood Group for the availability of respite and crisis respite services, respectively.
- Increase utilization of routine behavioral health services.
- Reduce the use of higher-cost, restrictive institutional alternatives.
- Improve health outcomes and the experience of care for the person served.

This project meets the following regional goals:

- Improve on existing programs to ensure that the health care delivery system will be adequately developed to meet the primary and specialty care needs of residents throughout a rapidly growing, yet historically underserved region.
- Increase access to primary and specialty care services, including behavioral health services, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition, regardless of where they live or their ability to pay.
- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of best practices to improve access to and timely utilization of appropriate care, including behavioral health services.
- Expand the workforce of qualified primary care and specialty care providers to reduce health care workforce shortages and thus reduce delays in care seeking and inappropriate emergency department utilization, help prevent admission/readmission to inpatient psychiatric and improve patient satisfaction.

Challenges and How Addressed:

Challenges:

- Appropriate space for additional behavioral health staff and persons served.
- Recruitment, retention and training of behavioral health care providers.

Addressed by:

- Continued progress on the planned expansion of three outpatient clinics to increase capacity to serve all counties in the TTBH catchment area.
- Competitive hiring and salary structure based on years of experience.
- Structured career ladder advancement opportunities for each position.
- Productivity incentive opportunities.
- Marketing strategies for recruitment.
- Recruitment incentives through the agency's Health Professional Shortage Area (HPSA) designation with the National Health Service Corps.
- Tuition reimbursement opportunities.
- Re-location reimbursement.
- Opportunities for training and education to enhance staff competencies and promote professional development.

5 Year Expected Outcome:

We expect to see an increase in utilization of appropriate crisis alternatives and plan to increase the number of crisis encounters with individuals with co-occurring behavioral health and IDD needs annually and by 30% over baseline by DY5.

Starting Point/Baseline:
Baseline will be established in Waiver DY2, based on data currently being collected by DADS.

Rationale:
While the existence of co-occurring mental illness in persons with IDD has been acknowledged within the field of behavioral health, as has their increased risk of developing mental illness compared to people without IDD, the realization of successful mental health treatment outcomes for this population has not kept pace with this knowledge. A study commissioned by the Texas Legislature determined that a fundamental barrier to appropriate care for people with co-occurring mental health disorders and IDD is a lack of adequately trained clinicians who are competent to respond to behavioral health crises with this population. The lack of available clinicians skilled in addressing the behavioral health needs of this population results in undiagnosed, untreated or undertreated mental illness and an increased risk of behavioral health crisis. This problem is compounded by the cognitive and intellectual limitations experienced by this population. The resulting poor outcomes for persons with co-occurring mental illness and IDD include more frequent and longer psychiatric hospitalizations with little improvement in behavioral functioning. The alternatives to competent community-based treatment are repeated and extended stays in psychiatric hospitals and institutionalization in State Supported Living Centers; expensive and often ineffective intervention options. Through the development of crisis stabilization alternatives we avoid costly inpatient and emergency services and allow for a better opportunity for improved patient outcomes.

Project Components:
Project option 1.13.2 does not have additional core components.

Milestones and Metrics:
The following milestones and metrics were chosen for the TTBH Crisis Stabilization project based on the project option and the needs of the target population:

- Process Milestones and Metrics: P-4 (P-4.1); P-6 (P-6.1)
- Improvement Milestones and Metrics: I-12 (I-12.1)

Unique community needs identification numbers:
This project addresses community need CN.2, related to shortage of behavioral health care professionals and inadequate access to behavioral health care.

How the Project Represents a New Initiative or Significantly Enhances an Existing Delivery System Reform Initiative:
Currently, TTBH MCOTs are not staffed by individuals with specialized training to intervene on behalf of individuals with co-occurring mental health and IDD needs. Ensuring the delivery of the most appropriate and timely care for these especially vulnerable members of our treatment population in the event of and to prevent psychiatric emergencies requires communication between already overburdened mental health and IDD service providers, often resulting in unnecessary delays in access to appropriate care. The addition of crisis team staff skilled in addressing issues unique to the

delivery of crisis intervention and prevention services to individuals with these co-occurring disorders will reduce unnecessary inpatient psychiatric admissions/readmissions and improve outcomes and the experience of care for those we serve and their families.

Related Category 3 Outcome Measure(s):
TTBH will measure outcomes for each of our proposed projects by assessing the satisfaction of persons served across several treatment and health related domains. Ultimately, the individuals served are at the center of health care delivery reform efforts and their experience of the care they receive is critical. Although a patient's perception of the quality of treatment is influenced by many aspects of their care, a growing body of evidence supports the use of patient satisfaction as a legitimate measure of treatment outcomes. Research has demonstrated strong positive relationships between patients' reported satisfaction and characteristics of the service delivery system including the amount of time providers spend with patients, the amount of information given to the patient, continuity of provider and when providers show personal interest in their patients. Higher levels of satisfaction have also been shown to be predictive of increased adherence to treatment recommendations and increased health-seeking behaviors, while lower levels of satisfaction with and confidence in the quality of services correlates with an increase in complaints and a decreased willingness to seek care, potentially leading to serious health complications. Accordingly, focusing on the satisfaction of those served is directly linked to ensuring that the services provided not only improve the experience of care, but meet the individual needs of the person served and promote wellness and recovery-oriented behaviors in the individual as well.

Relationship to other Projects:
Enhancement of behavioral health services to those with co-occurring mental illness and IDD is linked to and supports the Center's goal for the overall expansion of behavioral healthcare capacity (Project 138708601.1.1). Persons receiving integrated MH/IDD crisis stabilization services may be assessed as having physical health needs that would benefit from the planned integration of primary care within TTBH clinics (Projects 138708601.2.1 and Project 138708601.2.4).

Relationship to Other Performing Providers' Projects in the RHP:
This project is unique to the region as we will develop behavioral health crisis stabilization services as alternatives to hospitalization. We will coordinate our service capacity to support this community.

Plan for Learning Collaborative:
We plan to participate in a region-wide learning collaborative(s) as offered by the Anchor entity for Region 5, Hidalgo County. Our participation in this collaborative with other Performing Providers within the region that have similar projects will facilitate sharing of challenges and testing of new ideas and solutions to promote continuous improvement in our Region's healthcare system.

Project Valuation:

- Jail Diversion is a key component of our proposed projects. According to the Treatment Advocacy Center, 40% of individuals with serious mental illnesses have been in jail or prison at some time in their lives. In DY2 TTBH foresees a savings of $10,960 per jail diversion based on an average incarceration of 80 days at a cost of $137/day. The overall value for jail diversions by the end of DY5 is calculated to be $2,069,024.

- Hospital: According to the Hogg Foundation, 18.6% of admissions to medical hospitals are due to mental health conditions. Our data indicate that approximately 1.2 % of TTBH's service population is admitted to medical hospitals, and an estimated 17.4% of those served are kept out of the hospital. Texas Hospital Association sponsors Texas PricePoint as a resource for information on Texas hospitals. From this resource, we gathered psychiatric care data pertaining to our local counties, and calculated a weighted average hospital stay of 5.3 days and a weighted average collection cost of $678. The overall value is calculated at $294,881.
- Emergency Room: Our service population admitted into the hospital visits the emergency room before hospitalization occurs. Therefore, our projected numbers are a reflection of our hospital data with a cost of $986 per visit and a total emergency room valuation of $80,913.
- Overall Project Valuation: The total project valuation is $2,444,818.

PROJECT 138708601.1.3	PROJECT OPTION 1.13.2	PROJECT COMPONENT(S) N/A	DEVELOPMENT OF BEHAVIORAL HEALTH CRISIS STABILIZATION SERVICES AS ALTERNATIVES TO HOSPITALIZATION	
	Tropical Texas Behavioral Health			138708601
Related Category 3 Outcome Measure(s):	138708601.3.3	3.IT-6.1	Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1 [P-4]: Hire and train staff to implement identified crisis stabilization services. Metric 1 [P-4.1]: Number of staff hired and trained. • Baseline/Goal: Baseline, NA. Goal is to develop a plan to expand service capacity at TTBH's 3 main clinics for the delivery of crisis services to persons with co-occurring IDD and behavioral health needs, including building construction and renovation, purchase of necessary equipment, revision to applicable policies and procedures and recruitment, hiring and training of staff. • Data Source: Documentation of work plan and time frames including building construction and renovation, purchase of necessary equipment, development of necessary policies and procedures and recruitment, hiring and training of staff. Milestone 1 Estimated Incentive Payment *(maximum amount):* $143,020	**Milestone 3** [I-12]: Utilization of appropriate crisis alternatives. Metric 1 [I-12.1]: Increase in utilization of appropriate crisis alternatives. • Baseline/Goal: Baseline will be established in Waiver DY 2, based on data being collected by DADS. Goal is to increase the number of crisis encounters with individuals with co-occurring behavioral health and IDD needs by 10% over baseline. • Data Source: Encounter data Milestone 3 Estimated Incentive Payment: $379,007.50 **Milestone 4** [P-6]: Evaluate and continuously improve crisis services Metric 1: [P-6.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement.		**Milestone 5** [I-12]: Utilization of appropriate crisis alternatives. Metric 1 [I-12.1]: Increase in utilization of appropriate crisis alternatives. • Goal: Increase the number of crisis encounters with individuals with co-occurring behavioral health and IDD needs by 20% over baseline. • Data Source: Encounter data Milestone 5 Estimated Incentive Payment: $399,681 **Milestone 6** [P-6]: Evaluate and continuously improve crisis services Metric 1: [P-6.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement. Milestone 6 Estimated Incentive Payment *(maximum amount):* $399,681	**Milestone 7** [I-12]: Utilization of appropriate crisis alternatives. Metric 1 [I-12.1]: Increase in utilization of appropriate crisis alternatives. • Goal: Increase the number of crisis encounters with individuals with co-occurring behavioral health and IDD needs by 30% over baseline. • Data Source: Encounter data Milestone 7 Estimated Incentive Payment: $300,700 **Milestone 8** [P-6]: Evaluate and continuously improve crisis services Metric 1: [P-6.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement. Milestone 8 Estimated Incentive Payment *(maximum amount):* $300,700

PROJECT 138708601.1.3	PROJECT OPTION 1.13.2	PROJECT COMPONENT(S) N/A	DEVELOPMENT OF BEHAVIORAL HEALTH CRISIS STABILIZATION SERVICES AS ALTERNATIVES TO HOSPITALIZATION	
	Tropical Texas Behavioral Health			*138708601*
Related Category 3 Outcome Measure(s):	*138708601.3.3*	*3.IT-6.1*	*Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)*	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 2 [P-6]: Evaluate and continuously improve crisis services Metric 1: [P-6.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement. Milestone 2 Estimated Incentive Payment *(maximum amount):* $143,020	Milestone 4 Estimated Incentive Payment *(maximum amount):* $379,007.50			
Year 2 Estimated Milestone Bundle Amount: $286,040	Year 3 Estimated Milestone Bundle Amount: $758,015		Year 4 Estimated Milestone Bundle Amount: $799,362	Year 5 Estimated Milestone Bundle Amount: $601,400
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $2,444,817				

UT - Category 1: Infrastructure Development

Title: Improving Primary Care Access through expansion of internal medicine residency
Unique Project ID: 085144601.1. 1
Performing Provider/TPI: University of Texas Health Science Center San Antonio / 085144601
Project Option 1.2.4: Expand Primary Care/Internal Medicine Residency Training Program at Valley Baptist – Harlingen

PROJECT DESCRIPTION

The primary goal of this DSRIP project is to increase the number of primary care providers (i.e., physicians, residents) in RHP 5 by expanding and deepening the existing internal medicine residency program sponsored by the Regional Academic Health Center of The University of Texas Health Science Center San Antonio (UTHSCSA-RAHC). The project will build on the partnership among UTHSCSA-RAHC, Valley Baptist Medical Center – Harlingen (VBMC-H), Su Clinica Familiar (Su Clinica), and the Veterans Administration Coastal Bend Health System (VA) to expand the training program from its current 15 residents (5 in each year of the 3-year program) to a capacity of up to 30 (10 per year), and will expand the full time faculty leadership and staff in the program commensurately. It will build on the success of the program in training clinicians who locate their practices in RHP 5, helping to alleviate the area's substantial primary care workforce shortage and will update the training program to include more organized care delivery models and related research and scholarly work. The new faculty (over the near term), and new resident trainees (over the medium term), and graduates (over the longer term) will expand the workforce, allaying the shortage of primary care providers thereby reducing delays in care seeking, reducing inappropriate and costly emergency department utilization, and increasing patient satisfaction. It will complement the other existing and new residency programs of UTHSCSA-RAHC and be a foundational element for development of the UTHSCSA-RAHC into a full four-year medical school in RHP 5 as envisioned by the Texas legislature and planned by the Regents. The Texas 1115 Medicaid waiver provides an important opportunity to increase access to primary care through increasing the number of primary care physicians and expanding the pipeline of well trained and culturally aware physicians for the underserved RHP5.

Additional Project Goals: Beyond the goal of expanding the RHP5 primary care workforce to increase access and capacity, this expansion is designed to strengthen an integrated health care system and to play a key role in implementing disease management programs, through:

- implementing an innovative curriculum that incorporates population health management, chronic disease management, and clinical safety and effectiveness training;
- conducting quality improvement projects to continuously improve clinical outcomes and efficiency; and
- collaborating with other new and expanding residency training programs in the region to transform the delivery system for the South Texas community.

A greater focus on primary care will be crucial to the success of an improved, reformed and more integrated health services delivery system in which patients have enhanced access to services, allowing them to receive the right care at the right time in the right setting.

Relationship to Regional Goals:

This project will advance achievement of regional goals identified in RHP 5:

- By combining the resources of a major safety net hospital, VBMC-H; safety net ambulatory care provider, Su Clinica; the VA; and The University of Texas, leverage and improve on existing programs and infrastructure to ensure that the health delivery system will be adequately developed to meet the primary care needs of residents throughout a rapidly growing, yet historically underserved region.
- Increase access to primary care services in the short-term with new faculty, in the intermediate term also with resident trainees, and in the long-term also with graduate physicians, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition.
- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of technology and best-practices to improve access and timely utilization of appropriate care.
- Transform health care delivery to a patient-centered, coordinated and integrated delivery model that improves patient satisfaction and health outcomes, reduces unnecessary emergency department use and duplicative services, and expands on the existing health care system.

Challenges or Issues faced:
At the dawn of the implementation of health care reform, Texas is experiencing a dramatic shortage of primary care workforce including physicians and a dearth of medical students choosing careers in primary care. South Texas has long been a medically underserved region, and is particularly underserved for primary care with 55 physicians per 100K population compared to 70 per 100K in Texas (80% of Texas average). Similarly there are 103 direct care physicians per 100K in RHP5 compared 165 per 100K in Texas. The need for enhanced primary care resources in Region 5 is challenging.

Designing interventions to meet the need also is challenging. Doubling the size of the existing internal medicine residency will require approval by the Internal Medicine Residency Review Committee (RRC), which meets only three times each year to review well documented requests that must be submitted at least two months prior to the meeting. Approval for expanding the program must be obtained before the program can recruit more than 5 residents to enter the next year's class. Over the past several years, the RRC's requirements for program accreditation have become increasingly specific on requirements for protected academic time for core faculty members, scholarly activity by faculty and residents, and limitations on the work hours and schedules for residents. Meeting these requirements in an expanded program will require the hiring and development of a cadre of full-time UTHSCSA-RAHC faculty who will become the faculty core for the program, taking over a range of duties formerly performed by community volunteer faculty.

How the Project addresses these Challenges
Expanding the faculty physicians who will provide patient care services and expanding the pipeline of primary care physicians through this project is an important part of the solution to the constellation of health problems documented in the RHP-5 Health Needs Assessment. To meet the challenges of accrediting the expanded program, UTHSCSA-RAHC will draw on its strong and successful history of relationships with VBMC-H, Su Clinica and the VA; its ability to recruit faculty nationally; and the extensive experience of UTHSCSA faculty and staff with accreditation processes.
Five-year expected outcomes:

By the end of the Demonstration Period in September 2016, increase the number of internal medicine residents from 15 to 25 (toward 30 in full development), increase in the full-time Core faculty in the program commensurately, and increase access to primary care through expansion of the continuity clinic now in operation and new ambulatory care established by the new full time faculty.

STARTING POINT/BASELINE

Currently, December 2011, the benchmark for internal medicine residents is 15 (5 per year in a three-year training program). The other UTHSCSA-RAHC primary care residency in RHP5 is the family medicine program in Hidalgo County, which provides training for 18 residents (6 per year in a three-year training program).

RATIONALE

Reasons for selection this project option. Texas has a growing shortage of primary care doctors and nurses due to the needs of an aging population, a decline in the number of medical students choosing primary care, and thousands of aging baby boomers who are doctors and nurses looking towards retirement. The shortage of primary care workforce personnel in Texas is a critical problem that we have the opportunity to begin addressing under this waiver. It is difficult to recruit and hire primary care physicians—especially in South Texas.

The shortage of primary care providers has contributed to increased wait times in hospitals, community clinics, and other care settings. In 2010, Texas had 176 patient care physicians per 100,000 population and 70 primary care physicians per 100,000 population -- a state ranking of 46 and 47, respectively. (Comparable ratios for US Total are 219.5 and 90.5, respectively.) From 2001 to 2011, the Texas physician workforce grew 32.3%, exceeding the population growth of 25.1%. Primary care physician workforce, however, grew only 25% in the same period. From 2002 to 2011, Texas increased medical school enrollment 31% from 1,342 to 1,762 in line with the national call by the Association of American Medical Colleges to increase medical school enrollments by 30%. In 2011, there were 1,445 medical school graduates. Coincidentally, there were 1,445 allopathic entry level GME positions offered in Texas in the annual National Resident Matching program. (There were 31 osteopathic slots.) The Texas Higher Education Coordinating Board recommends a ratio of 1.1 entry-level GME positions for each Texas medical school graduate. The number of Texas medical school graduates is expected to peak at over 1,700 in 2015. This implies a need for 400 additional GME positions by 2015. The shortage of GME positions or residency slots may be the single most problematic bottleneck in Texas' efforts to alleviate the state's physician shortage.

In South Texas excluding Bexar County, there are only 43 primary care physicians per 100,000 population, according to an April 2012 report by the Texas Higher Education Coordinating Board. This compares to 65 per 100,000 for greater South Texas including Bexar County and 78 per 100,000 for Central Texas.

The pool of undiagnosed and untreated chronic disease in RHP5 is a social, economic and psychological drain on this population and represents one of the most substantial levels of health disparities in the country. This has a great impact on the community and affects its ability to improve its levels of education and economic productivity. The extremely low level of primary care providers in RHP5 makes it even more imperative to increase access to primary care for those with

undiagnosed and untreated chronic diseases. One of the most cost saving measures that can be taken is to expand primary care to move people with undiagnosed and untreated chronic disease to programs for management and prevention the keep them from costly complications that promote eventual presentation at emergency care facilities and to being hospitalized with advanced disease.

Project components:

- Identify high impact services and gaps in care and coordination
- Recruit Internal Medicine Associate Program Director and full-time core faculty
- Implement innovative curriculum including population health management, chronic disease registries, team-based community care, data analytics, and quality improvement projects using the PDSA and other methodologies contained in the UT System Clinical Safety & Effectiveness (CS&E) course
- Attain ACGME approval for the expansion of the program
- Recruit and enroll Internal Medicine residents

Unique community need identification number the project addresses:

- CN.1 – Shortage of primary and specialty care providers and inadequate access to primary or preventive care

How the project represents a new initiative or significantly enhances an existing delivery system reform initiative:

The Internal Medicine residency training program has had good success in producing graduates who have remained in RHP-5 to provide primary care services. Expansion of the program seeks to expand on that success. It also will expand the ability of the residents and faculty to provide primary care services through the continuity clinic organized at Su Clinica as well as providing comprehensive follow-up care for previously undiagnosed patients admitted to VBMC. The faculty for the Internal Medicine residency program will collaborate with the faculty for the new and existing training programs throughout RHP 5. Expansion of the program faculty also will allow enhancement of the program through greater scholarly activity focused on the clinical conditions especially prominent in RHP 5 and greater involvement of faculty and residents in quality improvement efforts at VBMC.

Data Driving this Project:

The need for enhanced primary care in this health disparity population is difficult to overstate and is extensively documented. Data published by the United States Census Bureau in 2012 show that 88.1% (Cameron County) and 90.7% (Hidalgo County) of the population is Mexican American or Latino in origin and that 34.7% live below the poverty line (compared with 16.8% for Texas and 13.8% nationally (http://quickfacts.census.gov/qfd/states/00000.html). Currently only 31.4% of RHP5 citizens have insurance of any kind, more than half of which is Medicare or Medicaid. Obesity is the underlying and exacerbating issue. Published data (Fisher-Hoch et al, 2012) from our locally recruited, randomized community cohort show that the prevalence of obesity is 48.5% and that 8.0% are morbidly obese. The prevalence of diabetes is an alarming 30.7% in adults 18 years or over. Eighty-four percent of those with hypertension are diagnosed, but only half of those with diabetes or hypercholesterolemia are diagnosed. Many participants with diabetes (55.5%) and hypertension (50.0%) are untreated as are 85% of those with hypercholesterolemia. Multiple complications of

diabetes and obesity include renal failure requiring dialysis, and heart failure, and at least 12% have evidence of liver disease associated with obesity and diabetes leading to liver failure and liver cancer. The underlying conditions are essentially preventable or treatable. The long term cost of neglect will be huge. Prevention and early intervention are key. These health needs need to be first addressed through primary care, providing diagnosis, preventive care and simple interventions for patients before their disease is advanced. Expansion of the residency program and its faculty will allow RHP5 to make significant progress toward this end.

Related Category 3 Outcome Measure(s):
OD-14 Primary Care Workforce

Stand-alone: IT - 14.1 Number of practicing primary care physicians per 100,000 individuals in HPSA or MUA

Non-stand-alone but related:

IT - 14.6 percent of trainees who have spent at least 5 years living in a health-professional shortage area (HPSA) or medically underserved area (MUA)

IT - 14.7 Percent of trainees who report that they plan to practice in HPSAs or MUAs based on a systematic survey

IT – 14.8 Percent of trainees who report that they plan to serve Medicaid populations based on a systematic survey

Rationale for selecting the outcome measures: It is challenging to select outcome measures in the early stages of planning the expansion of the residency program, given the lack of clarity and complete plans about when and where faculty will practice, the part-time nature of that practice, and the fact that three or more years of training are required before the first-matriculated residents will begin independent clinical practice.

Because the Associate Program Director and core faculty be recruited and in place even before the programs are accredited and will dedicate 25-50% of their time to clinical care, they will have an impact on the number of practicing primary care practitioners per 100,000 individuals in RHP-5.

The bundle of three non-standalone measures above, in the program's experience to date, is a set of strong predictors of the future decisions of residents in the program to enter practice in RHP5 or elsewhere in South Texas.

Relationship to other Projects:
The project is related to UTHSCSA's Projects in RHP 5:

- 085144601.1.2 Expand high impact specialty care capacity in Behavioral Health at Valley Baptist - Brownsville; and
- 085144601.1.3 Increase faculty to support an expanded Family Medicine residency program at McAllen Medical Center.

Relationship to Other Performing Providers' Projects in the RHP:
This project is related to the following projects by other performing providers in RHP5 (all at Doctors Hospital at Renaissance):

- Establish Primary Care Training Program 160709501.1.1; 160709501.1.2; 160709501.1.3
- 160709501.1.4 Expand high impact specialty care capacity in most impacted medical specialties (Establish General Surgery Training Program).

Plan for Learning Collaborative:
All of the new and existing residency training programs in RHP 5 will be/are directed by UTHSCSA faculty. The University of Texas System and UTHSCSA, specifically, have a nationally known Clinical Safety & Effectiveness (CS&E) training program embedded in their medical schools and clinical facilities. CS&E is a training course with PDSA at the heart of the curriculum; a strategic improvement project is required as part of the course. Many faculty and staff adopt CS&E into their ongoing activities after graduation from the training. In addition, UTHSCSA requires all new resident trainees to complete the core curriculum of the IHI Open School prior to joining the training programs. All of the residency training programs will feature innovative curriculum components focused on population health management, team-based community care, the use of chronic disease registries, and the application of data analytics. The Program Directors will meet quarterly to discuss and share quality improvement efforts within the context of the CS&E program as well as the common core curriculum components related to population health management, chronic disease registries, team-based community care, and data analytics.

Project Valuation:
South Texas has historically been a medically underserved area and as documented above Region 5 has a very large pool of undiagnosed chronic disease that leads to high rates of emergency visits and admissions that could be avoided through primary care. The University of Texas System has committed to expand medical education in South Texas and graduate the first class of medical students in 2018. These graduates will be far more likely to stay and practice in south Texas if they complete their residency training programs locally. This residency expansion project, along with the other new and expanding residency projects in RHP5, can transform the medical community and the healthcare delivery system in South Texas. With innovative curricula designed to meet community needs, UT faculty will train new physicians for practice, engage community physicians as preceptors, and embed the UT Clinical Safety & Effectiveness program in local hospital quality improvement efforts.

Unique Identifier	*Reference Number*	*Project Component(s):*	Expand Primary Care/Internal Medicine Training Program at Valley Baptist - Harlingen	
085144601.1.1	*1.2.4*			
Performing Provider: UT Health Science Center San Antonio				TPI: 085144601
Related Category 3 Outcome Measure(s):	085144601.3.1	IT-14.1	Number of practicing primary care practitioners per 100,000 individuals in HPSA or MUA	

Year 2 (10/1/2012 – 9/30/2013)	Year 3 (10/1/2013 – 9/30/2014)	Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
Milestone 1 [P-1]: Conduct a primary care gap analysis to determine workforce needs. Metric 1 [P-1.1]: Gap assessment of workforce shortages and delivery system, i.e., patient-centered medical homes, disease registries, HIE. Goal: Produce a comprehensive report documenting existing and needed primary care resources. Data Source: Assessment results. Milestone 1 Estimated Incentive Payment: $1,367,592 **Milestone 2 [P-2]:** Expand primary care training for primary care internal medicine providers: Metric 1 [P-2.2]. Hire Associate Program Director and 2 additional Core full-time faculty members. Baseline: At the beginning of DY 2, the program has no Associate	**Milestone 3 [P-2]:** Expand primary care training for primary care physicians Metric 1: [P-2.1]: Expand the primary care training program Baseline: Program limited to 15 residents at the beginning of DY2. Goal: Application for increase to 30 residents to be submitted by 2/2014 for Residency Review Committee (RRC) 9/14 meeting Data Source: Training program records Metric 2 [P-2.2]. Hire 2 additional Core full-time faculty members. Baseline: At the beginning of DY 2, the program has no Associate Program Director or Core full-time faculty Goal: build the Core full-time faculty to begin the application to	**Milestone 6** [P-10]. Obtain approval from the Accreditation Council for Graduate Medical Education (ACGME) to increase the number of primary care residents to 30. Metric 1 [P-10.1] Documentation of ACGME approval for residency position expansion Baseline: Program limited to 15 residents at the beginning of DY2. Goal: receive GME approval for expansion Data Source: Training program records Milestone 6 Estimated Incentive Payment: $505,769 **Milestone 7 [P-2]**. Expand primary care training for primary care internal medicine. Metric 1 [P-2.2]. Hire 1 additional Core full-time faculty member.	**Milestone 10 [I-11]:** Increase primary care training and/or rotations. Metric 1 [I-11.4]: Increase the number of primary care residents in training. Baseline: Program limited to 15 residents at the beginning of DY2 Goal: Recruit second cohort of 5 additional residents as of 7/15/2016. Total residents in program = 25. Data Source: Program enrollment records. Metric 2 [I-11.2]: Increase the number of primary care trainees rotating at the Performing Provider's facilities. Goal: Documented increase over baseline and as compared to DY 4. Data Source: Inpatient rotations from program records. Milestone 10 Estimated Incentive Payment: $1,034,822 **Milestone 11 [I-15]:** Increase primary care training in Continuity Clinics.

134

Unique Identifier	*Reference Number*	*Project Component(s):*	Expand Primary Care/Internal Medicine Training Program at Valley Baptist - Harlingen	
085144601.1.1	*1.2.4*			
Performing Provider: UT Health Science Center San Antonio			TPI: 085144601	
Related Category 3 Outcome Measure(s):	085144601.3.1	IT-14.1	Number of practicing primary care practitioners per 100,000 individuals in HPSA or MUA	

Year 2 (10/1/2012 – 9/30/2013)	Year 3 (10/1/2013 – 9/30/2014)	Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
Program Director or Core full-time faculty Goal: build the Core full-time faculty to begin the application to the RRC for program expansion Data Source: HR documents, faculty lists Milestone 2 Estimated Incentive Payment: $1,367,593	the RRC for program expansion Data Source: HR documents, faculty lists Milestone 3 Estimated Incentive Payment: $1,501,785 **Milestone 4 [P-3]:** Expand positive primary care exposure for residents. Metric 1 [P-3.3] Include residents in quality improvement projects. Baseline: No specific training experience incorporated with the hospital exists currently. Goal: Resident participation in QI efforts. Data source: Curriculum or QI project documentation. Milestone 4 Estimated Incentive Payment: $750,893 **Milestone 5 [I-14]** Increase the number of faculty staff completing educational courses.	Baseline: At the beginning of DY 2, the program has no Associate Program Director or Core full-time faculty Goal: build the Core full-time faculty to begin the application to the RRC for program expansion Data Source: HR documents, faculty lists Milestone 7 Estimated Incentive Payment: $505,770 **Milestone 8** [I-11]. Increase primary care training and/or rotations. Metric 1 [I-11.4]. Increase the number of primary care residents in training Baseline: Program limited to 15 residents at the beginning of DY2. Goal: Demonstrate improvement over prior reporting period (baseline for DY2): recruit 10 residents into the PY1 class beginning 7/1/2015; residents in program to 20. Data source: Program records Milestone 8 Estimated Incentive Payment:	Metric 1 [I-15.1]: Increase number of Continuity Clinic sessions available for primary care residents. Goal: Documented increase over baseline and as compared to DY 4. Data Source: Number of resident continuity clinic sessions from program records Milestone 11 Estimated Incentive Payment: $1,034,822 **Milestone 12 [I-14]** Increase the number of faculty staff completing educational courses. Metric 1 [I-14.1] Number of faculty staff completing Clinical Safety & Effectiveness (CS&E) course. Goal: Two full-time faculty members complete the CS&E training. Data Source: Program records. Milestone 12 Estimated Incentive Payment: $1,034,822

135

Unique Identifier	*Reference Number*	*Project Component(s):*	Expand Primary Care/Internal Medicine Training Program at Valley Baptist - Harlingen	
085144601.1.1	*1.2.4*			
Performing Provider: UT Health Science Center San Antonio			TPI: 085144601	
Related Category 3 Outcome Measure(s):	085144601.3.1	IT-14.1	Number of practicing primary care practitioners per 100,000 individuals in HPSA or MUA	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3** (10/1/2013 – 9/30/2014)		**Year 4** (10/1/2014 – 9/30/2015)	**Year 5** (10/1/2015 – 9/30/2016)
	Metric 1 [I-14.1] Number of faculty staff completing Clinical Safety & Effectiveness (CS&E) course. Goal: Two full-time faculty members complete the CS&E training. Data Source: Program records. Milestone 5 Estimated Incentive Payment: $750,893		$1,011,538 **Milestone 9** [I-15]: Increase primary care training in Continuity Clinics. Metric 1 [I-15.1]: Increase number of Continuity Clinic sessions available for primary care residents. Baseline: In DY2, continuity clinic sessions are limited to those required for 15 residents. Goal: Documented increase over baseline and as compared to DY 3. Data Source: Number of resident continuity clinic sessions from program records Milestone 9 Estimated Incentive Payment: $1,011538	
Year 2 Estimated Milestone Bundle Amount: $2,735,185	Year 3 Estimated Milestone Bundle Amount: $3,003,571		Year 4 Estimated Milestone Bundle Amount: $3,034,615	Year 5 Estimated Milestone Bundle Amount: $3,104,466
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $11,877,837				

136

Title: Expand high impact specialty care capacity in Behavioral Health
Unique Project ID: 085144601.1.2
Performing Provider/TPI: UT Health Science Center San Antonio /_085144601

Project Option 1.9.1 - Expand high impact specialty care capacity in Behavioral Health: Establish Psychiatry Residency Training Program at Valley Baptist – Brownsville

PROJECT DESCRIPTION
The primary goal of this DSRIP project (1.9.1) will be to expand specialty care in behavioral health by establishing a psychiatry residency program (including child and adolescent psychiatry) that will address the severe shortage of behavioral health professionals in RHP5. The program will be sponsored by the Regional Academic Health Center of The University of Texas Health Science Center San Antonio (UTHSCSA-RAHC) and located primarily at Baptist Medical Center – Brownsville (VBMC-B). The Veterans Administration Coastal Bend Health System (VA) and the Rio Grande State Center (RGSC) also will provide sites for clinical training in the program.

New full-time UT faculty (to be recruited over the near term), and new resident trainees (over the medium term), and graduates (over the longer term) will expand the behavioral health workforce, allaying the extreme shortage of behavioral health providers in RHP5 thereby reducing delays in care seeking, reducing inappropriate and costly emergency department utilization, and increasing patient satisfaction. It will complement the other existing and new residency programs of UTHSCSA-RAHC and be a foundational element for development of the UTHSCSA-RAHC into a full four-year medical school in RHP 5 as envisioned by the Texas legislature and planned by the Regents. As the program matures and the number of faculty and local psychiatrists grow opportunities for multidisciplinary training and clinical programs will expand. The Texas 1115 Medicaid waiver provides an important opportunity to increase access to behavioral health care through increasing the number of psychiatrists and expanding the pipeline of well trained and culturally aware mental health providers for the underserved RHP5.

Additional Project Goals: Beyond the goal of expanding the RHP5 behavioral health workforce to increase access and capacity, this project is designed to strengthen an integrated health care system, through:

- conducting quality improvement projects to continuously improve clinical outcomes and efficiency; and
- collaborating with other new and expanding residency training programs in the region to transform the delivery system to better meet the physical and mental health needs of the South Texas community.

The program will be crucial to the success of an improved, reformed and more integrated health services delivery system in which patients have enhanced access to services, allowing them to receive the right care at the right time in the right setting.

Relationship to Regional Goals:
A major regional goal is to increase the number of behavioral health professionals and to create a pipeline for continuing to develop and supply behavioral health professionals. This program achieves that goal.

In addition, this project will advance achievement of other regional goals identified in RHP 5:

- By combining the resources of a major safety net hospital, VBMC-B; the VA; and The University of Texas, ensure that the behavioral health delivery system will be adequately developed to meet the needs of residents throughout a rapidly growing, yet historically underserved region.
- Increase access behavioral health services in the short-term with new faculty, in the intermediate term also with resident trainees, and in the long-term also with graduate physicians, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition.
- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of technology and best-practices to improve access and timely utilization of appropriate care.
- Transform health care delivery to a patient-centered, coordinated and integrated delivery model that improves patient satisfaction and health outcomes, reduces unnecessary emergency department use and duplicative services, and improves the existing health care system.

Challenges or Issues faced:
At the dawn of the implementation of health care reform, Texas is experiencing a dramatic shortage of behavioral health workforce including psychiatrists. South Texas has long been a medically underserved region, and is particularly underserved for behavioral health with 2.8 psychiatrists per 100,000 population and virtually no child psychiatrists compared to the entire state of Texas that has 6.8 psychiatrists per 100,000 population. Similarly there are 9.2 psychologists per 100,000 in RHP5 compared to 25.8 per 100,000 in Texas. The need for enhanced behavioral health resources in Region 5 is challenging.

In Region 5, one out of every five adults reports that their mental health is fair or poor, which is much worse than the national average. Given that the region is among the poorest in the US, and that the burdens of chronic disease and poverty are high, it is not surprising that mental health is an issue. National data show that when mental illness co-occurs with general medical illnesses such as diabetes, cardiovascular disease, rheumatoid arthritis, or cancer, morbidity and mortality is greater. In studies carried out in the region, the level of measurable depression and anxiety is 29% and 30% of the adult population, respectively, (CCHC unpublished data). The self-reported low ratings of mental health are particularly significant among women (overall), people over age 40 (often associated with a chronic illness such as diabetes or heart disease), and the poorer Hispanic population (Needs Assessment of RHP5). Depression and anxiety were significantly associated with greater BMI and waist circumference, and less physical activity. Depression was positively associated with fasting glucose. Similarly, anxiety was positively associated with elevated HbA1c. Consistent with the lack of access to health services, particularly behavioral health services, only about half of people who report behavioral health problems have sought any help. Because of the lack of mental health services, the last resort is usually a hospital emergency room, when the problem becomes overwhelming, and as a result also increases cost and resource utilization.

Designing interventions to meet the need also is challenging. Establishing a psychiatry residency and child & adolescent psychiatry training will require approval by the Psychiatry Residency Review Committee (RRC), which meets only twice each year to review well documented requests that must be submitted at least two months prior to the meeting. Approval for expanding the program must be

obtained before the program can recruit residents through the National Residency Match Program (NRMP), which itself has a cycle requiring posting of residency program positions in the fall of the year before the candidates are matched to programs (announced in March) and before they begin the program (July 1). There is a total dearth of local information on child mental health, particularly on autism spectrum disorders and the ADHD complex of conditions. Thus, in addition to the accreditation challenges facing development of an adult psychiatry program, development of a child & adolescent psychiatry program will require work to further define the problem as well as on developing interventions.

Meeting these requirements in new psychiatry and child & adolescent psychiatry programs will require the hiring and development of a cadre of full-time UTHSCSA-RAHC faculty to design the program and related clinical activity, apply for accreditation and recruit residents. These faculty will become the core faculty for the programs.

How the Project addresses these Challenges:
Creation and expansion of residency programs for psychiatry residents will not only increase the available service to the population, but those who complete the training have a high likelihood of practicing in the region. Expanding the faculty physicians who will provide patient care services and expanding the pipeline of behavioral health physicians through this project is an important part of the solution to the constellation of behavioral health problems documented in the RHP-5 Health Needs Assessment. To meet the challenges of accrediting the programs, UTHSCSA-RAHC will draw on its strong and successful history of relationships with VBMC the VA and other area providers; its depth in research; its ability to recruit faculty nationally; and the extensive experience of UTHSCSA faculty and staff with accreditation processes.

Baseline:
Currently there are no psychiatry residents, few child psychiatrists, and only 2.8 psychiatrists per 100,000 population in Region 5. These unfortunate figures represent the starting point benchmark for the improvement measures of this project.

Five-year expected outcomes:
The target goals include:
1) Recruitment of an Adult Psychiatry Program Director, Child and Adolescent Psychiatry Program Director, four adult psychiatry faculty members, and two child and adolescent psychiatry faculty members.
2) Submission of a proposal (Program Information Form (PIF)) for the residency program to the national accrediting body, the Accreditation Council for Graduate Medical Education (ACGME) and obtaining approval for the first and only such training programs in the region.
3) Recruitment and training psychiatry residents in both the adult and child and adolescent programs.

Program approval by the ACGME and matriculation of the first cohort of residents is planned for July 2015. As a four year program, the first cohort of 5 adult program residents will graduate in 2019. Child & adolescent training includes two years of training and candidates must have completed two years of adult psychiatry training before matriculating into a child and adolescent program. Candidates have the option to count one of the years of child and adolescent training towards the four years required for adult certification, so most psychiatrists who complete training in child and

adolescent psychiatry will have had a total of 5 years of training (3 adult + 2 child). Most often, residents within a program will transfer from the adult program to the child and adolescent program, doing so in either the Post Graduate Year–3 (PGY-3) or PGY-4 year. Matriculation into the child and adolescent program will begin in July 2015 with 2 residents recruited directly into the program. The first cohort of child and adolescent residents will complete their training in 2017. By the time both programs reach maturity, they will be graduating 4-5 adult and 1-2 child and adolescent psychiatrists per year. This will increase the number of psychiatrists per 100,000 population to a level much closer to the average for all of Texas (6.8), providing a much needed increase in behavioral health service capacity.

By the end of the Demonstration Period in September 2016, the project will bring to RHP5:

- Approved Psychiatry and Child & Adolescent Psychiatry residency programs
- 8 new faculty preceptors in the Psychiatry residencies, who will form a nucleus for development of mental health in the full four-year medical school to be developed by UT in RHP5
- 10 psychiatry and 4 child & adolescent psychiatry residents
- Increased access to behavioral health through the clinical services of the faculty and residents

RATIONALE

Texas, and RHP5 in particular, has a critical shortage of behavioral health doctors due to a range of factors influencing both supply and community need. Supply has been especially daunting in RHP5. It is difficult to recruit and hire behavioral health physicians—especially in South Texas. Despite intensive recruitment over many years, as community providers RGSC and VBMC-H continue to struggle to provide sufficient psychiatrists to meet their clinical needs. here is a large actual and identified need by the community of RHP5 for increased availability of behavioral health services. Psychiatrists are the anchors for these services. The poor population in this region has a high level of reported less than good behavioral health, and this is supported by data on depression in this population with high levels of chronic disease and disabilities from the chronic disease. This has a great economic and social impact on the community and affects its ability to improve its levels of education and economic productivity. The shortage of behavioral health providers has contributed to increased wait times in hospitals, community clinics, and other care settings and higher system costs for inpatient care for conditions that more appropriately could be managed in ambulatory settings.

Project components:

- Identify high impact services and gaps in care and coordination
- Recruit Psychiatry and Child & Adolescent Psychiatry Program Directors and full-time core faculty
- Increase in number of residents/trainees choosing psychiatry and child & adolescent psychiatry
- Implement innovative curriculum including population health management, chronic disease registries, team-based community care, data analytics, and quality improvement projects using the PDSA and other methodologies contained in the UT System Clinical Safety & Effectiveness (CS&E) course
- Attain ACGME approval for the programs
- Recruit and enroll Psychiatry and Child & Adolescent residents

- identify project impacts, i.e. "lessons learned," opportunities to scale the project to meet the needs of a broader patient population, and key challenges associated with expansion of the project, including special considerations for safety-net populations

Unique community need identification number the project addresses:

- CN.1 – Shortage of primary and specialty care providers and inadequate access to primary or preventive care

How the project represents a new initiative or significantly enhances an existing delivery system reform initiative:

The UTHSCSA-RAHC's experience in the other residency training program has proven the importance of local residency training opportunities to producing graduates who will remain in RHP5 when they enter independent practice. This project seeks to expand on that success. The faculty for Psychiatry and Child & Adolescent Psychiatry residency programs will collaborate with the faculty for the other new and existing training programs throughout RHP 5. Recruitment of full-time academic program faculty also will allow enhancement of the programs through greater scholarly activity focused on the clinical conditions especially prominent in RHP 5 and greater involvement of faculty and residents in quality improvement efforts as well.

Data Driving this Project:

The need for enhanced behavioral health services in this health disparity population is difficult to overstate and is extensively documented, as shown above.

Related Category 3 Outcome Measure(s): OD-14 Behavioral Health Workforce

IT - 14.1 Number of practicing psychiatrists per 100,000 individuals in HPSA or MUA

Non-stand-alone but related:

IT - 14.6 percent of trainees who have spent at least 5 years living in a health-professional shortage area (HPSA) or medically underserved area (MUA)

IT - 14.7 Percent of trainees who report that they plan to practice in HPSAs or MUAs based on a systematic survey

IT – 14.8 Percent of trainees who report that they plan to serve Medicaid populations based on a systematic survey

Rationale for selecting the outcome measures:

It is challenging to select outcome measures in the early stages of planning the residency program, given the lack of clarity and complete plans about when and where faculty will practice, the part-time nature of that practice, and the fact that three or more years of training are required before the first-matriculated residents will begin independent clinical practice. Because the Program Directors and core faculty be recruited and in place even before the programs are accredited and will dedicate 25-50% of their time to clinical care, they will have an impact on the number of practicing behavioral health practitioners per 1,000 individuals in RHP5. The bundle of three non-standalone measures above, in the program's experience to date, is a set of strong predictors of the future decisions of residents in the program to enter practice in RHP5 or elsewhere in South Texas.

Relationship to other Projects:

The project is related to UTHSCSA's Projects in RHP 5:

- 085144601.1.1 Expand Primary Care/Internal Medicine Training Program at Valley Baptist - Harlingen; and
- 085144601.1.3 Increase faculty to support an expanded Family Medicine residency program at McAllen Medical Center.

Relationship to Other Performing Providers' Projects in the RHP:
This project is related to the following projects by other performing providers in RHP5 (all at Doctors Hospital at Renaissance):

- Establish Primary Care Training Programs; 160709501.1.1; 160709501.1.2; 160709501.1.3.
- Expand high impact specialty care capacity in most impacted medical specialties (Establish General Surgery Training Program). 160709501.1.4

Plan for Learning Collaborative:
All of the new and existing residency training programs in RHP 5 will be/are directed by UTHSCSA faculty. The University of Texas System and UTHSCSA, specifically, have a nationally known Clinical Safety & Effectiveness (CS&E) training program embedded in their medical schools and clinical facilities. CS&E is a training course with PDSA at the heart of the curriculum; a strategic improvement project is required as part of the course. Many faculty and staff adopt CS&E into their ongoing activities after graduation from the training. In addition, UTHSCSA requires all new resident trainees to complete the core curriculum of the IHI Open School prior to joining the training programs. All of the residency training programs will feature innovative curriculum components focused on population health management, team-based community care, the use of chronic disease registries, and the application of data analytics. The Program Directors will meet quarterly to discuss and share quality improvement efforts within the context of the CS&E program as well as the common core curriculum components related to population health management, chronic disease registries, team-based community care, and data analytics.

Project Valuation:
South Texas has historically been a medically underserved area and as documented above Region 5 has a very large pool of undiagnosed chronic disease that leads to high rates of emergency visits and admissions that could be avoided through behavioral health. The University of Texas System has committed to expand medical education in South Texas and graduate the first class of medical students in 2018. These graduates will be far more likely to stay and practice in south Texas if they complete their residency training programs locally. This residency expansion project, along with the other new and expanding residency projects in RHP5, can transform the medical community and the healthcare delivery system in South Texas. With innovative curricula designed to meet community needs, UT faculty will train new physicians for practice, engage community physicians as preceptors, and embed the UT Clinical Safety & Effectiveness program in local hospital quality improvement efforts.

Unique Project Identifier	*Project Option* 1.9.1	*Project Component(s)*	Expand Behavioral Health/Establish Psychiatry Residency Training Programs at Valley Baptist - Brownsville
085144601.1.2			
UT Health Science Center San Antonio			TPI: 085144601
Related Category 3 Outcome Measure(s):	085144601.3.2	IT-14.1	Number of practicing behavioral health physicians per 100,000 individuals in HPSA or MUA

Year 2 (10/1/2012 – 9/30/2013)	Year 3 (10/1/2013 – 9/30/2014)	Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
Milestone 1 [P-1]: Conduct specialty care gap assessment based on community need. Metric 1 [P-1.1]. Documentation of gap assessment. (baseline for DY2). Baseline: 0 faculty and 0 residents at baseline. Data Source: Needs assessment results. Milestone 1 Estimated Incentive Payment: $1,367,592 **Milestone 2** [P-14]: Expand targeted specialty care (TSC) training in psychiatry: Metric 1 [P-14.2]. Hire Program Directors and 2 additional Core full-time faculty members. Baseline: At the beginning of DY 2, the programs have no Program Director or Core full-time faculty Goal: build the Core full-time faculty to begin the application to the RRC for program expansion Data Source: HR documents, faculty lists	**Milestone 3** [P-14]: Expand targeted specialty care (TSC) in psychiatry. Metric 1: [P-14.1]: Expand the TSC residency clinician training programs and/or rotations Baseline: At the beginning of DY2, 0 faculty and 0 residents at baseline. Goal: Application for initial accreditation of the programs to be submitted by 2/2014 for Residency Review Committee (RRC) 10/2014 meeting Data Source: Training program records Metric 2 [P-14.2]. Hire 2 additional Core full-time faculty members. Baseline: At the beginning of DY2, 0 faculty and 0 residents at baseline. Goal: build the Core full-time faculty to begin application to the RRC for program expansion Data Source: HR documents, faculty lists	**Milestone 5** [P-16]. Obtain approval from the Accreditation Council for Graduate Medical Education (ACGME) to increase the number of TSC residents. Metric 1 [P-16.1] Documentation of ACGME approval for initial accreditation of Psych and Child & Adolescent Psych programs by 10/2014 Baseline: At the beginning of DY2, 0 faculty and 0 residents at baseline. Data Source: Training program records Milestone 5 Estimated Incentive Payment: $758,654 **Milestone 6** [P-14]. targeted specialty care (TSC) in psychiatry. Metric 1 [P-14.2]. Hire 2 additional Core full-time faculty members. Baseline: At the beginning of DY2, 0 faculty and 0 residents at baseline. Goal: build the Core full-time faculty to begin the application to the RRC for program expansion Data Source: HR documents, faculty lists	**Milestone 9** [I-31]: Expand targeted specialty care (TSC) in psychiatry. Metric 1: [I-31.4]: Expand the TSC residency clinician training programs and/or rotations Baseline: At the beginning of DY2, 0 faculty and 0 residents at baseline. Goal: Recruit second cohort of 5 PY1 psychiatry residents and 2 child & adolescent residents as of 7/15/2016. Total residents in programs = 14. Data Source: Program enrollment records. Milestone 9 Estimated Incentive Payment: $1,552,233 **Milestone 10** [I-22] Increase the number of specialist providers and clinic hours available for the high impact/most impacted medical specialties Metric I-22.1: Increase number of psychiatry specialist providers and clinic hours Baseline: At the beginning of DY2, 0 faculty and 0 residents at baseline. Goal: Increase faculty availability for direct clinical care as faculty numbers increase Data source: Program records Milestone 8 Estimated Incentive Payment: $758,653

143

Unique Project Identifier 085144601.1.2	*Project Option* 1.9.1	*Project Component(s)*	Expand Behavioral Health/Establish Psychiatry Residency Training Programs at Valley Baptist - Brownsville
UT Health Science Center San Antonio			TPI: 085144601
Related Category 3 Outcome Measure(s):	085144601.3.2	IT-14.1	Number of practicing behavioral health physicians per 100,000 individuals in HPSA or MUA

Year 2 (10/1/2012 – 9/30/2013)	Year 3 (10/1/2013 – 9/30/2014)	Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
Milestone 2 Estimated Incentive Payment: $1,367,593	Milestone 3 Estimated Incentive Payment: $1,501,785 **Milestone 4** [I-22] Increase the number of specialist providers and clinic hours available for the high impact/most impacted medical specialties Metric I-22.1: Increase number of psychiatry specialist providers and clinic hours Baseline: At the beginning of DY2, 0 faculty and 0 residents at baseline. Goal: Increase faculty availability for direct clinical care as faculty numbers increase Data source: Program records Milestone 4 Estimated Incentive Payment: $1,501,786	Milestone 6 Estimated Incentive Payment: $758,654 **Milestone 7** [I-31]. Increase TSC training and/or rotations. Metric 1 [I-31.4]. Increase the number of psychiatry and child & adolescent psychiatry residents in training Baseline: At the beginning of DY2, 0 faculty and 0 residents at baseline. Goal: Demonstrate improvement over prior reporting period (baseline for DY2): recruit the initial 5 residents into the PY1 adult psychiatry class and 2 residents into the child & adolescent psych program beginning 7/1/2015. Data source: Program records Milestone 7 Estimated Incentive Payment: $758,654 **Milestone 8** [I-22] Increase the number of specialist providers and clinic hours available for the high impact/most impacted medical specialties Metric I-22.1: Increase number of psychiatry specialist providers and clinic hours Baseline: At the beginning of DY2, 0 faculty and 0 residents at baseline. Goal: Increase faculty availability for direct clinical care as faculty numbers increase	Baseline: At the beginning of DY2, 0 faculty and 0 residents at baseline. Goal: Increase faculty availability for direct clinical care as faculty numbers increase Data source: Program records Milestone 10 Estimated Incentive Payment: $2,454,216

144

Unique Project Identifier	*Project Option* 1.9.1	*Project Component(s)*	Expand Behavioral Health/Establish Psychiatry Residency Training Programs at Valley Baptist - Brownsville	
085144601.1.2				
UT Health Science Center San Antonio				TPI: 085144601
Related Category 3 Outcome Measure(s):	085144601.3.2	IT-14.1	Number of practicing behavioral health physicians per 100,000 individuals in HPSA or MUA	
Year 2 (10/1/2012 – 9/30/2013)		Year 3 (10/1/2013 – 9/30/2014)	Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
			Data source: Program records Milestone 8 Estimated Incentive Payment: $758,653	
Year 2 Estimated Milestone Bundle Amount: $2,735,185		Year 3 Estimated Milestone Bundle Amount: $3,003,571	Year 4 Estimated Milestone Bundle Amount: $3,034,615	Year 5 Estimated Milestone Bundle Amount $3,104,466
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $11,877,837				

145

Title: New faculty for family medicine residency
Unique Project ID: 085144601.1.3
Performing Provider/TPI: UT Health Science Center San Antonio /_085144601
Project Option 1.2.3: Increase the Number of Family Medicine Faculty to Strengthen the Family Medicine Residency Program at McAllen Medical Center

PROJECT DESCRIPTION
The primary goal of this project (1.2.3) is to increase the number of primary care providers in a Health Professions Shortage Area (HPSA) region, thus increasing access and capacity. This will occur by recruiting more faculty to the existing Family Medicine residency training program sponsored by The University of Texas Health Science Center San Antonio (UTHSCSA) at McAllen Medical Center to improve the quality and variety of training of family medicine residents. The new faculty also will increase access to health services through the clinic sessions they conduct in the course of training family medicine residents. This expansion will be an important part of the programs in integrated care that will be conducted in parallel to strengthening the family medicine residency.

The project will build on the long-standing and mutually beneficial partnership between UTHSCSA and McAllen Medical Center. It will build on the success of the program in training clinicians who locate their practices in RHP 5, helping to alleviate the area's substantial primary care workforce shortage, and will update the training program to include more organized care delivery models, behavioral health, and related research and scholarly work. It will complement the other existing and new residency programs of UTHSCSA-RAHC and be a foundational element for development of the UTHSCSA-RAHC into a full four-year medical school in RHP 5 as envisioned by the Texas legislature and planned by the Regents. The Texas 1115 Medicaid waiver provides an important opportunity to increase access to primary care through increasing the number of primary care physicians and the pipeline of well trained and culturally aware physicians for the underserved RHP5.

Additional Project Goals: Beyond the goal of increasing the RHP5 primary care workforce to increase access and capacity, this expansion is designed to strengthen an integrated health care system and to play a key role in implementing disease management programs, through:

- implementing an innovative curriculum that incorporates population health management, chronic disease management, and clinical safety and effectiveness training;
- conducting quality improvement projects to continuously improve clinical outcomes and efficiency; and
- collaborating with other new and expanding residency training programs in the region to transform the delivery system for the South Texas community.

A greater focus on primary care will be crucial to the success of an improved, reformed and more integrated health services delivery system in which patients have enhanced access to services, allowing them to receive the right care at the right time in the right setting.

Relationship to Regional Goals:
This project will advance achievement of regional goals identified in RHP5:

- By combining the resources of a major safety net hospital, McAllen Medical Center; the VA; and The University of Texas, leverage and improve on existing programs and infrastructure to ensure that the health delivery system will be adequately developed to meet the primary care needs of residents throughout a rapidly growing, yet historically underserved region.

- Increase access to primary care services in the short-term with new faculty, in the intermediate term also with resident trainees, and in the long-term also with graduate physicians, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition.
- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of technology and best-practices to improve access and timely utilization of appropriate care.
- Transform health care delivery to a patient-centered, coordinated and integrated delivery model that improves patient satisfaction and health outcomes, reduces unnecessary emergency department use and duplicative services, and expands on the existing health care system.

Challenges or Issues faced:
At the dawn of the implementation of health care reform, Texas is experiencing a dramatic shortage of primary care workforce including physicians and a dearth of medical students choosing careers in primary care. South Texas has long been a medically underserved region, and is particularly underserved for primary care with 55 physicians per 100K population compared to 70 per 100K in Texas (80% of Texas average). Similarly there are 103 direct care physicians per 100K in RHP5 compared 165 per 100K in Texas. The need for enhanced primary care resources in Region 5 is challenging.

Designing interventions to meet the need also is challenging. Doubling the size of the existing internal medicine residency will require approval by the Internal Medicine Residency Review Committee (RRC), which meets only three times each year to review well documented requests that must be submitted at least two months prior to the meeting. Approval for expanding the program must be obtained before the program can recruit more than 5 residents to enter the next year's class. Over the past several years, the RRC's requirements for program accreditation have become increasingly specific on requirements for protected academic time for core faculty members, scholarly activity by faculty and residents, and limitations on the work hours and schedules for residents. Meeting these requirements in an expanded program will require the hiring and development of a cadre of full-time UTHSCSA-RAHC faculty who will become the faculty core for the program, taking over a range of duties formerly performed by community volunteer faculty.

How the Project addresses these Challenges
Part of the solution to this constellation of health problems is to increase access to primary care by expanding the primary care faculty who will provide improved training, but will ultimately help increase the pipeline for the future needs. The enlarged faculty will improve the quality of training of family medicine residents and ultimately provide the foundation for increasing the number of physicians in the Family Medicine Residency of the Regional Academic Health Center in Region 5 and begin to reduce the current disparity of primary care physicians in RHP5.

To meet the challenges of accrediting the expanded program, UTHSCSA-RAHC will draw on its history of local; its ability to recruit faculty nationally; and the extensive experience of UTHSCSA faculty and staff with accreditation processes.

Five-year expected outcomes:

By the end of the Demonstration Period in September 2016,

- Increase the Family Medicine faculty and staff experts in the program by 6;
- Increase access to primary care through the new or expanded clinic sessions by the new faculty; and
- Increase in the knowledge base and quality of training of family medicine residents.

STARTING POINT/BASELINE

As of December 2011, the benchmark for Family Medicine faculty in the program is 7. The overall RHP5 benchmark of primary care physicians is 55/100,000 compared to 70 in Texas.

RATIONALE

Texas has a growing shortage of primary care doctors and nurses due to the needs of an aging population, a decline in the number of medical students choosing primary care, and thousands of aging baby boomers who are doctors and nurses looking towards retirement. The shortage of primary care workforce personnel in Texas is a critical problem that we have the opportunity to begin addressing under this waiver. It is difficult to recruit and hire primary care physicians—especially in South Texas.

The shortage of primary care providers has contributed to increased wait times in hospitals, community clinics, and other care settings. In 2010, Texas had 176 patient care physicians per 100,000 population and 70 primary care physicians per 100,000 population -- a state ranking of 46 and 47, respectively. (Comparable ratios for US Total are 219.5 and 90.5, respectively.) From 2001 to 2011, the Texas physician workforce grew 32.3%, exceeding the population growth of 25.1%. Primary care physician workforce, however, grew only 25% in the same period. From 2002 to 2011, Texas increased medical school enrollment 31% from 1,342 to 1,762 in line with the national call by the Association of American Medical Colleges to increase medical school enrollments by 30%. In 2011, there were 1,445 medical school graduates. Coincidentally, there were 1,445 allopathic entry level GME positions offered in Texas in the annual National Resident Matching program. (There were 31 osteopathic slots.) The Texas Higher Education Coordinating Board recommends a ratio of 1.1 entry-level GME positions for each Texas medical school graduate. The number of Texas medical school graduates is expected to peak at over 1,700 in 2015. This implies a need for 400 additional GME positions by 2015. The shortage of GME positions or residency slots may be the single most problematic bottleneck in Texas' efforts to alleviate the state's physician shortage.

In South Texas excluding Bexar County, there are only 43 primary care physicians per 100,000 population, according to an April 2012 report by the Texas Higher Education Coordinating Board. This compares to 65 per 100,000 for greater South Texas including Bexar County and 78 per 100,000 for Central Texas.

The pool of undiagnosed and untreated chronic disease in RHP5 is a social, economic and psychological drain on this population and represents one of the most substantial levels of health disparities in the country. This has a great impact on the community and affects its ability to improve its levels of education and economic productivity. The extremely low level of primary care providers in RHP5 makes it even more imperative to increase access to primary care for those with undiagnosed and untreated chronic diseases. One of the most cost saving measures that can be taken is to expand primary care to move people with undiagnosed and untreated chronic disease to

programs for management and prevention that keep them from costly complications that promote eventual presentation at emergency care facilities and to being hospitalized with advanced disease.

Project components:

- Identify high impact services and gaps in care and coordination
- Recruit 4 additional full-time core faculty with specific expertise and two program specialist staff
- Implement innovative curriculum including population health management, chronic disease registries, team-based community care, data analytics, and quality improvement projects using the PDSA and other methodologies contained in the UT System Clinical Safety & Effectiveness (CS&E) course
- Expand clinic sessions and increase patient access and primary care visits

Unique community need identification number the project addresses:

- CN.1 – Shortage of primary and specialty care providers and inadequate access to primary or preventive care

How the project represents a new initiative or significantly enhances an existing delivery system reform initiative:

The Family Medicine residency training program at McAllen Medical Center has had good success in producing graduates who have remained in RHP-5 to provide primary care services. This project will expand the faculty to provide primary care services through the program's family medicine center (including perinatal and well child care) as well as providing comprehensive follow-up care for previously undiagnosed patients admitted to McAllen Medical Center. The faculty for the Family Medicine residency program will collaborate with the faculty for the new and existing training programs throughout RHP 5. Expansion of the program faculty also will allow enhancement of the program through greater scholarly activity focused on the clinical conditions especially prominent in RHP 5 and greater involvement of faculty and residents in quality improvement efforts at McAllen Medical Center.

Data Driving this Project:

The need for enhanced primary care in this health disparity population is difficult to overstate and is extensively documented. Data published by the United States Census Bureau in 2012 show that 88.1% (Cameron County) and 90.7% (Hidalgo County) of the population is Mexican American or Latino in origin and that 34.7% live below the poverty line (compared with 16.8% for Texas and 13.8% nationally (http://quickfacts.census.gov/qfd/states/00000.html). Currently only 31.4% of RHP5 citizens have insurance of any kind, more than half of which is Medicare or Medicaid. Obesity is the underlying and exacerbating issue. Published data (Fisher-Hoch et al, 2012) from our locally recruited, randomized community cohort show that the prevalence of obesity is 48.5% and that 8.0% are morbidly obese. The prevalence of diabetes is an alarming 30.7% in adults 18 years or over. Eighty-four percent of those with hypertension are diagnosed, but only half of those with diabetes or hypercholesterolemia are diagnosed. Many participants with diabetes (55.5%) and hypertension (50.0%) are untreated as are 85% of those with hypercholesterolemia. Multiple complications of diabetes and obesity include renal failure requiring dialysis, and heart failure, and at least 12% have evidence of liver disease associated with obesity and diabetes leading to liver failure and liver cancer.

The underlying conditions are essentially preventable or treatable. The long term cost of neglect will be huge. Prevention and early intervention are key. These health needs need to be first addressed through primary care, providing diagnosis, preventive care and simple interventions for patients before their disease is advanced. Expansion of the residency program faculty will allow RHP5 to make significant progress toward this end.

Related Category 3 Outcome Measure(s):
OD-14 Primary Care Workforce

Stand-alone: IT - 14.1 Number of practicing primary care practitioners per 100,000 individuals in HPSA or MUA

Rationale for selecting the outcome measure:
Because the additional full-time core faculty will be recruited and in early in the demonstration period and will dedicate 40-60% of their time to clinical care, they will have an impact on the number of practicing primary care practitioners per 100,000 individuals in RHP-5, as well as strengthening the pipeline for recruitment and training of family medicine residents who will be likely to locate their practices in RHP5.

Relationship to other Projects:
The project is related to UTHSCSA's Projects in RHP 5:

- 085144601.1.2 Expand high impact specialty care capacity in Behavioral Health at Valley Baptist - Brownsville; and
- 085144601.1.1 Expand Primary Care/Internal Medicine Residency Training Program at Valley Baptist - Harlingen.

Relationship to Other Performing Providers' Projects in the RHP:
This project is related to the following projects by other performing providers in RHP5 (all at Doctors Hospital at Renaissance):

- 160709501.1.1 Establish Primary Care/Internal Medicine Training Program;
- 160709501.1.2 Establish Primary Care/Family Medicine Training Program;
- 160709501.1.3 Establish Primary Care/Obstetrics & Gynecology Training Program; and
- 160709501.1.4 Expand high impact specialty care capacity in most impacted medical specialties (Establish General Surgery Training Program).

Plan for Learning Collaborative:
All of the new and existing residency training programs in RHP 5 will be/are directed by UTHSCSA faculty. The University of Texas System and UTHSCSA, specifically, have a nationally known Clinical Safety & Effectiveness (CS&E) training program embedded in their medical schools and clinical facilities. CS&E is a training course with PDSA at the heart of the curriculum; a strategic improvement project is required as part of the course. Many faculty and staff adopt CS&E into their ongoing activities after graduation from the training. In addition, UTHSCSA requires all new resident trainees to complete the core curriculum of the IHI Open School prior to joining the training programs. All of the residency training programs will feature innovative curriculum components focused on population health management, team-based community care, the use of chronic disease registries,

and the application of data analytics. The Program Directors will meet quarterly to discuss and share quality improvement efforts within the context of the CS&E program as well as the common core curriculum components related to population health management, chronic disease registries, team-based community care, and data analytics.

Project Valuation:
South Texas has historically been a medically underserved area and as documented above Region 5 has a very large pool of undiagnosed chronic disease that leads to high rates of emergency visits and admissions that could be avoided through primary care. The University of Texas System has committed to expand medical education in South Texas and graduate the first class of medical students in 2018. These graduates will be far more likely to stay and practice in South Texas if they complete their residency training programs locally. This residency expansion project, along with the other new and expanding residency projects in RHP5, can transform the medical community and the healthcare delivery system in South Texas. With innovative curricula designed to meet community needs, UT faculty will train new physicians for practice, engage community physicians as preceptors, and embed the UT Clinical Safety & Effectiveness program in local hospital quality improvement efforts.

Unique Project Identifier 085144601.1.3	*Project Option 1.2.3*	*Project Component(s)*	Increase the Number of Family Medicine Faculty to Strengthen the Family Medicine Residency Program at McAllen Medical Center	
UT Health Science Center San Antonio				TPI: 085144601
Related Category 3 Outcome Measure(s):	085144601.3.3	IT-14.1	Number of practicing primary care practitioners per 100,000 individuals in HPSA or MUA	
Year 2 (10/1/2012 – 9/30/2013)	Year 3 (10/1/2013 – 9/30/2014)		Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
Milestone 1 [P-1]: Conduct a primary care gap analysis to determine workforce needs. Metric 1 [P-1.1]: Gap assessment of workforce shortages and delivery system, i.e., patient-centered medical homes, disease registries, HIE. Goal: Produce a comprehensive report documenting existing and needed primary care resources. Data Source: Assessment results. Milestone 1 Estimated Incentive Payment: $911,728 **Milestone 2** [P-2]: Expand primary care training for primary care family medicine providers: Metric 1 [P-2.2]. Hire additional Core full-time faculty members: pediatrician, and behavioralist/ research director; and staff specialists (simulation, research). Baseline: At the beginning of DY 2, the program has no full-time faculty and staff with these credentials Goal: build the Core full-time faculty to strengthen the program and provide additional primary care Data Source: HR documents, faculty	**Milestone 3** [P-2]: Expand primary care training for primary care physicians Metric 1: [P-2.2]. Hire 2 additional Core full-time faculty members. Baseline: At the beginning of DY 2, the program has 7 Core full-time faculty Goal: build the Core full-time faculty to strengthen the program and provide additional primary care Data Source: HR documents, faculty lists Milestone 3 Estimated Incentive Payment: $1,001,190 **Milestone 4** [P-3]: Expand positive primary care exposure for residents. Metric 1 [P-3.1] Develop mentoring program with new primary care faculty Baseline: At the beginning of DY 2, the program has mentoring program with these focus areas Goal: Strengthen the training program by providing mentoring in behavioral health issues, primary care for children and research Data source: Program records		**Milestone 6** [I-14] Increase the number of faculty staff completing educational courses. Metric 1 [I-14.1] Number of faculty staff completing Clinical Safety & Effectiveness (CS&E) course. Goal: Two full-time faculty members complete the CS&E training. Data Source: Program records. Milestone 6 Estimated Incentive Payment: $1,517,307 **Milestone 7** [1-11]: Increase primary care training and/or rotations Metric 1 [I-11.5] Improvement in trainee satisfaction with specific elements of the training program a. Numerator: Sum of trainee satisfaction scores b. Denominator: total number of trainees Data Source: Trainee satisfaction assessment tool	**Milestone 8** [I-14] Increase the number of faculty staff completing educational courses. Metric 1 [I-14.1] Number of faculty staff completing Clinical Safety & Effectiveness (CS&E) course. Goal: Two full-time faculty members complete the CS&E training. Data Source: Program records. Milestone 8 Estimated Incentive Payment: $1,552,233 **Milestone 9** [1-11] Increase primary care training and/or rotations Metric 1 [I-11.5]. Improvement in trainee satisfaction with specific elements of the training program a. Numerator: Sum of trainee satisfaction scores b. Denominator: total number of trainees Data Source: Trainee satisfaction assessment tool Goal: Increase satisfaction scores by 10% over DY2 baseline.

Unique Project Identifier 085144601.1.3	*Project Option 1.2.3*	*Project Component(s)*	Increase the Number of Family Medicine Faculty to Strengthen the Family Medicine Residency Program at McAllen Medical Center	
UT Health Science Center San Antonio				TPI: 085144601
Related Category 3 Outcome Measure(s):	085144601.3.3	IT-14.1	Number of practicing primary care practitioners per 100,000 individuals in HPSA or MUA	
Year 2 (10/1/2012 – 9/30/2013)	Year 3 (10/1/2013 – 9/30/2014)		Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
lists Milestone 2 Estimated Incentive Payment: $1,823,457	Metric 2 [P-3.3] Include residents in quality improvement projects. Baseline: No specific training experience incorporated with the hospital exists currently. Goal: Resident participation in QI efforts with behavioralist/ research director. Data source: Curriculum or QI project documentation. Milestone 4 Estimated Incentive Payment: $1,001,190 **Milestone 5** [I-14] Increase the number of faculty staff completing educational courses. Metric 1 [I-14.1] Number of faculty staff completing Clinical Safety & Effectiveness (CS&E) course. Goal: Two full-time faculty members complete the CS&E training. Data Source: Program records. Milestone 5 Estimated Incentive Payment: $1,001,191		Goal: Increase satisfaction scores by 10% over DY2 baseline. Metric:2[11.6] Improvement in trainee knowledge assessment scores a. Numerator: Sum of differences in pre and post training assessment scores. b. Denominator: Number of graduates from training program. Data: Knowledge assessment tool Goal: Increase knowledge assessment scores by 5% over baseline from DY2. Milestone 7 Estimated Incentive Payment: $1,517,308	Metric:2[11.6.] Improvement in trainee knowledge assessment scores a. Numerator: Sum of differences in pre and post training assessment scores. b. Denominator: Number of graduates from training program. Data: Knowledge assessment tool Goal: Increase knowledge assessment scores by 5% over baseline from DY2. Milestone 9 Estimated Incentive Payment: $1,552,233
Year 2 Estimated Milestone Bundle Amount: $2,735,185	Year 2 Estimated Milestone Bundle Amount: $3,003,571		Year 4 Estimated Milestone Bundle Amount: $3,034,615	Year 5 Estimated Milestone Bundle Amount: $3,104,466
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $11,877,837				

Title: Expand high impact specialty care capacity in most impacted medical specialties (Pediatric Urology)
Unique Project ID: 085144601.1.4
Performing Provider / TPI: The University of Texas Health Science Center San Antonio/ 085144601
Project Option 1.9.2

Project Description:
The proposed project will provide funds to recruit an additional fellowship-trained pediatric urologist for Region 6 that will also travel several times a month to Doctors Hospital at Renaissance (DHR) in Hidalgo County that services Regions 5 and 20. This individual will deliver pediatric urology services to the underserved child population in the Rio Grande Valley.

Quality:
To achieve continuous quality improvement we shall assess the project's impact and make adjustments as necessary, share best practice and lessons learned, seize scaling opportunities to expand successful outcomes to broader populations, and rapidly disseminate successful outcomes to other providers across Texas.

Region 5 goals:
This project achieves CMS's Triple aim objectives of assuring patients receive high quality and patient centered care, in the most cost effective way, improves the health care infrastructure to better serve the Medicaid and uninsured residents of the counties we serve, further develops and maintains a coordinated care delivery system and improves outcomes while containing costs.

Starting Point/Baseline:
The additional pediatric urologist will provide care for 520 patient visits during DY 2, 1,040 in DY 3, and approximately 1,560 each year thereafter. The additional urologist will split her time between the Valley and San Antonio. The Valley has one of the fastest growing populations in Texas and is vastly underserved. The starting point of 520 visits is an estimate based upon visit capacity and throughput of an existing provider. Currently, there is a contract between UHS Urology and Doctors Hospital at Renaissance to provide pediatric urology services but demand significantly exceeds availability. One urologist and a resident travel two days at a time, several times per month to see patients in the Valley resulting in lengthy appointment wait times. Over a period of 12-18 months, we would anticipate waiting time for clinical evaluation and/or surgery to be reduced significantly by virtue of implementing this project.

Rationale:
The addition of a pediatric Urologist in the Rio Grande Valley will provide much needed services to an impoverished and underserved community exhibiting significantly averse health disparities. Children in need of pediatric urology services in the RGV routinely wait several months in order to obtain services. Not infrequently many must travel to San Antonio to receive care either due to progression of illness or other complicating factors driving increases in the cost of an episode of care, along with deterioration in overall quality of life for both the child and their families.

Project Components:

a)Increase service availability with extended hours
b) Increase number of specialty clinic locations
c) Implement transparent, standardized referrals across the system
d) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety net populations

Unique community need identification number the project addresses:
CN.1 Shortage of primary and specialty care providers and inadequate access to primary, specialty or preventive care.

Related Category 3 Outcome Measure(s):
IT-10.1 Quality of Life/Functional Status

By addressing and meeting health care needs sooner symptoms are reduced and function is enhanced. Given this project has children as its target audience, there will likely be an even greater reward in terms of units of actuarial life value produced by implementing this project.

Children in need of pediatric urology services in the RGV routinely wait several months in order to obtain services. Not infrequently many must travel to San Antonio to receive care either due to progression of illness or other complicating factors driving increases in the cost of an episode of care, along with deterioration in overall quality of life for both the child and their families.

Relationship to other Projects:
There are numerous projects with either a direct or indirect relationship to this project including:

(1) Expand primary care and specialty care workforce: 085144601.1.1; 085144601.1.2; 085144601.1.3
(2) Implementation of a chronic disease management program: 085144601.2.2
(3) Implementation of a medical home model: 085144601.2.1
(4) Implementation of novel and innovative programs using community advocates "Promotoras" to identify those in need of services: 085144601.2.3; 085144601.2.4

Relationship to Other Performing Providers' Projects in the RHP:
There are several other projects that address expanding access to primary and specialty care: 160709501.1.; 106709501.1.2; 160709501.3.; 106709501.1.4

Plan for Learning Collaborative:
We shall participate in periodic interactions including meetings, conference calls, or

webinars with other providers and the RHP to promote collaborative learning around shared or similar projects. Participation will include (1) sharing challenges and any solutions (2) sharing results and quantitative progress on new improvements we are testing and (3) other outreach capable of driving accelerated and effective transformation.

Project Valuation:
The project is valued based upon achieving waiver goals, meeting community needs, depth of scope, and resources deployed. Although the outcome domain chosen targets enhancement in quality of life we are cautiously optimistic implementation of this project will also generate reductions in the episodic cost of care per unique patient treated.

Unique Project Identifier **0851440601.1.4**	*Project Option* **1.9.2**	*Project Component(s)* **1.9.2 (A-D)**	**Expand high impact specialty care capacity in most impacted medical specialties (Pediatric Urology)**	
	UT Health Science Center San Antonio			*TPI 085144601*
Related Category 3 Outcome Measure(s):	*085144601.3.4*	*3.IT-10.1*	IT-10.1 Quality of Life	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1 [P1.1]: Conduct a specialty gap assessment based on community need Metric: Documentation of gap analysis Data Source: Needs assessment Milestone 1 Estimated Incentive Payment: $193,457 **Milestone 2 [P3.1]** Collect Baseline data for wait times and backlog Metric: Sum Total appointments scheduled/Sum Total time lapsed from date appointment scheduled to appointment date Data Source: Appointment scheduling System Milestone 2 Estimated Incentive Payment: $193,457 **Milestone 3[P-X]** Provider will assist 520 visits in RHP 6 and the Valley regions. This provider will work in conjunction with another physician that already provides service several days a month. Metric 1 [P-11.1]:	**Milestone 4** [I-23] : Increase specialty care clinic volume of visits and evidence of improved access for patients seeking services. This provider will assist 1040 visits in year 3. This provider will work in conjunction with another provider that already provides service several days a month. Metric 1 [I-23.1]: Documentation of increased number of visits. Demonstrate improvement over prior reporting period (baseline for DY 2). Baseline/Goal: 100% increase from year 2 Data Source: EHR, claims or other Performing Provider source. Milestone 4 Estimated Incentive Payment: $637,320		**Milestone 5** [I-23]: Increase specialty care clinic volume of visits and evidence of improved access for patients seeking services. This provider will assist 1560 visits in year 4. This provider will work in conjunction with another provider that already provides service several days a month. Metric 1 [I-23.1]: Baseline/Goal: 50% increase from year 3 Data Source: EHR, claims or other Performing Provider source. Milestone 5 Estimated Incentive Payment: $643,907	**Milestone 6** [I-23]: Increase specialty care clinic volume of visits and evidence of improved access for patients seeking services. This provider will assist 1560 visits in year 5. This provider will work in conjunction with another provider that already provides service several days a month. Metric 1 [I-23.1]: Baseline/Goal: Growth in the number of patients will stabilize by year 5 or increase slightly Data Source: EHR, claims or other Performing Provider source. Milestone 6 Estimated Incentive Payment: $658,729

Unique Project Identifier **0851440601.1.4**	*Project Option* **1.9.2**	*Project Component(s)* **1.9.2 (A-D)**	**Expand high impact specialty care capacity in most impacted medical specialties (Pediatric Urology)**	
	UT Health Science Center San Antonio			*TPI 085144601*
Related Category 3 Outcome Measure(s):	*085144601.3.4*	*3.IT-10.1*	IT-10.1 Quality of Life	
Year 2 (10/1/2012 – 9/30/2013)		**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Baseline/Goal: 520 patients Data Source: EHR, claims Milestone 3 Estimated Incentive: $193,458				
Year 2 Estimated Milestone Bundle Amount: $580,372		Year 3 Estimated Milestone Bundle Amount: $637,320	Year 4 Estimated Milestone Bundle Amount: $643,907	Year 5 Estimated Milestone Bundle Amount: $658,729
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $2,520,328				

D. Category 2: Program Innovation and Redesign

The following narratives describe each Pass 1 Category 2 project of Performing Providers, in alphabetical order of provider.

Border Region Behavioral Health Center – Category 2: Program Innovation and Redesign

Project Title: Design, implement, and evaluate projects that provide integrated primary and behavioral health care services.

Unique RHP Project Id Number: 121989102.2.1
Performing Provider/TPI: Border Region Behavioral Health Center TPI: 121989102

Project Option 2.15.1 identify clients with co-morbid conditions and provide integrated primary and behavioral services for residents in Starr County

Project Description:

Develop and implement an integrated Behavioral Health and Primary Care pilot, targeting at risk populations with co-morbid diseases of mental illness and chronic disease who currently go untreated or under treated and who routinely access more intensive and costly services such as emergency departments or jails.
This project proposes offering a Behavioral Health and Primary Care Integrated treatment model that will introduce/integrate primary care into the behavioral health services Border Region already provides in its service region. The integrated care program/model will offer the following services:

1. Behavioral Health Services
2. Primary care services
3. Health behavior education and training programs
4. Case Management services to help patient navigate the services provided in the community.

Border Region will implement the IMPACT Model of collaborative care.

Goals and Relationship to Regional Goals:
Region 5 plan cites the inadequate integration of care for individuals with co-occurring medical and mental illness or multiple chronic conditions as one of its community needs and states as one of it's goals: Transform health care delivery to a patient-centered, coordinated and integrated delivery model that improves patient satisfaction and health outcomes, reduces unnecessary emergency department use and duplicative services, and expands on the accomplishments of our existing health care system. Project addresses both of these.

Identify a panel of behavioral health clients with co-morbid physical health conditions and provide patient centered treatment and symptoms management under centralized coordination.

Continue management of patient even when some symptoms are in remission.

Improve communication between providers and enhance coordination of care.

Reduce cost and inconvenience of transportation making trips to multiple providers due to colocation.

Challenges:
Finding and employing primary care providers:

- Costs
- Cultural barriers
- Lack of health literacy

These barriers will be addressed by providing competitive salaries. In addition, Border will advertise nationally. Border will hire through federal programs that provide debt relief to physicians for practicing in underserved areas.

5 year expected outcomes:
We expect to see the following outcomes from implementing this project:

- Increase in access to primary care
- Increase In access to behavioral health care services
- Reduction in inpatient psychiatric hospitalizations
- Increase in patient satisfaction
- Reduction in Emergency Department visits
- Chance to develop and change health behaviors
- Reduction in preventable behavioral health and chronic disease hospitalizations

Starting Point/Baseline:
No integrated primary care and behavioral health services are currently available in Region 5.

Rationale:
Research has shown that patient centered medical homes that use the IMPACT model of collaborative care have had improved outcomes in physical health, which has benefited various populations and resulted in lower costs of care over the long term[58]. Druss and colleagues conducted a randomized trial of patients within the Veterans Administration system in 2001. In the study, individuals living with serious mental illnesses were to receive primary care in an integrated behavioral health-primary care patient focused model of care. The study showed that individuals were significantly more likely to have made a primary care visit, had a greater mean number of primary care visits, were more likely to have received 15 of 17 preventive measures, and had significantly greater improvement in their health.[59]

Project Components:

a) The Border Region Behavioral Health Center clinic in Starr County will be the project location site.

[58] http://www.impact-uw.org/about/research.html
[59] Druss, B et al. Integrated medical care for patients with serious psychiatric illness. Archives of General Psychiatry, Vol 58, September 2001

b) Scheduling and client information will reside with the Border Region client information system.
c) Under process standard P3 (milestone 1, DY2), processes and protocols for communication, data sharing and referral will be developed. The number and types of referrals will be measured.
d) Specialty providers will be recruited as per Project 1.14.1 and/or contract providers will provide telemedicine services.
e) Provider training will be addressed as per development of protocols and processes for milestone 1, DY2.
f) Data and reporting systems are already in place and used daily.
g) Legal agreements will be explored as a function of DY3 metric for milestone 3.
h) Utilities and building services already exist for selected site.
i) Data systems and reporting mechanisms are in place. New reporting codes will be developed to isolate data pertinent to this project.
j) Quality improvement will be addressed under milestones 2 (DY2), 5 (DY 4) and 9 (DY 5).

Milestones & Metrics:
The following milestones and metrics have been chosen for the Border Integrated Primary and Behavioral Health Care project based on the core components and the needs of the target population:

- **Process Milestones and Metrics:** P-2 (P-2.1); P-3 (P-3.1); P-6 (P-6.1, P-6.2); P-7 (P-7.1); P-9 (P-9.1)
- **Improvement Milestones and Metrics:** I-10 (I-10.1)

Unique community need identification number the project addresses:

- CN.3 - Inadequate integration of care for individuals with co-occurring medical and mental illness or multiple chronic conditions

How the project represents a new initiative or significantly enhances an existing delivery system reform initiative:

Border Region in Starr County has traditionally served only behavioral health needs with no communication or coordination with providers of physical health. This project represents a new initiative and may also be the first experience of regular physical health maintenance for some behavioral health clients.

Related Category 3 Outcome Measure(s):
Outcome Domain 2 – Potentially Preventable Inpatient Admissions. This domain was chosen because research has shown that those patients affected by mental illness and suffering from chronic disease are dying 25 years earlier than the rest of the population[60]. Co-occurring mental and physical health

[60] Freeman, E, Yoe, J. The Poor health status of consumers of mental healthcare: Behavioral disorders and chronic disease, Presentation to NASMHPD Medical Directors Work Group, May 2006.

issues are common in the general population but are significant for persons with serious mental illness.

National statistics demonstrate on average more than 68% of adults with a mental disorder had at least one medical condition, and 29% of those with a medical disorder also had a mental health condition. People with schizophrenia and bipolar disorder are up to three times more likely to have three or more chronic conditions compared to people without these disorders.

Treating patients in an integrated behavioral health primary care model will reduce preventable inpatient admissions.

Relationship to other Projects:
This project relates to project 1.11.2 in that teleconferencing will permit access to specialty providers on contract and enable participation by qualified panel members in outlying counties. Project 1.14.1 will be necessary to recruit, train and retain addition licensed service providers needed to treat clients involved in this project. Projects 1.14.1 will provide recruitment and training efforts to provide licensed and other primary care workers. Project 1.11.2 will expand telemedicine services to permit inclusion of geographically distant clients and expend the number and type of specialty services that may be offered under this integrated care effort.

Relationship to Other Performing Providers' Projects in the RHP:
This project as other projects in the region supports the regional goals to provide increased access and availability to primary and behavioral health care services. Focusing on integrated care provides the best opportunity for positive patient outcomes and avoids increased costs due to inappropriate inpatient admissions and emergency department usage.

Plan for Learning Collaborative:
We plan to participate in a region-wide learning collaborative(s) as offered by the Anchor entity for Region 5, Hidalgo County. Our participation in this collaborative with other Performing Providers within the region that have similar projects will facilitate sharing of challenges and testing of new ideas and solutions to promote continuous improvement in our Region's healthcare system.

Project Valuation:
The project will reduce unnecessary emergency room utilization and inpatient admissions. By creating co-located primary care and behavioral health, patients will experience more years of productive life.

Psychiatric inpatient costs attributed to Starr county are approximately $586, 730 per year and reflect a combination of State Hospital and private psychiatric care. Approximately 173 admissions come from Starr County annually with an average length of stay of 5.7 days. Inpatient cost per day is $595 per based on Center for Medicare Services research (www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Reports/downloads/cromwell_2005_3.pdf). Patient data is not reported by the local medical hospital (48 beds), but if usual regional data is applied for

treatment of diabetes, it can be anticipated 25% of this population also suffers from behavioral health issues. Diabetes may complicate and increase the cost of psychiatric inpatient stays as well.

121989102.2.1	2.15.1	2.15.1.A-J	Design, implement, and evaluate projects that provide integrated primary and behavioral health care services.	
Border Region Behavioral Health Center				121989104
Related Category 3 Outcome Measure(s):	121989102.3.2	IT-2.4	Potentially Preventable Admissions	
Year 2 (10/1/2012 – 9/30/2013)		**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1 P-3 Develop and implement a set of standards to be used for integrated services to ensure effective information sharing, proper handling of referrals of behavioral health clients to physical health providers and vice versa. Metric 1 P 3.1 Number and types of referrals that are made between providers at the location **Baseline:** No integrated services or standards exist. **Goal:** Incorporate industry standards as per chosen integration model. **Data Sources:** Surveys of providers to determine the degree and quality Of information sharing		**Milestone 3** P-2 Identify existing clinics or other community-based settings where integration could be supported. It is expected that physical health practitioners will share space in existing behavioral health settings, but it may also be possible to include both in new settings or for physicians to share their office space with behavioral health practitioners. Metric 1 P-2.1 Discussions/Interviews with community healthcare providers (physical and behavioral), city and county governments, charities, faith-based organizations and other community based organizations Data Source: Information from participating persons	**Milestone 4** P-6 Develop integrated behavioral health and primary care services within co- located sites. Metric 1 P-6.1 Number of providers achieving Level 4 of interaction (close collaboration in a partially integrated system). **Data Source:** Project data **Goal:** Complete first full year of service to clients of integrated clinic. Milestone 4 Estimated Incentive Payment: $166,819 **Milestone 5** P-7 Evaluate and continuously improve integration of primary and behavioral health services.	**Milestone 7** P-6 Develop integrated behavioral health and primary care services within co- located sites. Metric 1 P-6.2 Number of providers achieving Level 5 of interaction (close collaboration in a fully integrated system) **Data Source:** Project data **Goal:** Service delivery indicates full integration Milestone 7 Estimated Incentive Payment: $161,178 **Milestone 8** P- 7 Evaluate and continuously

165

121989102.2.1	2.15.1	2.15.1.A-J	Design, implement, and evaluate projects that provide integrated primary and behavioral health care services.	
Border Region Behavioral Health Center				121989104
Related Category 3 Outcome Measure(s):	121989102.3.2	IT-2.4	Potentially Preventable Admissions	

Year 2 (10/1/2012 – 9/30/2013)	Year 3 (10/1/2013 – 9/30/2014)	Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
Payment *(maximum amount):* $224,219 **Milestone 2** P-9 Review project data and respond to it every week with tests of new ideas, practices, tools, or solutions. This data should be collected with simple, interim measurement systems, and should be based on self-reported data and sampling that is sufficient for the purposes of improvement. Metric 2 P 9.1. Number of new ideas, practices, tools, or solutions tested by each provider. **Baseline**: Idea testing not instituted **Goal:** Institute system of regular	**Baseline:** Informal discussion with Regional partners at planning meetings. **Goal:** Involve and document providers need and willingness to support and participate in this project. **Data Source**: Information from persons interviewed Milestone 3 Estimated Incentive Payment: $467,819	Metric 1 P-7.1. Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles **Goal:** Assure system is achieving integration, and moving toward positive outcomes **Data Source:** Client Data system, Documented PDSA sessions. Milestone 5 Estimated Incentive Payment: $166,819 **Milestone 6** I-10 No-Show Appointments Metric 1 I-10.1 TBA% decrease the "no shows" for behavioral and physical health appointments.	improve integration of primary and behavioral health services. Metric 1 P 7.1 Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles **Goal:** Assure system is achieving integration, and moving toward positive outcomes **Data Source:** Client Data system, Documented PDSA sessions. Milestone 8 Estimated Incentive Payment: $161,178 **Milestone 9** I-10 No-Show Appointments Metric 1 I-10.1 TBA% decrease the "no shows" for behavioral and physical health appointments. **Baseline:** TBD - This would be

166

121989102.2.1	2.15.1	2.15.1.A-J	Design, implement, and evaluate projects that provide integrated primary and behavioral health care services.	
Border Region Behavioral Health Center				121989104
Related Category 3 Outcome Measure(s):	121989102.3.2	IT-2.4	Potentially Preventable Admissions	
Year 2 (10/1/2012 – 9/30/2013)		**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
evaluation of service by providers **Data Source:** Brief description of the idea, practice, tool, or solution tested by each provider each week. Could be summarized at quarterly intervals. Milestone 2 Estimated Incentive $224,219			**Baseline/Goal:** Number of scheduled appointments for behavioral and physical health services in the project site. This would be measured at baseline and at specified time intervals throughout the project. **Data Source**: Project Data; Clinic Registry Data; Claims and Encounter Data Milestone 6 Estimated Incentive Payment $ 166,819	measured at baseline and at specified time intervals throughout the project. **Data Source**: Project Data; Clinic Registry Data; Claims and Encounter Data Milestone 9 Estimated Incentive Payment: $161,178
Year 2 Estimated Milestone Bundle Amount: *(add incentive payments amounts from each milestone):* $448,439	Year 3 Estimated Milestone Bundle Amount: $467,819		Year 4 Estimated Milestone Bundle Amount: $500,458	Year 5 Estimated Milestone Bundle Amount: $483,534
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $1,900,250				

167

Driscoll Children's Hospital – Category 2: Program Innovation and Redesign

Project Title: Implement Evidence-based Disease Prevention Programs
Unique ID: 132812205.2.1
Identifying Project and Provider Information: Driscoll Children's Hospital [TPI: 132812205]
Project Option 2.7.1 Will establish a Fetal Echocardiogram Program.

Project Description:

Driscoll Children's Hospital is a tertiary care regional referral center offering complex and comprehensive medical and surgical care for children. The hospital's medical staff is comprised of pediatric specialists in more than 32 medical and 13 surgical specialties. For nearly 60 years, Driscoll Children's Hospital has shown a commitment to pediatric healthcare for the children of South Texas. Through the generosity and vision of its founder, Clara Driscoll, the pediatric hospital became one of the first – and today still remains the only – free-standing children's hospital in South Texas. Remembering always our commitment to relieve suffering and meet the needs of children, it is the mission of Driscoll Children's Hospital to offer hope and healing in an environment of trust, compassion and care. Unique to our rural location, the population we serve in South Texas is one of the poorest in the United States. In FY 2012, Medicaid patients accounted for more than 70 percent of inpatient days (24,236) at Driscoll Children's Hospital --the highest percentage in Texas.

The hospital is part of the Driscoll Health System, a freestanding nonprofit system, which is also comprised of Driscoll Health Plan, Four Physician Groups (501(c) (3)'s comprised of pediatric subspecialists), The Driscoll Children's Hospital Auxiliary, and the Driscoll Children's Hospital Development Foundation. With the Hospital, Health Plan, and Pediatric Subspecialty Physician groups all under the Driscoll Health System umbrella, Driscoll is uniquely positioned to meet the health care needs of South Texas and to implement innovative, DRSIP projects that improve patient care and outcomes across the care continuum.

MFM specialists provide services for women with high-risk pregnancies that include: mothers with diseases such as hypertension or diabetes, babies with possible genetic conditions or mothers expecting multiple babies. All of these expectant mothers can benefit from the care of a maternal-fetal medicine specialist. MFMs receive two to three years of additional training after an OB/GYN residency that focuses on high-risk pregnancies, ultrasound techniques and fetal anomalies.

A fetal echocardiogram program is necessary in the South Texas region due to the high prevalence of pre gestational diabetes and gestational diabetes. There is a 5-25% risk of a congenital heart defect in this population of patients. Congenital heart defects are among the most common birth defects, occurring in approximately 1 out of every 125 live births. Moreover, congenital heart defects results in the most costly hospital admissions for birth defects in the United States. A fetal echocardiogram program is an integral part in the diagnosis and treatment of congenital heart defects. If a heart defect is suspected by the MFM specialist, the patient is referred to Pediatric Cardiologist where they can perform a more detailed image of the baby's heart.

This team approach in prenatal diagnosis allows for better pregnancy counseling and improved neonatal outcomes. Driscoll Health System will coordinate this initiative with local Maternal-Fetal Medicine specialists, Pediatric Cardiologists, managed care organizations, and community collaborators. Driscoll Health System will form a Disease Prevention Task Force and will hold quality improvement meetings twice a year to review. The task force will be multidisciplinary in composition and will assess progress on Maternal Fetal Medicine project milestones and metrics. The task force meeting will serve as a structure for activity such as, but not limited to: identifying project impacts and "lessons learned", reviewing opportunities to adjust project target patient population, identifying any special considerations needed for safety-net populations, and reviewing challenges identified to date. Information identified in these meetings will be used to make improvements, adjustments, etc. to the Disease Prevention Project.

Project Goals and Challenges:

Since it was established, the MFM outreach program has proven highly successful in the early detection of fetal anomalies in patients with high risk pregnancies. Early detection potentially reduces medical costs by turning an unexpected emergent situation into an expected controlled situation. This strategy reduces critical care costs such as prolonged hospitalizations and co-morbidities. Both of these programs will help reduce in NICU inpatient days and pre-term births as well as improve early detection of fetal anomalies which is key to improving overall health care delivery and health outcomes in the region. The challenges with this project are the patient compliance of provider care instructions and the availability of timely access to care.

By the end of Year 5, the project will accomplish the following goals:

- Increase the number of patient encounters in MFM echocardiogram program by 10 percent
- Expand MFM clinics and outreach program facility hours by 2.5 percent
- Increase the number of detected related fetal anomalies in high-risk pregnant patients

This project advances RHP 5 goals and community needs assessment by expanding access to early detection program for fetal anomalies in patients with high-risk pregnancies. The supply of physicians in Internal Medicine and OB/GYN specialties lags behind Texas by 30% and 25%, respectively. Preterm infants are at increased risk of disability and early death compared with infants born later in pregnancy. The preterm birth rate for Texas is 13.3%, which is slightly above the national rate. The preterm birth rates are higher in the Driscoll Service Area compared with Texas as a whole and nationwide as the table below illustrates.

%Preterm (<37 weeks gestation) - Texas 2012

Metropolitan Statistical Area	% Preterm	State Average	Difference
Brownsville- Harlingen	15.4	13.2	2.2
Corpus Christi	14.9	13.2	1.7
Laredo	13.8	13.2	0.6
Victoria	**14.0**	**13.2**	**0.8**

Starting Point/Baseline:

The MFM clinics and outreach program facilities in Driscoll's service area for baseline measurement will begin at approximately 2,700 hours of operation in CY 2011 The MFM echocardiogram program in Driscoll's service area for baseline measurement will begin at approximately 10,800 completed procedures in CY 2011.

Rationale:

Low-income pregnant women are at higher risk for pre-term births for a variety of known as well as unknown reasons. Expectant mothers and their unborn babies who are at high risk for certain health problems such as heart disease, high blood pressure, diabetes or other endocrine disorders, kidney or gastrointestinal disease, infectious diseases and maternal immune disorders should seek maternal-fetal medicine specialists. Healthy women whose pregnancy is at high risk for complications includes abnormal maternal serum screening, twins, triplets or more, advanced maternal age, recurrent pregnancy loss and more. Every year, Driscoll's Transport Team transfers more than 840 neonatal and pediatric patients to or from Driscoll's Children's Hospital to receive the highest standard of care in the region. Maternal-fetal medicine specialists offer a wide range of care including a variety of therapies and programs that make sure that any high-risk baby in South Texas will have the best chances of living a healthy, normal life. This initiative will improve access to Maternal and Fetal Medicine care programs for Medicaid recipients. Driscoll Children's Hospital does not include any project components or receive any initiatives that may have related activities that are funded by the U.S. Department of Health and Human Services.

Project is consistent with RHP 5's community need assessment; this project addresses CN.1 (Shortage of primary and specialty care providers and inadequate access to primary or preventive care).

Related Category 3 Outcome Measure(s):

OD-8 Perinatal Outcome: IT-8.9 Early Detection of Fetal Anomalies

The Maternal fetal echocardiogram program plays an essential and critical role in pediatric cardiac programs. Increased access to MFM clinics/outreach programs will provide the ability to establish early prenatal diagnosis which allows for optimal postnatal management and helps reduce the medical costs for mother and baby. With improvement in ultrasound equipment and access, the prenatal diagnosis of congenital heart disease has substantially increased over the past two decades. The detection of significant congenital heart disease prenatally provides for better surgical and medical planning which in return improves outcomes. Fetal anomalies are defined as any conditions that are not normal anatomical structure or function. Early detection potentially reduces medical costs by turning an unexpected emergent situation into an expected controlled situation. This strategy reduces critical care costs such as prolonged hospitalizations and co-morbidities. Both of these programs will help reduce in NICU inpatient days and pre-term births as well as improve early detection of fetal anomalies which is key to improving overall health care delivery and health outcomes in the region.

Relationship to other Projects:

This project supports project 132812205.2.1 in that both support early intervention with high-risk pregnant patients to improve birth outcomes.

Relationship to Other Performing Providers' Projects in the RHP:

This project will support other projects in the region that aim to improve access to OB care in the region, such as 136332705.1.1 at Starr County Hospital, and project 160709501.1.3 at Doctors Hospital at Renaissance, to establish a new Ob/GYN residency program.

Plan for Learning Collaborative:

We plan to participate in a region-wide learning collaborative, as offered by the Anchor entity for Region 5, Hidalgo County. Our participation in this collaborative with other Performing Providers within the region that have similar projects will facilitate sharing of challenges and testing of new ideas and solutions to promote continuous improvement in our Region's healthcare system.

Project Valuation:

The quantitative value is based on a determination that the NICU is a high cost service. Decreasing the number of patients and the average length of stay (ALOS) for a NICU patient is a more efficient use of resources. Increasing the hours and use of a MFM clinic/outreach program and increasing the number of Maternal Fetal echocardiogram procedures will create significant savings and value.

Driscoll provides MFM services to the community for multiple reasons, one of which is to help reduce ALOS for NICU patients. Since the beginning of the MFM program, ALOS for a NICU patient has decreased significantly, resulting in reductions of NICU payment dollars between FY2010 and FY2012.

The Maternal fetal echocardiogram program plays an essential and critical role in pediatric cardiac programs. With improvement in ultrasound equipment and access, the prenatal diagnosis of congenital heart disease has substantially increased over the past two decades. The detection of significant congenital heart disease prenatally provides for better surgical and medical planning which in return improves outcomes. Early detection potentially reduces medical costs by turning an unexpected emergent situation into an expected controlled situation. This strategy reduces critical care costs such as prolonged hospitalizations and co-morbidities. Pediatric Cardiologists working in collaboration with the Maternal Fetal Medicine program give Perinatalogists adjunctive support in diagnosing congenital heart disease, aiding in management of arrhythmias and congestive heart failure from various causes. Additionally, it allows for detailed counseling using the expertise of a Pediatric Cardiologist.

Maternal fetal echocardiogram programs provide the ability to establish early prenatal diagnosis which allows for optimal postnatal management and helps reduce the medical costs for mother and baby. In addition, having an established prenatal diagnosis allows for plans to be set for delivery in facility with a level three neonatal service. Based on the change in NICU ALOS between

Calendar 2010 and 2012 plus the Calendar 2012 NICU admissions, we estimate a total saving and value to the state of approximately $5.4 million per year for this proposed project. Based on these reasons and value of project to the region, the maximum DSRIP funding to be allocated to this project is $16 million (inclusive of Categories 3 and 4).

UNIQUE IDENTIFIER: 132812205.2.1	*RHP PP REFERENCE NUMBER:* 2.7.1	*PROJECT COMPONENTS:* *N/A*	**Implement Evidence-based Disease Prevention Programs: Expand Maternal Fetal Medicine Program in Driscoll Service Area**
Driscoll Children's Hospital			*TPI: 132812205*
Related Category 3 Outcome Measure(s):	132812205.3.2	*IT-8.9*	**Increase the number of detected related fetal anomalies in high-risk pregnant patients in the Driscoll service area**

Year 2 (10/1/2012 – 9/30/2013)	Year 3 (10/1/2013 – 9/30/2014)	Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
Milestone 1 [P-X]: Appoint an interdisciplinary Task Force to provide oversight for expanding, increasing, and enhancing Driscoll's Maternal Fetal Medicine (MFM) Program. **Metric 1** [P-X.1]: Documentation of Task Force establishment **Data Source:** Hospital/health plan record **Milestone 2**: Estimated Incentive Payment *(maximum amount): $1,133,333* **Milestone 2 [P-1]:** Develop plan /strategy to expand the Maternal Fetal Medicine Program in Driscoll serve area **Metric 2:** [P-1.1] Document innovational strategy and plan **Data Source:** **Milestone 2**: Estimated Incentive Payment *(maximum amount): $1,133,333*	**Milestone 4**[P-X2]: Task Force leads quality improvement initiative for MFM program **Metric 4a** [P- X2.1]: Documentation of Quality Improvement meetings held twice per year **Metric 4b**: [P- X2.2] Documentation of Task Force report, findings and/or action plan to further improve the MFM **Data Source:** Hospital/health plan record **Milestone 4**: Estimated Incentive Payment *(maximum amount): $1,066,666* **Milestone 5 [I-7]:** Increase access to MFM program **Metric 5** [I-7.2]: Increase number of MFM echocardiogram program procedures by 5 percent above CY 2011 baseline. **Data Source:** Hospital/health plan record **Milestone 5**: Estimated Incentive Payment *(maximum amount): $1,066,666*	**Milestone 7** [P- X2]: Task Force leads quality improvement initiative for MFM program **Metric 7a** [P- X2.1]: Documentation of Quality Improvement meetings held twice per year **Metric 7b**: [P- X2.2] Documentation of Task Force report, findings and/or action plan to further improve the MFM **Data Source:** Hospital/health plan record **Milestone 7**: Estimated Incentive Payment *(maximum amount): $1,000,000* **Milestone 8 [I-7]:** Increase access to MFM program **Metric 8** [I-7.2]: Increase number of MFM echocardiogram program procedures by 10 percent above CY 2011 baseline. **Data Source:** Hospital/health plan record **Milestone 8**: Estimated Incentive Payment *(maximum amount): $1,000,000*	**Milestone 10** [P- X2]: Task Force leads quality improvement initiative for MFM program **Metric 10a** [P- X2.1]: Documentation of Quality Improvement meetings held twice per year **Metric 10b**: [P- X2.2] Documentation of Task Force report, findings and/or action plan to further improve the MFM **Data Source:** Hospital/health plan record **Milestone 10**: Estimated Incentive Payment *(maximum amount): $760,000* **Milestone 11 [I-7]:** Increase access to MFM program **Metric 11** [I-7.2]: Maintain 10 percent target increase of number of MFM echocardiogram procedures above the CY 2011 baseline. **Data Source:** Hospital/health plan record **Milestone 11**: Estimated Incentive Payment *(maximum amount): $ 760,000*

173

UNIQUE IDENTIFIER: 132812205.2.1	*RHP PP REFERENCE NUMBER:* 2.7.1	*PROJECT COMPONENTS:* *N/A*	**Implement Evidence-based Disease Prevention Programs: Expand Maternal Fetal Medicine Program in Driscoll Service Area**	
Driscoll Children's Hospital				*TPI: 132812205*
Related Category 3 Outcome Measure(s):	132812205.3.2	*IT-8.9*	**Increase the number of detected related fetal anomalies in high-risk pregnant patients in the Driscoll service area**	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 3 [P-X1]: Increase hours of accessibility of MFM clinics/outreach program **Metric 3** [P-X1.1]: Increase MFM clinics/outreach program hours by 2.5% above CY 2011 baseline. **Data Source:** Hospital/health plan record **Milestone 3**: Estimated Incentive Payment *(maximum amount): $1,133,334* program	**Milestone 6 [P-X1]:** Increase hours of accessibility of MFM clinics/outreach program **Metric 6** [P-X1.1]: Maintain 2.5% target increase of MFM clinics/outreach program hours in DY 2 **Data Source:** Hospital/health plan record **Milestone 6**: Estimated Incentive Payment *(maximum amount): $1,066,667*		**Milestone 9 [P-X1]:** Increase hours of accessibility of MFM clinics/outreach program **Metric 9** [P-X1.1]: Maintain 2.5% target increase of MFM clinics/outreach program hours in DY 2 **Data Source:** Hospital/health plan record **Milestone 9** Estimated Incentive Payment *(maximum amount): $1,000,000*	**Milestone 12 [P-X1]:** Increase hours of accessibility of MFM clinics/outreach program **Metric 12** [P-X1.1]: Maintain 2.5% target increase of MFM clinics/outreach program hours in DY 2 **Data Source:** Hospital/health plan record **Milestone 12**: Estimated Incentive Payment *(maximum amount): $760,000*
Year 2 Estimated Milestone Bundle Amount: *(add incentive payments amounts from each milestone):* $3,400,000	Year 3 Estimated Milestone Bundle Amount: $3,200,000		Year 4 Estimated Milestone Bundle Amount: $3,000,000	Year 5 Estimated Milestone Bundle Amount: $2,280,000
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $11,880,000				

174

Title: Implement Evidence-based Health Promotion Programs

Unique ID: 132812205.2.2
Identifying Project and Provider Information: Driscoll Children's Hospital [TPI: 132812205]

Project Option 2.6.2: Will improve maternal and fetal medicine care to pregnant women who also are diabetics, individuals with asthma, tobacco or alcohol users, and other chronic conditions.

Project Description:

Driscoll Children's Hospital is a tertiary care regional referral center offering complex and comprehensive medical and surgical care for children. The hospital's medical staff is comprised of pediatric specialists in more than 32 medical and 13 surgical specialties. For nearly 60 years, Driscoll Children's Hospital has shown a commitment to pediatric healthcare for the children of South Texas. Through the generosity and vision of its founder, Clara Driscoll, the pediatric hospital became one of the first – and today still remains the only – free-standing children's hospital in South Texas. Remembering always our commitment to relieve suffering and meet the needs of children, it is the mission of Driscoll Children's Hospital to offer hope and healing in an environment of trust, compassion and care. Unique to our rural location, the population we serve in South Texas is one of the poorest in the United States. In FY 2012, Medicaid patients accounted for more than 70 percent of inpatient days (24,236) at Driscoll Children's Hospital --the highest percentage in Texas.

The hospital is part of the Driscoll Health System, a freestanding nonprofit system, which is also comprised of Driscoll Health Plan, Four Physician Groups (501(c) (3)'s comprised of pediatric subspecialists), The Driscoll Children's Hospital Auxiliary, and the Driscoll Children's Hospital Development Foundation. With the Hospital, Health Plan, and Pediatric Subspecialty Physician groups all under the Driscoll Health System umbrella, Driscoll is uniquely positioned to meet the health care needs of South Texas and to implement innovative, DRSIP projects that improve patient care and outcomes across the care continuum.

In collaboration with Driscoll Health Plan, Driscoll Hospital plans to expand a highly successful prenatal program that promotes healthy behavior and provides supports to low-income women with high-risk pregnancies. The program, called Cadena de Madres Project (Mother's network), seeks to reduce low birth weight and premature deliveries in targeted Texas counties by providing enhanced educational and social support for indigent, predominately Hispanic, women considered to be high risk for adverse birth outcomes. The Project focuses on improving maternity social and healthcare supports available to indigent women during pregnancy.

The Project has two major components—a set of "educational" baby showers, nutritional and lactation consultations, and a series of consultation visits after delivery. The baby showers focus on encouraging prenatal care, improving nutrition, promoting breast feeding, avoiding dangerous behaviors, and recognizing the signs and symptoms of premature labor. Pregnant women enrolled in Driscoll Children's Health Plan are mailed an invitation each month of their pregnancy. After attending our baby shower sessions the participant will be educated on how to distinguish healthy choices during their pregnancy and recognize the negative impact of smoking, alcohol, and drugs can have on their health and comprehend the advantages of prenatal care and understand the complications that may occur during their pregnancy. Educational baby showers also recognize signs

of preterm labor, and pre labor signs, and understand when medical intervention is needed. Nutritional advice can be reinforced or further advice can be sought from the dietitian, particularly for those with diabetes or gestational diabetes.

The consultation visits reinforce the concepts presented at the baby showers, but also allow team members to ensure that the mother seeks postpartum care, infant care, and family planning consideration. The consultation visits encourage postpartum care of the mother, timely infant care, successful breastfeeding, and good nutrition for the mother and the infant, consideration of family planning to gain appropriate birth spacing, and re-enrollment for continuing medical insurance coverage. The consult visitor can also teach important infant safety points like "back to sleep", the importance of proper car seat use, the appropriate use of the medical office and the emergency room for medical issues. Convincing a mother to breast feed promotes further bonding to the new infant. This can be aided by having consultations with a certified lactation consultant. Breast fed infants have less visits to the physician for medical illness than those that bottle feed. Most mothers will consider delaying the next pregnancy until they wean the current infant.

This team approach in prenatal and postnatal care allows for better pregnancy counseling and improved neonatal outcomes. Driscoll will coordinate this initiative with local maternal-fetal medicine specialists, managed care organizations, and community collaborators. To further enhance the project, Driscoll Health System will form a Health Promotion Task Force and will hold quality improvement meetings twice a year. The task force will be multidisciplinary in composition and will assess progress on the Health Promotion milestones and metrics. The task force meeting will serve as a structure for activity such as: identifying project impacts and "lessons learned", reviewing opportunities to adjust project target patient population, identifying any special considerations needed for safety-net populations, and reviewing challenges identified to date. Information identified in these meetings will be used to make improvements, adjustments, etc. to the Health Promotion Task Force.

Project Goals and Challenges:

The goal of this project is to educate and provide support to low income women with high risk pregnancies in order to foster healthy pregnancies and better health outcomes for baby and mother. This goal will be achieved by expanding access to the Cadena de Madres program. The increased consults, Cadena participants and educational sessions may include one or all of the different program locations. By the end of Year 5, Driscoll plans to:

- Expand prenatal educational sessions by 15 percent.
- Expand consultation visits by 15 percent
- Reduce NICU Average Length of Stay (ALOS)
- Expand Cadena Healthplan participants by 15 percent

This project advances RHP 5 goals and community needs assessment by expanding access to prenatal education and consultations to support low-income pregnant women deliver healthy babies and reduced need for neonatal intensive care services. The supply of physicians in Internal Medicine and OB/GYN specialties lags behind Texas by 30% and 25%, respectively. Preterm infants are at an increased risk of disability and early death compared with infants born later in pregnancy. For the U.S. in 2008, 12.3% of all births were preterm. The preterm birth rate for Texas is 13.3%, slightly

above the national rate. The preterm birth rates are higher in the Driscoll Service Area compared with Texas as a whole and nationwide as the table below illustrates.

%Preterm (<37 weeks gestation) - Texas 2012

Metropolitan Statistical Area	% Preterm	State Average	Percent Higher
Brownsville- Harlingen	15.4	13.2	2.2
Corpus Christi	14.9	13.2	1.7
Laredo	13.8	13.2	0.6
Victoria	**14.0**	**13.2**	**0.8**

Starting Point/Baseline:

During State Fiscal Year 2012, Driscoll provided over 300 prenatal educational sessions, 700 Cadena Healthplan participants and over 500 educational consult visits to high risk pregnant women.

Rationale:

Low-income pregnant women are prone to pre-term births for a variety of known as well as unknown reasons. Data suggest that alcohol, drugs, tobacco use, poor diet, and other chronic diseases like asthma and diabetes have a direct impact on pre-term births resulting in higher Neonatal Intensive Care Unit (NICU). Reduction in NICU inpatient days and pre-term births are keys to improving overall health care delivery and health outcomes in the region. This initiative will expand health education to high risk pregnant Medicaid patients as well as provide counseling and education on tobacco and alcohol use for pregnant women.

This project is consistent with RHP 5's community need assessment; this project addresses CN.1: Shortage of primary and specialty care providers and inadequate access to primary or preventive care.

Related Category 3 Outcome Measure(s):

OD-8 Perinatal Outcome: IT-8.9
Reduce the Neonatal ICU Average Length of Stay for the targeted population.

Data suggest that alcohol, drugs, tobacco use, poor diet, and other chronic diseases like asthma and diabetes have a direct impact on pre-term births resulting in higher Neonatal Intensive Care Unit (NICU). Reduction in NICU inpatient days and pre-term births are keys to improving overall health care delivery and health outcomes in the region. This project will grow through community support and recognition for the need of quality information about healthy pregnancies, deliveries, and infant care. This project will increase community participation and education through these services targeted to serve low-income populations.

Relationship to other Projects:

This project supports project 132812205.2.1 in that both support early intervention with high-risk pregnant patients to improve birth outcomes.

Relationship to Other Performing Providers' Projects in the RHP:

This project will support other projects in the region that aim to improve access to OB care in the region, such as 136332705.1.1 at Starr County Hospital, and project 160709501.1.3 at Doctors Hospital at Renaissance, to establish a new Ob/GYN residency program.

Plan for Learning Collaborative:
We plan to participate in a region-wide learning collaborative, as offered by the Anchor entity for Region 5, Hidalgo County. Our participation in this collaborative with other Performing Providers within the region that have similar projects will facilitate sharing of challenges and testing of new ideas and solutions to promote continuous improvement in our Region's healthcare system.

Project Valuation:

The quantitative value is based on a determination that Neonatal ICU (NICU) use is a high cost service. Decreasing the number of premature infant admissions less than 37 weeks and the Average Length of Stay (ALOS) for a NICU patient is a more efficient use of resources. Expanding health education to high risk pregnant patients as well as increasing the number of provided counseling sessions on tobacco and alcohol use for pregnant women will create significant savings and value.

Driscoll provides educational sessions and consultations for multiple reasons, one of which is to help reduce ALOS for NICU patients. Since the beginning of the Cadena de Madres Program, the number of Premature Infant Admissions less than 37 weeks has decreased significantly and as a result has reduced NICU costs for Managed Medicaid patients.

Based on the decreasing number of premature infant admissions less than 37 weeks and the Average Length of Stay (ALOS) for a NICU patient, we estimated a total saving and value to the state of approximately $5.4 million per year for this proposed project. However, consistent with DSRIP requirements, the maximum DSRIP funding to be allocated to this project is $10,000,000 (inclusive of Categories 3 and 4).

Unique Identifier: 132812205.2.2	*RHP PP Reference Number:* **2.6.2**	*Project Components: N/A*	**Implement Evidence-based Health Promotion Programs**
Driscoll Children's Hospital			*TPI: 132812205*
Related Category 3 Outcome Measure(s): Perinatal Outcomes	*132812205.3.3*	*IT-8.9*	Reduce the Neonatal ICU Average Length of Stay for the targeted population

Year 2 (10/1/2012 – 9/30/2013)	Year 3 (10/1/2013 – 9/30/2014)	Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
Milestone 1 [P-9]: Appoint an interdisciplinary Task Force to provide oversight for expanding, increasing, and enhancing the Cadena de Madres Program. **Metric 1** [P-9.1]: Documentation of Task Force establishment **Data Source:** Hospital/health plan record **Milestone 1**: Estimated Incentive Payment *(maximum amount): $425,000* **Milestone 2:** [P-10] Develop plan to expand Cadena de Madres program to women with high risk pregnancies **Metric 2:** [P-10.1]: Evidence of plan **Data Source: Hospital/health plan record** **Milestone 2:** Estimated Incentive Payment *(maximum amount): $425,000* **Milestone 3** [I.9] Increase access to prenatal education sessions for target population **Metric 3:** [I.9.1] Increase number of prenatal education sessions for target population by 5 percent above SFY 12 baseline. **Data Source:** Hospital/health plan	**Milestone 6** [P-12]: Task Force leads quality improvement initiative for Cadena de Madres program **Metric 6a** [P-12.1]: Documentation of Quality Improvement meetings held twice per year **Metric 6b:** [P-12.2] Documentation of Task Force report, findings and/or action plan to further improve the Cadena de Madres program **Data Source:** Hospital/health plan record **Milestone 6**: Estimated Incentive Payment *(maximum amount): $500,000* **Milestone 7:** [I.9] Increase access to prenatal education sessions for target population **Metric 7**: [I-9.1] Increase number of prenatal education sessions for target population by 10 percent above SFY 12 baseline **Data Source:** Hospital/health plan record **Milestone 7:** Estimated Incentive Payment *(maximum amount): $500,000*	**Milestone 10** [P-12]: Task Force leads quality improvement initiative for Cadena de Madres program **Metric 10a** [P-12.1]: Documentation of Quality Improvement meetings held twice per year **Metric 10b**: [P-12.2] Documentation of Task Force report, findings and/or action plan to further improve the Cadena de Madres program **Data Source:** Hospital/health plan record **Milestone 10**: Estimated Incentive Payment *(maximum amount):* $468,750 **Milestone 11:** [I.9] Increase access to prenatal education sessions for target population **Metric 11 [I.9.1]**: Increase number of prenatal education sessions for target population by 15 percent above SFY 12 baseline. **Data Source:** Hospital/health plan record **Milestone 11:** Estimated Incentive Payment *(maximum amount):* $468,750	**Milestone 14** [P-12]: Task Force leads quality improvement initiative for Cadena de Madres program **Metric 14a** [P-12.1]: Documentation of Quality Improvement meetings held twice per year **Metric 14b**: [P-12.2] Documentation of Task Force report, findings and/or action plan to further improve the Cadena de Madres program **Data Source:** Hospital/health plan record **Milestone 14**: Estimated Incentive Payment *(maximum amount): $356,250* **Milestone 15:** [I.9] Increase access to prenatal education sessions for target population **Metric 15**: [I.9.1] Increase number of prenatal education sessions for target population by 20 percent above SFY 12 baseline. **Data Source:** Hospital/health plan record **Milestone 15:** Estimated Incentive Payment *(maximum amount): $356,250*

179

UNIQUE IDENTIFIER: *132812205.2.2*	*RHP PP REFERENCE NUMBER:* ***2.6.2***	*PROJECT COMPONENTS: N/A*	**Implement Evidence-based Health Promotion Programs**
Driscoll Children's Hospital			*TPI: 132812205*
Related Category 3 Outcome Measure(s): Perinatal Outcomes	*132812205.3.3*	*IT-8.9*	Reduce the Neonatal ICU Average Length of Stay for the targeted population

Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
record **Milestone 3:** Estimated Incentive Payment *(maximum amount): $425,000* **Milestone 4:** [I.10] Increase access to prenatal education consults for target population **Metric 4:** [I-10.1] Increase number of prenatal education consults above baseline for target population by 5 percent above SFY 12 baseline. **Data Source:** Hospital/health plan record **Milestone 4:** Estimated Incentive Payment *(maximum amount):* $425,000 **Milestone 5:** [I-11] Increase number of Cadena Healthplan participants **Metric 5:** [I-11.1] Increase number of Cadena Healthplan participants by 5 percent above SFY 12 baseline. **Data Source:** Hospital/health plan record **Milestone 5:** Estimated Incentive Payment *(maximum amount):$425,000*	**Milestone 8:** [I-10] Increase access to prenatal education consults for target population **Metric 8:** [I-10.1] Maintain Year 2 (SFY 2013) number of prenatal education consults for target population **Data Source:** Hospital/health plan record **Milestone 8:** Estimated Incentive Payment *(maximum amount): $500,000* **Milestone 9:** [I-11] Increase number of Cadena Healthplan participants **Metric 9:** [I-11.1] Maintain Year 2 (SFY 2013) number of Cadena Healthplan participants for target population **Data Source:** Hospital/health plan record **Milestone 9:** Estimated Incentive Payment *(maximum amount):$500,000*	**Milestone 12:** [I.10] Increase access to prenatal education consults for target population **Metric 12:** [I.10.1] Maintain Year 2 (SFY 2013) number of prenatal education consults for target population **Data Source:** Hospital/health plan record **Milestone 12:** Estimated Incentive Payment *(maximum amount):* $468,750 **Milestone 13:** [I-11] Increase number of Cadena Healthplan participants **Metric 13:** [I-11.1] Maintain Year 2 (SFY 2013) number of Cadena Healthplan participants for target population **Data Source:** Hospital/health plan record **Milestone 13:** Estimated Incentive Payment *(maximum amount):$468,750*	**Milestone 16** [I.10] Increase access to prenatal education consults for target population **Metric 16:** [I.10.1] Maintain Year 2 (SFY 2013) number of prenatal education consults for target population **Data Source:** Hospital/health plan record **Milestone 16:** Estimated Incentive Payment *(maximum amount): $356,250* **Milestone 17:** [I-11] Increase number of Cadena Healthplan participants **Metric 17:** [I-11.1] Maintain Year 2 (SFY 2013) number of Cadena Healthplan participants for target population **Data Source:** Hospital/health plan record **Milestone 17:** Estimated Incentive Payment *(maximum amount):$356,250*
Year 2 Estimated Milestone Bundle Amount: *(add incentive payments amounts from each milestone):* $2,125,000	Year 3 Estimated Milestone Bundle Amount: $2,000,000	Year 4 Estimated Milestone Bundle Amount: $1,875,000	Year 5 Estimated Milestone Bundle Amount: $1,425,000
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $ 7,425,000			

180

Project Title: Integrate Primary and Behavioral Health Care Services
Unique RHP Project identification number: 138708601.2.1
Performing Provider/TPI: Tropical Texas Behavioral Health/138708601
Project Option 2.15.1 Will add a Primary Care Physician (PCP), nurse and support staff at each of TTBH's 3 main clinic locations (serving Hidalgo, Cameron and Willacy Counties) to provide primary care services to the behavioral health population served.

Project Description:
Integrate primary care and behavioral health care services in order to improve care and access to needed services. TTBH will co-locate primary healthcare clinics at each of our three largest behavioral health clinics to provide integrated primary health care through a healthcare home model to 900 individuals receiving behavioral health services. This project is an innovation for the Center, as TTBH has never provided primary care services in our more than 45 year history as the Rio Grande Valley's LMHA. Integrated primary care will include services promoting education, prevention, recovery and wellness. The co-location of primary care within TTBH's behavioral health clinics will facilitate access to preventative primary care for individuals who frequently access routine care through hospital emergency departments or who forgo routine medical care until undiagnosed or untreated illnesses require intervention in the emergency department or result in inpatient admission. TTBH has identified our 3 largest clinic sites for the co-location of primary care services. The clinics are well-established within the local communities and the locations are familiar to the residents. The sites have established utilities and building services, and while relatively accessible at the present time, they will be more so with the implementation of added transportation services. Services will be delivered by primary care staff employed by TTBH and coordinated and documented in our existing EHR; facilitating co-scheduling and information sharing between physical health and behavioral health providers, in addition to data collection and reporting. Internal protocols and processes for communication and referral between behavioral and physical health providers will be established during the development of the primary care clinics. Behavioral and physical health staff will receive training on the protocols as applicable, including training on team approaches to treatment, information sharing through consultative meetings and case conferences and co-developed comprehensive treatment planning. The results will be improved coordination of behavioral and primary health care, improved health outcomes and wellness for persons served through early primary care intervention, and reduced costs to the health care system as a result of reduced inappropriate emergency department usage and inpatient admissions.

All services funded by this waiver will be monitored through TTBH's Quality Management (QM) and Utilization Management (UM) structures. The QM/UM programs utilize several internal committees including but not limited to the Performance Improvement and Compliance and Utilization Management Committees, and the support of the Management of Information Systems (MIS) and Quality Management (QM) Departments, to continuously monitor performance indicators related to service quality, health outcomes and business performance through a plan, do, study, act quality improvement process. In addition to specified Category 3 Waiver outcome targets, relevant data will be evaluated regularly against the Center's past performance, national benchmarks, state mandated performance targets and applicable accreditation standards to drive performance improvement activities when indicated. Recommendations for identified performance improvement actions are routed to TTBH's Executive Management and Board of Trustees when necessary. In keeping with TTBH's existing quality improvement structures, and as recommended by the Texas HHSC and the

Centers for Medicare and Medicaid Services, prescribed and customized quality improvement process milestones reflecting plan, do, study, act quality improvement cycles have been incorporated into this plan.

Goal(s) and Relationship to Regional Goal(s):

Project goals:

- Co-locate primary healthcare clinics at three of our behavioral health clinics including the addition of a Primary Care Physician (PCP), nurse and support staff to provide primary care services to the behavioral health population served.
- Increase the number of individuals receiving physical and behavioral health care at TTBH clinics to 900 persons served by DY5.
- Improve coordination of behavioral and primary health care, health outcomes and wellness for persons served through early primary care intervention.
- Reduce costs to the health care system through reductions in inappropriate emergency department usage and inpatient admissions.

This project meets the following regional goals:

- Improve on existing programs and infrastructure to ensure that the health care delivery system will be adequately developed to meet the primary and specialty care needs of residents throughout a rapidly growing, yet historically underserved region.
- Increase access to primary and specialty care services, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition, regardless of where they live or their ability to pay.
- Improve the integration of care for people with multiple chronic diseases, including those with co-occurring physical and behavioral health conditions as part of our region's transformation to a quality-based health care system.
- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of best practices to improve access and timely utilization of appropriate care.
- Transform health care delivery to a patient-centered, coordinated and integrated delivery model that improves patient satisfaction and health outcomes, reduces unnecessary emergency department use and duplicative services, and expands on the accomplishments of our existing health care system.
- Expand the workforce of qualified primary care and specialty care providers to reduce health care workforce shortages and thus reduce delays in care seeking.
- Increase the capacity of safety net providers in the region to provide patient-centered care and care management to improve health literacy, self-care management skills and more effective navigation of the health care system.

Challenges and How Addressed:

Challenges:

- Appropriate space and equipment for the delivery of primary care in our behavioral health clinics.
- Recruitment and retention of primary care providers including physicians, nurses and support staff.

Addressed by:

- Continued progress on the planned expansion of three outpatient clinics to increase capacity to serve all counties in the TTBH catchment area.
- Competitive hiring and salary structure based on years of experience.
- Structured career ladder advancement opportunities for each position.
- Productivity incentive opportunities.
- Implementing marketing strategies for recruitment.
- Enhanced recruitment through maintenance of the agency's Health Professional Shortage Area (HPSA) designation with the National Health Service Corps.
- Tuition reimbursement.
- Offering re-location reimbursement.
- Opportunities for training and education to enhance staff competencies and promote professional development.

5 year Expected Outcome for Provider and Patients:

We expect to see increased utilization of routine and preventative primary care services and to increase the number of individuals receiving physical and behavioral health care at TTBH clinics annually to 900 persons served by DY5.

Starting Point/Baseline:

Baseline is zero. This is an innovative project for TTBH; the Center has not previously delivered primary care services for persons with co-occurring medical and behavioral health needs.

Rationale:

The elevated rates of co-morbid chronic medical illnesses in people with mental illness, the unique challenges they face in effectively managing their illnesses and their high rates of premature mortality relative to the general population have been well documented. In a 2006 technical report on Morbidity and Mortality in People with Serious Mental Illness (SMI), the Medical Directors Council of the National Association of State Mental Health Program Directors suggested that people with SMI die, on average, 25 years earlier than the general population. The report asserted the increased mortality and morbidity rates were largely due to preventable conditions including cardiovascular disease, diabetes (including related conditions such as kidney failure), respiratory disease (including pneumonia and influenza) and infectious diseases (including HIV/AIDS). The researchers argued that having SMI may be a risk factor and lead to problems in access to health care due to, among other things, the lack of motivation, fearfulness, and social instability of persons with SMI, and the fragmentation of mental health and primary health care systems.

Factors identified as placing people with SMI at higher risk of morbidity and mortality included higher rates of smoking, alcohol consumption, poor nutrition /obesity, lack of exercise, unsafe sexual behavior, drug use and exposure to infectious diseases, as well as homelessness, victimization/trauma, unemployment, poverty, incarceration, and social isolation. The report also cited research suggesting the population of people with SMI had high use of somatic emergency services, fewer routine preventive services, lower rates of cardiovascular procedures and worse diabetes care. For those in the Rio Grande Valley living with mental illness, these health concerns are compounded by the overarching health issues impacting the general population along the Texas/Mexico Border more negatively than other areas of the state and nationally, and in relation to science-based nationally established health benchmarks. Examples include an increased likelihood of being uninsured; difficulty accessing health care; not seeing a physician regularly due to cost or transportation barriers; a decreased likelihood of having routine blood pressure or cholesterol tests;

higher rates of kidney disease, liver disease, tuberculosis, diabetes, overweight and obesity; and a higher rate of reported depressive symptoms accompanied by a lower likelihood of seeking mental health treatment.

The benefits of integrating primary and behavioral health both from a health improvement and a health system cost perspective have also been demonstrated. A recent study involving the integration of primary care services within a mental health clinic treating veterans with mental illness reported that "enrollment in a co-located, integrated clinic was associated with increased primary care use and improved attainment of some cardiovascular risk goals." The study found that the veterans who received primary care services co-located within the mental health setting realized "significantly improved goal attainment for blood pressure, low-density lipoprotein cholesterol, triglycerides, and BMI." Researchers have also demonstrated that for populations served in community mental health centers, the implementation of care management delivered in an integrated primary care setting can result in sustainable improvements in physical health outcomes (e.g. cardiovascular risk, physical functioning and pain) and patient and provider satisfaction, as well as significant potential cost savings to health care systems relative to care as usual (i.e., referral to their primary care provider).

Co-location of Primary care services improves access to care by reducing the cost and inconvenience to those served of arranging for added transportation to multiple locations for behavioral and physical health care. Through this project, TTBH will co-locate primary health care clinics at each of our three main behavioral health clinics. These co-located clinics will allow TTBH to provide a targeted group of persons receiving behavioral health services with access to integrated primary health care, including services to promote education, prevention, recovery and wellness through a health care home design.

Project Components:

Through our project to integrate primary care service into our behavioral health clinics we propose to meet the required project components as follows:

a) *Identify sites for integrated care projects, which would have the potential to benefit a significant number of patients in the community.* TTBH will co-locate primary care services within three of our existing behavioral health clinics. This will allow for the delivery of primary care services in clinic locations and settings very familiar to the individuals and families of the counties we serve; for "one-stop" access to mental health and medical services, reducing the need for transportation to multiple service locations; and is conducive to the facilitation of "warm hand-offs" between behavioral health and primary care service providers.

b) *Develop provider agreements whereby co-scheduling and information sharing between physical health and behavioral health providers could be facilitated.* As primary care services will be delivered by TTBH primary care staff using the same Electronic health record already in place for the delivery of behavioral health services, provider agreements are not needed.

c) *Establish protocols and processes for communication, data-sharing, and referral between behavioral and physical health providers.* Communication and sharing of clinical data will be accomplished though clinician access to a single Electronic health record in accordance with TTBH Technology and Information Systems security protocols. Protocols for the identification and referral of clients to primary care services will be developed during the program planning and development process.

d) *Recruit a number of specialty providers (physical health, mental health, substance abuse, etc. to provide services in the specified locations.* This will be accomplished through marketing and hiring strategies including: competitive hiring and salary structure based on years of

experience; career ladder advancement opportunities; productivity incentives; attracting providers through the agency's Health Professional Shortage Area (HPSA) designation with the National Health Service Corps; tuition reimbursement; re-location reimbursement and opportunities for training and education to enhance staff competencies and promote professional development.

e) *Train physical and behavioral health providers in protocols, effective communication and team approach. Build a shared culture of treatment to include specific protocols and methods of information sharing.* Appropriate protocols will be developed during the program planning and development process.
f) *Acquire data reporting, communication and collection tools (equipment) to be used in the integrated setting, which may include an integrated Electronic health record system.* As primary care services will be delivered and documented using the same Electronic health record already in place for the delivery of behavioral health services, this is already in place.
g) *Explore the need for and develop any necessary legal agreements that may be needed in a collaborative practice.* This will be researched and addressed as needed through the program planning and development process.
h) *Arrange for utilities and building services for these settings.* This will be addressed as part of our planned expansion of existing clinic sites.
i) *Develop and implement data collection and reporting mechanisms and standards to track the utilization of integrated services as well as the health care outcomes of individual treated in these integrated service settings.* This will be accomplished through our existing Quality Management/Utilization Management structures, as described in the project description.
j) *Conduct quality improvement for project using methods such as rapid cycle improvement.* This will be accomplished through our existing Quality Management/Utilization Management structures as described in the project description, through the planned learning collaborative activities with Border Region Behavioral Health and other regional partners as appropriate and through the activities of the various Community Mental Health Center consortia sponsored by the Texas Council of Community Centers.

Milestones and Metrics:

The following milestones and metrics were chosen for the TTBH Integrate Primary and Behavioral Health Care Services project based on the project option and the needs of the target population:

- Process Milestones and Metrics: P-5 (P-5.2); P-7 (P-7.1)
- Improvement Milestones and Metrics: I-8 (I-8.1)

Unique Community Needs Identification Numbers:

This project addresses community need CN.3, inadequate integration of care for individuals with co-occurring medical and mental illness or multiple chronic conditions.

How the Project Represents a New Initiative or Significantly Enhances an Existing Delivery System Reform Initiative:

The project to integrate primary and behavioral health care services is a completely new initiative for TTBH. Currently, integration of primary and behavioral health care for those we serve is minimal including referrals to outside primary care physicians, local Federally Qualified Healthcare Clinics and other area clinics. This involves separate service sites and systems, a lack of effective communication and data sharing if any, and requires that the person served or their family navigate complicated health care systems. Through this project, those receiving behavioral health services with co-morbid chronic high-risk medical illnesses will have access to primary and behavioral health care that utilizes

shared facilities and systems, and regular collaboration and communication between providers, to achieve a true team approach to address all of their recovery needs.

Related Category 3 Outcome Measure(s):

TTBH will measure outcomes for each of our proposed projects by assessing the satisfaction of persons served across several treatment and health related domains. Ultimately, the individuals served are at the center of health care delivery reform efforts and their experience of the care they receive is critical. Although a patient's perception of the quality of treatment is influenced by many aspects of their care, a growing body of evidence supports the use of patient satisfaction as a legitimate measure of treatment outcomes. Research has demonstrated strong positive relationships between patients' reported satisfaction and characteristics of the service delivery system including the amount of time providers spend with patients, the amount of information given to the patient, continuity of provider and when providers show personal interest in their patients. Higher levels of satisfaction have also been shown to be predictive of increased adherence to treatment recommendations and increased health-seeking behaviors, while lower levels of satisfaction with and confidence in the quality of services correlates with an increase in complaints and a decreased willingness to seek care, potentially leading to serious health complications. Accordingly, focusing on the satisfaction of those served is directly linked to ensuring that the services provided not only improve the experience of care, but meet the individual needs of the person served and promote wellness and recovery-oriented behaviors in the individual as well.

Relationship to other Projects:

Expanding infrastructure and capacity for preventative primary health care services will support the completion of the medical clearances needed for many psychiatric inpatient admissions by the physicians employed at the co-located clinics and reduce the use of emergency departments for this service (Project 138708601.2.3). It is also necessary to accommodate the implementation of integrated care management functions to educate persons served about their primary and behavioral health conditions, monitor their response and adherence to treatment and coordinate care (Project 138708601.2.4).

Relationship to Other Performing Providers' Projects in the RHP:

TTBH will coordinate with Border Region Behavioral Health Center, the LMHA serving Starr County, to develop and participate in a learning collaborative related to our respective projects to integrate primary and behavioral health care services.

Plan for Learning Collaborative:

TTBH will host bi-weekly conference calls with regional partners engaged in similar transformation projects to review data, discuss ideas and share challenges, solutions and the results of performance improvement activities. TTBH will make its website available for web-based information sharing and reporting. TTBH will request that the Texas Council of Community Centers consider coordinating bi-annual face-to-face learning meetings related to health care transformation initiatives.

Project Valuation:

- Cost-utility analysis: Measures the cost of the program in dollars and the health consequences in utility-weighted units. This valuation uses quality-adjusted life years (QALYs) which combines health quality (utility) with length of time in a particular health state. According to a research done by University of Texas Austin Center for Social Work, the monetary value per life-year gained due to the interventions is $50,000.
- Overall Project Valuation: The total valuation for Integrated Primary Care is $16,810,467.

PROJECT 138708601.2.1	PROJECT OPTION 2.15.1	PROJECT COMPONENT(S) 2.15.1.a – 2.15.1.j	INTEGRATE PRIMARY AND BEHAVIORAL HEALTH CARE SERVICES	
	Tropical Texas Behavioral Health			138708601
Related Category 3 Outcome Measure(s):	138708601.3.4	3.IT-6.1	Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1 [P-5]: Develop integrated sites reflected in the number of locations and providers participating in the integration project. Metric 1 [P-5.2]: Number of primary care providers newly located in behavioral health settings. • Baseline/Goal: Baseline N/A, goal is to develop a plan to co-locate primary care services at TTBH's 3 main clinics including building construction and renovation, purchase of necessary equipment, development of policies and procedures and recruitment, hiring and training of staff. • Data Source: Documentation of work plan and time frames. Milestone 1 Estimated Incentive Payment *(maximum amount):* $1,924,751.50 **Milestone 2** [P-7]: Evaluate and continuously improve integration of primary and behavioral health services Metric 1: [P-7.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports	**Milestone 3** [I-8]: Integrated Services Metric 1 [I-8.1]: Percent of unduplicated individuals served receiving both physical and behavioral health care at the established locations. • Baseline/Goal: In FY2012 TTBH served approximately 23,000 unduplicated individuals. The goal is to increase the percentage of unduplicated persons receiving both physical and behavioral health care to 1.3% of baseline. • Data Source: Encounter data Milestone 3 Estimated Incentive Payment: $2,058,419 **Milestone 4** [P-7]: Evaluate and continuously improve integration of primary and behavioral health services Metric 1: [P-7.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement.		**Milestone 5** [I-8]: Integrated Services Metric 1 [I-8.1]: Percent of unduplicated individuals served receiving both physical and behavioral health care at the established locations. • Goal: Increase the percentage of unduplicated persons receiving both physical and behavioral health care to 2.6% of baseline. • Data Source: Encounter data Milestone 5 Estimated Incentive Payment: $2,170,697 **Milestone 6** [P-7]: Evaluate and continuously improve integration of primary and behavioral health services Metric 1: [P-7.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement. Milestone 6 Estimated Incentive Payment *(maximum amount):*	**Milestone 7** [I-8]: Integrated Services Metric 1 [I-8.1]: Percent of unduplicated individuals served receiving both physical and behavioral health care at the established locations. • Goal: Increase the percentage of unduplicated persons receiving both physical and behavioral health care to 3.9% of baseline. • Data Source: Encounter data Milestone 7 Estimated Incentive Payment: $2,251,366 **Milestone 8** [P-7]: Evaluate and continuously improve integration of primary and behavioral health services Metric 1: [P-7.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement. Milestone 8 Estimated Incentive Payment *(maximum amount):*

PROJECT 138708601.2.1	PROJECT OPTION 2.15.1	PROJECT COMPONENT(S) 2.15.1.a – 2.15.1.j	INTEGRATE PRIMARY AND BEHAVIORAL HEALTH CARE SERVICES	
Tropical Texas Behavioral Health				138708601
Related Category 3 Outcome Measure(s):	138708601.3.4	3.IT-6.1	Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement. Milestone 2 Estimated Incentive Payment *(maximum amount):* $1,924,751.50	Milestone 4 Estimated Incentive Payment *(maximum amount):* $2,058,419		$2,170,697	$2,251,366
Year 2 Estimated Milestone Bundle Amount: $3,849,503	Year 3 Estimated Milestone Bundle Amount: $4,116,838		Year 4 Estimated Milestone Bundle Amount: $4,341,394	Year 5 Estimated Milestone Bundle Amount: $4,502,732
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $16,810,467				

Project Title: Provide an intervention for a targeted behavioral health population to prevent unnecessary use of services in a specified setting (i.e., the criminal justice system, ER, urgent care)
Unique RHP Project identification number: 138708601.2.2
Performing Provider/TPI: Tropical Texas Behavioral Health/138708601
Project Option 2.13.2 Will recruit and hire 18 certified Mental Health Officers to serve on a mental health taskforce serving all counties in TTBH's catchment area; increase opportunities to divert individuals with mental illness from the criminal justice system to treatment alternatives as appropriate.

Project Description:
Provide specialized services to complex behavioral health populations such as people with severe mental illnesses and/or a combination of behavioral health and physical health issues. Through funding associated with this project, 18 certified Mental Health Officers will be recruited to serve on a specially trained law enforcement task force with the objective of decreasing preventable admissions and readmissions into the Criminal Justice System. In 2011, the police departments in the three largest cities in the Valley (McAllen, Harlingen and Brownsville) reported an average rate of arrests per service call of approximately 5.8%. Assuming the same arrest rate for officers on the mental health taskforce, by Waiver DY5 TTBH will target a decrease of at least 1.5% in the arrest rate for the Mental Health Officers as a result of an increase in the number of individuals identified as appropriate for diversion from jail into behavioral health treatment services. The task force will be will be created through the execution of an interlocal agreement between several local county and municipal law enforcement agencies; each of which will contribute officers to serve on the task force. The personnel, supplies and operating expenses for the task force will be funded by this project. While serving on the task force, the assigned Mental Health Officers and related personnel will remain employees of their respective law enforcement agencies. Officers serving on the task force will have the authority to intervene in cases involving individuals exhibiting signs and symptoms of a possible mental illness anywhere outside of the jurisdiction in which they are regularly employed throughout Willacy, Cameron and Hidalgo Counties, in accordance with applicable statutes and the terms of the agreement. Through the interlocal agreement and the task force, the participating agencies will cooperate to improve the identification of individuals who come in contact with law enforcement for misdemeanor offenses determined to be related to the symptoms of their mental illness and who may therefore be appropriate for diversion from the criminal justice system into routine behavioral health care services. This will reduce the need for intervention by other elements of local law enforcement, hospital emergency department visits and medical and psychiatric inpatient hospital admissions. The program will also improve health outcomes for persons served, supporting the objective of delivering the right care at the right time in the right setting, and improve the experience of care.

All services funded by this waiver will be monitored through TTBH's Quality Management (QM) and Utilization Management (UM) structures. The QM/UM programs utilize several internal committees including but not limited to the Performance Improvement and Compliance and Utilization Management Committees, and the support of the Management of Information Systems (MIS) and Quality Management (QM) Departments, to continuously monitor performance indicators related to service quality, health outcomes and business performance through a plan, do, study, act quality improvement process. In addition to specified Category 3 Waiver outcome targets, relevant data will be evaluated regularly against the Center's past performance, national benchmarks, state mandated

performance targets and applicable accreditation standards to drive performance improvement activities when indicated. Recommendations for identified performance improvement actions are routed to TTBH's Executive Management and Board of Trustees when necessary. In keeping with TTBH's existing quality improvement structures, and as recommended by the Texas HHSC and the Centers for Medicare and Medicaid Services, prescribed and customized quality improvement process milestones reflecting plan, do, study, act quality improvement cycles have been incorporated into this plan.

Goal(s) and Relationship to Regional Goal(s):

Project goals:

- Recruit and hire 18 certified Mental Health Officers to serve on a taskforce serving all counties in TTBH's catchment area.
- Increase opportunities to divert individuals with mental illness from the criminal justice system to treatment alternatives as appropriate.
- Decrease in preventable admissions and readmissions into the criminal justice system by 1.5% from baseline for persons encountered by Mental Health Officers.
- Reduce interventions with this population by other elements of local law enforcement, in hospital emergency departments and medical and psychiatric inpatient hospital admissions.
- Improve health outcomes for persons served, delivering the right care at the right time in the right setting.

This project meets the following regional goals:

- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of best practices to improve access and timely utilization of appropriate care, including behavioral health services.
- Increase the availability of and access to behavioral health services by expanded mental health workforce capacity to help prevent admission/readmission to inpatient psychiatric care.

Challenges and How Addressed:

Challenges:

- Execution of an interlocal agreement between TTBH and multiple local law enforcement agencies to establish the Mental Health Officer Taskforce.
- Recruitment and retention of officers to serve on the taskforce.

Addressed by:

- Leveraging longstanding collaborative relationships with local law enforcement agencies to achieve an agreement acceptable to all parties involved.
- Provide opportunities for officer training and education to enhance staff competencies and promote professional development.

5 year Expected Outcome for Provider and Patients:

By DY5, we expect interventions by the Mental Health Officer taskforce to result in a 1.5% decrease in preventable admissions and readmissions into the criminal justice system for individuals appropriate for diversion into treatment.

Starting Point/Baseline:
Baseline is zero. The Mental Health Officer taskforce will be the first initiative of its kind in the Rio Grande Valley.

Rationale:
What has been referred to as the "criminalization of mental illness" describes the problem that developed in the U.S. mental health care system during the 1960s and 1970s when the planned availability of community behavioral health services failed to meet the increased demand resulting from large scale efforts to deinstitutionalize persons with mental illness. The lack of sufficient availability of community-based behavioral health treatment options is one of a number of factors increasing the likelihood that a person with mental illness will come in contact with the criminal justice system in their lifetimes. Others issues include reluctance to seek treatment for a mental illness due to the associated stigma; fear of navigating a complex system of care; complications from co-morbid substance use disorders; joblessness and homelessness. Consequently, over time the criminal justice system has played an increasingly significant role in intervening with people with mental illness. The numbers of individuals with mental illnesses in jails and prisons exceeds the number receiving treatment in psychiatric hospitals by a 3:1 ratio; in Texas the ratio has been reported to be as high as 8:1. People with mental illness are significantly disproportionally represented among criminal justice populations. Studies of the have estimated the prevalence of severe mental illness in jail and prison populations from 8% to as high as 31%, as compared to approximately 3% in the general population. Further, more than 70% of inmates with severe mental illness also have co-morbid substance abuse or dependence disorders. To ensure the most appropriate outcomes when individuals with mental illness encounter law enforcement, and given that interactions with individuals with mental illness take up a considerable, and growing, amount of law enforcement officers' direct service time, the interests of persons served and the law enforcement and health care systems are best served by the development of elements within law enforcement with the necessary training to effectively intervene with this population. This delivery system reform project will support the operation of a Mental Health Peace Officer task force serving throughout TTBH's catchment area, drawing on the experience and successes of similar programs implemented by LMHAs in other parts of the state. The officers in the program will be licensed peace officers from several county and municipal law enforcement agencies who have previous patrol experience and will receive specialized and ongoing training through the Texas Commission on Law Enforcement Officer Standards and Education (TCLEOSE) and TTBH clinical staff as needed, to maintain a high level of knowledge and skill in intervening with persons with mental illness in the community. The task force will collaborate with TTBH's MCOT teams and other service departments to ensure 24-hour access to necessary behavioral health consultations, appropriate outcomes for the individuals served and to optimize the effectiveness of the program.

Project Components:
Project option 2.13.2 does not have additional core components.

Milestones and Metrics:
The following milestones and metrics were chosen for the Provide an intervention for a targeted behavioral health population to prevent unnecessary use of services in a specified setting project based on the project option and the needs of the target population:

- Process Milestones and Metrics: P-2 (P-2.1); P-4 (P-4.1)
- Improvement Milestones and Metrics: I-1 (I-1.1)

Unique Community Needs Identification Numbers:
This project addresses community need CN. 2, related to shortage of behavioral health professionals and inadequate access to behavioral health care.

How the Project Represents a New Initiative or Significantly Enhances an Existing Delivery System Reform Initiative:
The Mental Health Officer taskforce will be the first initiative of its kind in the Rio Grande Valley.

Related Category 3 Outcome Measure(s):
TTBH will measure outcomes for each of our proposed projects by assessing the satisfaction of persons served across several treatment and health related domains. Ultimately, the individuals served are at the center of health care delivery reform efforts and their experience of the care they receive is critical. Although a patient's perception of the quality of treatment is influenced by many aspects of their care, a growing body of evidence supports the use of patient satisfaction as a legitimate measure of treatment outcomes. Research has demonstrated strong positive relationships between patients' reported satisfaction and characteristics of the service delivery system including the amount of time providers spend with patients, the amount of information given to the patient, continuity of provider and when providers show personal interest in their patients. Higher levels of satisfaction have also been shown to be predictive of increased adherence to treatment recommendations and increased health-seeking behaviors, while lower levels of satisfaction with and confidence in the quality of services correlates with an increase in complaints and a decreased willingness to seek care, potentially leading to serious health complications. Accordingly, focusing on the satisfaction of those served is directly linked to ensuring that the services provided not only improve the experience of care, but meet the individual needs of the person served and promote wellness and recovery-oriented behaviors in the individual as well.

Relationship to other Projects:
The Mental Health Officer task force is linked to the overall expansion of TTBH's behavioral health care capacity (Project 138708601.1.1) and supports the Center's goals to expand the delivery of comprehensive behavioral health services to more people with co-occurring substance use disorders (Project 138708601.1.2) and co-occurring Intellectual and Developmental Disabilities (Project 138708601.1.3).

Relationship to Other Performing Providers' Projects in the RHP:
This project is unique to the region as we will provide interventions for our behavioral health population to prevent unnecessary admissions and readmissions to the criminal justice system i.e. jails. We will coordinate our service capacity to support this community.

Plan for Learning Collaborative:
We plan to participate in a region-wide learning collaborative(s) as offered by the Anchor entity for Region 5, Hidalgo County. Our participation in this collaborative with other Performing Providers within the region that have similar projects will facilitate sharing of challenges and testing of new ideas and solutions to promote continuous improvement in our Region's healthcare system.

Project Valuation:

- Jail Diversion: According to the Treatment Advocacy Center, 40% of individuals with serious mental illnesses have been in jail or prison at some time in their lives. Interventions by Mental Health Officers have the potential to divert individuals from jail. In DY2, TTBH foresees a savings of $10,960 per jail diversion based on an average incarceration of 80 days at a cost of $137/day.
- Overall Project Valuation: The total valuation for MH Officers project is $13,443,573 by end of DY5.

PROJECT 138708601.2.2	PROJECT OPTION 2.13.2	PROJECT COMPONENT(s) N/A	PROVIDE AN INTERVENTION FOR A TARGETED BEHAVIORAL HEALTH POPULATION TO PREVENT UNNECESSARY USE OF SERVICES IN A SPECIFIED SETTING (I.E., THE CRIMINAL JUSTICE SYSTEM, ER, URGENT CARE ETC.)	
	Tropical Texas Behavioral Health			138708601
Related Category 3 Outcome Measure(s):	138708601.3.5	3.IT-6.1	Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1 [P-2]: Design community-based specialized interventions for target populations. Metric 1 [P-2.1]: Project plans which are based on evidence/experience and which address the project goals. • Baseline/Goal: Baseline N/A, goal is the development and execution of an interlocal agreement between participating municipal and county law enforcement agencies, and the recruitment, hiring and training of personnel. • Data Source: Project documentation including work plan and implementation time frames. Milestone 1 Estimated Incentive Payment *(maximum amount):* $1,861,232 **Milestone 2** [P-4]: Evaluate and continuously improve interventions Metric 1: [P-4.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports	**Milestone 3** [I-1]: Criminal Justice Admissions/Readmissions Metric 1 [I-1.1]: Percent decrease in preventable admissions and readmissions into Criminal Justice System. • Baseline/Goal: The major municipal Police Departments in the Rio Grande Valley reported an arrest per service call rate of 5.8% in 2011. The goal is a decrease in preventable admissions and readmissions into the Criminal Justice System by .5% from this baseline for persons encountered by Mental Health Officers. • Data Source: Encounter data Milestone 3 Estimated Incentive Payment: $1,706,695 **Milestone 4** [P-4]: Evaluate and continuously improve interventions Metric 1: [P-4.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for		**Milestone 5** [I-1]: Criminal Justice Admissions/Readmissions Metric 1 [I-1.1]: Percent decrease in preventable admissions and readmissions into Criminal Justice System. • Goal: Decrease in preventable admissions and readmissions into the Criminal Justice System by 1% from baseline for persons encountered by Mental Health Officers. • Data Source: Encounter data Milestone 5 Estimated Incentive Payment: $1,799,787.50 **Milestone 6** [P-4]: Evaluate and continuously improve interventions Metric 1: [P-4.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement. Milestone 6 Estimated Incentive	**Milestone 7** [I-1]: Criminal Justice Admissions/Readmissions Metric 1 [I-1.1]: Percent decrease in preventable admissions and readmissions into Criminal Justice System. • Goal: Decrease in preventable admissions and readmissions into the Criminal Justice System by 1.5% from baseline for persons encountered by Mental Health Officers. • Data Source: Encounter data Milestone 7 Estimated Incentive Payment: $1,354,072 **Milestone 8** [P-4]: Evaluate and continuously improve interventions Metric 1: [P-4.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement. Milestone 8 Estimated Incentive

PROJECT 138708601.2.2	PROJECT OPTION 2.13.2	PROJECT COMPONENT(S) N/A	PROVIDE AN INTERVENTION FOR A TARGETED BEHAVIORAL HEALTH POPULATION TO PREVENT UNNECESSARY USE OF SERVICES IN A SPECIFIED SETTING (I.E., THE CRIMINAL JUSTICE SYSTEM, ER, URGENT CARE ETC.)	
Tropical Texas Behavioral Health				*138708601*
Related Category 3 Outcome Measure(s):	*138708601.3.5*	*3.IT-6.1*	*Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)*	
Year 2 (10/1/2012 – 9/30/2013)		**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement. Milestone 2 Estimated Incentive Payment *(maximum amount):* $1,861,232		rapid-cycle improvement to guide continuous quality improvement. Milestone 4 Estimated Incentive Payment *(maximum amount):* $1,706,695	Payment *(maximum amount):* $1,799,787.50	Payment *(maximum amount):* $1,354,072
Year 2 Estimated Milestone Bundle Amount: $3,722,464		Year 3 Estimated Milestone Bundle Amount: $3,413,390	Year 4 Estimated Milestone Bundle Amount: $3,599,575	Year 5 Estimated Milestone Bundle Amount: $2,708,144
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $13,443,573				

Project Title: Integrate Primary and Behavioral Health Care Services
Unique RHP Project identification number: 138708601.2.3
Performing Provider/TPI: Tropical Texas Behavioral Health/138708601
Project Option 2.15.1 Will co-locate primary care services at TTBH's main clinic locations; reduce the use of local emergency departments for medical clearances required for psychiatric hospital admissions.

Project Description:
Integrate primary care and behavioral health care services in order to improve care and access to needed services. TTBH will co-locate primary healthcare clinics at each of our three main behavioral health clinics and, utilizing the physicians and medical support staff assigned to the clinics, increase the volume of medical clearance assessments completed to 45 services by Waiver DY5. Completing medical clearances internally will improve the quality of care and reduce costs. If the person evaluated for inpatient admission is admitted to TTBH services, detailed medical information may be readily available to the physician completing the medical clearance. This would be especially important if the person served is unwilling or unable to provide accurate information during the crisis. Information from medical clearances gathered internally will be more readily available to behavioral health staff for post-discharge follow-up and if an individual is admitted to outpatient services upon discharge. Completing medical clearances internally will reduce the involvement of law enforcement and the utilization of hospital emergency department resources that are more appropriately dedicated to medical emergencies. It will also allow the evaluation to be completed in a setting that may be familiar to the person in crisis and allow the behavioral health clinicians to facilitate "warm hand-offs" to primary care staff, improving the experience of care.

All services funded by this waiver will be monitored through TTBH's Quality Management (QM) and Utilization Management (UM) structures. The QM/UM programs utilize several internal committees including but not limited to the Performance Improvement and Compliance and Utilization Management Committees, and the support of the Management of Information Systems (MIS) and Quality Management (QM) Departments, to continuously monitor performance indicators related to service quality, health outcomes and business performance through a plan, do, study, act quality improvement process. In addition to specified Category 3 Waiver outcome targets, relevant data will be evaluated regularly against the Center's past performance, national benchmarks, state mandated performance targets and applicable accreditation standards to drive performance improvement activities when indicated. Recommendations for identified performance improvement actions are routed to TTBH's Executive Management and Board of Trustees when necessary. In keeping with TTBH's existing quality improvement structures, and as recommended by the Texas HHSC and the Centers for Medicare and Medicaid Services, prescribed and customized quality improvement process milestones reflecting plan, do, study, act quality improvement cycles have been incorporated into this plan.

Goal(s) and Relationship to Regional Goal(s):
Project goals:

- Reduce the use of local emergency departments for medical clearances required for psychiatric hospital admissions.
- Increase the number of persons receiving medical clearances at co-located TTBH primary care clinics to 45 persons served by DY5.

- Improve coordination of behavioral and primary health care, health outcomes and wellness for persons served through early primary care intervention.
- Reduce costs to the health care system through reductions in inappropriate emergency department usage.

This project meets the following regional goals:

- Improve on existing programs and infrastructure to ensure that the health care delivery system will be adequately developed to meet the primary and specialty care needs of residents throughout a rapidly growing, yet historically underserved region.
- Increase access to primary and specialty care services, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition, regardless of where they live or their ability to pay.
- Improve the integration of care for people with multiple chronic diseases, including those with co-occurring physical and behavioral health conditions as part of our region's transformation to a quality-based health care system.
- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of best practices to improve access and timely utilization of appropriate care.
- Transform health care delivery to a patient-centered, coordinated and integrated delivery model that improves patient satisfaction and health outcomes, reduces unnecessary emergency department use and duplicative services, and expands on the accomplishments of our existing health care system.
- Expand the workforce of qualified primary care and specialty care providers to reduce health care workforce shortages and thus reduce delays in care seeking.
- Increase the capacity of safety net providers in the region to provide patient-centered care and care management to improve health literacy, self-care management skills and more effective navigation of the health care system.

Challenges and How Addressed:

Challenges:

- Appropriate space and equipment for the delivery of primary care in our behavioral health clinics.
- Recruitment and retention of primary care providers including physicians, nurses and support staff.

Addressed by:

- Continued progress on the planned expansion of three outpatient clinics to increase capacity to serve all counties in the TTBH catchment area.
- Competitive hiring and salary structure based on years of experience.
- Structured career ladder advancement opportunities for each position.
- Productivity incentive opportunities.
- Implementing marketing strategies for recruitment.
- Enhanced recruitment through maintenance of the agency's Health Professional Shortage Area (HPSA) designation with the National Health Service Corps.
- Tuition reimbursement.
- Offering re-location reimbursement.

- Opportunities for training and education to enhance staff competencies and promote professional development.

5 year Expected Outcome for Provider and Patients:
We expect to increase the volume of internal medical clearance assessments completed annually to 45 completed services by Waiver DY5, resulting in a corresponding reduction the utilization of hospital emergency department resources for this purpose.

Starting Point/Baseline:
Baseline is zero. Currently, all individuals requiring medical clearance for inpatient psychiatric admission are evaluated in local hospital emergency departments.

Rationale:
TTBH serves a population with unique health and health care related challenges relative to the rest of the state and the country including the elevated rates of co-morbid chronic disease and substance abuse experienced by persons with mental illness; numerous health risk factors specific to the population residing along the Texas/Mexico border and in particular, to Hispanics and low-income families within the region; and a confluence of barriers to appropriate care faced by all of these groups. This suggests the considerable benefit potential to those served and to the local and state health care systems of making integrated primary care available at each of the Center's largest behavioral health clinics in the Valley. An additional benefit of the planned integration of primary care will be the ability for TTBH to complete, in-house, medical evaluations to clear individuals in need of inpatient psychiatric hospitalization. Further, use of emergency room resources by individuals with mental illness for non-emergent medical or psychiatric issues has been linked to emergency room crowding and delays in access to treatment for those needing emergency medical care. In 2011, the Bazelon Center for Mental Health Law reported that individuals with mental illness have higher rates of emergency room use and are more likely to use the emergency room on multiple occasions than persons without psychiatric disorders, and that while overall use of emergency rooms in the U.S. increased by 23% between 1997 and 2007 (a much higher rate than would be expected due to population growth), mental health-related emergency room visits during the period from 1992 to 2003 increased by 75%. The report went on to say that a majority of emergency room physicians attributed longer wait times and decreased service capacity in emergency rooms to the increased usage by persons with mental illness. Currently, persons served by TTBH who are in need of medical clearance for psychiatric hospitalization must be transported by law enforcement to hospital emergency departments. Officers must then wait at the emergency room for the clearance to be completed before transporting the person to the applicable inpatient facility. The process results in significant avoidable costs including loss of time and money, safety concerns for the communities served by the officers removed from the field for considerable durations to facilitate the process and the use of hospital emergency department resources that could be dedicated to true medical emergencies. Through this project, TTBH will utilize the physicians, nurses and medical support staff assigned to our planned co-located primary care clinics (referenced in Project 138708601.2.1) to complete medical clearance evaluations in-house during normal business hours. (Refer to Project 138708601.2.1 for information addressing fulfillment of the project option core components as required by the RHP Planning Protocols).

Project Components:

Through our project to integrate primary care service into our behavioral health clinics we propose to meet the required project components as follows:

a) *Identify sites for integrated care projects, which would have the potential to benefit a significant number of patients in the community.* TTBH will co-locate primary care services within three of our existing behavioral health clinics. This will allow for the delivery of primary care services in clinic locations and settings very familiar to the individuals and families of the counties we serve; for "one-stop" access to mental health and medical services, reducing the need for transportation to multiple service locations; and is conducive to the facilitation of "warm hand-offs" between behavioral health and primary care service providers.

b) *Develop provider agreements whereby co-scheduling and information sharing between physical health and behavioral health providers could be facilitated.* As primary care services will be delivered by TTBH primary care staff using the same Electronic health record already in place for the delivery of behavioral health services, provider agreements are not needed.

c) *Establish protocols and processes for communication, data-sharing, and referral between behavioral and physical health providers.* Communication and sharing of clinical data will be accomplished though clinician access to a single Electronic health record in accordance with TTBH Technology and Information Systems security protocols. Protocols for the identification and referral of clients to primary care services will be developed during the program planning and development process.

d) *Recruit a number of specialty providers (physical health, mental health, substance abuse, etc. to provide services in the specified locations.* This will be accomplished through marketing and hiring strategies including: competitive hiring and salary structure based on years of experience; career ladder advancement opportunities; productivity incentives; attracting providers through the agency's Health Professional Shortage Area (HPSA) designation with the National Health Service Corps; tuition reimbursement; re-location reimbursement and opportunities for training and education to enhance staff competencies and promote professional development.

e) *Train physical and behavioral health providers in protocols, effective communication and team approach. Build a shared culture of treatment to include specific protocols and methods of information sharing.* Appropriate protocols will be developed during the program planning and development process.

f) *Acquire data reporting, communication and collection tools (equipment) to be used in the integrated setting, which may include an integrated Electronic health record system.* As primary care services will be delivered and documented using the same Electronic health record already in place for the delivery of behavioral health services, this is already in place.

g) *Explore the need for and develop any necessary legal agreements that may be needed in a collaborative practice.* This will be researched and addressed as needed through the program planning and development process.

h) *Arrange for utilities and building services for these settings.* This will be addressed as part of our planned expansion of existing clinic sites.

i) *Develop and implement data collection and reporting mechanisms and standards to track the utilization of integrated services as well as the health care outcomes of individual treated in these integrated service settings.* This will be accomplished through our existing Quality Management/Utilization Management structures, as described in the project description.

j) *Conduct quality improvement for project using methods such as rapid cycle improvement.* This will be accomplished through our existing Quality Management/Utilization Management

structures as described in the project description, through the planned learning collaborative activities with Border Region Behavioral Health and other regional partners as appropriate and through the activities of the various Community Mental Health Center consortia sponsored by the Texas Council of Community Centers.

Milestones and Metrics:
The following milestones and metrics were chosen for the TTBH Integrate Primary and Behavioral Health Care Services project based on the project option and the needs of the target population:

- Process Milestones and Metrics: P-X (P-X.1); P-7 (P-7.1)
- Improvement Milestones and Metrics: I-8 (I-8.1)

Unique Community Needs Identification Numbers:
This project addresses community need CN. 3, related to inadequate integration of care for individuals with co-occurring medical and mental illness or multiple chronic conditions.

How the Project Represents a New Initiative or Significantly Enhances an Existing Delivery System Reform Initiative:
The project to integrate primary and behavioral health care services is a completely new initiative for TTBH. Currently, integration of primary and behavioral health care for those we serve is minimal including referrals to outside primary care physicians, local Federally Qualified Healthcare Clinics and other area clinics. This involves separate service sites and systems, a lack of effective communication and data sharing if any, and requires that the person served or their family navigate complicated health care systems. Through this project, those receiving behavioral health services with co-morbid chronic high-risk medical illnesses will have access to primary and behavioral health care that utilizes shared facilities and systems, and regular collaboration and communication between providers, to achieve a true team approach to address all of their recovery needs.

Related Category 3 Outcome Measure(s):
TTBH will measure outcomes for each of our proposed projects by assessing the satisfaction of persons served across several treatment and health related domains. Ultimately, the individuals served are at the center of health care delivery reform efforts and their experience of the care they receive is critical. Although a patient's perception of the quality of treatment is influenced by many aspects of their care, a growing body of evidence supports the use of patient satisfaction as a legitimate measure of treatment outcomes. Research has demonstrated strong positive relationships between patients' reported satisfaction and characteristics of the service delivery system including the amount of time providers spend with patients, the amount of information given to the patient, continuity of provider and when providers show personal interest in their patients. Higher levels of satisfaction have also been shown to be predictive of increased adherence to treatment recommendations and increased health-seeking behaviors, while lower levels of satisfaction with and confidence in the quality of services correlates with an increase in complaints and a decreased willingness to seek care, potentially leading to serious health complications. Accordingly, focusing on the satisfaction of those served is directly linked to ensuring that the services provided not only improve the experience of care, but meet the individual needs of the person served and promote wellness and recovery-oriented behaviors in the individual as well.

Relationship to other Projects:

This project is dependent on the implementation of the Center's project to develop the infrastructure and capacity necessary to integrate preventative primary health care with existing behavioral health services (Project 138708601.2.1), and is linked to the implementation of integrated care management functions to educate persons served about their primary and behavioral health conditions, monitor their response and adherence to treatment and coordinate care (Project 138708601.2.4).

Relationship to Other Performing Providers' Projects in the RHP:
TTBH will coordinate with Border Region Behavioral Health Center, the LMHA serving Starr County, to develop and participate in a learning collaborative related to our respective projects to integrate primary and behavioral health care services.

Plan for Learning Collaborative:
TTBH will host bi-weekly conference calls with regional partners engaged in similar transformation projects to review data, discuss ideas and share challenges, solutions and the results of performance improvement activities. TTBH will make its website available for web-based information sharing and reporting. TTBH will request that the Texas Council of Community Centers consider coordinating bi-annual face-to-face learning meetings related to health care transformation initiatives.

Project Valuation:

- Hospital: According to the Hogg Foundation, 18.6% of admissions to medical hospitals are due to mental health conditions. Our data indicate that approximately 1.2 % of TTBH's service population is admitted to medical hospitals, and an estimated 17.4% of those served are kept out of the hospital. Texas Hospital Association sponsors Texas PricePoint as a resource for information on Texas hospitals. From this resource, we gathered psychiatric care data pertaining to our local counties, and calculated a weighted average hospital stay of 5.3 days and a weighted average collection cost of $678.
- Overall Project Valuation: The total project valuation is $106,488.

Project 138708601.2.3	*Project Option* 2.15.1	*Project Component(s)* 2.15.1.a – 2.15.1.j	*Integrate Primary and Behavioral Health Care Services*	
Tropical Texas Behavioral Health				*138708601*
Related Category 3 Outcome Measure(s):	*138708601.3.6*	*3.IT-6.1*	*Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)*	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1 [P-X]: Develop and implement clinical protocols, program policies and staff training for the completion of medical clearance evaluations in co-located TTBH primary care clinics. Metric 1 [P-X.1]: Submission of medical clearance protocols, program policies and staff training materials. • Baseline/Goal: Baseline N/A, goal is to develop and implement protocols, policies and training to be utilized by medical staff in the co-located primary clinics to complete in-house medical clearance evaluations of individuals in need of inpatient psychiatric hospitalization. • Data Source: Documentation of development and implementation of clinical protocols, program policies and staff training. Milestone 1 Estimated Incentive Payment *(maximum amount):* $8,718 **Milestone 2** [P-7]: Evaluate and continuously improve integration of primary and behavioral health services Metric 1: [P-7.1]: Project planning and implementation documentation	**Milestone 3** [I-8]: Integrated Services Metric 1 [I-8.1]: Percent of individuals served receiving both physical and behavioral health care at the established locations. • Baseline/Goal: As this will be a new service, the baseline of persons receiving the specified service is zero. In FY2012 approximately half of the 1,800 individuals admitted to psychiatric hospitals through TTBH required medical clearances and all clearances were completed in local emergency rooms. The goal is to increase the percentage of persons receiving medical clearance services in co-located TTBH primary care clinics by 3% of the baseline of 900 admissions, to 27 persons served. • Data Source: Encounter data Milestone 3 Estimated Incentive Payment: $15,634.50 **Milestone 4** [P-7]: Evaluate and continuously improve integration of primary and behavioral health services Metric 1: [P-7.1]: Project planning and		**Milestone 5** [I-8]: Integrated Services Metric 1 [I-8.1]: Percent of individuals served receiving both physical and behavioral health care at the established locations. • Goal: Increase the percentage of persons receiving medical clearance services in co-located TTBH primary care clinics by 4% of the baseline of 900 admissions, to 36 persons served. • Data Source: Encounter data Milestone 5 Estimated Incentive Payment: $16,487.50 **Milestone 6** [P-7]: Evaluate and continuously improve integration of primary and behavioral health services Metric 1: [P-7.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement.	**Milestone 7** [I-8]: Integrated Services Metric 1 [I-8.1]: Percent of individuals served receiving both physical and behavioral health care at the established locations. • Goal: Increase the percentage of persons receiving medical clearance services in co-located TTBH primary care clinics by 5% of the baseline of 900 admissions, to 45 persons served. • Data Source: Encounter data Milestone 7 Estimated Incentive Payment: $12,404 **Milestone 8** [P-7]: Evaluate and continuously improve integration of primary and behavioral health services Metric 1: [P-7.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement.

PROJECT 138708601.2.3	PROJECT OPTION 2.15.1	PROJECT COMPONENT(S) 2.15.1.a – 2.15.1.j	INTEGRATE PRIMARY AND BEHAVIORAL HEALTH CARE SERVICES	
	Tropical Texas Behavioral Health			138708601
Related Category 3 Outcome Measure(s):	138708601.3.6	3.IT-6.1	Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement. Milestone 2 Estimated Incentive Payment *(maximum amount):* $8,718	implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement. Milestone 4 Estimated Incentive Payment *(maximum amount):* $15,634.50		Milestone 6 Estimated Incentive Payment *(maximum amount):* $16,487.50	Milestone 8 Estimated Incentive Payment *(maximum amount):* $12,404
Year 2 Estimated Milestone Bundle Amount: $17,436	Year 3 Estimated Milestone Bundle Amount: $31,269		Year 4 Estimated Milestone Bundle Amount: $32,975	Year 5 Estimated Milestone Bundle Amount: $24,808
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $106,488				

Project Title: Expand Chronic Care Management Models
Unique RHP Project identification number: 138708601.2.4
Performing Provider/TPI: Tropical Texas Behavioral Health/138708601
Project Option 2.2.5 Will add 1 Nurse Care Manager at each of TTBH's main clinics and implement a patient self-management program for specified individuals with co-morbid chronic medical and mental illnesses.

Project Description:
Develop and implement chronic disease management interventions that are geared toward improving effective management of chronic conditions and ultimately improving patient clinical indicators, health outcomes and quality, and reducing unnecessary acute and emergency care utilization. TTBH will add 1 Nurse Care Manager to the staff of the primary care clinics co-located at each of our 3 main behavioral health clinics, implement a patient self-management program and increase the number of individuals receiving care management services and who have self-management goals to 300 persons served. TTBH's nurse care managers will coordinate the care of clients with chronic co-morbid medical conditions who are identified as being at elevated risk of deterioration of their medical and/or mental illness; increasing the need for emergency care or other more costly services. Through assessment and the development of a person-centered self-care plan, the care manager will work collaboratively with the person served to help them set goals for improved self-management of their specific condition and to problem solve barriers using community resources, personal support systems and formal treatment services. By maintaining rapport with the person served and their providers, educating the person served about their conditions, monitoring symptoms and communicating findings to the person served and providers, and negotiating solutions to emergent problems, the care managers will help improve the chances that persons served will achieve their self-management and recovery goals. This will result in increased utilization of routine and preventative health services, improved health outcomes and experience of care, and decreased utilization of more expensive emergency interventions by mobile crisis teams, law enforcement and hospital emergency departments.

All services funded by this waiver will be monitored through TTBH's Quality Management (QM) and Utilization Management (UM) structures. The QM/UM programs utilize several internal committees including but not limited to the Performance Improvement and Compliance and Utilization Management Committees, and the support of the Management of Information Systems (MIS) and Quality Management (QM) Departments, to continuously monitor performance indicators related to service quality, health outcomes and business performance through a plan, do, study, act quality improvement process. In addition to specified Category 3 Waiver outcome targets, relevant data will be evaluated regularly against the Center's past performance, national benchmarks, state mandated performance targets and applicable accreditation standards to drive performance improvement activities when indicated. Recommendations for identified performance improvement actions are routed to TTBH's Executive Management and Board of Trustees when necessary. In keeping with TTBH's existing quality improvement structures, and as recommended by the Texas HHSC and the Centers for Medicare and Medicaid Services, prescribed and customized quality improvement process milestones reflecting plan, do, study, act quality improvement cycles have been incorporated into this plan.

Goal(s) and Relationship to Regional Goal(s):

Project goals:

- Add 1 Nurse Care Manager at three of our behavioral health clinics and implement a patient self-management program for individuals with co-morbid chronic medical and mental illnesses.
- Increase the percentage of individuals with co-morbid chronic medical conditions who receive care management services and have self-management goals annually and to 300 persons served by DY5.
- Increase utilization of routine and preventative primary care services.
- Improve health outcomes and experience of care.
- Decrease utilization of more expensive emergency and inpatient medical services.

This project meets the following regional goals:

- Increase access to primary and specialty care services, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition, regardless of where they live or their ability to pay.
- Improve the integration of care for people with multiple chronic diseases, including those with co-occurring physical and behavioral health conditions as part of our region's transformation to a quality-based health care system.
- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of best practices to improve access and timely utilization of appropriate care.
- Transform health care delivery to a patient-centered, coordinated and integrated delivery model that improves patient satisfaction and health outcomes, reduces unnecessary emergency department use and duplicative services, and expands on the accomplishments of our existing health care system.
- Expand the workforce of qualified primary care and specialty care providers to reduce health care workforce shortages and thus reduce delays in care seeking.
- Increase the capacity of safety net providers in the region to provide patient-centered care and care management to improve health literacy, self-care management skills and more effective navigation of the health care system.

Challenges and How Addressed:

Challenges:

- Appropriate space and equipment for primary healthcare services in our behavioral health clinics.
- Recruitment and retention of primary care providers including Nurse Care Managers.

Addressed by:

- Continued progress on the planned expansion of three outpatient clinics to increase capacity to serve all counties in the TTBH catchment area.
- Competitive hiring and salary structure based on years of experience.
- Structured career ladder advancement opportunities for each position.
- Productivity incentive opportunities.
- Implementing marketing strategies for recruitment.
- Enhanced recruitment through maintenance of the agency's Health Professional Shortage Area (HPSA) designation with the National Health Service Corps.

- Tuition reimbursement.
- Re-location reimbursement.
- Training and education to enhance staff competencies and promote professional development.

5 year Expected Outcome for Provider and Patients:
We expect to see increased utilization of care management services in persons with co-morbid chronic high-risk medical conditions, and to increase the number of individuals receiving services who have self-management goals annually and to 300 persons served by DY5.

Starting Point/Baseline:
Baseline is zero. This is an innovative project for TTBH; the Center has not delivered primary care services or care management for co-occurring medical and behavioral health needs previously.

Rationale:
The elevated rates of co-morbid chronic medical illnesses in people with mental illness, the unique challenges they face in effectively managing their illnesses and their high rates of premature mortality relative to the general population have been well documented. In a 2006 technical report on Morbidity and Mortality in People with Serious Mental Illness (SMI), the Medical Directors Council of the National Association of State Mental Health Program Directors suggested that people with SMI die, on average, 25 years earlier than the general population. The report asserted the increased mortality and morbidity rates were largely due to preventable conditions including cardiovascular disease, diabetes (including related conditions such as kidney failure), respiratory disease (including pneumonia and influenza) and infectious diseases (including HIV/AIDS). The researchers argued that having SMI may be a risk factor and lead to problems in access to health care due to, among other things, the lack of motivation, fearfulness, and social instability of persons with SMI, and the fragmentation of mental health and primary health care systems.

Factors identified as placing people with SMI at higher risk of morbidity and mortality included higher rates of smoking, alcohol consumption, poor nutrition /obesity, lack of exercise, unsafe sexual behavior, drug use and exposure to infectious diseases, as well as homelessness, victimization/trauma, unemployment, poverty, incarceration, and social isolation. The report also cited research suggesting the population of people with SMI had high use of somatic emergency services, fewer routine preventive services, lower rates of cardiovascular procedures and worse diabetes care. For those in the Rio Grande Valley living with mental illness, these health concerns are compounded by the overarching health issues impacting the general population along the Texas/Mexico Border more negatively than other areas of the state and nationally, and in relation to science-based nationally established health benchmarks. Examples include an increased likelihood of being uninsured; difficulty accessing health care; not seeing a physician regularly due to cost or transportation barriers; a decreased likelihood of having routine blood pressure or cholesterol tests; higher rates of kidney disease, liver disease, tuberculosis, diabetes, overweight and obesity; and a higher rate of reported depressive symptoms accompanied by a lower likelihood of seeking mental health treatment.

The benefits of integrating primary and behavioral health both from a health improvement and a health system cost perspective have also been demonstrated. A recent study involving the integration of primary care services within a mental health clinic treating veterans with mental illness reported that "enrollment in a co-located, integrated clinic was associated with increased primary

care use and improved attainment of some cardiovascular risk goals." The study found that the veterans who received primary care services co-located within the mental health setting realized "significantly improved goal attainment for blood pressure, low-density lipoprotein cholesterol, triglycerides, and BMI."

Researchers have also demonstrated that for populations served in community mental health centers, the implementation of care management delivered in an integrated primary care setting can result in sustainable improvements in physical health outcomes (e.g. cardiovascular risk, physical functioning and pain) and patient and provider satisfaction, as well as significant potential cost savings to health care systems relative to care as usual (i.e., referral to their primary care provider). Similarly, two pilot programs implemented in 2009 by the Pennsylvania Department of Public Welfare and the Center for Health Care Strategies to integrate physical and behavioral health care services for adult Medicaid beneficiaries with serious mental illness and co-occurring physical health conditions, including the use of care navigators to coordinate care and treatment related information sharing between physical and behavioral health providers and promote the early recognition of symptoms that could lead to a decline in physical or mental health, demonstrated success at reducing the rate of mental health hospitalizations, all-cause readmissions and emergency department visits.

Project Components:
Project option 2.2.5 does not have additional core components.

Milestones and Metrics:
The following milestones and metrics were chosen for the TTBH Integrate Primary and Behavioral Health Care Services project based on the project option and the needs of the target population:

- Process Milestones and Metrics: P-11 (P-11.1); P-X (P-X.1)
- Improvement Milestones and Metrics: I-18 (I-18.1)

Unique Community Needs Identification Numbers:
This project addresses community need CN.3, related to inadequate integration of care for individuals with co-occurring medical and mental illness or multiple chronic conditions.

How the Project Represents a New Initiative or Significantly Enhances an Existing Delivery System Reform Initiative:
TTBH has not previously delivered integrated primary care or care management services to the behavioral health population served.

Related Category 3 Outcome Measure(s):
TTBH will measure outcomes for each of our proposed projects by assessing the satisfaction of persons served across several treatment and health related domains. Ultimately, the individuals served are at the center of health care delivery reform efforts and their experience of the care they receive is critical. Although a patient's perception of the quality of treatment is influenced by many aspects of their care, a growing body of evidence supports the use of patient satisfaction as a legitimate measure of treatment outcomes. Research has demonstrated strong positive relationships between patients' reported satisfaction and characteristics of the service delivery system including the amount of time providers spend with patients, the amount of information given to the patient, continuity of provider and when providers show personal interest in their patients. Higher levels of satisfaction have also been shown to be predictive of increased adherence to treatment

recommendations and increased health-seeking behaviors, while lower levels of satisfaction with and confidence in the quality of services correlates with an increase in complaints and a decreased willingness to seek care, potentially leading to serious health complications. Accordingly, focusing on the satisfaction of those served is directly linked to ensuring that the services provided not only improve the experience of care, but meet the individual needs of the person served and promote wellness and recovery-oriented behaviors in the individual as well.

Relationship to other Projects:
The nurse care managers will be an integral component of the primary care treatment teams that will staff TTBH's co-located primary care clinics, contributing to the integration of primary and behavioral health care services (Project 138708601.2.1). In addition to the focus on co-occurring medical conditions, assessments completed by the care managers may identify new or worsening issues necessitating referrals to the Center's expanded COPSD services (Project 138708601.1.2).

Relationship to Other Performing Providers' Projects in the RHP:
TTBH will coordinate with Border Region Behavioral Health Center to develop and participate in a learning collaborative related to our respective projects for the implementation of integrated care management functions for persons with co-morbid chronic diseases and behavioral health disorders.

Plan for Learning Collaborative:
TTBH will host bi-weekly conference calls with regional partners engaged in similar transformation projects to review data, discuss ideas and share challenges, solutions and the results of performance improvement activities. TTBH will make its website available for web-based information sharing and reporting. TTBH will request that the Texas Council of Community Centers consider coordinating bi-annual face-to-face learning meetings related to health care transformation initiatives.

Project Valuation:

- Cost-utility analysis: Measures the cost of the program in dollars and the health consequences in utility-weighted units. This valuation uses quality-adjusted life years (QALYs) which combines health quality (utility) with length of time in a particular health state. According to a research by the University of Texas Austin Center for Social Work, the monetary value per life-year gained due to the interventions is $50,000.
- Overall Project Valuation: The total valuation for nurse care managers is $12,360,811.

PROJECT 138708601.2.4	*PROJECT OPTION* 2.2.5	*PROJECT COMPONENT(S)* N/A	*EXPAND CHRONIC CARE MANAGEMENT MODELS*	
Tropical Texas Behavioral Health				*138708601*
Related Category 3 Outcome Measure(s):	*138708601.3.7*	*3.IT-6.1*	*Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)*	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1 [P-11]: Develop and implement a program to assist patient to better self-manage their chronic conditions. Metric 1 [P-11.1]: Increase number of patients enrolled in self-management program. • Baseline/Goal: Baseline is zero (new program). Goal is to develop a plan to co-locate primary care services at TTBH's 3 main clinic locations, implement care management services and enroll 30 individuals in a self-management program. • Data Source: Documentation of work plan and time frames, and client data from EHR. Milestone 1 Estimated Incentive Payment *(maximum amount):* $57,051.50 **Milestone 2** [P-X]: Evaluate and continuously improve services Metric 1: [P-X.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles	**Milestone 3** [I-18]: Improve the percentage of patients with self-management goals. Metric 1 [I-18.1]: Patients with self-management goals. • Baseline/Goal: Baseline is zero (new program). Goal is to increase the percentage of individuals with the specified chronic condition/MCC in the registry with at least one recorded self-management goal to 50% of persons with the specified condition/MCC. • Data Source: EHR Milestone 3 Estimated Incentive Payment: $1,653,301.50 **Milestone 4** [P-X]: Evaluate and continuously improve services Metric 1: [P-X.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality		**Milestone 5** [I-18]: Improve the percentage of patients with self-management goals. Metric 1 [I-18.1]: Patients with self-management goals. • Goal: Increase the percentage of individuals with the specified chronic condition/MCC in the registry with at least one recorded self-management goal to 55% of persons with the specified condition/MCC. • Data Source: EHR Milestone 5 Estimated Incentive Payment: $1,869,079 **Milestone 6** [P-X]: Evaluate and continuously improve services Metric 1: [P-X.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement.	**Milestone 7** [I-18]: Improve the percentage of patients with self-management goals. Metric 1 [I-18.1]: Patients with self-management goals. • Goal: Increase the percentage of individuals with the specified chronic condition/MCC in the registry with at least one recorded self-management goal to 60% of persons with the specified condition/MCC. • Data Source: EHR Milestone 7 Estimated Incentive Payment: $2,600,973.50 **Milestone 8** [P-X]: Evaluate and continuously improve services Metric 1: [P-X.1]: Project planning and implementation documentation demonstrates plan, do, study, act quality improvement cycles • Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement.

RHP Plan for Region 5 209

PROJECT 138708601.2.4	PROJECT OPTION 2.2.5	PROJECT COMPONENT(s) N/A	EXPAND CHRONIC CARE MANAGEMENT MODELS	
Tropical Texas Behavioral Health				138708601
Related Category 3 Outcome Measure(s):	138708601.3.7	3.IT-6.1	Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
• Data Source: Project reports including examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement. Milestone 2 Estimated Incentive Payment *(maximum amount):* $57,051.50	improvement. Milestone 4 Estimated Incentive Payment *(maximum amount):* $1,653,301.50		Milestone 6 Estimated Incentive Payment *(maximum amount):* $1,869,079	Milestone 8 Estimated Incentive Payment *(maximum amount):* $2,600,973.50
Year 2 Estimated Milestone Bundle Amount: $114,103	Year 3 Estimated Milestone Bundle Amount: $3,306,603		Year 4 Estimated Milestone Bundle Amount: $3,738,158	Year 5 Estimated Milestone Bundle Amount: $5,201,947
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over Years 2-5):* $12,360,811				

Project Title: Implement medical homes in HPSA and other rural and impoverished areas.
Unique Project ID: 085144601.2.1
Performing Provider Name/TPI: University of Texas Health Science Center San Antonio 085144601
Project Option 2.1.3 will support the creation of patient centered medical homes in a community clinic (Su Clinica Familiar) located in an HPSA region.

Project Description:

The UTHSCSA Regional Academic Health Center (RAHC) proposes to work with Su Clinica Familiar to implement a certified patient centered medical home (PCMH) model of care to provide safety net primary healthcare services to targeted patients who live in HPSA, rural, and impoverished areas of Cameron and Willacy County.

The project would improve access to comprehensive, primary and preventive care through the implementation of the medical home model. The project would cover five existing service sites located in Brownsville, Raymondville (2), Santa Rosa, and Harlingen. These sites touch 31,000 medical and dental patients, equating to approximately 6.0% of the total population of Cameron and Willacy counties.

The project provides greatly enhances the current comprehensive, primary health and wellness services for Cameron and Willacy counties in South Texas by developing a medical home model that will improve the service to patients and greatly improve the efficiency and effectiveness of helping them control their chronic health conditions. The clinic responds to the needs of the community by providing quality primary care and prevention services regardless of ability to pay. The community clinic is accredited by the Joint Commission. The target population includes the uninsured and under-served, those below 200% of poverty, migrant and seasonal farmworkers, Hispanics, women and children. The clinic's service area ranks as one of the poorest in the nation.

The Provider partnership between UTHSCSA-RAHC and Su Clinica consists of the following Full Time Equivalents (FTEs): Primary Care Physicians (22.01 FTE); Other providers including Nurse Practitioners/Physician Assistants/Certified Nurse Midwives/Podiatrist (13.10 FTE); Dentists and Dental Hygienists (8.7 FTE). Services include: pediatrics, internal medicine, family practice, OB/GYN, Behavioral Health, Dental, minor surgery, podiatry, pharmacy, and WIC services. Outreach, Lab & x-ray, 24-hour on-call hospital coverage, health professions training, nutrition, health education, social services, case management, integrated eligibility screening, and specialty referral coordination round out the core services. It also includes project coordinators, data managers, data analysts, expertise in health promotion, communications and health information exchange, and community health workers.

Through a partnership with the University of Texas Health Science Center at San Antonio's Regional Academic Health Center (RAHC), the clinic addresses medical provider shortages by providing medical residents and medical students a unique opportunity to gain frontline experience in treating many of the perplexing medical conditions prevalent along the U.S.-

Mexico border. The 5 clinics of Su Clinica network participate in the Medicaid Managed Care program, Title V Maternal & Child Health, Title V Dental, CHIP Perinatal, Texas Family Planning, Healthy Start program, & CHIP Outreach. UTHSCSA/RAHC and SU Clinica also work closely with area hospitals including Knapp Medical Center, Valley Baptist Medical Center, and Valley Regional Medical Center.

The 5 partner clinics currently serve 4,373 patients who have been diagnosed with diabetes. The patient centered medical home model will be able to provide a more effective model of care focused on prevention and a patient/medical team model that will lower risk of severe sequelae from diabetes and reduce visits to emergency departments and hospitalization. Given the low income levels, high uninsured rates, and high percentage of Hispanics living in RHP 5, we propose to serve 34 following zip codes through this project: 78520 through 78598.

RHP 5 is a medically underserved area with a population that is 40-60% uninsured and that has no public hospital or hospital district. All of the hospitals are private for profit and are therefore limited in their ability to meet the needs of the population for primary and specialty care, based on current reimbursement/financing mechanisms and levels of insurance. Furthermore, the population suffers from very substantial health disparities, particularly related to obesity, diabetes and related conditions as described and documented in detail in the needs assessment.
Two supplementary goals of the project are to:

- Develop meaningful digital health information collection and exchange between providers of care for this demographic segment, and
- Develop actionable health information and analytical capability for reporting project performance, patient risk stratification and population management.

The key functional element of the project is to become a certified patient centered medical home for primary care access. By achieving patient centered medical home status, the 5 clinics can have a lasting and meaningful impact on the over 31,000 patients, reduce the growth in health care costs by working collaboratively with other healthcare partners, and increase patient satisfaction with the healthcare system.

The project meets the following regional goals:

- Transform health care delivery from a disease-focused model of episodic care to a patient-centered, team-based model
- Build a regional, coordinated model of care designed to reduce costs, lower duplicative work, and increase patient satisfaction.

Challenges
The transformation to a new model of integrated patient centered care is not trivial, as it involves the redesign of service delivery and reorientation of care team thought processes. The entire organization must undergo a coordinated transformation at the same time that clinical systems are being converted to electronic health records, new government regulations are being implemented, and reimbursement systems revised.

Strong leadership from all partners, the RAHC and Su Clinica administration and clinical team are essential for success. Just as important, the patient must also be educated in the new system and must buy in to the new system of care. Staff must be retrained and work processes must be revised, all while maintaining productivity and reducing costs.
Finally, implementing comprehensive change within a population that is overwhelming Hispanic and Spanish speaking with low health literacy can be a challenge.

5-Year Expected Outcome for Provider and Patients:

- Creation of a Patient Centered Medical Home through transformation of the delivery of health services at Su Clinica Familiar.
- Improvements in coordination with area hospitals are expected through the implementation of the Health Information Exchange.
- Involvement of internal medicine residents and psychiatry residents in caring for patients in a Patient Centered Medical Home environment.
- A significant decrease in the percentage of diabetic patients whose HbA1c levels are greater than 9.0% (poor control).

Starting Point/Baseline.

- There are no PCMH programs in region 5. Working with the RAHC the clinics of Su Clinica will become the first such programs in the region.
- The community clinics currently use an electronic medical records system and has already participated in a number of training opportunities regarding the patient centered medical home.
- The Administrative Leadership Team is knowledgeable of patient centered medical home concepts and has integrated the goal of PCMH certification into the organization's board approved strategic plan.
- Currently, no RHP5 sites, including Su Clinica sites have been certified as a patient centered medical home so the baseline is zero in DY2.
- With respect to diabetes, the clinic collects data on the percentage of patients with HbA1c greater than 9% (poor control). For the baseline year of 2011, that percentage with HbA1c >9% was 34.27%.

Rationale.
Federal, state, and local health care providers share goals to promote more patient-centered care focused on wellness and coordinated care. In addition, the PCMH model is viewed as a foundation for the ability to accept alternative payment models under payment reform. PCMH development is a multi-year transformational effort and is viewed as a foundational way to deliver care aligned with payment reform models and the Triple Aim goals of better health, better patient experience of care, and ultimately better cost-effectiveness. By providing the right care at the right time and in the right setting, over time, patients may see their health improve, rely less on costly ED visits, incur fewer avoidable hospital stays, and report greater

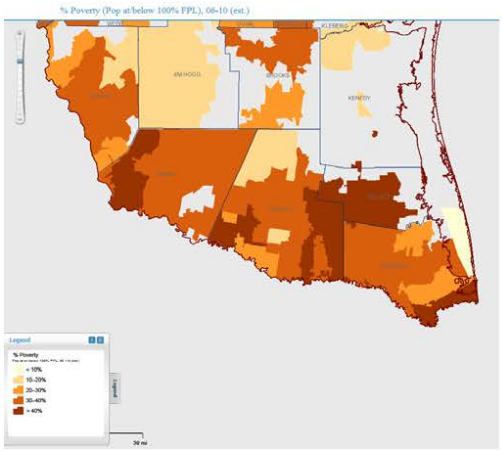
patient satisfaction. These projects all are focused on the concepts of the PCMH model; yet, they take different shapes for different providers.

This initiative aims to eliminate fragmented and uncoordinated care, which can lead to emergency department and hospital over-utilization. The projects associated with Medical Homes establish a foundation for transforming the primary care landscape in Texas by emphasizing enhanced chronic disease management through team-based care. With respect to the concept of the Patient Centered Medical Home, the National Committee for Quality Assurance (NCQA) found the following:

Primary care is a foundation of the health care system. The NCQA PCMH standards reflect elements that make primary care successful. Primary care clinicians are often the first point of contact for an individual; thus, patient access to care is an important issue. Just as patient-centeredness is an integral part of the program, so too is a practice's ability to track care over time and across settings. The amount of clinical information for some patients—particularly those with chronic illnesses—and the fragmented nature of the U.S. health system make this aspect of primary care challenging. Merely having an electronic health record system in a practice is not enough. The health information system itself must be achieve meaningful use to improve quality of care.

Implementing a patient centered medical home model in an area of the state with the highest uninsurance rates, high rates of diabetes, high percentage of Hispanic population, and lowest incomes in the nation will have a positive effect on reducing health disparities within the region and therefore the state of Texas. This is a new project for the performing provider and for RHP5 as no PCMH currently exists.

Required core project components:
a) Empanelment: Assign all patients to a primary care provider within the medical home. Understand practice supply and demand, and balance patient load accordingly.
b) Restructure staffing into multidisciplinary care teams that manage a panel of patients where providers and staff operate at the top of their license. Define roles and distribute tasks among care team members to reflect the skills, abilities, and credentials of team members.
c) Link patients to a provider and care team so both patients and provider/care team recognizes each other as partners in care.
d) Assure that patients are able to see their provider or care team whenever possible.
e) Promote and expand access to the medical home by ensuring that established patients have 24/7 continuous access to their care teams via phone, e-mail, or in-person visits.
f) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key
challenges associated with expansion of the project, including special considerations for safety-net populations.



This Project addresses the following needs:
CN3: Inadequate integration of care for individuals with co-occurring medical and mental illness or multiple chronic conditions
CN4: Lack of Patient-Centered Care

Related Category 3 Outcome Measure.
IT-1.10 HbA1c poor control
The Category 3 goal for this project is to reduce the percentage of community clinic patients with Type 1 or 2 diabetes whose most recent hemoglobin A1c (HbA1c) is greater than 9% (poor control) to 27%.

Providing a patient centered medical home where a diabetic patient has a direct relationship with a provider and care team has shown a relationship with decreased use of inpatient and emergency care (see Rationale above). Community clinics offer a variety of services in one location, including medical, dental, podiatry, nutrition counseling, social services, behavioral health, care management, and social services. Combining the power of the medical home model with the community oriented patient navigator services offered by the RAHC community health workers, we believe we can have a positive, early impact on helping diabetic patients control their HbA1c.
Through a host of national projects funded by the U.S. Department of Health and Human Services and the Centers for Medicare and Medicaid, it has been shown that the implementation of a Health Information Exchange among hospitals, providers, and related healthcare providers can have a positive impact on health care coordination, patient satisfaction, and total healthcare costs. RHP5 is characterized by being home to a number of small communities and metropolitan areas strung along a 90 mile stretch of highway along the U.S. – Mexico border. The resident population is very mobile and often lives in one community, works in another, and gets their healthcare/hospital care in another. Having the ability to effectively share health information in a secure manner among providers will prove beneficial to all. The RAHC will assure the development of the connection between the PCMH and the Rio Grande Valley HIE.
As stated above, RHP5 is among the highest poverty regions in the nation. Over 70% of patients served by our clinic are at or below 100% of poverty. The figure below depicts the percentage of the population below poverty by Zip Code Tabulation Area.

Relationship to Other Projects:

This project reinforces the projects being proposed by UTHSCSA partnerships with RHP5 hospitals and other performing providers by strengthening the network of care, particularly

those services aimed at the lowest income and highest uninsured groups in the region. This project will complement the chronic disease management project by providing an a long term home for patients with underlying chronic disease who have gone through an intense 180 day period of education and orientation to control their condition, but who need a long term PCMH for ongoing management. This project also meshes with other initiatives currently under way in the region such as the development of Accountable Care Organizations, development of a fully functioning medical school, and increased medical research on a variety of topics including obesity, nutrition, and diabetes among Hispanic populations.

Relationship to Other Performing Providers' Projects in the RHP:

A major aim of this project is to work with Su Clinica Familiar to create PCMH at each of the 5 Su Clinica clinic sites. In addition other clinics are likely to pursue this goal and the RAHC will work with those clinics along with Su Clinica to share progress, best practices, and lessons learned throughout the project period.

Plan for Learning Collaborative.

The UTHSCSA through the RAHC as the facilitator will develop the learning collaborative during the project period. The RAHC will also work with the HIE and Su Clinica to create a seamless access to patient data to facilitate management of patients enrolled in the PCMH. All of the partners in the project have the capacity to host online and videoconference interactive meetings that will be organized and facilitated by the UTHSCSA RAHC. This will provide ample opportunity for a robust learning collaborative.

The RAHC SPH has an advanced data collection, data management and data analysis operation. Working with the Su Clinica Information Technology team and the Rio Grand HIE will create a robust system of data for evaluation, management and decision making. Furthermore it will provide the foundation to expand the IT interaction with hospitals and other clinics in the region.

Project Valuation:

The project will be valued based upon the successful attainment of the following expected results:

- Develop and implement action plans for a patient centered medical home.
- Restructure staffing into multidisciplinary care teams that manage a panel of patients where providers and staff operate at the top of their license.
- Collaborate with the RGV Health Information Exchange to develop the capacity to use EMR for effective patient management across hospitals, PCMHs, community clinics, and other clinics.
- Management and coordination for shared, high-risk patients.
- Impact on control of diabetes.

Project Identifier 085144601.2.1	Project Option 2.1.3	Project Components 2.1.3.a-f	Implement medical homes in HPSA and other rural and impoverished areas using evidence-based approaches and change concepts for practice transformation developed by the Commonwealth Fund's Safety Net Medical Home Initiative.
UTHSCSA			TPI 085144601
Related Category 3 Outcome Measure:	Unique ID: 085144601.3.5	Reference Numbers: IT-1.10 a-d	Diabetes Care: HbA1c poor control (>9.0%) -NQF 0059 (Standalone measure)

Year 2 (10/1/2012 – 9/30/2013	Year 3 (10/1/2013 – 9/30/2014)	Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
Milestone 1: Implement the medical home model in primary care clinics Metric P-1.1 Increase number of primary care clinics using medical home model a. Numerator: Number of primary care clinics in Su Clinica Familiar System using medical home model b. Denominator: Total number of primary care clinics in Su Clinica Familiar System. Data Source: UTHSCSA evaluation data and Su Clinica records. Goal: Place all clinics under the PCMH model. Milestone 1 Estimated Incentive Payment: $ 346,889 **Milestone 2**: P-2 Put in place policies and systems to enhance patient access to the medical home. Enhanced access to care is available through systems such as open scheduling Metric P-2.1: Performing Provider	**Process Milestone 4**: P-4. Develop staffing plan to expand primary care team roles. Metric P-4.1 Expanded primary care team roles. Revised Job Descriptions. Data source: written, revised job descriptions. Goal: Create expanded PCMH teams. Milestone 4 Estimated Incentive Payment: $ 571,390 **Process Milestone 5**: P-5. Determine the appropriate panel size. Metric 1: Determine panel size. Panel size determination tool, patient registry, EMR, or needs assessment tool to determine panel size. Data Source: Actual Panel sizes from evaluation and clinic data and reports. Milestone 5 Estimated Incentive Payment: $ 571,391	**Improvement Milestone 6**: I-12. Based on baseline criteria, improve the number of eligible patients that are assigned to the medical homes. Metric I-12.1: Number or percent of eligible patients assigned to medical homes (primary care provider team). Data Source: Clinic records, evaluation data, HIE data. Milestone 6 Estimated Incentive Payment: $ 1,154,592	**Improvement Milestone 7**: I-18. Obtain medical home recognition by a nationally recognized agency. Metric: I-18.1 Medical Home recognition/accreditation. Data Source: Accreditation document. Milestone 7 Estimated Incentive Payment: $ 1,181,169

Project Identifier 085144601.2.1	Project Option 2.1.3	Project Components 2.1.3.a-f	Implement medical homes in HPSA and other rural and impoverished areas using evidence-based approaches and change concepts for practice transformation developed by the Commonwealth Fund's Safety Net Medical Home Initiative.
UTHSCSA			TPI 085144601
Related Category 3 Outcome Measure:	Unique ID: 085144601.3.5	Reference Numbers: IT-1.10 a-d	Diabetes Care: HbA1c poor control (>9.0%) -NQF 0059 (Standalone measure)

Year 2 (10/1/2012 – 9/30/2013	Year 3 (10/1/2013 – 9/30/2014)	Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
policies on medical home Data source:Performing Provider's "Policies and Procedures" documents Milestone 2 Estimated Incentive Payment: $ 346,889 **Milestone 3**: P-3. Reorganize staff into primary care teams. Metric 3. P-3.1. Primary Care Team. Number of staff organized into primary care teams. Data Source: Provider evaluation data and clinic records. Milestone 3 Estimated Incentive Payment: $ 346,889			
Year 2 Estimated Milestone Bundle Amount: $1,040,667	Year 3 Estimated Milestone Bundle Amount: $1,142,781	Year 4 Estimated Milestone Bundle Amount: $1,154,592	Year 5 Estimated Milestone Bundle Amount: $1,181,169
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD (add milestone bundle amounts over DYs 2-5): $ **4,519,209**			

Project Title: Expand Model of Management of Chronic Diseases in Lower Valley of RHP 5
Unique project ID: 085144601.2.2
Performing Provider Name/TPI: University of Texas Health Science Center San Antonio 085144601
Option 2.2.1 Will expand proactive, ongoing care to keep patients with chronic diseases healthy.

DESCRIPTION OF PROJECT This project is designed to expand proactive, ongoing chronic care management to keep patients with chronic diseases healthy. It will also empower them to self-manage their conditions. The ultimate goal is to prevent worsening health precipitating the need for Emergency Department or Inpatient care. Most chronic diseases fall into the category of non-communicable diseases (NCDs). NCDs are the pandemic of the 21st century, and the World Health Organisation reported in 2010 that they now account for more disability and death globally than all other causes combined.(World Health Organisation, 2011) In 2011 the World Economic Forum estimated that by 2030 they will cost $47 Trillion globally.(Bloom DE et al., 2011) Texas, particularly South Texas, is among the leaders in our nation in prevalence of NCDs. To meet this growing threat in RHP5, our chronic disease management initiative will use population-based approaches to create practical, supportive, evidence-based interactions between patients and providers to improve the management of chronic conditions and identify symptoms early, with the goal of preventing complications and managing utilization of acute and emergency care. Chronic disease management also enhances the ability to identify one or more chronic health conditions or co-occurring chronic conditions that merit intervention across a patient population. This ability is based on assessment of patients' risk of developing complications, comorbidities or likelihood of utilizing acute or emergency services. These chronic health conditions include, prominently, diabetes, congestive heart failure, chronic obstructive pulmonary disease, renal disease, non-alcoholic fatty liver disease (NAFLD), all of which are liable to progress to complicating health conditions and a range of severe or end-stage diseases, such as renal failure or cancer. With this project we will begin by focusing on diabetes. Effective management of this chronic disease is imperative because it is more prevalent in our RHP than nationally.

This project will include elements of the Chronic Care Model (CCM) for ambulatory care that have been shown to lead to the greatest improvements in health outcomes:

1) Delivery system redesign (changes in the organization of care delivery)
2) Self-management support strategies (increase patients involvement in their own care)
3) Decision support (guidelines, education, and expertise to inform care decisions)
4) Information systems (changes to facilitate use of information about patients, their care and their outcomes),
5) Community linkages (activities increasing community involvement)
6) Health system support (leadership, practitioner, and financial support).

We will implement an outcome evaluation and a 'plan, do, study, act' (PDSA) strategy. Quality improvement cycles will ensure long-term health benefits are achieved and that improvement processes are incorporated throughout the funding period. Based on meta-analysis findings for Chronic Care Management models, this approach does improve outcomes, but it can take years to see true improvements.(Coleman et al., 2009) However, we believe that by using CCM and the PDSA cycles we will see sustained improvements as we proceed to further dissemination of the model across our partner organizations during the life of this project. To further this end, we plan to incorporate Information system changes including computerized reminders and communication (clinical information systems), involvement of practitioners on quality improvement teams (delivery system redesign), guidelines supported by clinician education or computer support (decision

support), formal self-management programs (self-management support), a registry (clinical information systems), and community health workers health promotion support (community linkages for lifestyle changes and navigation).

All services implemented through this initiative will be monitored by two oversight entities that cut across the partners in anticipation of creating greater collaboration for clinical care in the RHP 5. These will be a clinical care and a clinical information management team. The clinical care team will be comprised of medical personnel appointed from participating providers, clinics and community partners. The clinical information management team will be comprised of health information exchange representatives and appointed health information representatives from clinical and community based partners. The University of Texas will be responsible for ensuring actions of these two entities are in line with project milestones and that PDSA and evaluation activities are continuous and reported to the two teams. In addition to specified Category 3 Waiver outcome targets, relevant data will be evaluated regularly against past performance, national benchmarks, state mandated performance targets and applicable accreditation standards to drive performance improvement activities when indicated. Validation of this approach can be found in "Evidence on the Chronic Care Model in the New Millennium" available at http://content.healthaffairs.org/content/28/1/75.full), (Coleman et al., 2009).

Goals of the Project The goal of this project is to create multidisciplinary care teams coordinated by HIE to provide culturally appropriate and comprehensive chronic care management to patients in RHP 5. We will initially focus on persons with diabetes.

Project goals include:

- To design and implement comprehensive chronic care teams who can efficiently respond to patient's health needs
- Ensure that patients can access care teams in person, via phone or email
- Increase patient engagement in their health care treatment
- Implement projects that empower patients to make lifestyle choices
- Conduct quality improvement projects to continuously improve impact and efficiency.

Relationship of the project to regional goals This project substantially contributes to delivery system transformation in RHP 5 by furthering each one of the regions' goals:

- Leverage and improve on existing programs and infrastructure to ensure that the health care delivery system will be adequately developed to meet the primary and specialty care needs of residents throughout a rapidly growing, yet historically underserved region.
- Increase access to primary and specialty care services in the short-term, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition, regardless of where they live or their ability to pay.
- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of technology and best-practices to improve access and timely utilization of appropriate care, including behavioral health services, particularly in our rural communities.
- Transform health care delivery to a patient-centered, coordinated and integrated delivery model that improves patient satisfaction and health outcomes, reduces unnecessary emergency department use and duplicative services, and expands on the accomplishments of our existing health care system.

Challenges and issues facing this project The most recent data show that more than 145 million people, or almost half of all Americans, live with a chronic condition. That number is projected to increase by more than one percent per year by 2030, resulting in an estimated chronically ill population of 171 million. Almost half of all people with chronic illness have multiple conditions. As a

result, many managed care and integrated delivery systems have taken a great interest in correcting the many deficiencies in current management of diseases such as diabetes, heart disease, depression, asthma and others. Those deficiencies include:

- Rushed practitioners not following established practice guidelines
- Lack of care coordination
- Lack of active follow-up to ensure the best outcomes
- Patients inadequately trained to manage their illnesses

In RHP 5, preventive care and intervention is largely neglected and patients often only present when they develop severe disease requiring Emergency Department or Inpatient care. No navigation services are in place for those in these rural areas. The current delivery model is designed to react to patients with chronic conditions upon presentation at the hospital and then to treat within the confines of the hospital setting. With the high prevalence of patients with chronic conditions, the demand for treatment is heavy and ongoing. There is a need for greater connectivity among hospital and primary care providers and community based chronic disease management resources so that patients are able to learn and have support for creating lifestyle changes that can effectively achieve wellness. Additionally, multidisciplinary care teams are not established to focus on managing and supporting patients with chronic conditions outside the hospital setting.

Facing the Challenges Overcoming these deficiencies will require nothing less than a transformation of health care, from a system that is essentially reactive - responding mainly when a person is sick - to one that is proactive and focused on keeping a person as healthy as possible. To speed the transition, we will build an evidenced program based on the effectiveness of the Chronic Care Model that has recently been summarized. We also have assembled a team of committed organizations that will contribute to the chronic care management team model: Valley Baptist Medical System (Harlingen and Brownsville), Tropical Texas Behavioral Health, Rio Grande Valley HIE, Proyecto Juan Diego, and UTHSCSA. We will also work closely with Project 2.1 in RHP 5 and its patient centered medical home.

5-year expected outcome for Performing Provider and patients of the Chronic Care Management (CCM) Program :

- Transformation of chronic care into an integrated management program conducted by all of the partner institutions.
- Institutionalization of health information exchange in the partner institutions that will facilitate integrated management
- Once process and implementation milestones are reached, 7% fewer type 2 diabetic patients enrolled in the CCM program will have HbA1c levels above 9.0% (poor control).

STARTING POINT/BASELINE No project of this kind is currently implemented in the RHP 5 area or with these partners. Patients in this RHP5 are currently not receiving the CCM model services at any clinical care facility. As such, there is also no data to establish a baseline for number of patients with uncontrolled diabetes. This will be established in the first year. Data from a clinic the same region indicate nearly 35% of patients have uncontrolled diabetes (Su Clinica data, 2011).

RATIONALE

Reasons for Selecting the Project Option: Chronic diseases are the leading health threat to the RHP5 region. Seventy percent of the population has one or more chronic condition, with obesity being the underlying and exacerbating issue for most. While CDC data show lower rates, recent local data find that 31% of adults have diabetes in the region with over half unaware of their condition (Fisher-Hoch, et al, 2012). Creating a comprehensive chronic care model directly addresses the population management care needs of the population and creates more comprehensive and cost effective approaches to support self-management among the population.

The proposed project is a multi-year transformational effort and is viewed as a foundational way to deliver care aligned with payment reform models and the Triple Aim goals of better health, better patient experience of care, and ultimately better cost-effectiveness. By providing the right care at the right time and in the right setting, over time, patients may see their health improve, rely less on costly ED visits, incur fewer avoidable hospital stays, and report greater patient satisfaction. This initiative aims to eliminate fragmented and uncoordinated care, which can lead to emergency department and hospital over-utilization. The project emphasizes enhanced chronic disease management through team-based care.

We will implement quality improvement activities for this proposed project. We will conduct a rapid cycle improvement (PDSA) process to identify problems, and study and implement solutions. **Project components:** We will implement all the required core project components for this project option (listed below). We have assembled the partner institutions that are committed to working together to implement this project and redesign the outpatient delivery system to coordinate care for patients with chronic diseases. They will:

a) Design and implement care teams that are tailored to the patient's health care needs, including non-physician health professionals, such as pharmacists doing medication management; case managers providing care outside of the clinic setting via phone, email, and home visits; nutritionists offering culturally and linguistically appropriate education; and health coaches helping patients to navigate the health care system

b) Ensure that patients can access their care teams in person or by phone or email

c) Increase patient engagement, such as through patient education, group visits, self-management support, improved patient-provider communication techniques, and coordination with community resources

d) Implement projects to empower patients to make lifestyle changes to stay healthy and self-manage their chronic conditions

e) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

In summary, implementing a chronic care management model project in an area of the state with the highest uninsurance rates, high rates of diabetes, high percentage of Hispanic population, and lowest incomes in the nation will be challenging but will have a positive effect on health and reducing health disparities within the state of Texas.

Unique community need identification number the project addresses.

CN.1 Shortage of primary and specialty care providers and inadequate access to primary or preventive care

CN.2 Shortage of behavioral health care professionals and inadequate access to behavioral health care

CN.3 Inadequate integration of care for individuals with co-occurring medical and mental illness or multiple chronic conditions

CN.4 Lack of Patient-Centered Care

How the project represents a new initiative: There is currently no coordinated approach to management of chronic disease in RHP5. With published rates of the uninsured as high as 70%, the community receives inadequate care even for diagnosed chronic disease. This project is therefore unique for this region which is one of the poorest and least served in our nation. It will therefore be

developed for patients who currently have little or no care. The project is also unique is that it seeks to coordinate will other DSRIP proposals in a network of projects designed to reach those at need, provide comprehensive management of chronic diseases, empower the patient and in the long term reducing the needs for Emergency Room or Inpatient care.

Data Driving this Project In RHP 5, 70% of the population has one or more chronic condition (Fisher-Hoch et al, 2012). A similar proportion has currently no health insurance. The whole population (88% Hispanic) of RHP 5 suffers from substantial health disparities including 1) 50% of the adult population is obese; 2) 31% of the adult population has diabetes; 3) Over 75% of adults have a chronic condition of diabetes, hypertension, hypercholesterolemia, heart disease, or other condition. Many people with diabetes (55.5%) and hypertension (50.0%) are untreated as are 85% of those with hypercholesterolemia (Fisher-Hoch et al., 2012). Health along the entire US border with Mexico is among the worst in the nation.(Diaz-Apodaca et al., 2010) Obesity is the underlying and exacerbating issue. Published data from our locally recruited, randomized community cohort show that the prevalence of obesity in adults in the region is 48.5% and that 8.0% are morbidly obese.(Fisher-Hoch et al., 2012) Multiple complications of diabetes and obesity include renal failure requiring dialysis and heart failure. The underlying conditions are essentially preventable or treatable, and the long term cost of their neglect will be huge.

Related Category 3 Outcome Measure(s): The Category 3 goal for this project is to reduce the percentage of CCM patients with Type 2 diabetes whose most recent hemoglobin A1c (HbA1c) is greater than 9% (poor control). We will establish baseline values in year 2 and then our goal will be to decrease the percent of patients with poorly controlled diabetes by 7%. 2009 Data from the Centers for Disease Control indicates that the Age-Adjusted Estimates of the Percentage of Adults Diagnosed with Diabetes in South Texas was as follows:

County	Percentage
Cameron	8.5%
Hidalgo	10.2%
Starr	8.5%
Willacy	8.8%

Based on previously mentioned data where only 50% of the population with diabetes is aware of their diagnosis, the above mentioned rates are underestimations of actual disease in RHP 5. Providing patients with comprehensive care and support from a chronic care management team has shown a relationship with decreased use of inpatient and emergency care. We believe we can have a positive, early impact on helping diabetic patients control their HbA1c.

Through a host of national projects funded by the U.S. Department of Health and Human Services and the Centers for Medicare and Medicaid, it has been shown that the implementation of a Health Information Exchange among hospitals, providers, and related healthcare providers can have a positive impact on health care coordination, patient satisfaction, and total healthcare costs. RHP5 is characterized by being home to a number of small communities and metropolitan areas strung along a 90 mile stretch of highway along the U.S. – Mexico border. The resident population is very mobile and often lives in one community, works in another, and gets their healthcare/hospital care in another. RHP5 is among the highest poverty regions in the nation. Over 70% of patients served by our clinic are at or below 100% of poverty. Having the ability to effectively share health information in a secure manner among providers will prove beneficial to all.

Relationship to other Projects: This project reinforces the projects being proposed by RHP5 hospitals and other performing providers by strengthening the network of care, particularly those services aimed at the lowest income and highest uninsured groups in the region. Underpinning the pioneering proposals from the hospital community with a strong and vibrant medical home model has proven, in many communities, to increase the coordination of care and reduce the burden on hospitals caused by unnecessary emergency department visits. Any project that strengthens the

cooperative relationships among healthcare providers and reduces unnecessary delays and waste, can only prove beneficial to the region.

This project also meshes with other initiatives currently under way in the region such as the community wide campaign (project 2.4), development of a fully functioning medical school, and increased medical research on a variety of topics including obesity, nutrition, and diabetes among Hispanic populations. This project is related to project 2.1 and its proposed development of a patient centered medical home.

Relationship to Other Performing Providers' Projects in the RHP There are no other providers proposing this same project in pass 1 of the waiver. However, there are multiple organizations, some of which are performing providers on other projects, involved in the implementation of this project. Additionally we are fully committed to working with other performing providers to share progress, best practices and lessons learned.

Plan for Learning Collaborative We plan to work with the UT School of Public Health as the facilitator to encourage the development of a learning collaborative during the project period. Working together to develop and implement a Health Information Exchange will identify similarities among performing providers and will highlight those areas where challenges can be overcome.

Project Valuation The project will be valued based upon the successful attainment of the following expected results:

- Develop and implement action plans for a chronic care management model
- Collaborate with the RGV Health Information Exchange to develop and use EMR for effective patient management across the partner hospitals, PCMHs, community clinics in this project
- Improve data exchange between hospitals and affiliated partners and clinical sites
- Restructure staffing into multidisciplinary care teams that manage a panel of patients
- Management and coordination of, high-risk patients across the partners in this project and related projects

References:

- Bloom DE, Cafiero ET, Jane-Llopis E, et al The Global Economic Burder of Non-communicable Diseases. 1-46. 10-9-2011. Geneva, Switzerland, World Economic Forum.
- Coleman,K., Austin,B.T., Brach,C., and Wagner,E.H. (2009). Evidence on the Chronic Care Model in the new millennium. Health Aff. (Millwood.) 28, 75-85.
- Diaz-Apodaca,B.A., Ebrahim,S., McCormack,V., de Cosio,F.G., and Ruiz-Holguin,R. (2010). Prevalence of type 2 diabetes and impaired fasting glucose: cross-sectional study of multiethnic adult population at the United States-Mexico border. Rev. Panam. Salud Publica 28, 174-181.
- Fisher-Hoch,S.P., Vatcheva,K.P., Laing,S.T., et al (2012). Missed opportunities for diagnosis and treatment of diabetes, hypertension, and hypercholesterolemia in a mexican american population, cameron county Hispanic cohort, 2003-2008. Prev. Chronic. Dis. 9, E135.
- World Health Organisation. Global Status Report on non-communicable diseases. Alwan A. 1-176. 4-1-2011. Italy, World Health Organisation.

Project identifier: 085144601.2.2	PROJECT OPTION: 2.2.1	PROJECT COMPONENT(S): 2.2.1 A-E	Expand Model of Management of Chronic Diseases in Lower Valley of RHP 5	
		UTHSCSA		085144601
Related Category 3 Outcome Measure(s): OD-1- Primary Care and Chronic Disease Management	*085144601.3.6*	IT-1.10	Diabetes care HbA1c greater than 9% (poor control).	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1 [P-4]: Formalize multi-disciplinary teams, pursuant to the chronic care model defined by the Wagner Chronic Care Model or similar Metric 1 [P-4.1]: Increase the number of multi-disciplinary teams (e.g., teams may include physicians, mid-level practitioners, dieticians, licensed clinical social workers, psychiatrists, and other providers) or number of clinic sites with formalized teams Baseline/Goal: establish a formalized team with at least 5 members Data Source: Organizational chart, Job duties Milestone 1 Estimated Incentive Payment: $3,001,923	**Milestone 2** [P-3]: Develop a comprehensive care management program Metric 1 [P-3.1]: Documentation of Care management program. Baseline/Goal: Care management program protocols and activities will be delineated across performing provider and contractors in Chronic Care Model Data Source: Program materials Milestone 2 Estimated Incentive Payment: $1,098,828 **Milestone 3** P-2: Train staff in the Chronic Care Model, including the essential components of a delivery system that supports high-quality clinical and chronic disease care Metric 1 P-2.1: Increase percent of staff trained Baseline/Goal: train 50% of direct patient delivery CCM staff across performing provider and contractors in Chronic Care Model Data Source: HR, training program materials Milestone 3 Estimated Incentive Payment: $1,098,828		**Milestone 5** [P-10]: Milestone: Expand and document interaction types between patient and health care team beyond one-to-one visits to include group visits, telephone visits, and other interaction types Metric 1 [P-10.1]: Increase the number of group visits and/or telephone visits and/or other interaction types Baseline/Goal: 20% increase number of patients receiving interaction beyond one – to –one visits over year 2 Data Source: EHR, billing records, communication logs Milestone 5 Estimated Incentive Payment: $1,110,185 **Milestone 6** [I-17]: Apply the Chronic Care Model to targeted chronic diseases, which are prevalent locally Metric 1 [I-17.1]: 10% additional patients receive care under the Chronic Care Model for a chronic disease or for MCC Baseline/Goal: 10% increase in number of patients who receive care under the CCM for a chronic disease over year 3	**Milestone 8** P-9.: Develop program to identify and manage chronic care patients needing further clinical intervention Metric P-9.1: Increase the number of patients identified as needing screening test, preventative tests, or other clinical services Baseline/Goal: Further clinical intervention recommendations, protocols and activities will be similar across participating partners Data source: EHR, patient registry Milestone 8 Estimated Incentive Payment: $1,703,609 **Milestone 9** [I-17]: Apply the Chronic Care Model to targeted chronic diseases, which are prevalent locally Metric 1 [I-17.1]: Additional patients receive care under the Chronic Care Model for a chronic disease or for MCC Baseline/Goal: 10% increase in number of patients who receive care under the CCM for a chronic disease over year 4 Data Source: Registry Milestone 9 Estimated Incentive

RHP Plan for Region 5 225

Project identifier: 085144601.2.2	PROJECT OPTION: 2.2.1	PROJECT COMPONENT(s): 2.2.1 A-E	Expand Model of Management of Chronic Diseases in Lower Valley of RHP 5	
		UTHSCSA		085144601
Related Category 3 Outcome Measure(s): OD-1- Primary Care and Chronic Disease Management	*085144601.3.6*	IT-1.10	Diabetes care HbA1c greater than 9% (poor control).	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
	Milestone 4 [P-11]: Develop and implement program to assist patient to better self-manage their chronic conditions Metric 1 [P-11.1]: Increase the number of patients enrolled in a self-management program Baseline/Goal: 10% increase in number of patients enrolled in a self-management program over baseline year 2 Data Source: EHR, patient registry, class enrollment and attendance records Milestone 4 Estimated Incentive Payment: $1,098,828		Data Source: Registry Milestone 6 Estimated Incentive Payment: $1,110,185 **Milestone 7** [P-16]: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements. Metric 1 [P-16.1]: Participate in semi-annual face-to-face meetings or seminars organized by the RHP. Goal: 30% of providers participating in a CCM DSRIP for RHP 5 will be present and identify "raise the floor" improvement. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting	Payment: $1,703,609

Project identifier: 085144601.2.2	***PROJECT OPTION:* 2.2.1**	***PROJECT COMPONENT(S):* 2.2.1 A-E**	**Expand Model of Management of Chronic Diseases in Lower Valley of RHP 5**	
		UTHSCSA		085144601
Related Category 3 Outcome Measure(s): OD-1- Primary Care and Chronic Disease Management	*085144601.3.6*	IT-1.10	Diabetes care HbA1c greater than 9% (poor control).	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
			notes. Metric 2 [P-16.2]: Implement the "raise the floor" improvement initiatives established at the semiannual meeting Goal: 20% of providers participating in the CCM DSRIP in RHP5 will document raise the floor implementation within 6 months of semi-annual meeting Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting. Milestone 7 Estimated Incentive Payment: $1,110,185	
Year 2 Estimated Milestone Bundle Amount: $3,001,923	Year 3 Estimated Milestone Bundle Amount: $3,296,483		Year 4 Estimated Milestone Bundle Amount: $3,330,555	Year 5 Estimated Milestone Bundle Amount: $3,407,217
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over DYs 2-5):* $13,036,178				

Project Title: Establish/Expand a Patient Care Navigation Program based on a Mobile Clinic model
Unique Project ID: 085144601.2.3
Performing Provider/TPI: UTHSCSA / 085144601
Project Option 2.9.1 expands the use of an existing Mobile Clinic in a customized van providing primary care in underserved rural areas by enhancing and expanding its impact with Patient Navigators.

Description of Project

This project expands the use of an existing Mobile Clinic in a customized van providing primary care in underserved rural areas by enhancing and expanding its impact with locally based patient navigators. The Mobile Clinic is currently manned by one Physician's Assistant and one community health worker (CHW), and is equipped with interactive mobile consulting equipment connected to specialist centers for telemedicine activities. This Mobile Clinic will be used to establish this project and may add a second van later. The Mobile Clinic parks for up to 5 weeks at a time in 5 different secured sites (such as school grounds) but typically rural unincorporated areas each year throughout the county.

We will add patient navigators to the mobile van clinic to help patients and their families navigate the fragmented maze of doctors' offices, clinics, hospitals, out-patient centers, payment systems, support organizations and other components of the healthcare system. Patient Navigators for this mobile van project will conduct outreach in their community to identify patients for health risk screenings that can be conducted at the mobile van. They will particularly encourage screenings for diabetes, hypertension and hypercholesterolemia. Navigation services by patient navigators will include:

1. Identifying individuals in the community in need of medical care and directing them to the van for primary appointments.
2. Facilitating communication among patients, family members, survivors and healthcare providers.
3. Coordinating care among providers.
4. Arranging financial support and assisting with paperwork.
5. Arranging transportation and child care.
6. Ensuring that appropriate medical records are available at medical appointments.
7. Facilitating follow-up appointments.
8. Community outreach and building partnership with local agencies and groups.
9. Ensuring access to clinical trials.
10. Health education and self-management programs.

There is no one common definition of Patient Navigators and the profile varies widely by program. We will use trained Community Health Workers (CHWs). CHWs have close ties to the local community and serve as important links between underserved communities and the healthcare system. They also possess the linguistic and cultural skills needed to connect with patients from underserved communities. CHWs are also known as community health advisors, lay health advocates and *promotoras de salud*.

While there is no set education required for a patient navigator to be successful, we will ensure that our successful navigators are

1. Compassionate, sensitive, culturally attuned to the people and community being served and able to communicate effectively.
2. Knowledgeable about the environment and healthcare system.

3. Connected with critical decision makers inside the system, especially financial decision makers.

Relationship of the project to regional goals

This project addresses two major goals of RHP5.

- Increase access to primary care of those with Medicaid or without health insurance. This project addresses this goal by providing mobile health service to a poor and uninsured rural population.
- Improve control of chronic disease that afflicts 70% of our adult population. This project will connect those with chronic disease to an integrated chronic disease program either through a PCMH or an integrated chronic disease management program.

Project Goals

RHP 5 is a medically underserved area with a population that is 30 – 40% uninsured and that has no public hospital or hospital district. All of the hospitals are private for profit and are therefore limited in their ability to meet the needs of the population for primary and specialty care, based on current reimbursement/financing mechanisms and levels of insurance. Furthermore, the population suffers from very substantial health disparities:

- 50% of the adult population is obese
- 31% of the adult population has diabetes
- Over 75% of adults have a chronic condition of diabetes, hypertension, hypercholesterolemia, heart disease, or other condition.
- In addition, diabetes care and treatment is a major barrier to increasing access to care for the uninsured working poor. Also, the service area has an 88% Hispanic population.

The goal of this project is to utilize CHWs as Patient Navigators to seek out and then provide enhanced social support and culturally competent care to vulnerable and/or high-risk patients, using the medical Van(s) as a mobile hub. Patient Navigators will help and support these patients to reach and then navigate through the continuum of health care services. Patient Navigators will ensure that patients receive coordinated, timely health care services. Patient Navigators will assist in connecting patients to primary care physicians and/or medical home sites, as well as diverting non-urgent care from the Emergency Department to site-appropriate locations. The Patient Navigators will engage with patients in a culturally and linguistically appropriate manner to guide the patients through integrated health care delivery systems and increase access to health promotion and disease prevention services.

This project meets the following regional goal

- Transform health care delivery from a disease-focused model of episodic care to a patient-centered, team-based model while also building a regional, coordinated model of care designed to reduce costs, lower duplicative work, and increase patient satisfaction.

Challenges and issues facing this project

In RHP 5, 70% of the population has one or more chronic conditions. A similar proportion has currently no health insurance, such that preventive care and intervention is neglected and patients often only present to clinics or emergency departments with advanced severe disease. Obesity is the underlying and exacerbating issue. Patients in our rural underserved areas often lack transportation, primary care access, and preventive services. No navigation services are in place for these in those rural areas.

Facing the challenges

This project will build on a medically equipped mobile clinic in a van operated by the University of Texas in Deep South Texas, serving extremely rural and impoverished areas. We will

hire, train, and monitor CHWs to be navigators in the locations visited by the UT Mobile Clinic, and perhaps adding at least one additional van (Mobile Clinic) as the project progresses. These patient navigators will identify people (of all age) in the community who are in need of care and support and guide them through the system. The patient navigators will also provide health promotion disease prevention services.

5-year expected outcome for Performing Provider and patients.

The goals for this project are

- Creation of a model of low cost primary care and patient navigation for the rural poor.
- Enrollment of people into the system and referral of integrated care, particularly those with chronic conditions.
- Establish training program for CHWs as patient navigators
- Streamlined referrals for care at PCMH and chronic care models in RHP5 clinics and hospitals.
- Improved education for patients on chronic disease prevention and self-management provided by clinic staff and the CHW/patient navigators.

Starting Point/Baseline:

The mobile van currently uses an electronic medical records system but is not connected to a health information exchange. The clinical staff is culturally competent and accepted by community members where the van visits. The administrative team is knowledgeable about public health outreach. Currently no patients receive patient navigation services so the baseline is zero in DY 2. With respect to our category 3 outcomes we will improve the screening of three essentially preventable and treatable conditions, which our RHP 5 have been shown to be at least half the time undiagnosed: diabetes, hypertension, hypercholesterolemia. Examining the patient records in 2011, we find that 139 patients were screened for diabetes, hypertension, hypercholesterolemia. These numbers will be examined against data collection planned for DY 3 to establish a solid baseline.

Rationale

Patient navigators provide enhanced social support and culturally competent care to vulnerable and/or high-risk patients. Patient navigators help and support these patients to navigate through the continuum of health care services. Patient Navigators ensure that patients receive coordinated, timely, and site-appropriate health care services. Navigators also assist in connecting patients to primary care physicians and/or medical home sites, as well as diverting nonurgent care from the Emergency Department to site-appropriate locations. Our patient navigators will be community health workers who will receive additional training on navigation. They will be from the community and will be bilingual to engage with patients in a culturally and linguistically appropriate manner. They will provide an essential service of guiding patients through integrated health care delivery systems.

We will implement all the required core project components:

a) Identify frequent ED users and use navigators as part of a preventable ED reduction program. Train health care navigators in cultural competency.

b) Deploy innovative health care personnel, such as case managers/workers, community health workers and other types of health professionals as patient navigators.

c) Connect patients to primary and preventive care.

d) Increase access to care management and/or chronic care management, including education in chronic disease self-management.

e) Conduct quality improvement for project using methods such as rapid cycle improvement. Activities may include, but are not limited to, identifying project impacts, identifying "lessons

learned," opportunities to scale all or part of the project to a broader patient population, and identifying key challenges associated with expansion of the project, including special considerations for safety-net populations.

Reasons for Selecting the Project Option

The RHP5 needs assessment demonstrates the high prevalence of chronic diseases, such as type 2 diabetes, high cholesterol, hypertension, and chronic liver disease in this population. Furthermore published data demonstrate that poverty is high, and that the majority of people do not have access to health services through insurance. These problems are compounded in the rural areas. Therefore this project will serve a number of important purposes, increasing screening for chronic disease in a poor rural population that is medically underserved and is therefore at risk for presenting at ED or clinics with advanced manifestations of chronic disease. Those are the reasons for choosing this project.

Unique community need identification number the project addresses.

This project addresses several needs identified for RHP 5. These include:

CN.1 , Shortage of primary and specialty care providers and inadequate access to primary or preventive care

CN.3 Inadequate integration of care for individuals with co-occurring medical and mental illness or multiple chronic conditions

CN.4 Lack of Patient-Centered Care

How the project represents a new initiative

This project is a much expanded and revised form of an existing project. It reforms the existing system by training and engaging Community Health Workers as patient navigators who will contact people in the rural areas where the van is located and arrange for them to be seen and then for those with chronic disease conditions the navigators will help those individuals enter into an integrated care program to mitigate the progression of the condition and reduce the likelihood of appearing at an emergency department or clinic with advance complications.

Furthermore this project is a new initiative because patients currently seen on the van are not identified as frequent ED users and are not followed to reduce preventable admissions. Innovative health care personnel are currently not employed to work with patients seen on the mobile van. Patients are referred to primary care facilities, but due to lack of staff are not specifically provided navigation services. Preventive care is not the focus of services provided. Chronic care management including education and self-management is not routinely provided. A PDSA cycle is not used to implement quality improvement activities.

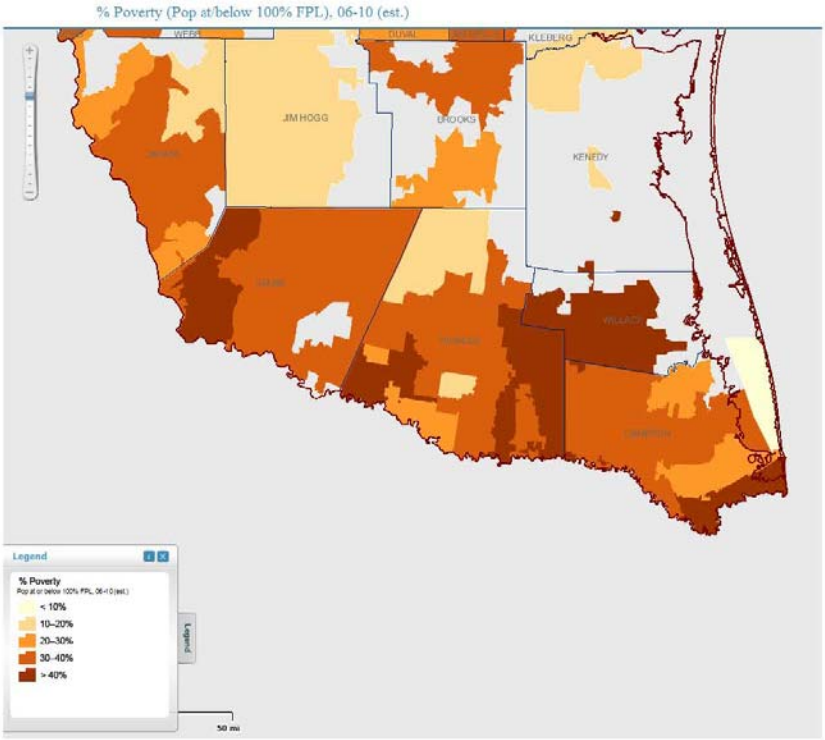
Data Driving this Project.

Data published by the United States Census Bureau in 2012 show that 88.1% (Cameron County) and 90.7% (Hidalgo County) of the population is Mexican American or Latino in origin and that 34.7% live below the poverty line (compared with 16.8% for Texas as a whole). Obesity is the underlying and exacerbating issue. Published data (Fisher-Hoch et al, 2012) from our locally recruited, randomized community cohort show that the prevalence of obesity is 48.5% and that 8.0% are morbidly obese. The prevalence of diabetes is an alarming 30.7% in adults 18 years or over. Currently only 31.4% have insurance of any kind, more than half of which is Medicare or Medicaid. Eighty-four percent of those with hypertension are diagnosed, but only half of those with diabetes or hypercholesterolemia. Many participants with diabetes (55.5%) and hypertension (50.0%) are untreated as are 85% of those with hypercholesterolemia. Multiple complications of diabetes and obesity include renal failure requiring dialysis, and heart failure, and at least 12% have evidence of liver disease associated with obesity and diabetes leading to liver failure and liver cancer. We have

unpublished data showing that prevalence of cancers associated with obesity and diabetes such as gut cancers is high. Some more unusual cancers are more common than elsewhere, particularly stomach, liver and ovarian cancers. The underlying conditions are essentially preventable or treatable. The long term cost of this neglect will be huge.

Related Category 3 Outcome Measure(s):

The overall goal of this project is improvement in the health of a health disparity population with high rates of essentially treatable and preventable diseases which are undiagnosed and untreated. 70% of people in RHP5 have one or more chronic conditions, diabetes, hypertension or elevated cholesterol. 50% are undiagnosed and of those diagnosed only about half are on treatment. This project will address this disparity in the rural poor part of RHP5.



The Category 3 goal for this project is to identify those with previously undiagnosed diabetes, hypertension or high cholesterol and to treat them comprehensively with medication, health education and self-management programs. The people from this project will be referred to the PCMH at Su Clinica Familiar, or to the chronic disease management program at Valley Baptist Hospital or to one of the Federally Qualified Health Clinics in the region. This project will identify those with chronic conditions and place them into integrated care programs in a PCMH or integrated care program or FQHC, depending on the location of the patient, their insurance status and their condition.

As stated above, RHP5 is among the highest poverty, and most medically underserved regions in the nation. The figure depicts the percentage of the population below poverty by Zip Code Tabulation Area (darker the color the higher the poverty).

OD- 12 Primary Care and Primary Prevention:

IT-12.5 Other USPSTF-endorsed screening outcome measures

- **Diabetes (HbA1c)**
- **Hypertension**
- **Hypercholesterolemia**

Relationship to other Projects:

This project reinforces the projects being proposed by RHP5 hospitals and other performing providers by strengthening the network of care, particularly those services aimed at the lowest income and highest uninsured groups in the region. This project is related to project 2.2 through the option of referring patients from the van to the chronic care team for comprehensive follow-up care. This project is related to 2.1 through the option of referring patients from the van to the PCMH at Su Clinica for comprehensive follow-up. This project also meshes with other initiatives currently under way in the region such as the develop of Accountable Care Organizations, development of a fully functioning medical school, and increased medical research on a variety of topics including obesity, nutrition, and diabetes among Hispanic populations.

Relationship to Other Performing Providers' Projects in the RHP.

No other performing provider is implementing this same community wide campaign initiative. However, this project will work in coordination with all other performing providers in the region to refer patients who present with health risks for follow-up and comprehensive care. We are fully committed to working with the other performing providers to ensure the triple aims are achieved.

Plan for Learning Collaborative:

We plan to work with the UT School of Public Health as the facilitator to encourage the development of a learning collaborative during the project period. Working together to develop and implement the mobile van navigation project and with other projects implementing health information exchange initiatives will bring to light many similarities among performing providers and will also highlight those areas where challenges can be overcome. Our experience with preventive and screening care, health communication, and text message support for lifestyle changes will be resources we plan to bring to the learning collaborative. We anticipate a strong working relationship among universities, hospitals, and private performing providers.

Project Valuation:

The project will be valued based upon the successful attainment of the following expected results:

- Develop and implement action plans for mobile clinic navigation services
- Improved early screening of health risks among low income, low health insurance populations
- Prevention and early intervention among high-risk patients
- Restructure staffing into community outreach teams to screen more patients.
- Collaborate with other performing providers to efficiently refer at risk patients into care.

Unique Identifier: ***085144601.2.3***	***Project Option: 2.9.1***	***Project Component*** 2.9.1 [a-e]	Establish/Expand a Patient Care Navigation Program with a Mobile Clinic model	
		UTHSCSA		*TPI* 085144601
Related Category 3 Outcome Measure(s): *OD 12*	*[unique Category 3 IT identifier(s)]* 085144601.3.7	IT-12.5	**Other USPSTF**-endorsed screening outcome measures diabetes hypertension hypercholesterolemia	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Milestone 1 [*P-1*]: Conduct a needs assessment to identify the patient population(s) to be targeted with the Patient Navigator program Metric 1 [*P-1.1*]: Provide report identifying the following: o Targeted patient population characteristics (e.g., patients with no PCP or medical home, frequent ED utilization, homelessness, insurance status, low health literacy). o Gaps in services and service needs, o How program will identify, triage and manage target population (i.e. Policies and procedures, referral and navigation protocols/algorithms, service maps or flowcharts). Baseline/Goal: there has not been such assessment conducted. Produce a comprehensive report documenting all points above Data Source: Program documentation, EMR, claims, needs assessment survey Milestone 1 Estimated Incentive Payment (*maximum amount*): $800,513	**Milestone 2** [P-2]: Establish a health care navigation program to provide support to patient populations who are most at risk of receiving disconnected and fragmented care including program to train the navigators, develop procedures and establish continuing navigator education. Metric 1 [P-2.1]: Number of people trained as patient navigators, number of navigation procedures, or number of continuing education sessions for patient navigators. a. Workforce development plan for patient navigator recruitment, training and education Baseline/Goal: No one has been trained as navigators or done navigation procedures. To train 3 people as navigators, identify a minimum of 3 navigation procedures and have 2 continuing education sessions each year Data Source: Patient navigation program materials and database, EMR Metric 2 [P-2.2]: Number of unique patients enrolled in the patient navigation program; Baseline/Goal: there are no patients receiving navigation services / the goal would be 15% of unique		**Milestone 4** [P-3]: Provide care management/navigation services to targeted patients Metric 1 [P-3.1]: Increase in the number or percent of targeted patients enrolled in the program Baseline/Goal: Year 3 enrollment / Goal would be that 30% of those patients needing navigation services would receive them Data Source: Enrollment reports Milestone 4 Estimated Incentive Payment: $ 222,037 **Milestone 5** [P-4]: Milestone: Increase patient engagement, such as through patient education, self-management support, improved patient-provider communication techniques, and/or coordination with community resources Metric 1 [P-4.1]: Number of classes and/or initiations offered, or number or percent of patients enrolled in the program Baseline/Goal: year 3 / self-management based on navigation services / 15% of patients needing such services will be offered a program Data Source: Class offering records	**Milestone 8** [P-2]: Expand a health care navigation program to provide support to patient populations who are most at risk of receiving disconnected and fragmented care including program to train the navigators, develop procedures and establish continuing navigator education. Metric 1 [P-2.1] number of continuing education sessions for patient navigators Goal: to provide 1 continuing education sessions every 6 month Data Source: Continuing education records and Class participation logs Milestone 8 Estimated Incentive Payment: $ 302,864 **Milestone 9** [I-6]: Increase number of PCP referrals for patients without a medical home who use the ED, urgent care, and/or hospital services. Metric 1 [I-6.4]: Percent of patients without a primary care provider who are given a scheduled primary care provider appointment Goal: 5% increase over year 4 Data Source: Performing Provider administrative data on patient

Unique Identifier: ***085144601.2.3***	*Project Option:* ***2.9.1***	*Project Component* 2.9.1 [a-e]	Establish/Expand a Patient Care Navigation Program with a Mobile Clinic model	
	UTHSCSA			*TPI* 085144601
Related Category 3 Outcome Measure(s): *OD 12*	*[unique Category 3 IT identifier(s)]* 085144601.3.7	IT-12.5	**Other USPSTF**-endorsed screening outcome measures diabetes hypertension hypercholesterolemia	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
	patients seen per six months will be enrolled in navigation services Data Source: Patient navigation program materials and database, EHR Milestone 2 Estimated Incentive Payment: $ 439,531 **Milestone 3 [P-8]:** Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements. Metric 1 [P-8.1]: Participate in semi-annual face-to-face meetings or seminars organized by the RHP. Goal: Participate in all semi-annual face-to-face meetings or seminars. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes. Milestone 3 Estimated Incentive		and class participation lists Milestone 5 Estimated Incentive Payment: $ 222,037 **Milestone 6** [I-6]: Increase number of PCP referrals for patients without a medical home who use the ED, urgent care, and/or hospital services. Metric 1 [I-6.1]: Increase medical home empanelment of patients referred from navigator program. Goal: 5% increase from year 3 Data Source: Performing Provider administrative data on patient Metric 2 [I-6.4]: Percent of patients without a primary care provider who are given a scheduled primary care provider appointment Goal: 5% increase over year 3 Data Source: Performing Provider administrative data on patient Milestone 6 Estimated Incentive Payment: $ 222,037 **Milestone 7 [P-8]:** Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree	Milestone 9 Estimated Incentive Payment: $ 302,864 **Milestone 10 [P-8]:** Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements. Metric 1 [P-8.1]: Participate in semi-annual face-to-face meetings or seminars organized by the RHP. Goal: Participate in all semi-annual face-to-face meetings or seminars. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes. Milestone 10 Estimated Incentive Payment: $302,864

Unique Identifier: ***085144601.2.3***	*Project Option:* ***2.9.1***	*Project Component* 2.9.1 [a-e]	Establish/Expand a Patient Care Navigation Program with a Mobile Clinic model	
	UTHSCSA			*TPI* 085144601
Related Category 3 Outcome Measure(s): *OD 12*	*[unique Category 3 IT identifier(s)]* 085144601.3.7	IT-12.5	**Other USPSTF**-endorsed screening outcome measures diabetes hypertension hypercholesterolemia	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
	Payment: $439,531		upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements. Metric 1 [P-8.1]: Participate in semi-annual face-to-face meetings or seminars organized by the RHP. Goal: Participate in all semi-annual face-to-face meetings or seminars. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes. Milestone 7 Estimated Incentive Payment: $222,037	
Year 2 Estimated Milestone Bundle Amount: $800,513	Year 3 Estimated Milestone Bundle Amount: $879,062		Year 4 Estimated Milestone Bundle Amount: $888,148	Year 5 Estimated Milestone Bundle Amount: $908,591
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over DYs 2-5):* $3,476,314				

Project Title: Implement Evidence-based Health Promotion Programs
Unique project ID: 085144601.2.4

Performing Provider/TPI: The University of Texas Health Science Center San Antonio (UTHSCSA) / 085144601

Project Option 2.6.3 - Implement Evidence the evidenced-based Community Wide Campaign (CWC) which will include community health worker outreach, self-management education, text-message support for lifestyle changes, and evidenced based environmental changes to support maintenance of health.

PROJECT DESCRIPTION

UTHSCSA proposes to implement an evidenced-based Community Wide Campaign (CWC) that will include text-message support for lifestyle changes, and evidenced based environmental changes to support maintenance of healthy lifestyles. The Community Wide Campaign will address lack of physical activity and healthful food choices in our population leading to multiple chronic conditions which were noted in the RHP needs assessment including hypertension, obesity, diabetes and cardiovascular diseases. This project option will focus on implementation of the population-based campaign to promote healthy lifestyles in several municipalities within RHP 5. The CWC project ties to CN.1 by addressing shortages of primary care / preventive services in RHP 5 by making preventive information and lifestyle changes easily accessible and actionable through mass media venues, social media and text messaging.

In RHP 5, approximately 70% of the population has at least one chronic condition, particularly driven by the high rates of obesity and overweight.(Fisher-Hoch et al., 2012) The current delivery model is designed to react to patients with chronic conditions upon presentation at the hospital and then to treat within the confines of the hospital setting.

The current prevention and treatment system is an unconnected, silo-based approach, which reduces the effectiveness and increases the cost of health care. As the US health care system strives to deliver better health, improved care and lower costs, the potential exists for innovative evidenced based health promotion strategies to further these goals. With the high prevalence of patients with chronic conditions, the longer-term cost savings will come from moving up stream and implementing health promotion interventions that prevent and control chronic conditions. The proposed project will support health by following Centers for Disease Control and Prevention recommendations for a proven-effective intervention. The Guide to Community Preventive Services (Guide) recommends multi-component community-wide campaigns as a strategy to increase physical activity and nutrition, the underlying causes of many chronic conditions.(Community Preventive Services Task Force, 2012) The Guide defined community-wide campaigns as:

"...large-scale campaigns deliver(ing) messages that promote physical activity by using television, radio, newspaper columns and inserts, and trailers in movie theaters. They use many components and include individually focused efforts such as support and self-help groups; physical activity counseling; risk factor screening and education at worksites, schools, and community health fairs; and environmental activities such as community events and the creation of walking trails."

The meta-analysis reported in the Guide provided evidence that community-wide campaigns increase energy expenditure by increasing the proportion of people who report being physically active. The Guide also stated that these community-wide campaigns address other health issues including nutrition.

CWCs have the following core components to achieve physical activity and healthy eating.

1) Mass media providing communication about lifestyle changes
2) Social support including self-help groups, exercise groups, community health worker home visits, text messages, and social media
3) Screening for risk factors and chronic disease including diabetes, high blood pressure, high BMI
4) Education about physical activity and nutrition in community locations
5) Environmental or policy changes to support healthy lifestyles

Through this project people will be exposed to targeted and scientifically accurate information about healthy lifestyles via mass media and social media. Text messages based on a bank of hundreds of text messages in Spanish and English will be sent. Patients will be referred to self-help and exercise groups in their local area. Within their cities, increased opportunities for health risk screenings will occur in easily accessible community locations with referrals to medical homes. Increased physical activity and nutrition education opportunities will be offered in community centers including parks and recreation facilities and schools. Changes to the environment to support physical activity and healthy food choices will also be implemented including protect paths for cycling and walking. Results will include controlled blood pressure and management of chronic diseases.

The CWC implementation team will consist of healthcare professionals, prevention experts, health communication experts and municipality-based leadership. People living in several municipalities will be targeted with the community wide campaign required core components listed above. Given the low income levels, high uninsured rates, and high percentage of Hispanics living in RHP 5, the locales targeted, but not limited to include San Benito, Los Indios, Los Fresnos, Harlingen, Brownsville, Rancho Viejo, Combes, Rio Hondo, Port Isabel. These municipalities fall within one of the poorest in the nation.

PROJECT GOAL:

The whole population (88% Hispanic) of RHP 5 suffers from substantial health disparities:

- 50% of the adult population is obese
- 31% of the adult population has diabetes
- Over 75% of adults have a chronic condition of diabetes, hypertension, hypercholesterolemia, heart disease, or other condition.

The goals of this project are to

1) Implement innovative evidence-based community-wide campaign activities with fidelity to the recommended core components in selected municipalities of RHP 5:
2) Address the lack of physical activity and healthful food choices in RHP 5 so as to reduce risks for chronic disease, particularly hypertension.

This project meets the following regional goals:

- Nurture a culture of ongoing quality improvement and innovation that maximizes the use of technology and best-practices to improve access and timely utilization of appropriate care, including behavioral health services, particularly in our rural communities.

- Increase access to primary and specialty care services in the short-term, with a focus on individuals with chronic conditions, to ensure they have access to the most appropriate care for their condition, regardless of where they live or their ability to pay.

Challenges and issues facing this project: Transforming the health care delivery system to include a demonstrable focus on prevention and primary care is essential, but not without challenges. It involves redirecting training, staff time and resources to prevention initiatives such as a community wide campaign. In RHP 5 this is vital because 70% of the population has one or more chronic condition. A similar proportion has currently no health insurance. This means that preventive care and intervention is largely neglected and patients often only present when they develop severe disease requiring Emergency Department or Inpatient care. Obesity is the underlying and exacerbating issue, but patients in our rural underserved areas often lack transportation, primary care access, and preventive services. No navigation services are in place for those in these rural areas.
Addressing the challenges: We will implement the evidenced-based Community Wide Campaign (CWC) which will include its core components including media messages, text-message support for lifestyle changes, and evidenced based environmental changes to support maintenance of health. The Community Wide Campaign will address lack of physical activity and healthful food choices which is prevalent in our community.

STARTING POINT/BASELINE

How the project represents a new initiative: This project will expand and innovate health care service delivery by creating an expansive base of preventive behavior change in the region. Mexican Americans have been documented in our area to have low participation in physical activity and consumption of fruits and vegetables. It is also common for our population not to consumer appropriate portions of food. The combination of these three factors leads to energy imbalance which is driving the obesity epidemic and explosion of chronic conditions in the community, even among the very young. The high obesity rate was noted in the RHP 5 needs assessment. The CWC has been selected because it is evidenced based for addressing these behaviors.

Our baseline data indicates that adults living in RHP 5 are substantially less likely to meeting physical activity (PA) guidelines or consume sufficient number of fruits and vegetables each day.

Comparing Two Samples on Meeting Health Guidelines (%)

	RHP5	Hispanic BRFSS (national)
Meet PA Guideline	30.59	41.00
Meet Dietary Guideline	16.29	22.68

The proposed community wide campaign activities have only been implemented in one of the partnering communities involved with this project. Funding for activities in that community is ending February 28, 2013. This was National Institutes of Health, National Center on Minority Health and Health Disparities funding. During this project's time of implementation 31% of the Spanish and non-Spanish speaking population indicated they were aware of the campaign. People reporting more intensive exposure to the campaign also were more likely to meet physical activity guidelines and more likely to consume fruits and vegetables. (Table 1 and 2) These results provide us additional evidence of the need for this community wide campaign, not only more expansively in this one community, but now more broadly disseminated. The limitations of this early iteration of the CWC include its primary focus on those who spoke Spanish. We will now expand the campaign to be fully in English and

Spanish. Another limitation was its focus on one community. We will now expand the campaign to reach communities across RHP 5. Additionally, the earlier iteration of the campaign did not fully rely on text messaging support or social media. These elements will be added to the campaign to expand its reach and intensity.

Table 1: Odds ratios for Physical Activities, **Spanish Speakers (n=1187)**

Exposures	all n=1187	[a]Meet Physical Activities guidelines, n (%)		[b]OR (95% CI)	P value	[c]OR (95% CI)	P value
		No n=854 (72.37%)	Yes n=326 (27.63%)				
Have you regularly read, seen, or heard any health messages from the TSSC campaign? (yes)	733(62.65)	506(60.02)	227(70.28)	**1.39(1.04,1.87)**	**0.0275**	**1.34(1.01,1.86)**	**0.0403**
Newsletter	635(55.51)	428(52.07)	207(65.09)	**1.53(1.14,2.04)**	**0.0042**	**1.51(1.12,2.04)**	**0.0075**
Discussion	418(36.35)	271(32.69)	147(46.37)	**1.62(1.22,2.13)**	**0.0007**	**1.59(1.20,2.11)**	**0.0135**
TV	332(29.12)	217(26.43)	115(36.51)	**1.49(1.13,1.98)**	**0.0055**	**1.49(1.12,1.99)**	**0.0066**
Radio	114(9.90)	67(8.05)	47 (14.87)	**1.88(1.26,2.81)**	**0.002**	**1.86(1.23,2.79)**	**0.0030**
Web	30(2.63)	20(2.43)	10(3.19)	1.22(0.56,2.64)	0.6152	1.14(0.52,2.5)	0.7489
Newsletter &Discussion & TV& Radio	47(4.01)	26(3.08)	21(6.50)	**2.00(1.11,3.63)**	**0.0218**	**1.86(1.02,3.41)**	**0.0434**

[a]Meet physical activity guidelines of 150 moderate and vigorous minutes per week
[b]Odds Ratios from Mixed Logistic Regression Models accounting for version differences of questionnaire
[c]Odds Ratios from Mixed Logistic Regression Models accounting for version differences of questionnaire adjusted for age, diabetic, gender, marital status, school years, language, insurance

RATIONALE

The current prevention and treatment system is an unconnected, silo-based approach, which reduces the effectiveness and increases the cost of health care. As the US health care system strives to deliver better health, improved care and lower costs, the potential exists for innovative evidenced based health promotion strategies to further these goals.

The implementation of evidenced based health promotion development is a multi-year transformational effort and is viewed as a foundational way to deliver care aligned with payment reform models and the Triple Aim goals of better health, better patient experience of care, and ultimately better cost-effectiveness. By providing preventive care to large, at risk populations in the right setting, over time, patients may see their health improve, rely less on costly ED visits, incur fewer avoidable hospital stays, and report greater patient satisfaction.

This initiative aims to eliminate fragmented, uncoordinated preventive care by creating health promotion information regarding two health behaviors that underlie countless chronic conditions. The projects establish a foundation of transformation in RHP 5 and support the prevention and control of chronic disease at a population level.

We will implement quality improvement activities for this proposed project. We will conduct a rapid cycle improvement (PDSA) process to identify problems, and study and implement solutions.

5-year expected outcome for Performing Provider and patients

The expected outcome in five years is a fully implemented CWC in multiple municipalities across RHP 5. Once process and implementation milestones are reached, we expect an increase in the percentage of patients with controlled blood pressure. We also expect an increase in percentage of

people meeting guidelines for minutes of physical activity reported and servings of fruits and vegetables consumed each day. These changes will lead result in several positive health outcomes. For persons with hypertension, engagement in CWC activities will result in controlled blood pressure.

RELATED CATEGORY 3 OUTCOME MEASURES

Because low levels of physical activity and food choices are related to hypertension, the category 3 goal for this project is to increase the percentage of patients enrolled in the evidenced based community wide campaign services who report controlled blood pressure.

In RHP 5 based on BRFSS data from 2009 27.7% of respondents indicate they have been diagnosed with high blood pressure. These rates are lower than the state as a whole, which is reminiscent of the fact that our population in RHP 5 does not access health care in a preventive fashion. In fact, in another study (Fisher-Hoch et al, 2012) the weighted prevalence of hypertension is 30.7% and 50% of those with the condition were unaware they had the condition and were not being treated.

Implementing the community wide campaign activities will increase screening for health risk factors such as high blood pressure, opportunities for physical activity and healthful food choices, and social support and social media support for long-term lifestyle changes to sustain controlled blood pressure readings.

Numerous clinical trials have shown that aggressive treatment of high blood pressure reduces mortality from heart disease, stroke and renal failure; results are particularly striking in elderly hypertensives, which are more likely to have heart failure. A pool of past clinical trials demonstrated that a 5 mm to 6 mm Hg reduction in diastolic blood pressure was associated with a 42 percent reduction in stroke mortality and a 14 percent to 20 percent reduction in mortality from coronary heart disease (CHD). Literature from clinical trials indicates that 53 percent to 75 percent of people under treatment achieved control of their blood pressure.

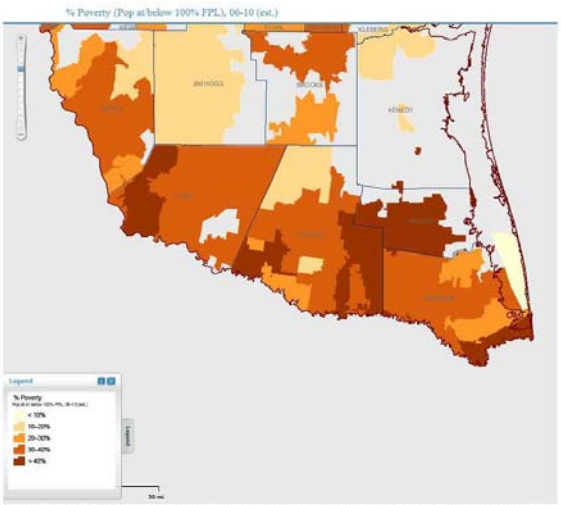


Figure 1. RHP 5 Percentage of Families living at or below 100% of Poverty Level

As stated above, RHP5 is among the highest poverty regions in the nation. The communities served by the community-wide campaign have over 20% of their population at or below 100% of poverty. The figure below depicts the percentage of the population below poverty by Zip Code Tabulation Area.

Relationship to Other Projects.

This project reinforces the projects being proposed by RHP5 hospitals and other performing providers by strengthening the focus on preventive care, conducting early screening and referrals, and working in population centers with low income and high uninsurance rates. This project will connect populations with scientifically proven strategies for improving healthy lifestyles, provide

them with access to environmental and social support to initiate and sustain the lifestyle changes. The hospitals and clinics will find unprecedented media and environmental support for their recommendations to exercise more and consume a healthy diet. We will work to increase the coordination of care and reduce the burden on hospitals caused by unnecessary emergency department visits. Any project that strengthens the cooperative relationships among healthcare providers and reduces unnecessary delays and waste, can only prove beneficial to the region.

Relationship to Other Performing Providers' Projects in the RHP.

No other performing provider is implementing this same community wide campaign initiative. However, this project will work in coordination with all other performing providers in the region to refer patients who present with health risks for follow-up and comprehensive care. We are fully committed to working with the other performing providers to ensure the triple aims are achieved.

Plan for Learning Collaborative

We plan to work with the UT School of Public Health as the facilitator to encourage the development of a learning collaborative during the project period. Working together to develop and implement a community wide campaign and with other projects implementing health information exchange initiatives will bring to light many similarities among performing providers and will also highlight those areas where challenges can be overcome. Our experience with preventive care, health communication, and text message support for lifestyle changes will be resources we plan to bring to the learning collaborative. We anticipate a strong working relationship among universities, hospitals, and private performing providers.

Project Valuation:

The project will be valued based upon the successful attainment of the following expected results:

- Develop and implement action plans for a community wide campaign
- Improved early screening of health risks among low income, low health insurance populations
- Prevention and early intervention among high-risk patients
- Restructure staffing into community outreach teams that conduct proven effective community wide campaign activities to patients.
- Collaborate with other performing providers to efficiently refer at risk patients into care.

References

- *Bodenheimer,T., Lorig,K., Holman,H., and Grumbach,K. (2002). Patient self-management of chronic disease in primary care. JAMA 288, 2469-2475.*
- *Community Preventive Services Task Force. The Guide to Community Preventive Services. 2012. Centers for Disease Control and Prevention.*
- *Fisher-Hoch,S.P., Vatcheva,K.P., Laing,S.T., Hossain,M.M., Rahbar,M.H., Hanis,C.L., Brown,H.S., III, Rentfro,A.R., Reininger,B.M., and McCormick,J.B. (2012). Missed opportunities for diagnosis and treatment of diabetes, hypertension, and hypercholesterolemia in a mexican american population, cameron county Hispanic cohort, 2003-2008. Prev. Chronic. Dis. 9, E135.*
- *Thorpe,K.E. (2012). Analysis & commentary: The Affordable Care Act lays the groundwork for a national diabetes prevention and treatment strategy. Health Aff. (Millwood.) 31, 61-66.*
- *Witmer,A., Seifer,S.D., Finocchio,L., Leslie,J., and O'Neil,E.H. (1995). Community health workers: integral members of the health care work force. Am. J. Public Health 85, 1055-1058.*

085144601.2.4	2.6.1	PROJECT COMPONENT(S) 2.6.1	Implement Evidence-based Health Promotion Programs through a community wide campaign to promote healthy lifestyles	
		UTHSCSA		TPI - 085144601
Related Category 3 Outcome Measure(s): OD-1 Primary Care and Chronic Disease Management	*Unique Cat 3 ID: 085144601.3.8*	Category 3 outcome measure: IT-1.7	Controlling High Blood Pressure **(NCQA-HEDIS 2012, NQF 0018)228** ***(Standalone measure)***	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 [P-1]: Conduct an assessment of health promotion programs that involve community health workers at local and regional level. Metric 1 [P-1.1]: Document regional assessment Data Source: Performing Provider assessment and summary of findings Milestone 1 Estimated Incentive Payment: $1,716,089	**Process Milestone** 2: [P-3]. Implement, document and test an evidence-based innovative project for targeted population Metric 1 : P-3.1. Metric: Document implementation strategy and testing outcomes. Milestone 2 Estimated Incentive Payment: $942,239 **Process Milestone 3** [P-8]: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements. Metric 1 [P-8.1]: Participate in semi-annual face-to-face meetings or seminars organized by the RHP. Goal: 50% of staff participating in patient navigation project will be		**Process Milestone 4** [P-4]: Execution of a learning and diffusion strategy for testing spread and sustainability of best practices and lessons learned. Metric 1 [P-4.1]: Document learning and diffusion strategic plan Data Source: Performing provider report summarizing challenge faced and learning, testing and spread of best practice. Milestone 4 Estimated Incentive Payment: $634,652 **Process Milestone 5** [P-5]: Execution of evaluation process for project innovation. P-5.1. Metric: Document evaluative process, tools and analytics. Data Source: Performing Provider contract or other documentation of evaluation Milestone 5 Estimated Incentive Payment: $634,652 **Improvement Milestone 6 [I-8]** Increase access to health promotion programs and activities using innovative	**Process Milestone 7** [P-8]: Participate in face-to-face learning (i.e. meetings or seminars) at least twice per year with other providers and the RHP to promote collaborative learning around shared or similar projects. At each face-to-face meeting, all providers should identify and agree upon several improvements (simple initiatives that all providers can do to "raise the floor" for performance). Each participating provider should publicly commit to implementing these improvements. Metric 1 [P-8.1]: Participate in semi-annual face-to-face meetings or seminars organized by the RHP. Goal: 50% of staff participating in patient navigation project will be present and identify "raise the floor" improvement. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes. Milestone 7 Estimated Incentive Payment: $973

085144601.2.4	2.6.1	PROJECT COMPONENT(S) 2.6.1	Implement Evidence-based Health Promotion Programs through a community wide campaign to promote healthy lifestyles	
		UTHSCSA		TPI - 085144601
Related Category 3 Outcome Measure(s): OD-1 Primary Care and Chronic Disease Management	*Unique Cat 3 ID: 085144601.3.8*	Category 3 outcome measure: IT-1.7	Controlling High Blood Pressure **(NCQA-HEDIS 2012, NQF 0018)228** ***(Standalone measure)***	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
	present and identify "raise the floor" improvement. Data Source: Documentation of semiannual meetings including meeting agendas, slides from presentations, and/or meeting notes. Milestone 3 Estimated Incentive Payment: $942,239		project option. Metric 1 [I-8.1]: Increase percentage of target population reached. Baseline/Goal: 10% increase in population reached by CWC than in year 3 Data Source: population awareness surveys Milestone 6 Estimated Incentive Payment: $634,652	Metric 2 [P-8.2]: Implement the "raise the floor" improvement initiatives established at the semiannual meeting Goal: one raise the floor improvement will be documented within 6 months of semi-annual meeting Data Source: Documentation of "raise the floor" improvement initiatives agreed upon at each semiannual meeting and documentation that the participating provider implemented the "raise the floor" improvement initiative after the semiannual meeting. Milestone 7 Estimated Incentive Payment: $ 982,999 Milestone 7 Estimated Incentive Payment: $973,891 **Improvement Milestone 8** [I-6]: Identify percentage of patients in defined population receiving innovative intervention consistent with evidence-based model over baseline.

085144601.2.4	2.6.1	PROJECT COMPONENT(S) 2.6.1	Implement Evidence-based Health Promotion Programs through a community wide campaign to promote healthy lifestyles	
		UTHSCSA		TPI - 085144601
Related Category 3 Outcome Measure(s): OD-1 Primary Care and Chronic Disease Management	*Unique Cat 3 ID: 085144601.3.8*	Category 3 outcome measure: IT-1.7	Controlling High Blood Pressure **(NCQA-HEDIS 2012, NQF 0018)228** ***(Standalone measure)***	
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**		**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
				Metric 1 [I-6.1]: 15% Increase in percentage of target population reached. Data Source: population awareness surveys Milestone 8 Estimated Incentive Payment: $973,890
Year 2 Estimated Milestone Bundle Amount: $1,716,089	Year 3 Estimated Milestone Bundle Amount: $1,884,478		Year 4 Estimated Milestone Bundle Amount: $1,903,956	Year 5 Estimated Milestone Bundle Amount: $1,947,781
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add milestone bundle amounts over DYs 2-5):* $7,452,303				

E. Category 3: Quality Improvements

The following narratives and accompanying tables describe each of the Pass 1 Category 3 improvement target outcomes selected for each Category 1 and Category 2 project by Performing Provider, in alphabetical order of provider.

***Title of Outcome Measure (Improvement Target)**: IT-2.4 Behavioral Health/Substance Abuse (BH/SA) Admission Rate (Standalone Measure)*

Unique RHP Outcome Id Number 121989102.3.1
Performing Provider/TPI: Border Region Behavioral Health Center/121989102
Related Category 1 or Category 2 Projects: 121989102.1.1

Outcome Measure Description:
The Category 3 project chosen is IT-2.4 reduce preventable admissions for behavioral health/substance abuse.
Process Milestones and Metrics:

- DY2: P-1
- DY3: P-4

Outcome Improvement Target:

- DY4: IT-2.4
- DY5: IT-2.4

Rationale:
The three projects requested in Pass 1 of Region 5 are designed to support the goal of preventing hospital admissions. Specifically this goal refers to State Hospital, private psychiatric hospital and acute medical/surgical hospital admissions.
Outcome measure 2.4 was chosen as it serves as the overarching goal for the project. Other benefits are realized for the population served, but all these ultimately serve the purpose of reducing possible admissions. Inpatient admission represents interruptions in the client's life and work, and represents the most financially intensive intervention from the providers' perspective.
Process measures chosen represent management initiates currently under-practiced. Stakeholders generally do not focus on inpatient admissions and QI activities such as Plan Do Study are traditionally absent form the management culture but need to be implemented.
The Process milestones directly service the Region 5 goal of nurturing a culture of ongoing quality improvement and innovation that maximizes the use of technology and best-practices to improve access and timely utilization of appropriate care, including behavioral health services, particularly in our rural communities.

Outcome Measure Valuation:
The population included in these projects (1.11.2 or 1.14.1) is the entire adult and child/adolescent client population of Border Region Behavioral Health Center clinic in Starr County. The clinic has an active enrollment of approximately 325 adult and 175 child/adolescent clients.
The Pass 1 infrastructure projects 1.11.2 and 1.14.1 both support the Program Innovation and Redesign project 2.15.2. The impetus of the infrastructure projects is to make more licensed personnel available in the region. Needed licensed personnel such as LPHAs, nurses and psychiatrists are historically underrepresented in this region. Telecommunication infrastructure will permit contracting services for behavioral health, and in the case of 2.15.1, medical services that cannot be hired or contracted locally.
Specific description of Adult population served

a) - Adults who have severe and persistent mental illnesses such as schizophrenia, major depression, bipolar disorder, or other severely disabling mental disorders which require crisis

resolution or ongoing and long-term support and treatment.

b) Adult MH Target Population - Adults who have a diagnosis of schizophrenia, bipolar disorder, and severe major depression.

c) Initial Eligibility:
   (1) An individual age 18 or older who has a diagnosis of:
      (a) schizophrenia as defined in the following Diagnostic and Statistical Manual, Fourth Edition - Text Revision (DSM-IV TR) diagnostic codes: 295.10, 295.20, 295.30, 295.40, 295.60, 295.70, 295.90.
      (b) bi-polar disorder as defined in the following DSM-IV TR diagnostic codes: 296.00, 296.01, 296.02, 296.03, 296.04, 296.05, 296.06, 296.40, 296.41, 296.42, 296.43, 296.44, 296.45, 296.46, 296.50, 296.51, 296.52, 296.53, 296.54, 296.55, 296.56, 296.60, 296.61, 296.62, 296.63, 296.64, 296.65, 296.66, 296.7, 296.80, 296.89.
      (c) major depression as defined in the following DSM-IV TR diagnostic codes : 296.20, 296.21, 296.22, 296.23, 296.24, 296.25, 296.26, 296.30, 296.31, 296.32, 296.33, 296.34, 296.35, and 296.36; with a Global Assessment of Functioning (GAF) of 50 or below at intake.
   (2) An individual age 18 or older who has a diagnosis other than those listed in I.B.2.c.1. and whose current Global Assessment of Functioning (GAF) is 50 or less and needs on-going MH services; or
   (3) An individual age 18 or older who was served in children's MH services and meets the children's MH priority population definition prior to turning 18 is considered eligible for one year.

d) Individuals with only the following diagnoses are excluded from this provision:
   (1) Substance Abuse as defined in the following DSM-IV TR diagnostic codes: 291.0, 291.1, 291.2, 291.3, 291.5, 291.81, 291.89, 291.9, 292.0, 292.11, 292.12, 292.81, 292.82, 292.83, 292.84, 292.89, 292.9, 303.00, 303.90, 304.00, 304.10, 304.20, 304.30, 304.40, 304.50, 304.60, 304.80, 305.00, 305.1, 305.20, 305.30, 305.40, 305.50, 305.60, 305.70, 305.90.
   (2) IDD as defined in the following DSM-IV TR diagnostic codes: 317, 318.0, 318.1, 318.2, 319.
   (3) Pervasive Developmental Disorder as defined in the following DSM-IV TR diagnostic codes: 299.00, 299.10, 299.80.

Persons with mental conditions referred by primary care or other providers but not meeting the above criteria may be eligible for services funded under transformation waiver 1115 projects.

Specific description of Child/Adolescent population:

a) – Children/youth ages 3 through 17 with a diagnosis of mental illness (excluding a single diagnosis of substance abuse, IDD, autism or pervasive development disorder) who exhibit serious emotional, behavioral or mental health disorders and who:
   (1) Have a serious functional impairment; or
   (2) Are at risk of disruption of a preferred living or child care environment due to psychiatric symptoms; or
   (3) Are enrolled in a school system's special education program because of serious emotional disturbance.

b) Age Limitations:
   (1) Children under the age of three who have a diagnosed physical or mental health condition are to be served through the Early Childhood Intervention (ECI) program; and
   (2) Youth 17 years old and younger must be screened for CMH services. Youth 18 years or older must be screened for Adult Mental Health services; and
   (3) Youth receiving Children's MH Services who are approaching their 18th birthday and continue to be in need of services shall either be transferred to Adult MH Services on his/her 18th birthday or referred to another community provider, dependent upon the individual's needs. Youth reaching 18 years of age who continue to need services may be transferred to Adult MH Services without meeting the adult priority population criteria and served for up to one additional year.
   (4) For purposes of this contract definitions of "child" and "youth" are as follows:
      (a) Child: An individual who is at least three years of age, but younger than 13 years of age.
      (b) Youth: An individual who is at least 13 years of age, but younger than 18 years of age.

	IT 2.4	Potentially Preventable Admissions	
	Border Region Behavioral Health Center		121989102.3.1
ts:	121989102.1.1		
	No telemedicine services exist in Starr County		
	Year 3 (10/1/2013 – 9/30/2014)	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
entive	**Process Milestone 2 [P-4]** Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities **Data Source:** Facility minutes, documented reports. Process Milestone 2 Estimated Incentive Payment: $2,038	**Outcome Improvement Target 1** IT- 2.4 Behavioral Health/Substance Abuse (BH/SA) Admission Rate *(Standalone measure)* 1. One for BH/SA as the principal diagnosis; 2. Second category in which a significant BH/SA secondary diagnosis is present Improvement Target:TBA **Data Source:** Admissions data from CARE system, Anasazi Continuity of Care records Outcome Improvement Target 2 Estimated Incentive Payment: $ $2,181	**Outcome Improvement Target 2** - IT-2.4 Behavioral Health/Substance Abuse (BH/SA) Admission Rate *(Standalone measure)* 1. One for BH/SA as the principal diagnosis; 2. Second category in which a significant BH/SA secondary diagnosis is present Improvement Target:TBA **Data Source:** Admissions data from CARE system, Anasazi Continuity of Care records Estimated Incentive Payment: $ $4,741
t: (add each	Year 3 Estimated Outcome Amount: $2,038	Year 4 Estimated Outcome Amount: $2,181	Year 5 Estimated Outcome Amount: $4,741
MENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $10,718			

Title of Outcome Measure Improvement Target: OD-2 Potentially Preventable Admissions IT-2.4 Behavioral Health/Substance Abuse Admission Rate
Unique Outcome Measure ID: 121989102.3.2
Performing Provider/TPI: Border Region Behavioral Health Center/121989102
Related Category 1 or 2 Projects: 121989102.1.2

Outcome Measure Description
The Category 3 project template describes various processes milestones and metrics for measuring the both the progress in acquiring and implementing the infrastructure plans and their effect on the implementation of the 1.14.1
The Quality Assurance activities defined in this Category 3 project address an approach to Quality Assurance which can be applied to each project. Included are
Process Milestones:
DY2: NA

DY3:

- P-4 Ongoing Plan-Do-Study-Act sessions in which activities such as data collection are evaluated, and initiatives conceived and reviewed.

Outcome Improvement Target:
DY4:

- IT-2.4 Behavioral Health/Substance Abuse admission rate – One for BH/SA as the principal diagnosis; Second in which a significant BH/SA secondary diagnosis is present

DY5:

- IT-2.4 Behavioral Health/Substance Abuse admission rate – One for BH/SA as the principal diagnosis; Second in which a significant BH/SA secondary diagnosis is present

Rationale:
The three projects requested in Pass 1 of Region 5 are designed to support the goal of preventing hospital admissions. Specifically this refers to State Hospital, private psychiatric hospital and acute medical/surgical hospital admissions.
Outcome measure 2.4 was chosen as it serves as the overarching goal for the project. Other benefits are realized for the population served, but all these ultimately serve the purpose of reducing possible admissions. Inpatient admission represents interruptions in the client's life and work, and represents the most financially intensive intervention from the providers' perspective.

Outcome Measure Valuation:
The population included in this (1.11.2 or 2.15.1) project is the entire adult and child/adolescent client population of Border Region Behavioral Health Center clinic in Starr County. The clinic has an active enrollment of approximately 325 adult and 175 child/adolescent clients.
The Pass 1 infrastructure projects (1.11.2 and 1.14.1) both support the Program Innovation and Redesign project 2.15.2. The impetus of the infrastructure projects is to make more licensed personnel available in the region. Needed licensed personnel such as LPHAs, nurses and psychiatrists are historically underrepresented in this region. Telecommunication infrastructure will permit contracting services for behavioral health, and in the case of 2.15.1, medical services that cannot be hired or contracted locally.
Specific description of Adult population served
d) - Adults who have severe and persistent mental illnesses such as schizophrenia, major

depression, bipolar disorder, or other severely disabling mental disorders which require crisis resolution or ongoing and long-term support and treatment.

e) Adult MH Target Population - Adults who have a diagnosis of schizophrenia, bipolar disorder, and severe major depression.
f) Initial Eligibility:
(4) An individual age 18 or older who has a diagnosis of:
(d) schizophrenia as defined in the following Diagnostic and Statistical Manual, Fourth Edition - Text Revision (DSM-IV TR) diagnostic codes: 295.10, 295.20, 295.30, 295.40, 295.60, 295.70, 295.90.
(e) bi-polar disorder as defined in the following DSM-IV TR diagnostic codes: 296.00, 296.01, 296.02, 296.03, 296.04, 296.05, 296.06, 296.40, 296.41, 296.42, 296.43, 296.44, 296.45, 296.46, 296.50, 296.51, 296.52, 296.53, 296.54, 296.55, 296.56, 296.60, 296.61, 296.62, 296.63, 296.64, 296.65, 296.66, 296.7, 296.80, 296.89.
(f) major depression as defined in the following DSM-IV TR diagnostic codes : 296.20, 296.21, 296.22, 296.23, 296.24, 296.25, 296.26, 296.30, 296.31, 296.32, 296.33, 296.34, 296.35, and 296.36; with a Global Assessment of Functioning (GAF) of 50 or below at intake.
(5) An individual age 18 or older who has a diagnosis other than those listed in I.B.2.c.1. and whose current Global Assessment of Functioning (GAF) is 50 or less and needs on-going MH services; or
(6) An individual age 18 or older who was served in children's MH services and meets the children's MH priority population definition prior to turning 18 is considered eligible for one year.
e) Individuals with only the following diagnoses are excluded from this provision:
(4) Substance Abuse as defined in the following DSM-IV TR diagnostic codes: 291.0, 291.1, 291.2, 291.3, 291.5, 291.81, 291.89, 291.9, 292.0, 292.11, 292.12, 292.81, 292.82, 292.83, 292.84, 292.89, 292.9, 303.00, 303.90, 304.00, 304.10, 304.20, 304.30, 304.40, 304.50, 304.60, 304.80, 305.00, 305.1, 305.20, 305.30, 305.40, 305.50, 305.60, 305.70, 305.90.
(5) IDD as defined in the following DSM-IV TR diagnostic codes: 317, 318.0, 318.1, 318.2, 319.
(6) Pervasive Developmental Disorder as defined in the following DSM-IV TR diagnostic codes: 299.00, 299.10, 299.80.

Persons with mental conditions referred by primary care or other providers but not meeting the above criteria may be eligible for services funded under transformation waiver 1115 projects.

Specific description of Child/Adolescent population:

c) – Children/youth ages 3 through 17 with a diagnosis of mental illness (excluding a single diagnosis of substance abuse, IDD, autism or pervasive development disorder) who exhibit serious emotional, behavioral or mental health disorders and who:
(4) Have a serious functional impairment; or
(5) Are at risk of disruption of a preferred living or child care environment due to psychiatric symptoms; or
(6) Are enrolled in a school system's special education program because of serious emotional disturbance.

d) Age Limitations:
   (1) Children under the age of three who have a diagnosed physical or mental health condition are to be served through the Early Childhood Intervention (ECI) program; and
   (2) Youth 17 years old and younger must be screened for CMH services. Youth 18 years or older must be screened for Adult Mental Health services; and
   (3) Youth receiving Children's MH Services who are approaching their 18th birthday and continue to be in need of services shall either be transferred to Adult MH Services on his/her 18th birthday or referred to another community provider, dependent upon the individual's needs. Youth reaching 18 years of age who continue to need services may be transferred to Adult MH Services without meeting the adult priority population criteria and served for up to one additional year.
   (4) For purposes of this contract definitions of "child" and "youth" are as follows:
      (c) Child: An individual who is at least three years of age, but younger than 13 years of age.
      (d) Youth: An individual who is at least 13 years of age, but younger than 18 years of age.

121989102.3.2	IT-2.4	OD-2 Potentially Preventable Admissions	
	Border Region Behavioral Health Center		121989102
Related Category 1 or 2 Projects:	121989102.1.2		
Starting Point/Baseline:	*Admission rates available only for State Hospitals*		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 **NA** Process Milestone 1 Estimated Incentive Payment *(maximum amount):* $ 0	**Process Milestone 2 [P-4]** Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities **Data Source:** Facility minutes, documented reports. Process Milestone 2 Estimated Incentive Payment: $47,903	**Outcome Improvement Target 1** IT-2.4 Behavioral Health/Substance Abuse (BH/SA) Admission Rate *(Standalone measure)* 1. One for BH/SA as the principal diagnosis; 2. Significant BH/SA secondary diagnosis is present Improvement Target:TBA **Data Source:** Admissions data from CARE system, Anasazi Continuity of Care records Outcome Improvement Target 1 Estimated Incentive Payment: $ $51,245	**Outcome Improvement Target 2** IT-2.4 Behavioral Health/Substance Abuse (BH/SA) Admission Rate *(Standalone measure)* 1. One for BH/SA as the principal diagnosis; 2. Significant BH/SA secondary diagnosis is present Improvement Target:TBA **Data Source:** Admissions data from CARE system, Anasazi Continuity of Care records Outcome Improvement Target 2 Estimated Incentive Payment: $ $111,403
Year 2 Estimated Outcome Amount:(add incentive payment amounts from each milestone/outcome improvement target**0**	Year 3 Estimated Outcome Amount: $47,903	Year 4 Estimated Outcome Amount: $51,245	Year 5 Estimated Outcome Amount: 111,403
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $210,551			

Title of Outcome Measure Improvement Target: *OD-2 Potentially Preventable Admissions, IT-2.4 Behavioral Health/Substance Abuse Admission Rate*

Unique Outcome Measure Identification Number: 121989102.3.3
Performing Provider/TPI: Border Region Behavioral Health Center TPI: 121989102
Related Category 1 or 2 Projects: 121989102.2.1

Outcome Measure Description
The Category 3 project template describes various processes milestones and metrics for measuring the both the progress in acquiring and implementing the infrastructure plans and their effect on the implementation of the 2.15.1

The Quality Assurance activities defined in this Category 3 project address an approach to Quality Assurance, which can be applied to each project. Included are:

- Ongoing Plan-Do-Study-Act sessions in which activities such as data collection are evaluated, baselines established and initiatives conceived and reviewed.

Combined with process milestones and metrics from QA project and its related project 1.14.1, it is expected an accurate assessment of integrated health care's role and ability to reduce preventable admissions may be established.

Process Milestones:

- DY2: NA
- DY3: P-4

Outcome Improvement Target(s):

- DY4: IT-2.4
- DY5: IT-2.4

Rationale:
The three projects requested in Pass 1 of Region 5 are designed to support the goal of preventing hospital admissions. Specifically this refers to State Hospital, private psychiatric hospital and acute medical/surgical hospital admissions. Outcome measure 2.4 was chosen as it serves as the overarching goal for the project. Other benefits are realized for the population served, but all these ultimately serve the purpose of reducing possible admissions. Inpatient admission represents interruptions in the client's life and work, and represents the most financially intensive intervention from the providers' perspective.

Outcome Measure Valuation:
The population included in this project will be the patient panel selected to receive integrated primary and behavioral health services through the Region 5 Starr County clinic of Border Region Behavioral Health Center. As a subset of the numerator for the improvement target (the number of admissions from the entire adult and child/adolescent client), specific data reporting will highlight these individuals. The clinic has an active enrollment of approximately 325 adult and 175 child/adolescent clients. Currently, no data has been gathered in Starr County on co-morbid diagnoses within the client population.

The Pass 1 infrastructure projects 1.11.2 and 1.14.1 both support the Program Innovation and Redesign project 2.15.2. The impetus of the infrastructure projects is to make more licensed personnel available in the region. Needed licensed personnel such as LPHAs, nurses and psychiatrists are historically underrepresented in this region. Telecommunication infrastructure will permit contracting services for behavioral health, and in the case of 2.15.1, medical services that cannot be hired or contracted locally.

Specific description of Adult population served

g) - Adults who have severe and persistent mental illnesses such as schizophrenia, major depression, bipolar disorder, or other severely disabling mental disorders which require crisis resolution or ongoing and long-term support and treatment.

h) Adult MH Target Population - Adults who have a diagnosis of schizophrenia, bipolar disorder, and severe major depression.

i) Initial Eligibility:

(7) An individual age 18 or older who has a diagnosis of:

(g) schizophrenia as defined in the following Diagnostic and Statistical Manual, Fourth Edition - Text Revision (DSM-IV TR) diagnostic codes: 295.10, 295.20, 295.30, 295.40, 295.60, 295.70, 295.90.

(h) bi-polar disorder as defined in the following DSM-IV TR diagnostic codes: 296.00, 296.01, 296.02, 296.03, 296.04, 296.05, 296.06, 296.40, 296.41, 296.42, 296.43, 296.44, 296.45, 296.46, 296.50, 296.51, 296.52, 296.53, 296.54, 296.55, 296.56, 296.60, 296.61, 296.62, 296.63, 296.64, 296.65, 296.66, 296.7, 296.80, 296.89.

(i) major depression as defined in the following DSM-IV TR diagnostic codes : 296.20, 296.21, 296.22, 296.23, 296.24, 296.25, 296.26, 296.30, 296.31, 296.32, 296.33, 296.34, 296.35, and 296.36; with a Global Assessment of Functioning (GAF) of 50 or below at intake.

(8) An individual age 18 or older who has a diagnosis other than those listed in I.B.2.c.1. and whose current Global Assessment of Functioning (GAF) is 50 or less and needs on-going MH services; or

(9) An individual age 18 or older who was served in children's MH services and meets the children's MH priority population definition prior to turning 18 is considered eligible for one year.

f) Individuals with only the following diagnoses are excluded from this provision:

(7) Substance Abuse as defined in the following DSM-IV TR diagnostic codes: 291.0, 291.1, 291.2, 291.3, 291.5, 291.81, 291.89, 291.9, 292.0, 292.11, 292.12, 292.81, 292.82, 292.83, 292.84, 292.89, 292.9, 303.00, 303.90, 304.00, 304.10, 304.20, 304.30, 304.40, 304.50, 304.60, 304.80, 305.00, 305.1, 305.20, 305.30, 305.40, 305.50, 305.60, 305.70, 305.90.

(8) IDD as defined in the following DSM-IV TR diagnostic codes: 317, 318.0, 318.1, 318.2, 319.

(9) Pervasive Developmental Disorder as defined in the following DSM-IV TR diagnostic codes: 299.00, 299.10, 299.80.

Persons with mental conditions referred by primary care or other providers but not meeting the above criteria may be eligible for services funded under transformation waiver 1115 projects.

Specific description of Child/Adolescent population:

e) – Children/youth ages 3 through 17 with a diagnosis of mental illness (excluding a single diagnosis of substance abuse, IDD, autism or pervasive development disorder) who exhibit serious emotional, behavioral or mental health disorders and who:
   (7) Have a serious functional impairment; or
   (8) Are at risk of disruption of a preferred living or child care environment due to psychiatric symptoms; or
   (9) Are enrolled in a school system's special education program because of serious emotional disturbance.

f) Age Limitations:
   (1) Children under the age of three who have a diagnosed physical or mental health condition are to be served through the Early Childhood Intervention (ECI) program; and
   (2) Youth 17 years old and younger must be screened for CMH services. Youth 18 years or older must be screened for Adult Mental Health services; and
   (3) Youth receiving Children's MH Services who are approaching their 18th birthday and continue to be in need of services shall either be transferred to Adult MH Services on his/her 18th birthday or referred to another community provider, dependent upon the individual's needs. Youth reaching 18 years of age who continue to need services may be transferred to Adult MH Services without meeting the adult priority population criteria and served for up to one additional year.
   (4) For purposes of this contract definitions of "child" and "youth" are as follows:
      (e) Child: An individual who is at least three years of age, but younger than 13 years of age.
      (f) Youth: An individual who is at least 13 years of age, but younger than 18 years of age.

121989102.3.3	IT 2.4	OD-2 Potentially Preventable Admissions	
	Border Region Behavioral Health Center		121989102
Related Category 1 or 2 Projects:	121989102.2.1		
Starting Point/Baseline:	No integrated health services exist, Admission data available only for State Hospitals		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 NA Process Milestone 1 Estimated Incentive Payment *(maximum amount):* $ 0	**Process Milestone 2** [P-4] Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities **Data Source:** Facility minutes, documented reports. Process Milestone 2 Estimated Incentive Payment: $51,980	**Outcome Improvement Target 1** IT 2.4 Behavioral Health/Substance Abuse (BH/SA) Admission Rate *(Standalone measure)* 1. One for BH/SA as the principal diagnosis; 2. Second category in which a significant BH/SA secondary diagnosis is present Improvement Target:TBA **Data Source**: Admissions data from CARE system, Anasazi Continuity of Care records Outcome Improvement Target 1 Estimated Incentive Payment: $ $55,606	**Outcome Improvement Target 2** IT -2.4 Behavioral Health/Substance Abuse (BH/SA) Admission Rate *(Standalone measure)* 1. One for BH/SA as the principal diagnosis; 2. Second category in which a significant BH/SA secondary diagnosis is present Improvement Target:TBA **Data Source:** Admissions data from CARE system, Anasazi Continuity of Care records Outcome Improvement Target 2 Estimated Incentive Payment: $ $120,884
Year 2 Estimated Outcome Amount: (add incentive payment amounts from each milestone/outcome improvement target): 0	Year 3 Estimated Outcome Amount: $51,980	Year 4 Estimated Outcome Amount: $ $55,606	Year 5 Estimated Outcome Amount: $120,884
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5* $228,470			

Title of Outcome Measure: IT 14.1 Number of practicing primary care physicians per 100,000 individuals in HPSA or MUA
Unique RHP outcome ID: 160709501.3.1
Performing Provider/TPI: Doctors Hospital at Renaissance / 160709501
Related Category 1 or 2 Projects: 160709501.1.1

Outcome Measure Description

OD-14 Primary Care Workforce

Stand-alone: IT - 14.1 Number of practicing primary care physicians per 100,000 individuals in HPSA or MUA

Non-stand-alone but related:

IT - 14.6 percent of trainees who have spent at least 5 years living in a health-professional shortage area (HPSA) or medically underserved area (MUA)

IT - 14.7 Percent of trainees who report that they plan to practice in HPSAs or MUAs based on a systematic survey

IT – 14.8 Percent of trainees who report that they plan to serve Medicaid populations based on a systematic survey

Process Milestones:

DY 2:	P-1 Project planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans
	P-3 Develop and test data systems
DY 3:	P-2 Establish baseline rates
	P-3 Develop and test data systems

Outcome Improvement Targets for each year:

DY 4:	IT-14.1 Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA by TBD above baseline
DY 5:	IT-14.1 Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA by TBD above baseline

Rationale:
The long-term goal of this project is to train more primary care physicians for practice in the RHP 5 community. In the near-term and within the scope of the Demonstration period, the addition of practicing faculty physicians will improve access to primary care for the underserved.

Outcome Measure Valuation:
The project is valued based upon achieving waiver goals, meeting community needs, depth of scope, and resources deployed. Although the outcome domain chosen targets number of practicing primary care physicians per 100,000 individuals in HPSA or MUA, we are cautiously optimistic that implementation of this project will also generate improved experience of care for individuals, improved health for the population, and lower the cost of care while improving quality.

160709501.3.1	3.IT-14.1	Number of practicing primary care physicians per 100,000 individuals	
	Doctors Hospital at Renaissance		TPI 160709501
Related Category 1 or 2 Projects:	160709501.1.1		
Starting Point/Baseline:	TBD		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 P-1: Project planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans Data Source: Dept of State Health Services and local health department statistics Process Milestone 1 Estimated Incentive Payment *(maximum amount):* $158,102 **Process Milestone 2** [P-3]: Develop and test data systems Data Source: Public health and workforce statistics Process Milestone 2 Estimated Incentive Payment: $158,102	**Process Milestone 3 [P-2]** Establish baseline rate Data Source: Public health and workforce statistics Process Milestone 3 Estimated Incentive Payment: $224,891 **Process Milestone 4 [P-3]** Develop and test data systems Data Source: Public health and workforce statistics Process Milestone 3 Estimated Incentive Payment: $224,892	**Outcome Improvement Target 1** [IT-14.1]: Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA above baseline Improvement Target: TBD Data Source: Public health and workforce statistics Outcome Improvement Target 2 Estimated Incentive Payment: $684,186	**Outcome Improvement Target 2** [IT-14.1]: Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA above baseline Improvement Target: TBD Data Source: Public health and workforce statistics Outcome Improvement Target 2 Estimated Incentive Payment: $1,365,470
Year 2 Estimated Outcome Amount: $316,204	Year 3 Estimated Outcome Amount: $449,783	Year 4 Estimated Outcome Amount: $684,186	Year 5 Estimated Outcome Amount: $1,365,470
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $2,815,643			

Title of Outcome Measure: IT 14.1 Number of practicing primary care physicians per 100,000 individuals in HPSA or MUA
Unique RHP outcome ID: 160709501.3.2
Performing Provider/TPI: Doctors Hospital at Renaissance / 160709501
Related Category 1 or 2 Projects: 160709501.1.2

Outcome Measure Description

OD-14 Primary Care Workforce

Stand-alone: IT - 14.1 Number of practicing primary care physicians per 100,000 individuals in HPSA or MUA

Non-stand-alone but related:

IT - 14.6 percent of trainees who have spent at least 5 years living in a health-professional shortage area (HPSA) or medically underserved area (MUA)

IT - 14.7 Percent of trainees who report that they plan to practice in HPSAs or MUAs based on a systematic survey

IT – 14.8 Percent of trainees who report that they plan to serve Medicaid populations based on a systematic survey

Process Milestones:

DY 2:	P-1 Project planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans
	P-3 Develop and test data systems
DY 3:	P-2 Establish baseline rates
	P-3 Develop and test data systems

Outcome Improvement Targets for each year:

DY 4:	IT-14.1 Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA by TBD above baseline
DY 5:	IT-14.1 Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA by TBD above baseline

Rationale:
The long-term goal of this project is to train more primary care physicians for practice in the RHP 5 community. In the near-term and within the scope of the Demonstration period, the addition of practicing faculty physicians will improve access to primary care for the underserved.

Outcome Measure Valuation:
The project is valued based upon achieving waiver goals, meeting community needs, depth of scope, and resources deployed. Although the outcome domain chosen targets number of practicing primary care physicians per 100,000 individuals in HPSA or MUA, we are cautiously optimistic that implementation of this project will also generate improved experience of care for individuals, improved health for the population, and lower the cost of care while improving quality.

160709501.3.2	3.IT-14.1	Number of practicing primary care physicians per 100,000 individuals	
	Doctors Hospital at Renaissance		TPI 160709501
Related Category 1 or 2 Projects:	160709501.1.2		
Starting Point/Baseline:	TBD		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 P-1: Project planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans Data Source: Dept of State Health Services and local health department statistics Process Milestone 1 Estimated Incentive Payment *(maximum amount):* $158,102 **Process Milestone 2** [P-3]: Develop and test data systems Data Source: Public health and workforce statistics Process Milestone 2 Estimated Incentive Payment: $158,102	**Process Milestone 3 [P-2]** Establish baseline rate Data Source: Public health and workforce statistics Process Milestone 3 Estimated Incentive Payment: $224,891 **Process Milestone 4 [P-3]** Develop and test data systems Data Source: Public health and workforce statistics Process Milestone 3 Estimated Incentive Payment: $224,892	**Outcome Improvement Target 1** [IT-14.1]: Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA above baseline Improvement Target: TBD Data Source: Public health and workforce statistics Outcome Improvement Target 2 Estimated Incentive Payment: $684,186	**Outcome Improvement Target 2** [IT-14.1]: Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA above baseline Improvement Target: TBD Data Source: Public health and workforce statistics Outcome Improvement Target 2 Estimated Incentive Payment: $1,365,470
Year 2 Estimated Outcome Amount: $316,204	Year 3 Estimated Outcome Amount: $449,783	Year 4 Estimated Outcome Amount: $684,186	Year 5 Estimated Outcome Amount: $1,365,470
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $2,815,643			

Title of Outcome Measure: IT 14.1 Number of practicing primary care practitioners per 100,000 individuals in HPSA or MUA
Unique RHP outcome ID: 160709501.3.3
Performing Provider/TPI: Doctors Hospital at Renaissance / 160709501
Related Category 1 or 2 Projects: 160709501.1.3

Outcome Measure Description

OD-14 Primary Care Workforce

Stand-alone: IT - 14.1 Number of practicing primary care physicians per 100,000 individuals in HPSA or MUA

Non-stand-alone but related:

IT - 14.6 percent of trainees who have spent at least 5 years living in a health-professional shortage area (HPSA) or medically underserved area (MUA)

IT - 14.7 Percent of trainees who report that they plan to practice in HPSAs or MUAs based on a systematic survey

IT – 14.8 Percent of trainees who report that they plan to serve Medicaid populations based on a systematic survey

Process Milestones:

DY 2:	P-1 Project planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans
	P-3 Develop and test data systems
DY 3:	P-2 Establish baseline rates
	P-3 Develop and test data systems

Outcome Improvement Targets for each year:

DY 4:	IT-14.1 Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA by TBD above baseline
DY 5:	IT-14.1 Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA by TBD above baseline

Rationale:
The long-term goal of this project is to train more primary care physicians for practice in the RHP 5 community. In the near-term and within the scope of the Demonstration period, the addition of practicing faculty physicians will improve access to primary care for the underserved.

Outcome Measure Valuation:
The project is valued based upon achieving waiver goals, meeting community needs, depth of scope, and resources deployed. Although the outcome domain chosen targets number of practicing primary care physicians per 100,000 individuals in HPSA or MUA, we are cautiously optimistic that implementation of this project will also generate improved experience of care for individuals, improved health for the population, and lower the cost of care while improving quality.

160709501.3.3	3.IT-14.1	Number of practicing primary care physicians per 100,000 individuals	
	Doctors Hospital at Renaissance		TPI 160709501
Related Category 1 or 2 Projects:	160709501.1.3		
Starting Point/Baseline:	TBD		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 P-1: Project planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans Data Source: Dept of State Health Services and local health department statistics Process Milestone 1 Estimated Incentive Payment *(maximum amount):* $158,102 **Process Milestone 2** [P-3]: Develop and test data systems Data Source: Public health and workforce statistics Process Milestone 2 Estimated Incentive Payment: $158,102	**Process Milestone 3 [P-2]** Establish baseline rate Data Source: Public health and workforce statistics Process Milestone 3 Estimated Incentive Payment: $224,891 **Process Milestone 4 [P-3]** Develop and test data systems Data Source: Public health and workforce statistics Process Milestone 3 Estimated Incentive Payment: $224,892	**Outcome Improvement Target 1** [IT-14.1]: Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA above baseline Improvement Target: TBD Data Source: Public health and workforce statistics Outcome Improvement Target 2 Estimated Incentive Payment: $684,186	**Outcome Improvement Target 2** [IT-14.1]: Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA above baseline Improvement Target: TBD Data Source: Public health and workforce statistics Outcome Improvement Target 2 Estimated Incentive Payment: $1,365,470
Year 2 Estimated Outcome Amount: $316,204	Year 3 Estimated Outcome Amount: $449,783	Year 4 Estimated Outcome Amount: $684,186	Year 5 Estimated Outcome Amount: $1,365,470
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $2,815,643			

Title of Outcome Measure: IT 14.1 Number of practicing specialty care practitioners per 100,000 individuals in HPSA or MUA
Unique RHP outcome ID: 160709501.3.4
Performing Provider/TPI: Doctors Hospital at Renaissance / 160709501
Related Category 1 and 2 Projects: 160709501.1.4

Outcome Measure Description

OD-14 Primary Care Workforce

Stand-alone: IT - 14.1 Number of practicing specialty care physicians per 100,000 individuals in HPSA or MUA

Non-stand-alone but related:

IT - 14.6 percent of trainees who have spent at least 5 years living in a health-professional shortage area (HPSA) or medically underserved area (MUA)

IT - 14.7 Percent of trainees who report that they plan to practice in HPSAs or MUAs based on a systematic survey

IT – 14.8 Percent of trainees who report that they plan to serve Medicaid populations based on a systematic survey

Process Milestones:

DY 2:	P-1 Project planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans
	P-3 Develop and test data systems
DY 3:	P-2 Establish baseline rates
	P-3 Develop and test data systems

Outcome Improvement Targets for each year:

DY 4:	IT-14.1 Increase the number of practicing specialty care physicians per 100,000 individuals in HPSA or MUA by TBD above baseline
DY 5:	IT-14.1 Increase the number of practicing specialty care physicians per 100,000 individuals in HPSA or MUA by TBD above baseline

Rationale:
The long-term goal of this project is to train more primary care physicians for practice in the RHP 5 community. In the near-term and within the scope of the Demonstration period, the addition of practicing faculty physicians will improve access to primary care for the underserved.

Outcome Measure Valuation:
The project is valued based upon achieving waiver goals, meeting community needs, depth of scope, and resources deployed. Although the outcome domain chosen targets number of practicing specialty care physicians per 100,000 individuals in HPSA or MUA, we are cautiously optimistic that implementation of this project will also generate improved experience of care for individuals, improved health for the population, and lower the cost of care while improving quality.

160709501.3.4	3.IT-14.1	Number of practicing specialty care physicians per 100,000 individuals in HPSA or MUA	
Doctors Hospital at Renaissance			TPI 160709501
Related Category 1 or 2 Projects:	160709501.1.4		
Starting Point/Baseline:	TBD		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 P-1: Project planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans Data Source: Dept of State Health Services and local health department statistics Process Milestone 1 Estimated Incentive Payment *(maximum amount):* $158,102 **Process Milestone 2** [P-3]: Develop and test data systems Data Source: Public health and workforce statistics Process Milestone 2 Estimated Incentive Payment: $158,102	**Process Milestone 3 [P-2]** Establish baseline rate Data Source: Public health and workforce statistics Process Milestone 3 Estimated Incentive Payment: $224,891 **Process Milestone 4 [P-3]** Develop and test data systems Data Source: Public health and workforce statistics Process Milestone 3 Estimated Incentive Payment: $224,892	**Outcome Improvement Target 1** [IT-14.1]: Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA above baseline Improvement Target: TBD Data Source: Public health and workforce statistics Outcome Improvement Target 2 Estimated Incentive Payment: $684,186	**Outcome Improvement Target 2** [IT-14.1]: Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA above baseline Improvement Target: TBD Data Source: Public health and workforce statistics Outcome Improvement Target 2 Estimated Incentive Payment: $1,365,470
Year 2 Estimated Outcome Amount: $316,204	Year 3 Estimated Outcome Amount: $449,783	Year 4 Estimated Outcome Amount: $684,186	Year 5 Estimated Outcome Amount: $1,365,470
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $2,815,643			

Driscoll Children's Hospital – Category 3: Quality Improvements

Identifying Outcome Measure:

OD-7 Oral Health –IT-7.10, Other Outcome Improvement Target
Unique ID: 132812205.3.1
Identifying Project and Provider Information: Driscoll Children's Hospital [TPI: 132812205]

Related Category 1 or 2 Projects: 132812205.1.1
Outcome Measure Description:

The outcomes of Pediatric Oral Health program are evidence that early intervention and education do play a significant role in reducing severe caries and the need for preventable surgeries. Dental cases comprised of approximately 30 percent of all cases performed in the operating room for Calendar Year 2011 in other markets. Application of dental education and fluoride varnish treatments will reduce dental operating procedures. The preventive treatment of dental education and fluoride varnish versus dental operating room procedures creates significant value to our community.

IT-7.10 Other Outcome Improvement Target will be to decrease severe dental caries that result in operative interventions for targeted population in the Driscoll Service area by 5%.

Process Milestones:

- DY2
  - P-1- Project Planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans
- DY3
  - P-2- Establish baseline of pediatric patients who receive treatment for severe dental caries in the operating room(s) for Driscoll service area.

Outcome Improvement Target(s) for each year:

- DY4
  - IT-7.10 - Decrease 5% severe dental caries that result in operative interventions in the Driscoll Service area by application of dental education and fluoride varnish treatments
- DY5
  - IT-7.10- Maintain a decrease of 5% severe dental caries that result in operative interventions in the Driscoll Service area by application of dental education and fluoride varnish treatments

Rationale:

Data suggest a high utilization of dental procedures in the operating room and acute care services by low-income pediatric patients who would be the target population for this initiative. Expansion of pediatric primary care oral health services is one key to improving overall health care delivery and health outcomes in the region. The outcome improvement target is by increasing access to dental education and fluoride varnish treatments we would then decrease carries that would result in operative intervention in our service delivery area.

Rationale:

Data suggest a high utilization of dental procedures in the operating room and acute care services by low-income pediatric patients who would be the target population for this initiative. Expansion of pediatric primary care oral health services is one key to improving overall health care delivery and health outcomes in the region. The outcome improvement target is by increasing access to dental education and fluoride varnish treatments we would then decrease carries that would result in operative intervention in our service delivery area.

Outcome Measure Valuation:

Application of dental fluoride varnish treatments coupled with education will reduce dental operating room procedures. Dental cases comprised of approximately 30 percent of all cases performed in the operating room for Calendar Year 2011 in other markets. The preventive treatment of dental education and fluoride varnish treatment versus dental operating room procedures creates significant value to our community.

	Ref. Number from RHP PP: *3. IT-7.10*	*Other Outcome Improvement Target: Operative Dental Care Needs in Children*
	Driscoll Children's Hospital	*TPI: 132812205*
rojects:	**Unique Category 1 Identifier** - 132812205.1.1	
ne:	*To be determined in DY3*	
013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Project lders, nd needed lines and plans lth plan ated um	**Process Milestone 2:** [P-2] Establish baseline of pediatric patients who receive treatment for severe dental caries in the operating room(s) for Driscoll service area. Numerator: Total number of Driscoll's Health plan children with severe dental caries requiring operative intervention during CY 2011. Denominator: Total number of Driscoll's Health plan participants who received dental education and fluoride varnish treatment for prevention of severe dental caries during CY 2011. **Data Source**: Documentation of claims data in RHP 4 market. **Process Milestone(s):** Estimated Incentive Payment: $150,000	**Outcome Improvement Target 1** [IT-7.10]: **Improvement Target**: Decrease 5% severe dental caries that result in operative interventions in the Driscoll Service area by application of dental education and fluoride varnish treatments **Data Source**: Documentation of claims data. **Outcome Improvement Target 2:** Estimated Incentive Payment: $225,000	**Outcome Improvement Target 2** [IT-7.10]: **Improvement Target**: Maintain a decrease of 5% severe dental caries that result in operative interventions in the Driscoll Service area by application of dental education and fluoride varnish treatments **Data Source**: Documentation of claims data. **Outcome Improvement Target 2:** Estimated Incentive Payment: $495,000
nount:	Year 3 Estimated Outcome Amount: $150,000	Year 4 Estimated Outcome Amount: $225,000	Year 5 Estimated Outcome Amount: $495,000
E PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $1,020,000			

Identifying Outcome Measure:

OD-8 Perinatal Outcome: IT-8.9 Early Detection of Fetal Anomalies
Unique ID: 132812205.3.2
Identifying Project and Provider Information: *Driscoll Children's Hospital [TPI: 132812205]*

Related Category 1 or 2 Projects: 132812205.2.1, Implement Evidence-based Disease Prevention Programs
Outcome Measure Description:
IT-8.9 Other Outcome Improvement Target will be to increase the number of early detected related fetal anomalies in high-risk pregnant patients in the Driscoll service area by XX%.
Process Milestones:

- DY2
  - P-1- Project Planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans
- DY3
  - P-2- Establish baseline for the number of early detected related fetal anomalies in high-risk pregnant patients

Outcome Improvement Target(s) for each year:

- DY4
  - IT-8.9 Improvement Target: Increase the number of early detected related fetal anomalies in high-risk pregnant patients in the Driscoll service area by XX%.
- DY5
  - IT-8.9- Improvement Target: Increase the number of early detected related fetal anomalies in high-risk pregnant patients in the Driscoll service area by XX%.

Rationale:
The early detection of significant congenital heart disease prenatally provides for better surgical and medical planning which in return improves outcomes. This potentially reduces medical costs by turning an unexpected emergent situation into an expected controlled situation. This strategy reduces critical care costs such as prolonged hospitalizations and co-morbidities. Both of these programs will help reduce in NICU inpatient days and pre-term births as well as improve early detection of fetal anomalies which is key to improving overall health care delivery and health outcomes in the region.

Outcome Measure Valuation:
The Maternal fetal echocardiogram program plays an essential and critical role in pediatric cardiac programs. With improvement in ultrasound equipment and access, the prenatal diagnosis of congenital heart disease has substantially increased over the past two decades. The detection of significant congenital heart disease prenatally provides for better surgical and medical planning which in return improves outcomes. Early detection potentially reduces medical costs by turning an unexpected emergent situation into an expected controlled situation. This strategy reduces critical care costs such as prolonged hospitalizations and co-morbidities.

Unique Cat 3 ID: 132812205.3.2	Ref Number from RHP PP: 3.IT-8.9	Other Outcome Improvement Target: Early Detection of Maternal Fetal Anomalies	
Driscoll Children's Hospital			*TPI: 132812205*
Related Category 1 or 2 Projects:	*Unique Category 2 Identifier -132812205.2.1*		
Starting Point/Baseline:	*To be developed in DY3*		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 [P-1]: Project Planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans **Data Source:** Documentation of meeting minutes. **Process Milestone 1** Estimated Incentive Payment *(maximum amount):* $ 400,000	**Process Milestone 2:** [P-2] Establish baseline for the number of early detected related fetal anomalies in high-risk pregnant patients. Numerator: Total number of early detected maternal fetal anomalies over a 12-month period less total number of early detected maternal fetal anomalies over the prior 12-month period. Denominator: Total number of early detected maternal fetal anomalies over the prior 12-month period. **Data Source**: Hospital Record **Process Milestone 2:** Estimated Incentive Payment $400,000	**Outcome Improvement Target 2** [IT-8.9]: Improvement Target: Increase the number of early detected related fetal anomalies in high-risk pregnant patients in the Driscoll service area by XX% from prior demonstration year. **Data Source**: Hospital records Outcome Improvement Target 1 Estimated Incentive Payment: $600,000	**Outcome Improvement Target 3** [IT 8.9]: Improvement Target: Increase the number of early detected related fetal anomalies in high-risk pregnant patients in the Driscoll service area by XX% from baseline year. **Data Source**: Hospital records Outcome Improvement Target 2 Estimated Incentive Payment: $1,320,000
Year 2 Estimated Outcome Amount: (add incentive payments amounts from each milestone/outcome improvement target): $400,000	Year 3 Estimated Outcome Amount: $400,000	Year 4 Estimated Outcome Amount: $600,000	Year 5 Estimated Outcome Amount: $1,320,000
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $2,720,000			

Identifying Outcome Measure: *OD-8 Perinatal Outcome: IT-8.9 NICU Average Length of Stay*

Unique ID: 132812205.3.3
Identifying Project and Provider Information: *Driscoll Children's Hospital [TPI: 132812205]*

Related Category 1 or 2 Projects: 132812205.2.2, Implement Evidence-based Health Promotion Programs
Outcome Measure Description:

The Project focuses on the current lack of informative and structured maternity social and healthcare supports available to indigent women during pregnancy as potential risk factors for these outcomes. Low-income pregnant women are prone to pre-term births for a variety of known as well as unknown reasons. Data suggest that alcohol, drugs, tobacco use, poor diet, and other chronic diseases like asthma and diabetes have a direct impact on pre-term births resulting in higher Neonatal Intensive Care Unit (NICU). Reduction in NICU inpatient days and pre-term/low-weight births are keys to improving overall health care delivery and health outcomes in the region.
IT-8.9 Reduce the Neonatal ICU Average Length of Stay for the targeted population by 5 percent for DY4-5. The targeted population is defined within Category 3 Outcome table.
Process Milestones:

- DY2
  - P-1- Project planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans.
- DY3
  - P-2- Undertake steps and actions to establish baselines for Reduce the Neonatal ICU Average Length of Stay for the targeted population

Outcome Improvement Target(s) for each year:

- DY4
  - IT-8.9: Improvement Target: Average Length of Stay for a Cadena member will be at least 5% less than a Non-Cadena member (using CY2011 baseline information).
- DY5
  - IT-8.9: Improvement Target: Average Length of Stay for a Cadena member will be at least 5% less than a Non-Cadena member (using CY2011 baseline information).

Rationale:

Since the beginning of the Cadena de Madres Program, the number of Premature Infant Admissions less than 37 weeks has decreased significantly and as a result has reduced NICU costs for Managed Medicaid patients. Reduction in NICU inpatient days and pre-term are keys to improving overall health care delivery and health outcomes in the region. This outcome will be implemented in DY3 with improvement targets starting in DY4. Driscoll provides educational sessions and consulting visits to the public for multiple reasons, one of which is to help reduce ALOS for NICU patients.
Outcome Measure Valuation:

Data suggest that alcohol, drugs, tobacco use, poor diet, and other chronic diseases like asthma and diabetes have a direct impact on pre-term births resulting in higher Neonatal Intensive Care Unit (NICU). Neonatal ICU use is a high cost service line. Decreasing the number of premature infant admissions less than 37 weeks and the Average Length of Stay (ALOS) for a NICU patient is a more efficient use of resources as well as significantly decreasing complications for the infant. Expanding health education to high risk pregnant patients as well as increasing the number of provided counseling sessions on tobacco and alcohol use for pregnant women of will create significant savings and value.

Unique Cat 3 ID: 132812205.3.3	***Ref Number from RHP PP:* 3.IT-8.9**	*Other Outcome Improvement Target: Reduce the Neonatal ICU Average Length of Stay for the targeted population*	
Driscoll Children's Hospital			*TPI: 132812205*
Related Category 1 or 2 Projects:	**Unique Category 2 identifier** – 132812205.2.2		
Starting Point/Baseline:	*To be developed in DY3*		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1[P-1]: Project planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans. Data Source: Documentation of Meeting minutes/plans **Process Milestone 1** Estimated Incentive Payment *(maximum amount):* $250,000	**Process Milestone 2[P-2]:** Undertake steps and actions to establish baselines for Reduce the Neonatal ICU Average Length of Stay for the targeted population. **Numerator:** Total Discharge Days for Non-Cadena members in the NICU during 2011 **Denominator:** Total number of Non-Cadena member discharges in the NICU during CY2011 **Data Source**: Claims data/Hospital documentation (utilizing Region 4 data) **Process Milestone 2** Estimated Incentive Payment: $250,000	**Outcome Improvement Target 1** [IT-8.9]: Improvement Target: Average Length of Stay for a Cadena member will be at least 5% less than a Non-Cadena member (using CY2011 baseline information). **Numerator:** Total Discharge Days for Cadena members in the NICU in DY4 **Denominator**: Total number of Cadena member discharges in the NICU in DY4 **Data Source**: Claims data/Hospital documentation **Outcome Improvement Target 1** Estimated Incentive Payment: $375,000	**Outcome Improvement Target 2** [IT-8.9]: Improvement Target: Average Length of Stay for a Cadena member will be at least 5% less than a Non-Cadena member (using CY2011 baseline information). **Numerator:** Total Discharge Days for Cadena members in the NICU in DY5 **Denominator**: Total number of Cadena member discharges in the NICU for DY5 **Data Source**: Hospital record **Outcome Improvement Target 2** Estimated Incentive Payment: $825,000
Year 2 Estimated Outcome Amount: $250,000	Year 3 Estimated Outcome Amount: $250,000	Year 4 Estimated Outcome Amount: $375,000	Year 5 Estimated Outcome Amount: $825,000
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $1,700,000			

Title of Outcome Measure (Improvement Target): IT-1.10– HbA1c Poor Control
Unique RHP outcome identification number: 136332705.3.1
RHP Performing Provider: Starr County Memorial Hospital/136332705
Related Category 1 and 2 Projects: 136332705.1.1

Outcome Measure Description:

a. *Numerator:* Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had hemoglobin A1c (HbA1c) control > 9.0%.
b. *Denominator:* Members 18 to 75 years of age as of December 31 of the measurement year with diabetes (type 1 and type 2)

Process Milestones:

DY2:

- P-1: Project planning-engage stakeholders, identify current capacity and needed resources, determine timeline and document implementation plan.
- P-2: Create baseline by the end of DY2 for comparison bi-annually in DY3.

Outcome Improvement Targets for Each Year:

DY3:

- IT-1.10 Diabetes Care: HbA1c Poor Control
  - *Numerator:* Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had hemoglobin A1c (HbA1c) control > 9.0%.
  - *Denominator:* Members 18 to 75 years of age as of December 31 of the measurement year with diabetes (type 1 and type 2)
  - Goal: Decrease in HbA1c levels for those registered with a level above 9.0%

DY4:

- IT-1.10 Diabetes Care: HbA1c Poor Control
  - *Numerator:* Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had hemoglobin A1c (HbA1c) control > 9.0%.
  - *Denominator:* Members 18 to 75 years of age as of December 31 of the measurement year with diabetes (type 1 and type 2)
  - Goal: Decrease in HbA1c levels for those registered with a level above 9.0%

DY5

- IT-1.10 Diabetes Care: HbA1c Poor Control
  - *Numerator:* Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had hemoglobin A1c (HbA1c) control > 9.0%.
  - *Denominator:* Members 18 to 75 years of age as of December 31 of the measurement year with diabetes (type 1 and type 2)
  - Goal: Decrease in HbA1c levels for those registered with a level above 9.0%

Rationale:

Process milestones – Milestone 1 [P-1] was chosen so that the clinic will have a clear project plan that the staff can implement throughout the year. As the rest of the demonstration years pass, continuous quality improvements can be taken to ensure that new approaches are adopted to further improve IT-1.10. A key feature will be the utilization of the EMR system to keep track of the diabetic discharges to help create follow-ups and case management for diabetic patients that are considered to be "high-risk". Process milestone 2 will

be geared towards gathering the data from the demonstration year to create the baseline that will be used through DY3 – DY5.

Improvement Targets – Improvement Target 1.10 (IT-1.10) will be assessed for improvement biannually in DY3. As processes are streamlined and more data becomes available, Starr County Memorial Hospital's rural clinic will continue to decrease the number of patients that have an HbA1c level over 9.0%. With the baseline being set in DY2, there will be 5% of the patients with decreased HbA1c levels in DY3. This goal will carry over through DY4 and DY5. As the data is compiled, procedures are implemented for efficiencies, and accessibility is increased throughout the clinic, the goals will be readjusted at the end of DY3.

Outcome Measure Valuation:

Improvement Target 1.10 is considered a standalone measure. This project's focus is expanding family care and obstetrical services in the Starr County's rural health clinic. In combination with Starr County Memorial Hospital, the rural health clinic serves as a major provider of healthcare in the county, SCMH emergency department is a vital access point to that healthcare. It becomes imperative that this service line is optimized to create greater access to services so that new initiatives can be put into place such as follow-up plans, high-risk user case management, referral patterns to the rural health clinic, all geared towards creating less readmissions and improving on preventable conditions.

	OD1-IT.1.10	HbA1c Poor Control (<9.0%)	
County Memorial Hospital		*136332705*	
r 2 Projects:	136332705.1.1		
nt/Baseline:	Established at the end of DY2		
	DY3(10/1/13-9/30/14)	DY4(10/1/14-9/30/15)	DY5(10/1/15-9/30/16)
t planning – nt capacity imelines ns procedures ntive or ents 18-75 e 1 or type bA1c) 75 years of es (type 1 tive	**Outcome Improvement Target 1 (IT-1.10):** • *Numerator:* Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had hemoglobin A1c (HbA1c) control > 9.0%. • *Denominator:* Members 18 to 75 years of age as of December 31 of the measurement year with diabetes (type 1 and type 2) • *Baseline/Goal:* TBD/Decrease in HbA1c levels for those registered with a level above 9.0% ***Outcome Improvement Target 1 Estimated Incentive Payment:*** ***$35,599***	**Outcome Improvement Target 2 (IT-1.10):** • *Numerator:* Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had hemoglobin A1c (HbA1c) control > 9.0%. • *Denominator:* Members 18 to 75 years of age as of December 31 of the measurement year with diabetes (type 1 and type 2) • *Baseline/Goal:* DY 3/ 5% Decrease in HbA1c levels for those registered with a level above 9.0% ***Outcome Improvement Target 2 Estimated Incentive Payment:*** ***$76,437***	**Outcome Improvement Target 3 (IT-1.10):** • *Numerator:* Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had hemoglobin A1c (HbA1c) control > 9.0%. • *Denominator:* Members 18 to 75 years of age as of December 31 of the measurement year with diabetes (type 1 and type 2) • *Baseline/Goal:* DY 3/10%Decrease in HbA1c levels for those registered with a level above 9.0% ***Outcome Improvement Target 3 Estimated Incentive Payment:*** ***$171,563.00***
for 4-year period: **$347,430.00**			

Title of Outcome Measure (Improvement Target): IT-1.13 – Diabetes Care Foot Exam
Unique RHP outcome identification number: 136332705.3.2
RHP Performing Provider: Starr County Memorial Hospital/136332705
Related Category 1 or 2 Projects: 136332705.1.2

Outcome Measure Description:
IT-1.13 – Diabetes care Foot Exam

a. Numerator: Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who received a foot exam (visual inspection, sensory exam with monofilament, or pulse exam) during the measurement year.

b. Denominator: Patients 18-75 years of age as of December 31 of the measurement year who had a diagnosis of diabetes (type 1 or type 2)

Process Milestones:
DY2:

- P-1: Put into place documentation metrics for diabetic patients & results of their individual foot exam;
- P-2: Create baseline for patients receiving foot exam for comparison in DY3

Outcome Improvement Targets for Each Year:
DY3:

- IT-1.13: Increase the number of adult patients receiving foot exam by 10% unless this procedure is already at maximum utilization within 10% deviation.

DY4:

- IT-1.13: Increase the number of adult patients receiving foot exam by 10% unless this procedure is already at maximum utilization within 10% deviation.

DY5

- IT-1.13: Increase the number of adult patients receiving foot exam by 10% unless this procedure is already at maximum utilization within 10% deviation.

Rationale:

Process milestones - P-1 & P-2 were chosen due to an effort to create procedures through the clinic to check the patients' feet in efforts to prevent conditions and admissions. Incorporating foot exams for every patient will be a new customary procedure. For this reason, P-1 was created so that proper documentation will be created throughout the process. Results of the foot exam, such as any possible conditions, will be documented and kept track of to build data through DY5 and onward. In order to create a baseline for comparison in DY3-DY5, P-2 was put into place to assess how many patients are able to be seen with-in the time frame given in DY2. It will be calculated as a percentage of patients as opposed to a general number to ensure that the most patients possible are receiving this service regardless of an increase or decrease in patient flux. IT-1.13 specifies that diabetic patients are to be kept on track, but in best interest of the community as a whole, this service will be extended to every patient that is serviced as this rural health clinic.

Improvement Targets – Improvement targets for this category 3 measure are simply to increase the percentage amount of foot exams that are provided to the patients through DY3-DY5. If the thresholds have

already been met, as in the percentages of patients being given a foot exam cannot go higher already, then the clinic will strive to maintain that percentage.

Outcome Measure Valuation:

Improvement Target 1.13 is a non-standalone measure, and is relatively easy to do, though it has high cost-saving potential. This measure targets the diabetic population, but to keep the community's interest in focus at large, the scope of the target population is extended to every patient that is able to be serviced at the clinic. Screens done on the feet can address open wounds, poor circulation, and developing conditions which can be documented along with the creation of a treatment plan. These plans will aim towards improving the current condition of the feet, and improving conditions that are factors such as diabetes control.

136332705.3.2	OD1-IT.1.13	Patient Foot Exam	
Starr County Memorial Hospital		*136332705*	
Related Category 1 or 2 Projects:	136332705.1.2		
Starting Point/Baseline:	Established at the end of DY2		
DY2(10/1/12-9/30/13)	**DY3(10/1/13-9/30/14)**	**DY4(10/1/14-9/30/15)**	**DY5(10/1/15-9/30/16)**
Process Milestone 1 (P-1): Project Planning: creating metrics for documentation for exam and all occurring results. **Data Source:** Documentation of foot exam; EMR records; billing *Process Milestone 1 Estimated Incentive Payment:* ***$6,672*** **Process Milestone 2 (P-2):** Create baseline for percentages of patients receiving foot exam. **Metrics:** a. Numerator: Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who received a foot exam (visual inspection, sensory exam with monofilament, or pulse exam) during the measurement year. b. Denominator: Patients 18-75 years of age as of December 31 of the measurement year who had a diagnosis of diabetes (type 1 or type 2) c. *Process Milestone 2 Estimated Incentive Payment:* ***$6,672***	**Outcome Improvement Target 1 (IT-1.13):** Increase the number of adult patients receiving foot exam by 10% unless this procedure is already at maximum utilization within 10% deviation. *Outcome Improvement Target 1 Estimated Incentive Payment: $25,634.00*	**Outcome Improvement Target 2 (IT-1.13):** Increase the number of adult patients receiving foot exam by 10% unless this procedure is already at maximum utilization within 10% deviation. *Outcome Improvement Target 2 Estimated Incentive Payment: $37,938.00*	**Outcome Improvement Target 3 (IT-1.13):** Increase the number of adult patients receiving foot exam by 10% unless this procedure is already at maximum utilization within 10% deviation. *Outcome Improvement Target 3 Estimated Incentive Payment: $92,866.00*
Total Estimated Incentive Payments for 4-year period: **$169,782.00**			

Title of Outcome Measure (Improvement Target): IT-6.1– Patient Satisfaction
Unique RHP outcome identification number: 136332705.3.3
RHP Performing Provider: Starr County Memorial Hospital/136332705
Related Category 1 or 2 Projects: 136332705.1.2

Outcome Measure Description:
IT-6.1 Percent Improvement over baseline of patient satisfaction scores

Percent improvement over baseline of patient satisfaction scores for one or more of patient satisfaction domains that the provider target for improvement in a specific tool.

a. Numerator: Percent improvement in targeted patient satisfaction domain
b. Data Source: Patient survey
c. Denominator: Number of patients who were administered the survey

Process Milestones:
DY2:

- P-1: Assess which tools want to be focused on for patient satisfaction
- P-2: Create baseline for patients receiving the survey

Outcome Improvement Targets for Each Year:
DY3:

- IT-6.1: Patient Satisfaction Survey
  - Increase the amount of patients completing the survey by 10%; insuring that patient literacy levels are catered to and adjusted accordingly.

DY4:

- IT-6.1: Patient Satisfaction Survey
  - Increase the amount of patients completing the survey by 10%; insuring that patient literacy levels are catered to and adjusted accordingly.

DY5

- IT-6.1: Patient Satisfaction Survey
  - Increase the amount of patients completing the survey by 10%; insuring that patient literacy levels are catered to and adjusted accordingly.

Rationale:

Process milestones - P-1 & P-2 were chosen as an initiative to implement continuous quality improvement of care from the patient's perspective. Milestone 1 (P-1), for improvement target 6.1, will allow the clinic to assess which tools would fit their criteria of care the best. Milestone 2 (P-2) will create the baseline as surveys are distributed to the patients and results are returned. The data will be collected at the end of DY2 for comparison in DY3, allowing enough time for adequate results. Pending the results, clinics will adjust their patient outreach plan for the surveys. The goal is to help ensure that the patients are comfortable in completing the surveys (adjusted will also be made keeping in mind literacy level of patients).

Improvement Targets – Improvement Target 6.1 will be assessed for improvement biannually in DY3. There will be a 10% increase in survey completion for the year assuming that there isn't a 100% completion rate within the clinic. Adjustments can be made to help ensure that the patients are receiving and returning the surveys complete. These surveys will introduce a new point of view in efforts of continuous quality improvement and innovation towards access, safety, and efficiency.

Outcome Measure Valuation:
Improvement Target 6.1 is considered a standalone measure. This measure was implemented to create incentives for this clinic to improve their quality of care. As surveys are completed, and the process is streamlined to help gather a high percentage of completion, continuous quality improvement will be heavily focused upon. Such improvements will focus on accessibility, safety, and efficiencies of service, increasing its value to the community as major health provider.

136332705.3.3	OD1-IT.6.1	Increasing Patient Satisfaction	
Starr County Memorial Hospital		*136332705*	
Related Category 1 or 2 Projects:	Category 1 project: 136332705.1.2		
Starting Point/Baseline:	Established at the end of DY2		
DY2(10/1/12-9/30/13)	DY3(10/1/13-9/30/14)	DY4(10/1/14-9/30/15)	DY5(10/1/15-9/30/16)
Process Milestone 1 (P-1): Assess which survey tools need to be focused upon for patient satisfaction. **Data Source:** Creation/adoption of acceptable survey such as CG-CAHPS. *Process Milestone 1 Estimated Incentive Payment:* ***$6672*** **Process Milestone 2 (P-2):** Create baseline for percentages of patients receiving survey. **Metrics:** • Numerator: Percent improvement in targeted patient satisfaction domain • Denominator: Number of patients who were administered the survey *Process Milestone 2 Estimated Incentive Payment:* ***$6672***	**Outcome Improvement Target 1 (IT-6.1):** Increase the amount of patients completing the survey by 10%; insuring that patient literacy levels are catered to and adjusted accordingly. **Metrics:** • Numerator: Percent improvement in targeted patient satisfaction domain • Denominator: Number of patients who were administered the survey *Outcome Improvement Target 1 Estimated Incentive Payment: $25634.00*	**Outcome Improvement Target 2 (IT-6.1):** Increase the amount of patients completing the survey by 10%; insuring that patient literacy levels are catered to and adjusted accordingly. **Metrics:** • Numerator: Percent improvement in targeted patient satisfaction domain • Denominator: Number of patients who were administered the survey *Outcome Improvement Target 2 Estimated Incentive Payment: $37,938.00*	**Outcome Improvement Target 3 (IT-6.1):** Increase the amount of patients completing the survey by 10%; insuring that patient literacy levels are catered to and adjusted accordingly. **Metrics:** • Numerator: Percent improvement in targeted patient satisfaction domain • Denominator: Number of patients who were administered the survey *Outcome Improvement Target 3 Estimated Incentive Payment: $92,866.00*
Total Estimated Incentive Payments for 4-year period: $169,782.00			

Title of Outcome Measure (Improvement Target): IT-4.1– Improvement in PPC rates
Unique RHP outcome identification number: 136332705.3.4
RHP Performing Provider: Starr County Memorial Hospital/136332705
Related Category 1 or 2 Projects: 136332705.1.2

Outcome Measure Description:
IT-4.1 Improvement in risk adjusted Potentially Preventable Complications rate(s)

Percent change in risk adjusted PPC rate for targeted conditions; Select 5 from the list of 10 highest volume complications or the list of complications with rates higher than the state rate. Report on percent improvement in the selected 5 measures.

Process Milestones:
DY2:

- P-1: Create documentation of which complications will be focused on.
- P-2: Create baseline by the end of DY2 for the number of complications addressed and/or prevented. It will be reported by a ratio of complications/procedures.

Outcome Improvement Targets for Each Year:
DY3:

- IT-4.1: Improvement in PPCs
  - As general surgery volumes increase, a 5% improvement on PPCs will be the achievement goal.

DY4:

- IT-4.1: Improvement in PPCs
  - As general surgery volumes increase, a 5% improvement on PPCs will be the achievement goal.

DY5

- IT-4.1: Improvement in PPCs
  - As general surgery volumes increase, a 5% improvement on PPCs will be the achievement goal.

Rationale:
Process milestones - P-1 & P-2 were chosen in an effort to stay on track with what the actual HHSC plan document states to ensure compliance and set the improvement target on a solid foundation for success. Milestone 1 (P-1) will identify which complications are most prevalent as volumes of general surgery increases as accessibly is expanded. The data will be collected at the end of DY2 (Milestone 2 [P-2]) for comparison with DY3, allowing enough time for adequate results.
Improvement Targets – Improvement Target 4.1 (IT-4.1) will be assessed for improvement biannually in DY3. As processes are streamlined and more data becomes available, Starr County Memorial Hospital will generate at least a 5% increase over the PPCs developed for this specialty. This will be the goal for DY3-DY5 with adjustments made along the way to properly react to the gathered data.
Outcome Measure Valuation:
Improvement Target 4.1 is considered a standalone measure. This project's focus is expanding accessibility to general surgery creating efficient utilization of staff and current facility resources. IT-4.1 is a measure that is centered on preventing conditions, and as a result developing constant quality improvement as volumes

increase. As these patients are being serviced, follow-up care will now too be available to further increase the improvement of PPCs which often times can be lengthy and expensive. Among the most common complications include: surgical site infections and postoperative sepsis, cardiovascular complications, respiratory complications (including postoperative pneumonia), and thromboembolic complications, each of which increase the length of hospital stay[61].

[61] http://cid.oxfordjournals.org/content/43/3/322.full

136332705.3.4	OD1-IT.4.1	Improvement of PPCs	
Starr County Memorial Hospital		*136332705*	
Related Category 1 or 2 Projects:	136332705.1.2		
Starting Point/Baseline:	Established at the end of DY2		
DY2(10/1/12-9/30/13)	DY3(10/1/13-9/30/14)	DY4(10/1/14-9/30/15)	DY5(10/1/15-9/30/16)
Process Milestone 1 (P-1): Assess which complications will be documented and improved on through DY3-DY5 **Data Source:** EMR; Claims *Process Milestone 1 Estimated Incentive Payment: $6672.00* **Process Milestone 2 (P-2):** Create baseline by the end of DY2 for the number of complications addressed and/or prevented. It will be reported by a ratio of complications/procedures. **Metrics:** • Numerator: Number of complications for general surgery • Denominator: Number of general surgery procedures *Process Milestone 2 Estimated Incentive Payment: $6672.00*	**Outcome Improvement Target 1 (IT-4.1):** As general surgery volumes increase, a 5% improvement on PPCs will be the achievement goal. **Metrics:** • Numerator: Number of complications for general surgery • Denominator: Number of general surgery procedures *Outcome Improvement Target 1 Estimated Incentive Payment: $25,634.00*	**Outcome Improvement Target 2 (IT-4.1):** As general surgery volumes increase, a 5% improvement on PPCs will be the achievement goal. **Metrics:** • Numerator: Number of complications for general surgery • Denominator: Number of general surgery procedures *Outcome Improvement Target 2 Estimated Incentive Payment: $37,938.00*	**Outcome Improvement Target 3 (IT-4.1):** As general surgery volumes increase, a 5% improvement on PPCs will be the achievement goal. **Metrics:** • Numerator: Number of complications for general surgery • Denominator: Number of general surgery procedures *Outcome Improvement Target 3 Estimated Incentive Payment: $92,866.00*
Total Estimated Incentive Payments for 4-year period: **$169,782.00**			

Title of Outcome Measure (Improvement Target): IT-4.4– Surgical Site Infections (SSI)
Unique RHP outcome identification number: 136332705.3.5
RHP Performing Provider: Starr County Memorial Hospital/136332705
Related Category 1 or 2 Projects: 136332705.1.2

Outcome Measure Description:
IT-4.4 Surgical site infections (SSI) rates

IT-4.4 will focus on decreasing SSI rates that are designated by IQR criteria.[62]

Process Milestones:
DY2:

- P-1: Create plan for implementing constant quality improvement procedures for general surgery including all staff and surgical site.
- P-2: Create baseline by the end of DY2 for the number of complications addressed and/or prevented. It will be reported by a ratio of complications/procedures.

Outcome Improvement Targets for Each Year:
DY3:

- IT-4.4: Improvement in SSIs
  - As general surgery volumes increase, a 5% improvement on SSI will be the achievement goal.

DY4:

- IT-4.1: Improvement in SSIs
  - As general surgery volumes increase, a 3% improvement on SSI will be the achievement goal.

DY5

- IT-4.1: Improvement in SSIs
  - As general surgery volumes increase, a 3% improvement on SSI will be the achievement goal.

Rationale:

Process milestones - P-1 & P-2 are implemented throughout DY2 to have documentation in place for the general surgery staff, and all other support staff so everyone understands the focus of the quality improvement measures and mindset. This project increases the accessibility of general surgery from two days a week (current), to a full five days a week. As volumes are expected to increase, milestone 1 (P-1) will create plan documents that will implement constant quality improvement and focus on the SSI requirements that are stipulated according to the CDC[6]. The data will be collected at the end of DY2 (Milestone 2 [P-2]) for comparison in DY3 allowing enough time for adequate results.

Improvement Targets – Improvement Target 4.4 (IT-4.4) will be assessed for improvement biannually in DY3. As processes are streamlined and more data becomes available, Starr County Memorial Hospital will improve over the SSI by at least 5% in general surgery in DY3. With the recent expansion of availability, creating optimal utilization rates are still underway, so the amount of preventable SSI will taper down slightly through DY5 until the rates reach their thresholds allowing a greater volume of preventable SSIs with the implementation of continuous quality improvements.

Outcome Measure Valuation:

[62] http://www.cdc.gov/nhsn/PDFs/pscManual/9pscSSIcurrent.pdf?agree=yes&next=Accept

Improvement Target 4.4 is considered a standalone measure. This project's focus is expanding accessibility to general surgery, creating efficient utilization of staff and current facility resources. IT-4.4 is a measure that is centered on preventing surgical site infections, and, as a result, developing constant quality improvement measures with increasing surgical volumes. The most common complications include: surgical site infections and postoperative sepsis, cardiovascular complications, respiratory complications (including postoperative pneumonia), and thromboembolic complications, each of which increase the hospital length of stay[63]. Baselines will have to be created using the time allowed by DY2 to gather enough data. Across the country, the average SSI rate is between 1-3%, so a national standard[64] will be the initial goal to meet in DY2.

[63] http://cid.oxfordjournals.org/content/43/3/322.full
[64] http://www.cdc.gov/hai/pdfs/ssi/ssi_tagged.pdf

136332705.3.5	OD1-IT.4.4	Improvement of SSI rates	
Starr County Memorial Hospital		*136332705*	
Related Category 1 or 2 Projects:	136332705.1.2		
Starting Point/Baseline:	Established at the end of DY2		
DY2(10/1/12-9/30/13)	DY3(10/1/13-9/30/14)	DY4(10/1/14-9/30/15)	DY5(10/1/15-9/30/16)
Process Milestone 1 (P-1): Create plan for implementing constant quality improvement procedures for general surgery including all staff and surgical site. **Data Source:** Documentation of project plan and procedures *Process Milestone 1 Estimated Incentive Payment: $6672.00* **Process Milestone 2 (P-2):** Create baseline by the end of DY2 for the number of complications addressed and/or prevented. It will be reported by a ratio of complications/procedures. **Metrics:** • Numerator: Number of site infections for general surgery • Denominator: Number of general surgery procedures *Process Milestone 2 Estimated Incentive Payment: $6672.00*	**Outcome Improvement Target 1 (IT-4.1):** As general surgery volumes increase, a 5% improvement on SSI's will be the achievement goal. **Metrics:** • Numerator: Number of site infections for general surgery • Denominator: Number of general surgery procedures *Outcome Improvement Target 1 Estimated Incentive Payment: $25,634.00*	**Outcome Improvement Target 2 (IT-4.1):** As general surgery volumes increase, a 3% improvement on SSI's will be the achievement goal. **Metrics:** • Numerator: Number of site infections for general surgery • Denominator: Number of general surgery procedures *Outcome Improvement Target 2 Estimated Incentive Payment: $37,938.00*	**Outcome Improvement Target 3 (IT-4.1):** As general surgery volumes increase, a 3% improvement on SSI's will be the achievement goal. **Metrics:** • Numerator: Number of site infections for general surgery • Denominator: Number of general surgery procedures *Outcome Improvement Target 3 Estimated Incentive Payment: $92,866.00*
Total Estimated Incentive Payments for 4-year period: $169,782.00			

Identifying Outcome Measure:
OD-6 Patient Satisfaction, IT-6.1 Percent improvement over baseline of patient satisfaction scores
RHP Outcome Measure Identification Number: 138708601.3.1
Performing Provider/TPI: Tropical Texas Behavioral Health/138708601.
Related Category 1 or 2 Project: 138708601.1.1

Outcome Measure Description:
Percent improvement over baseline of patient satisfaction scores for one or more of the patient satisfaction domains that the provider targets for improvement in a specific tool. Pending approval of the instrument from HHSC, TTBH will administer the Mental Health Corporations of America, Inc. (MHCA) Customer Satisfaction Survey as a measure of patient satisfaction. The survey contains 49 satisfaction questions that are scored in clusters according to four satisfaction domains: Personal Therapy, Physical Environment, Client/Staff Interaction and Overall, Outcome and Reputation. The instrument also includes questions pertaining to client demographics, healthcare insurance coverage and voluntary vs. non-voluntary treatment status. The survey is available in English and Spanish, gives our clients the opportunity to comment on an array of service related topics, provides TTBH with a detailed analysis of patient satisfaction and gives the Center the ability to compare our results with those of other community behavioral health centers across the country. To assess patient satisfaction specifically with services delivered through our project to integrate primary and behavioral health care, TTBH will use the Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS) survey with supplemental Patient-Centered Medical Home (PCMH) Item Set. The CG-CAHPS survey is a standardized survey instrument and data collection methodology for measuring patients' perspectives on care and the PCMH supplement allows for the assessment of satisfaction with care provided by medical homes and include items applicable to adults and children. The process milestone to be implemented is P-4: Conduct, Plan, Do, Study, Act (PDSA) cycles to improve data collection and intervention activities. The patient satisfaction outcome improvement targets will be determined in DY2 for implementation in DY3.

The following process milestone, outcome domain and improvement target were chosen for the Expand Primary Care Capacity project by the DY indicated:

- DY2-DY3:
  - Process Milestone: P-4
- DY4-DY5:
  - Outcome Domain: OD-6
  - Improvement Target: IT-6.1(5)

Rationale:
The PDSA process milestone was selected to be consistent with TTBH's existing quality management process, which utilizes PDSA for performance improvement. Patient satisfaction was selected as the outcome domain given the evidence to support its use as a valid measure of treatment outcomes and its applicability to each of the projects. Ultimately, the individuals served are at the center of health care delivery reform efforts and their experience of the care they receive is critical. Although a patient's perception of the quality of treatment is influenced by many aspects of their care, a growing body of evidence supports the use of patient satisfaction as a legitimate measure of treatment outcomes. Research has demonstrated strong positive relationships between patients' reported satisfaction and characteristics of the service delivery system including the amount of time providers

spend with patients, the amount of information given to the patient, continuity of provider and when providers show personal interest in their patients. Higher levels of satisfaction have also been shown to be predictive of increased adherence to treatment recommendations and increased health-seeking behaviors, while lower levels of satisfaction with and confidence in the quality of services correlates with an increase in complaints and a decreased willingness to seek care, potentially leading to serious health complications. Accordingly, focusing on the satisfaction of those served is directly linked to ensuring that the services provided not only improve the experience of care, but meet the individual needs of the person served and promote wellness and recovery-oriented behaviors in the individual as well. Outcome improvement targets will be determined in DY2 for implementation in DY3.

Outcome Measure Valuation:
The category 3 outcome measures were valued by determining the percent of the project value necessary to implement the Plan, Do, Study, Act cycles to improve data collection and intervention activities. Consideration was given to the recommended percentages across the DYs of 5%, 10%, 10%, and 20%. Where our determination was lower than the prescribed percentage, we increased to the minimum required.

138708601.3.1	*3.IT-6.1*	*Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)*	
Tropical Texas Behavioral Health			*138708601*
Related Category 1 or 2 Projects:	*138708601.1.1*		
Starting Point/Baseline:	*To Be Determined (TBD)*		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 [P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities. • Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement Process Milestone 1 Estimated Incentive Payment *(maximum amount):* $269,728	**Process Milestone 2** [P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities. • Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement Process Milestone 2 Estimated Incentive Payment *(maximum amount):* $337,129	**Outcome Improvement Target 1** [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores. Improvement Target: [TBD] Data Source: Patient survey Outcome Improvement Target 1 Estimated Incentive Payment: $355,518	**Outcome Improvement Target 2** [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores. Improvement Target: [TBD] Data Source: Patient survey Outcome Improvement Target 2 Estimated Incentive Payment: $601,817
Year 2 Estimated Outcome Amount: (add incentive payments amounts from each milestone/outcome improvement target): $269,728	Year 3 Estimated Outcome Amount: $337,129	Year 4 Estimated Outcome Amount: $355,518	Year 5 Estimated Outcome Amount: $601,817
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $1,564,192			

Identifying Outcome Measure:
OD-6 Patient Satisfaction, IT-6.1 Percent improvement over baseline of patient satisfaction scores
RHP Outcome Measure Identification number: 138708601.3.2
Performing Provider/TPI: Tropical Texas Behavioral Health/138708601.
Related Category 1 or 2 Project: 138708601.1.2

Outcome Measure Description:
Percent improvement over baseline of patient satisfaction scores for one or more of the patient satisfaction domains that the provider targets for improvement in a specific tool. Pending approval of the instrument from HHSC, TTBH will administer the Mental Health Corporations of America, Inc. (MHCA) Customer Satisfaction Survey as a measure of patient satisfaction. The survey contains 49 satisfaction questions that are scored in clusters according to four satisfaction domains: Personal Therapy, Physical Environment, Client/Staff Interaction and Overall, Outcome and Reputation. The instrument also includes questions pertaining to client demographics, healthcare insurance coverage and voluntary vs. non-voluntary treatment status. The survey is available in English and Spanish, gives our clients the opportunity to comment on an array of service related topics, provides TTBH with a detailed analysis of patient satisfaction and gives the Center the ability to compare our results with those of other community behavioral health centers across the country. To assess patient satisfaction specifically with services delivered through our project to integrate primary and behavioral health care, TTBH will use the Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS) survey with supplemental Patient-Centered Medical Home (PCMH) Item Set. The CG-CAHPS survey is a standardized survey instrument and data collection methodology for measuring patients' perspectives on care and the PCMH supplement allows for the assessment of satisfaction with care provided by medical homes and include items applicable to adults and children. The process milestone to be implemented is P-4: Conduct, Plan, Do, Study, Act (PDSA) cycles to improve data collection and intervention activities. The patient satisfaction outcome improvement targets will be determined in DY2 for implementation in DY3.

The following process milestone, outcome domain and improvement target were chosen for the Expand Primary Care Capacity project by the DY indicated:

- DY2-DY3:
  - Process Milestone: P-4
- DY4-DY5:
  - Outcome Domain: OD-6
  - Improvement Target: IT-6.1(5)

Rationale:
The PDSA process milestone was selected to be consistent with TTBH's existing quality management process, which utilizes PDSA for performance improvement. Patient satisfaction was selected as the outcome domain given the evidence to support its use as a valid measure of treatment outcomes and its applicability to each of the projects. Ultimately, the individuals served are at the center of health care delivery reform efforts and their experience of the care they receive is critical. Although a patient's perception of the quality of treatment is influenced by many aspects of their care, a growing body of evidence supports the use of patient satisfaction as a legitimate measure of treatment outcomes. Research has demonstrated strong positive relationships between patients' reported satisfaction and characteristics of the service delivery system including the amount of time providers

spend with patients, the amount of information given to the patient, continuity of provider and when providers show personal interest in their patients. Higher levels of satisfaction have also been shown to be predictive of increased adherence to treatment recommendations and increased health-seeking behaviors, while lower levels of satisfaction with and confidence in the quality of services correlates with an increase in complaints and a decreased willingness to seek care, potentially leading to serious health complications. Accordingly, focusing on the satisfaction of those served is directly linked to ensuring that the services provided not only improve the experience of care, but meet the individual needs of the person served and promote wellness and recovery-oriented behaviors in the individual as well. Outcome improvement targets will be determined in DY2 for implementation in DY3.

Outcome Measure Valuation:
The category 3 outcome measures were valued by determining the percent of the project value necessary to implement the Plan, Do, Study, Act cycles to improve data collection and intervention activities. Consideration was given to the recommended percentages across the DYs of 5%, 10%, 10%, and 20%. Where our determination was lower than the prescribed percentage, we increased to the minimum required.

138708601.3.2	*3.IT-6.1*	*Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)*	
Tropical Texas Behavioral Health			*138708601*
Related Category 1 or 2 Projects:	*138708601.1.2*		
Starting Point/Baseline:	*To Be Determined (TBD)*		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 [P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities. • Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement Process Milestone 1 Estimated Incentive Payment *(maximum amount):* $73,440	**Process Milestone 2** [P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities. • Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement Process Milestone 2 Estimated Incentive Payment *(maximum amount):* $140,124	**Outcome Improvement Target 1** [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores. Improvement Target: [TBD] Data Source: Patient survey Outcome Improvement Target 1 Estimated Incentive Payment: $147,767	**Outcome Improvement Target 2** [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores. Improvement Target: [TBD] Data Source: Patient survey Outcome Improvement Target 2 Estimated Incentive Payment: $250,139
Year 2 Estimated Outcome Amount: (add incentive payments amounts from each milestone/outcome improvement target): $73,440	Year 3 Estimated Outcome Amount: $140,124	Year 4 Estimated Outcome Amount: $147,767	Year 5 Estimated Outcome Amount: $250,139
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $611,470			

Identifying Outcome Measure:
OD-6 Patient Satisfaction, IT-6.1 Percent improvement over baseline of patient satisfaction scores
RHP Outcome Measure identification number: 138708601.3.3
Performing Provider/TPI: Tropical Texas Behavioral Health/138708601
Related Category 1 or 2 Project: 138708601.1.3

Outcome Measure Description:
Percent improvement over baseline of patient satisfaction scores for one or more of the patient satisfaction domains that the provider targets for improvement in a specific tool. Pending approval of the instrument from HHSC, TTBH will administer the Mental Health Corporations of America, Inc. (MHCA) Customer Satisfaction Survey as a measure of patient satisfaction. The survey contains 49 satisfaction questions that are scored in clusters according to four satisfaction domains: Personal Therapy, Physical Environment, Client/Staff Interaction and Overall, Outcome and Reputation. The instrument also includes questions pertaining to client demographics, healthcare insurance coverage and voluntary vs. non-voluntary treatment status. The survey is available in English and Spanish, gives our clients the opportunity to comment on an array of service related topics, provides TTBH with a detailed analysis of patient satisfaction and gives the Center the ability to compare our results with those of other community behavioral health centers across the country. To assess patient satisfaction specifically with services delivered through our project to integrate primary and behavioral health care, TTBH will use the Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS) survey with supplemental Patient-Centered Medical Home (PCMH) Item Set. The CG-CAHPS survey is a standardized survey instrument and data collection methodology for measuring patients' perspectives on care and the PCMH supplement allows for the assessment of satisfaction with care provided by medical homes and include items applicable to adults and children. The process milestone to be implemented is P-4: Conduct, Plan, Do, Study, Act (PDSA) cycles to improve data collection and intervention activities. The patient satisfaction outcome improvement targets will be determined in DY2 for implementation in DY3.

The following process milestone, outcome domain and improvement target were chosen for the Expand Primary Care Capacity project by the DY indicated:

- DY2-DY3:
  - Process Milestone: P-4
- DY4-DY5:
  - Outcome Domain: OD-6
  - Improvement Target: IT-6.1(5)

Rationale:
The PDSA process milestone was selected to be consistent with TTBH's existing quality management process, which utilizes PDSA for performance improvement. Patient satisfaction was selected as the outcome domain given the evidence to support its use as a valid measure of treatment outcomes and its applicability to each of the projects. Ultimately, the individuals served are at the center of health care delivery reform efforts and their experience of the care they receive is critical. Although a patient's perception of the quality of treatment is influenced by many aspects of their care, a growing body of evidence supports the use of patient satisfaction as a legitimate measure of treatment outcomes. Research has demonstrated strong positive relationships between patients' reported satisfaction and characteristics of the service delivery system including the amount of time providers

spend with patients, the amount of information given to the patient, continuity of provider and when providers show personal interest in their patients. Higher levels of satisfaction have also been shown to be predictive of increased adherence to treatment recommendations and increased health-seeking behaviors, while lower levels of satisfaction with and confidence in the quality of services correlates with an increase in complaints and a decreased willingness to seek care, potentially leading to serious health complications. Accordingly, focusing on the satisfaction of those served is directly linked to ensuring that the services provided not only improve the experience of care, but meet the individual needs of the person served and promote wellness and recovery-oriented behaviors in the individual as well. Outcome improvement targets will be determined in DY2 for implementation in DY3.

Outcome Measure Valuation:
The category 3 outcome measures were valued by determining the percent of the project value necessary to implement the Plan, Do, Study, Act cycles to improve data collection and intervention activities. Consideration was given to the recommended percentages across the DYs of 5%, 10%, 10%, and 20%. Where our determination was lower than the prescribed percentage, we increased to the minimum required.

138708601.3.3	*3.IT-6.1*	*Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)*	
Tropical Texas Behavioral Health			*138708601*
Related Category 1 or 2 Projects:	*138708601.1.3*		
Starting Point/Baseline:	*To Be Determined (TBD)*		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 [P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities. • Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement Process Milestone 1 Estimated Incentive Payment *(maximum amount):* $15,055	**Process Milestone 2** [P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities. • Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement Process Milestone 2 Estimated Incentive Payment *(maximum amount):* $84,224	**Outcome Improvement Target 1** [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores. Improvement Target: [TBD] Data Source: Patient survey Outcome Improvement Target 1 Estimated Incentive Payment: $88,818	**Outcome Improvement Target 2** [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores. Improvement Target: [TBD] Data Source: Patient survey Outcome Improvement Target 2 Estimated Incentive Payment: $150,350
Year 2 Estimated Outcome Amount: (add incentive payments amounts from each milestone/outcome improvement target): $15,055	Year 3 Estimated Outcome Amount: $84,224	Year 4 Estimated Outcome Amount: $88,818	Year 5 Estimated Outcome Amount: $150,350
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $338,447			

Identifying Outcome Measure:
OD-6 Patient Satisfaction, IT-6.1 Percent improvement over baseline of patient satisfaction scores
RHP Outcome Measure identification number: 138708601.3.4
Performing Provider/TPI: Tropical Texas Behavioral Health/138708601
Related Category 1 or 2 Project: 138708601.2.1

Outcome Measure Description:
Percent improvement over baseline of patient satisfaction scores for one or more of the patient satisfaction domains that the provider targets for improvement in a specific tool. Pending approval of the instrument from HHSC, TTBH will administer the Mental Health Corporations of America, Inc. (MHCA) Customer Satisfaction Survey as a measure of patient satisfaction. The survey contains 49 satisfaction questions that are scored in clusters according to four satisfaction domains: Personal Therapy, Physical Environment, Client/Staff Interaction and Overall, Outcome and Reputation. The instrument also includes questions pertaining to client demographics, healthcare insurance coverage and voluntary vs. non-voluntary treatment status. The survey is available in English and Spanish, gives our clients the opportunity to comment on an array of service related topics, provides TTBH with a detailed analysis of patient satisfaction and gives the Center the ability to compare our results with those of other community behavioral health centers across the country. To assess patient satisfaction specifically with services delivered through our project to integrate primary and behavioral health care, TTBH will use the Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS) survey with supplemental Patient-Centered Medical Home (PCMH) Item Set. The CG-CAHPS survey is a standardized survey instrument and data collection methodology for measuring patients' perspectives on care and the PCMH supplement allows for the assessment of satisfaction with care provided by medical homes and include items applicable to adults and children. The process milestone to be implemented is P-4: Conduct, Plan, Do, Study, Act (PDSA) cycles to improve data collection and intervention activities. The patient satisfaction outcome improvement targets will be determined in DY2 for implementation in DY3.

The following process milestone, outcome domain and improvement target were chosen for the Integrate Primary and Behavioral Health Care Services project by the DY indicated:

- DY2-DY3:
  - Process Milestone: P-4
- DY4-DY5:
  - Outcome Domain: OD-6
  - Improvement Target: IT-6.1(5)

Rationale:
The PDSA process milestone was selected to be consistent with TTBH's existing quality management process, which utilizes PDSA for performance improvement. Patient satisfaction was selected as the outcome domain given the evidence to support its use as a valid measure of treatment outcomes and its applicability to each of the projects. Ultimately, the individuals served are at the center of health care delivery reform efforts and their experience of the care they receive is critical. Although a patient's perception of the quality of treatment is influenced by many aspects of their care, a growing body of evidence supports the use of patient satisfaction as a legitimate measure of treatment outcomes. Research has demonstrated strong positive relationships between patients' reported satisfaction and characteristics of the service delivery system including the amount of time providers

spend with patients, the amount of information given to the patient, continuity of provider and when providers show personal interest in their patients. Higher levels of satisfaction have also been shown to be predictive of increased adherence to treatment recommendations and increased health-seeking behaviors, while lower levels of satisfaction with and confidence in the quality of services correlates with an increase in complaints and a decreased willingness to seek care, potentially leading to serious health complications. Accordingly, focusing on the satisfaction of those served is directly linked to ensuring that the services provided not only improve the experience of care, but meet the individual needs of the person served and promote wellness and recovery-oriented behaviors in the individual as well. Outcome improvement targets will be determined in DY2 for implementation in DY3.

Outcome Measure Valuation:
The category 3 outcome measures were valued by determining the percent of the project value necessary to implement the Plan, Do, Study, Act cycles to improve data collection and intervention activities. Consideration was given to the recommended percentages across the DYs of 5%, 10%, 10%, and 20%. Where our determination was lower than the prescribed percentage, we increased to the minimum required.

138708601.3.4	*3.IT-6.1*	*Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)*	
Tropical Texas Behavioral Health			*138708601*
Related Category 1 or 2 Projects:	*138708601.2.1*		
Starting Point/Baseline:	*To Be Determined (TBD)*		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 [P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities. • Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement Process Milestone 1 Estimated Incentive Payment *(maximum amount):* $202,605	**Process Milestone 2** [P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities. • Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement Process Milestone 2 Estimated Incentive Payment *(maximum amount):* $457,426	**Outcome Improvement Target 1** [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores. Improvement Target: [TBD] Data Source: Patient survey Outcome Improvement Target 1 Estimated Incentive Payment: $482,377	**Outcome Improvement Target 2** [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores. Improvement Target: [TBD] Data Source: Patient survey Outcome Improvement Target 2 Estimated Incentive Payment: $1,125,683
Year 2 Estimated Outcome Amount: (add incentive payments amounts from each milestone/outcome improvement target): $202,605	Year 3 Estimated Outcome Amount: $457,426	Year 4 Estimated Outcome Amount: $482,377	Year 5 Estimated Outcome Amount: $1,125,683
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $2,268,091			

Identifying Outcome Measure:
OD-6 Patient Satisfaction, IT-6.1 Percent improvement over baseline of patient satisfaction scores
RHP Outcome Measure identification number: 138708601.3.5
Performing Provider/TPI: Tropical Texas Behavioral Health/138708601
Related Category 1 or 2 Project: 138708601.2.2

Outcome Measure Description:
Percent improvement over baseline of patient satisfaction scores for one or more of the patient satisfaction domains that the provider targets for improvement in a specific tool. Pending approval of the instrument from HHSC, TTBH will administer the Mental Health Corporations of America, Inc. (MHCA) Customer Satisfaction Survey as a measure of patient satisfaction. The survey contains 49 satisfaction questions that are scored in clusters according to four satisfaction domains: Personal Therapy, Physical Environment, Client/Staff Interaction and Overall, Outcome and Reputation. The instrument also includes questions pertaining to client demographics, healthcare insurance coverage and voluntary vs. non-voluntary treatment status. The survey is available in English and Spanish, gives our clients the opportunity to comment on an array of service related topics, provides TTBH with a detailed analysis of patient satisfaction and gives the Center the ability to compare our results with those of other community behavioral health centers across the country. To assess patient satisfaction specifically with services delivered through our project to integrate primary and behavioral health care, TTBH will use the Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS) survey with supplemental Patient-Centered Medical Home (PCMH) Item Set. The CG-CAHPS survey is a standardized survey instrument and data collection methodology for measuring patients' perspectives on care and the PCMH supplement allows for the assessment of satisfaction with care provided by medical homes and include items applicable to adults and children. The process milestone to be implemented is P-4: Conduct, Plan, Do, Study, Act (PDSA) cycles to improve data collection and intervention activities. The patient satisfaction outcome improvement targets will be determined in DY2 for implementation in DY3.

The following process milestone, outcome domain and improvement target were chosen for the Provide an intervention for a targeted behavioral health population to prevent unnecessary use of services in a specified setting project by the DY indicated:

- DY2-DY3:
  - Process Milestone: P-4
- DY4-DY5:
  - Outcome Domain: OD-6
  - Improvement Target: IT-6.1(5)

Rationale:
The PDSA process milestone was selected to be consistent with TTBH's existing quality management process, which utilizes PDSA for performance improvement. Patient satisfaction was selected as the outcome domain given the evidence to support its use as a valid measure of treatment outcomes and its applicability to each of the projects. Ultimately, the individuals served are at the center of health care delivery reform efforts and their experience of the care they receive is critical. Although a patient's perception of the quality of treatment is influenced by many aspects of their care, a growing body of evidence supports the use of patient satisfaction as a legitimate measure of treatment outcomes. Research has demonstrated strong positive relationships between patients' reported

satisfaction and characteristics of the service delivery system including the amount of time providers spend with patients, the amount of information given to the patient, continuity of provider and when providers show personal interest in their patients. Higher levels of satisfaction have also been shown to be predictive of increased adherence to treatment recommendations and increased health-seeking behaviors, while lower levels of satisfaction with and confidence in the quality of services correlates with an increase in complaints and a decreased willingness to seek care, potentially leading to serious health complications. Accordingly, focusing on the satisfaction of those served is directly linked to ensuring that the services provided not only improve the experience of care, but meet the individual needs of the person served and promote wellness and recovery-oriented behaviors in the individual as well. Outcome improvement targets will be determined in DY2 for implementation in DY3.

Outcome Measure Valuation:
The category 3 outcome measures were valued by determining the percent of the project value necessary to implement the Plan, Do, Study, Act cycles to improve data collection and intervention activities. Consideration was given to the recommended percentages across the DYs of 5%, 10%, 10%, and 20%. Where our determination was lower than the prescribed percentage, we increased to the minimum required.

138708601.3.5	*3.IT-6.1*	*Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)*	
	Tropical Texas Behavioral Health		*138708601*
Related Category 1 or 2 Projects:	*138708601.2.2*		
Starting Point/Baseline:	*To Be Determined (TBD)*		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 [P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities. • Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement Process Milestone 1 Estimated Incentive Payment *(maximum amount):* $195,919	**Process Milestone 2** [P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities. • Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement Process Milestone 2 Estimated Incentive Payment *(maximum amount):* $379,266	**Outcome Improvement Target 1** [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores. Improvement Target: [TBD] Data Source: Patient survey Outcome Improvement Target 1 Estimated Incentive Payment: $399,953	**Outcome Improvement Target 2** [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores. Improvement Target: [TBD] Data Source: Patient survey Outcome Improvement Target 2 Estimated Incentive Payment: $677,036
Year 2 Estimated Outcome Amount: (add incentive payments amounts from each milestone/outcome improvement target): $195,919	Year 3 Estimated Outcome Amount: $379,266	Year 4 Estimated Outcome Amount: $399,953	Year 5 Estimated Outcome Amount: $677,036
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $1,652,174			

Identifying Outcome Measure:
OD-6 Patient Satisfaction, IT-6.1 Percent improvement over baseline of patient satisfaction scores
RHP Outcome Measure identification number: 138708601.3.6
Performing Provider/TPI: Tropical Texas Behavioral Health/138708601
Related Category 1 or 2 Projects: 138708601.2.3

Outcome Measure Description:
Percent improvement over baseline of patient satisfaction scores for one or more of the patient satisfaction domains that the provider targets for improvement in a specific tool. Pending approval of the instrument from HHSC, TTBH will administer the Mental Health Corporations of America, Inc. (MHCA) Customer Satisfaction Survey as a measure of patient satisfaction. The survey contains 49 satisfaction questions that are scored in clusters according to four satisfaction domains: Personal Therapy, Physical Environment, Client/Staff Interaction and Overall, Outcome and Reputation. The instrument also includes questions pertaining to client demographics, healthcare insurance coverage and voluntary vs. non-voluntary treatment status. The survey is available in English and Spanish, gives our clients the opportunity to comment on an array of service related topics, provides TTBH with a detailed analysis of patient satisfaction and gives the Center the ability to compare our results with those of other community behavioral health centers across the country. To assess patient satisfaction specifically with services delivered through our project to integrate primary and behavioral health care, TTBH will use the Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS) survey with supplemental Patient-Centered Medical Home (PCMH) Item Set. The CG-CAHPS survey is a standardized survey instrument and data collection methodology for measuring patients' perspectives on care and the PCMH supplement allows for the assessment of satisfaction with care provided by medical homes and include items applicable to adults and children. The process milestone to be implemented is P-4: Conduct, Plan, Do, Study, Act (PDSA) cycles to improve data collection and intervention activities. The patient satisfaction outcome improvement targets will be determined in DY2 for implementation in DY3.

The following process milestone, outcome domain and improvement target were chosen for the Integrate Primary and Behavioral Health Care Services project by the DY indicated:

- DY2-DY3:
  - Process Milestone: P-4
- DY4-DY5:
  - Outcome Domain: OD-6
  - Improvement Target: IT-6.1(5)

Rationale:
The PDSA process milestone was selected to be consistent with TTBH's existing quality management process, which utilizes PDSA for performance improvement. Patient satisfaction was selected as the outcome domain given the evidence to support its use as a valid measure of treatment outcomes and its applicability to each of the projects. Ultimately, the individuals served are at the center of health care delivery reform efforts and their experience of the care they receive is critical. Although a patient's perception of the quality of treatment is influenced by many aspects of their care, a growing body of evidence supports the use of patient satisfaction as a legitimate measure of treatment outcomes. Research has demonstrated strong positive relationships between patients' reported satisfaction and characteristics of the service delivery system including the amount of time providers

spend with patients, the amount of information given to the patient, continuity of provider and when providers show personal interest in their patients. Higher levels of satisfaction have also been shown to be predictive of increased adherence to treatment recommendations and increased health-seeking behaviors, while lower levels of satisfaction with and confidence in the quality of services correlates with an increase in complaints and a decreased willingness to seek care, potentially leading to serious health complications. Accordingly, focusing on the satisfaction of those served is directly linked to ensuring that the services provided not only improve the experience of care, but meet the individual needs of the person served and promote wellness and recovery-oriented behaviors in the individual as well. Outcome improvement targets will be determined in DY2 for implementation in DY3.

Outcome Measure Valuation:
The category 3 outcome measures were valued by determining the percent of the project value necessary to implement the Plan, Do, Study, Act cycles to improve data collection and intervention activities. Consideration was given to the recommended percentages across the DYs of 5%, 10%, 10%, and 20%. Where our determination was lower than the prescribed percentage, we increased to the minimum required.

138708601.3.6	*3.IT-6.1*	*Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)*	
Tropical Texas Behavioral Health			*138708601*
Related Category 1 or 2 Projects:	*138708601.2.3*		
Starting Point/Baseline:	*To Be Determined (TBD)*		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 [P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities. • Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement Process Milestone 1 Estimated Incentive Payment *(maximum amount):* $918	**Process Milestone 2** [P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities. • Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement Process Milestone 2 Estimated Incentive Payment *(maximum amount):* $3,474	**Outcome Improvement Target 1** [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores. Improvement Target: [TBD] Data Source: Patient survey Outcome Improvement Target 1 Estimated Incentive Payment: $3,664	**Outcome Improvement Target 2** [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores. Improvement Target: [TBD] Data Source: Patient survey Outcome Improvement Target 2 Estimated Incentive Payment: $6,202
Year 2 Estimated Outcome Amount: (add incentive payments amounts from each milestone/outcome improvement target): $918	Year 3 Estimated Outcome Amount: $3,474	Year 4 Estimated Outcome Amount: $3,664	Year 5 Estimated Outcome Amount: $6,202
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $14,258			

Identifying Outcome Measure:
OD-6 Patient Satisfaction, IT-6.1 Percent improvement over baseline of patient satisfaction scores
RHP Outcome Measure identification number: 138708601.3.7
Performing Provider/TPI: Tropical Texas Behavioral Health/138708601
Related Category 1 or 2 Projects: 138708601.2.4

Outcome Measure Description:
Percent improvement over baseline of patient satisfaction scores for one or more of the patient satisfaction domains that the provider targets for improvement in a specific tool. Pending approval of the instrument from HHSC, TTBH will administer the Mental Health Corporations of America, Inc. (MHCA) Customer Satisfaction Survey as a measure of patient satisfaction. The survey contains 49 satisfaction questions that are scored in clusters according to four satisfaction domains: Personal Therapy, Physical Environment, Client/Staff Interaction and Overall, Outcome and Reputation. The instrument also includes questions pertaining to client demographics, healthcare insurance coverage and voluntary vs. non-voluntary treatment status. The survey is available in English and Spanish, gives our clients the opportunity to comment on an array of service related topics, provides TTBH with a detailed analysis of patient satisfaction and gives the Center the ability to compare our results with those of other community behavioral health centers across the country. To assess patient satisfaction specifically with services delivered through our project to integrate primary and behavioral health care, TTBH will use the Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS) survey with supplemental Patient-Centered Medical Home (PCMH) Item Set. The CG-CAHPS survey is a standardized survey instrument and data collection methodology for measuring patients' perspectives on care and the PCMH supplement allows for the assessment of satisfaction with care provided by medical homes and include items applicable to adults and children. The process milestone to be implemented is P-4: Conduct, Plan, Do, Study, Act (PDSA) cycles to improve data collection and intervention activities. The patient satisfaction outcome improvement targets will be determined in DY2 for implementation in DY3.

The following process milestone, outcome domain and improvement target were chosen for the Expand Chronic Care Management Models project by the DY indicated:

- DY2-DY3:
  - Process Milestone: P-4
- DY4-DY5:
  - Outcome Domain: OD-6
  - Improvement Target: IT-6.1(5)

Rationale:
The PDSA process milestone was selected to be consistent with TTBH's existing quality management process, which utilizes PDSA for performance improvement. Patient satisfaction was selected as the outcome domain given the evidence to support its use as a valid measure of treatment outcomes and its applicability to each of the projects. Ultimately, the individuals served are at the center of health care delivery reform efforts and their experience of the care they receive is critical. Although a patient's perception of the quality of treatment is influenced by many aspects of their care, a growing body of evidence supports the use of patient satisfaction as a legitimate measure of treatment outcomes. Research has demonstrated strong positive relationships between patients' reported satisfaction and characteristics of the service delivery system including the amount of time providers

spend with patients, the amount of information given to the patient, continuity of provider and when providers show personal interest in their patients. Higher levels of satisfaction have also been shown to be predictive of increased adherence to treatment recommendations and increased health-seeking behaviors, while lower levels of satisfaction with and confidence in the quality of services correlates with an increase in complaints and a decreased willingness to seek care, potentially leading to serious health complications. Accordingly, focusing on the satisfaction of those served is directly linked to ensuring that the services provided not only improve the experience of care, but meet the individual needs of the person served and promote wellness and recovery-oriented behaviors in the individual as well. Outcome improvement targets will be determined in DY2 for implementation in DY3.

Outcome Measure Valuation:
The category 3 outcome measures were valued by determining the percent of the project value necessary to implement the Plan, Do, Study, Act cycles to improve data collection and intervention activities. Consideration was given to the recommended percentages across the DYs of 5%, 10%, 10%, and 20%. Where our determination was lower than the prescribed percentage, we increased to the minimum required.

138708601.3.7	*3.IT-6.1*	*Patient Satisfaction (Percent improvement over baseline of patient satisfaction scores)*	
	Tropical Texas Behavioral Health		*138708601*
Related Category 1 or 2 Projects:	*138708601.2.4*		
Starting Point/Baseline:	*To Be Determined (TBD)*		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 [P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities. • Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement Process Milestone 1 Estimated Incentive Payment *(maximum amount):* $6,005	**Process Milestone 2** [P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities. • Data Source: Project reports include examples of how real-time data is used for rapid-cycle improvement to guide continuous quality improvement Process Milestone 2 Estimated Incentive Payment *(maximum amount):* $367,400	**Outcome Improvement Target 1** [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores. Improvement Target: [TBD] Data Source: Patient survey Outcome Improvement Target 1 Estimated Incentive Payment: $415,351	**Outcome Improvement Target 2** [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores. Improvement Target: [TBD] Data Source: Patient survey Outcome Improvement Target 2 Estimated Incentive Payment: $1,300,487
Year 2 Estimated Outcome Amount: (add incentive payments amounts from each milestone/outcome improvement target): $6,005	Year 3 Estimated Outcome Amount: $367,400	Year 4 Estimated Outcome Amount: $415,351	Year 5 Estimated Outcome Amount: $1,300,487
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $2,089,243			

Title of Outcome Measure: IT 14.1 Number of practicing primary care practitioners per 100,000 individuals in HPSA or MUA

Unique RHP outcome ID: 085144601.3.1
Performing Provider/TPI: University of Texas Health Science Center San Antonio / 085144601
Related Category 1 or 2 Projects: 085144601.1.1

Outcome Measure Description
OD-14 Primary Care Workforce

Stand-alone: IT - 14.1 Number of practicing primary care physicians per 100,000 individuals in HPSA or MUA

Non-stand-alone but related:

IT - 14.6 percent of trainees who have spent at least 5 years living in a health-professional shortage area (HPSA) or medically underserved area (MUA)

IT - 14.7 Percent of trainees who report that they plan to practice in HPSAs or MUAs based on a systematic survey

IT – 14.8 Percent of trainees who report that they plan to serve Medicaid populations based on a systematic survey

Process Milestones:

DY 2:	P-1 Project planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans
	P-3 Develop and test data systems
DY 3:	P-2 Establish baseline rates
	P-3 Develop and test data systems

Outcome Improvement Targets for each year:

DY 4:	IT-14.1 Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA by TBD above baseline
DY 5:	IT-14.1 Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA by TBD above baseline

Rationale:
The long-term goal of this project is to train more primary care physicians for practice in the RHP 5 community. In the near-term and within the scope of the Demonstration period, the addition of practicing faculty physicians will improve access to primary care for the underserved.

Outcome Measure Valuation:
The project is valued based upon achieving waiver goals, meeting community needs, depth of scope, and resources deployed. Although the outcome domain chosen targets number of practicing primary care physicians per 100,000 individuals in HPSA or MUA, we are cautiously optimistic that implementation of this project will also generate improved experience of care for individuals, improved health for the population, and lower the cost of care while improving quality.

085144601.3.1	3.IT-14.1	Number of practicing primary care physicians per 1,000 individuals in HPSA or MUA	
	UT Health Science Center San Antonio		TPI 085144601
Related Category 1 or 2 Projects:	085144601.1.1		
Starting Point/Baseline:			
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 P-1: Project planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans Data Source: Dept of State Health Services and local health department statistics Process Milestone 1 Estimated Incentive Payment *(maximum amount):* $71,978 **Process Milestone 2** [P-3]: Develop and test data systems Data Source: Public health and workforce statistics Process Milestone 2 Estimated Incentive Payment: $71,979	**Process Milestone 3 [P-2]** Establish baseline rate Data Source: Public health and workforce statistics Process Milestone 3 Estimated Incentive Payment: $166,865 **Process Milestone 3 [P-3]** Develop and test data systems Data Source: Public health and workforce statistics Process Milestone 3 Estimated Incentive Payment: $166,865	**Outcome Improvement Target 1** [IT-14.1]: Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA above baseline Improvement Target: TBD Data Source: Public health and workforce statistics Outcome Improvement Target 2 Estimated Incentive Payment: $535,520	**Outcome Improvement Target 2** [IT-14.1]: Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA above baseline Improvement Target: TBD Data Source: Public health and workforce statistics Outcome Improvement Target 2 Estimated Incentive Payment: $776,116
Year 2 Estimated Outcome Amount: $143,957	Year 3 Estimated Outcome Amount: $333,730	Year 4 Estimated Outcome Amount: $535,520	Year 5 Estimated Outcome Amount: $776,116
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $1,789,323			

Title of Outcome Measure: IT 14.1 Number of practicing primary care practitioners per 100,000 individuals in HPSA or MUA

Unique RHP outcome ID: 085144601.3.2
Performing Provider/TPI: University of Texas Health Science Center San Antonio / 085144601
Related Category 1 or 2 Projects: 085144601.1.2

Outcome Measure Description
OD-14 Primary Care Workforce

Stand-alone: IT - 14.1 Number of practicing behavioral health physicians per 100,000 individuals in HPSA or MUA

Non-stand-alone but related:

IT - 14.6 percent of trainees who have spent at least 5 years living in a health-professional shortage area (HPSA) or medically underserved area (MUA)

IT - 14.7 Percent of trainees who report that they plan to practice in HPSAs or MUAs based on a systematic survey

IT – 14.8 Percent of trainees who report that they plan to serve Medicaid populations based on a systematic survey

Process Milestones:

DY 2:	P-1 Project planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans
	P-3 Develop and test data systems
DY 3:	P-2 Establish baseline rates
	P-3 Develop and test data systems

Outcome Improvement Targets for each year:

DY 4:	IT-14.1 Increase the number of practicing behavioral health physicians per 100,000 individuals in HPSA or MUA by TBD above baseline
DY 5:	IT-14.1 Increase the number of practicing behavioral health physicians per 100,000 individuals in HPSA or MUA by TBD above baseline

Rationale:
The long-term goal of this project is to train more behavioral health physicians for practice in the RHP 5 community. In the near-term and within the scope of the Demonstration period, the addition of practicing faculty physicians will improve access to primary care for the underserved.

Outcome Measure Valuation:
The project is valued based upon achieving waiver goals, meeting community needs, depth of scope, and resources deployed. Although the outcome domain chosen targets number of practicing behavioral health physicians per 100,000 individuals in HPSA or MUA, we are cautiously optimistic that implementation of this project will also generate improved experience of care for individuals, improved health for the population, and lower the cost of care while improving quality.

085144601.3.2	*3.IT-14.1*	*Number of practicing behavioral health physicians per 1,000 individuals in HPSA or MUA*	
	UT Health Science Center San Antonio		*TPI 085144601*
Related Category 1 or 2 Projects:	*085144601.1.2*		
Starting Point/Baseline:			
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 P-1: Project planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans Data Source: Dept of State Health Services and local health department statistics Process Milestone 1 Estimated Incentive Payment: $71,978 **Process Milestone 2** [P-3]: Develop and test data systems Data Source: Public health and workforce statistics Process Milestone 2 Estimated Incentive Payment: $71,979	**Process Milestone 3 [P-2]** Establish baseline rate Data Source: Public health and workforce statistics Process Milestone 3 Estimated Incentive Payment: $166,865 **Process Milestone 3 [P-3]** Develop and test data systems Data Source: Public health and workforce statistics Process Milestone 3 Estimated Incentive Payment: $166,865	**Outcome Improvement Target 1** [IT-14.1]: Increase the number of practicing behavioral health physicians per 100,000 individuals in HPSA or MUA above baseline Improvement Target: TBD Data Source: Public health and workforce statistics Outcome Improvement Target 2 Estimated Incentive Payment: $535,520	**Outcome Improvement Target 2** [IT-14.1]: Increase the number of practicing behavioral health physicians per 100,000 individuals in HPSA or MUA above baseline Improvement Target: TBD Data Source: Public health and workforce statistics Outcome Improvement Target 2 Estimated Incentive Payment: $776,116
Year 2 Estimated Outcome Amount: $143,957	Year 3 Estimated Outcome Amount: $333,730	Year 4 Estimated Outcome Amount: $535,520	Year 5 Estimated Outcome Amount: $776,116
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $1,789,323			

Title of Outcome Measure: IT 14.1 Number of practicing primary care practitioners per 100,000 individuals in HPSA or MUA

Unique RHP outcome ID: 085144601.3.1
Performing Provider/TPI: University of Texas Health Science Center San Antonio / 085144601
Related Category 1 or 2 Projects: 085144601.1.3

Outcome Measure Description
OD-14 Primary Care Workforce

Stand-alone: IT - 14.1 Number of practicing primary care physicians per 100,000 individuals in HPSA or MUA

Non-stand-alone but related:

IT - 14.6 percent of trainees who have spent at least 5 years living in a health-professional shortage area (HPSA) or medically underserved area (MUA)

IT - 14.7 Percent of trainees who report that they plan to practice in HPSAs or MUAs based on a systematic survey

IT – 14.8 Percent of trainees who report that they plan to serve Medicaid populations based on a systematic survey

Process Milestones:

DY 2:	P-1 Project planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans
	P-3 Develop and test data systems
DY 3:	P-2 Establish baseline rates
	P-3 Develop and test data systems

Outcome Improvement Targets for each year:

DY 4:	IT-14.1 Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA by TBD above baseline
DY 5:	IT-14.1 Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA by TBD above baseline

Rationale:
The long-term goal of this project is to train more primary care physicians for practice in the RHP 5 community. In the near-term and within the scope of the Demonstration period, the addition of practicing faculty physicians will improve access to primary care for the underserved.

Outcome Measure Valuation:
The project is valued based upon achieving waiver goals, meeting community needs, depth of scope, and resources deployed. Although the outcome domain chosen targets number of practicing primary care physicians per 100,000 individuals in HPSA or MUA, we are cautiously optimistic that implementation of this project will also generate improved experience of care for individuals, improved health for the population, and lower the cost of care while improving quality.

085144601.3.3	3.IT-14.1	Number of practicing primary care physicians per 1,000 individuals in HPSA or MUA	
	UT Health Science Center San Antonio		TPI 085144601
Related Category 1 or 2 Projects:	085144601.1.3		
Starting Point/Baseline:			
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 P-1: Project planning – engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans Data Source: Dept of State Health Services and local health department statistics Process Milestone 1 Estimated Incentive Payment *(maximum amount):* $71,978 **Process Milestone 2** [P-3]: Develop and test data systems Data Source: Public health and workforce statistics Process Milestone 2 Estimated Incentive Payment: $71,979	**Process Milestone 3 [P-2]** Establish baseline rate Data Source: Public health and workforce statistics Process Milestone 3 Estimated Incentive Payment: $166,865 **Process Milestone 3 [P-3]** Develop and test data systems Data Source: Public health and workforce statistics Process Milestone 3 Estimated Incentive Payment: $166,865	**Outcome Improvement Target 1** [IT-14.1]: Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA above baseline Improvement Target: TBD Data Source: Public health and workforce statistics Outcome Improvement Target 2 Estimated Incentive Payment: $535,520	**Outcome Improvement Target 2** [IT-14.1]: Increase the number of practicing primary care physicians per 100,000 individuals in HPSA or MUA above baseline Improvement Target: TBD Data Source: Public health and workforce statistics Outcome Improvement Target 2 Estimated Incentive Payment: $776,116
Year 2 Estimated Outcome Amount: $143,957	Year 3 Estimated Outcome Amount: $333,730	Year 4 Estimated Outcome Amount: $535,520	Year 5 Estimated Outcome Amount: $776,116
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $1,789,323			

Identifying Outcome Measure: IT-10.1 Quality of Life
Unique outcome ID number: 085144601.3.4
Performing Provider/TPI: University of Texas Health Science Center San Antonio/085144601
Related Category 1 or 2 Projects: 085144601.1.4

Outcome Measure Description
To measure the change in quality of life, direct patient surveys will have to be conducted.
DY 2 P-1 Create a descriptive, yet simple, survey that will cover the major procedures
DY 2 P-2 Have the patient fill out the survey during the follow up, if applicable
DY 2 P-3 Gather data and plot the results using an exponential smoothing model
DY 3 P-4 Continue to gather surveys and compare against the forecast from the model
DY 3 P-5 Conclusions of this study
DY 4 (IT-10.1) Demonstrate improvement in quality of life (QOL) scores, as measured by Evidence based and validated assessment tool, for the target population.

Rationale:
The addition of a pediatric Urologist in the Rio Grande Valley will provide much needed services to an impoverished and underserved community exhibiting significantly averse health disparities. Children in need of pediatric urology services in the RGV routinely wait several months in order to obtain services. Not infrequently many must travel to San Antonio to receive care either due to progression of illness or other complicating factors driving increases in the cost of an episode of care, along with deterioration in overall quality of life for both the child and their families.

Outcome Measure Valuation:
The project is valued based upon achieving waiver goals, meeting community needs, depth of scope, and resources deployed. Although the outcome domain chosen targets enhancement in quality of life we are cautiously optimistic implementation of this project will also generate reductions in the episodic cost of care per unique patient treated.

Unique Category 3 identifier: 085144601.3.4	*Outcome Measure Reference number 3.IT-10.1*	**Quality of Life/ Functional Status**	
	UT Health Science Center San Antonio		*TPI 085144601*
Related Category 1 or 2 Projects:	*085144601.1.4*		
Starting Point/Baseline:	*TBD in DY 3*		
Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1 [P-1]: Create a descriptive, yet simple, survey that will cover the major procedures Data Source: clinic personnel Process Milestone 1 Estimated Incentive Payment *(maximum amount):* $10,182 **Process Milestone 2** [P-2]: Have the patient fill out the survey during the follow up, if applicable Data Source: Submitted surveys Process Milestone 2 Estimated Incentive Payment: $101,182 **Process Milestone 3 [P-3]:** Gather data and plot the results using an exponential smoothing model Data Source: Source data and regression model Process Milestone 3 Estimated Incentive Payment: $10,182	**Process Milestone 4 [P-4]:** Continue to gather surveys and compare against the forecast model Data Source: database of raw data and forecast model Process Milestone 4 Estimated Incentive Payment: $35,406 **Process Milestone 5 [P-5]:** Conclusions of this study Data Source: analysis of all data and tools Process Milestone 5 Estimated Incentive Payment: $35,406	**Outcome Improvement Target 1** [IT-10.1]: Improvement in quality of life scores Improvement Target: TBD in DY 3 Data Source: Survey Baseline results Outcome Improvement Target 1 Estimated Incentive Payment: $113,631	**Outcome Improvement Target 1** [IT-10.1]: Improvement in quality of life scores [IT-101]: TBD based upon baseline per DY 3 Data Source: Baseline results Outcome Improvement Target 2 Estimated Incentive Payment: $164,682
Year 2 Estimated Outcome Amount: $30.456	Year 3 Estimated Outcome Amount: $70,813	Year 4 Estimated Outcome Amount: $113,631	Year 5 Estimated Outcome Amount: $164,682
TOTAL ESTIMATED INCENTIVE PAYMENTS FOR 4-YEAR PERIOD *(add outcome amounts over DYs 2-5):* $379,672			

RHP Plan for Region 5 325

Identifying Outcome Measure: IT-1.10 Diabetes Care: HbA1c poor control (>9.0%) – NQF 0059) Standalone Measure
Unique Outcome Measure Identification Number: 085144601.3.5
Performing Provider/TPI: University of Texas Health Science Center San Antonio 085144601
Related Category 1 or 2 Projects: 2.1.3

Measure Description:
The clinic proposes to measure outcomes resultant from Process and Improvement milestones by trending improvements in the percentage of patients diagnosed with diabetes whose HbA1c is above 9.0%, otherwise known as poor control. As our clinic moves along the path toward certification as a patient centered medical home, the benefits of focusing on population management will manifest themselves within the patient population diagnosed with diabetes. Establishing a care team which may include physicians, nurses, nutritionists, care managers, lab, and outreach is expected to yield a lower percentage of the targeted patient population whose HbA1c is in poor control.

The clinic expects that the use of electronic medical records, health information exchange, and the patient centered medical home will lead to a percentage reduction in the number of adult patients with Type 1 or 2 diabetes whose HbA1c is in poor control to a level of 27% at the end of the project period. The established baseline is 34.27% based upon calendar year 2011 data taken from the clinic's electronic medical records system.

Rationale:
Diabetes is one of the most costly and highly prevalent chronic diseases in the United States. Approximately 20.8 million Americans have diabetes, and half these cases are undiagnosed. Complications from the disease cost the country nearly $100 billion annually. In addition, diabetes accounts for nearly 20 percent of all deaths in people over 25 years of age. Many complications, such as amputation, blindness, and kidney failure, can be prevented if detected and addressed in the early stages. Although many people live with diabetes years after diagnosis, it is a costly condition that leads to serious and potentially fatal health complications. Diabetes control can improve the quality of life for millions of Americans and save billions of health care dollars.

Outcome Measure Valuation:
Numerator: Perentage of patients 18 – 75 years of age with diabetes (type 1 or 2) who had hemoglobin A1c (HbA1c) in poor control (>9.0%).
Denominator: Members 18 – 75 years of age as of December 31 of the measurement year with diabetes (type 1 and type 2).

The HbA1c measure was selected due to the prevalence of this disease within the local population and its related impact on healthcare costs. In 2011, our clinic provided services to 4,373 patients diagnosed with diabetes through 17,309 medical visits. Through better patient management, education, prevention, and care coordination, the clinic's goal is to improve the

patient experience of care, improve the health of populations, and reduce the per capita cost of health care.

Outcome data will be obtained through the clinic's electronic medical records system. As the project progresses, it will be possible to share clinical information with hospitals and others through the Health Information Exchange. Through this model, the clinic will be in a better position to identify problems early on, coordinate with others to develop an effective care plan, and work with the patient and family to achieve the outcome measure.

	Reference Number 085144601.3.5	Project Components 2.1.3.a-f	Diabetes Care HbA1c poor control (>9.0%)
			UTHSCSA 085144601.2.1
ojects: 2.1.3			Identifier TPI# 085144601
		37.14%	
013	Year 3 (10/1/2013 – 9/30/2014)	Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
Project ders, ıd needed nes and plans	**Process Milestone 2** P- 2 Establish baseline rates Metric: baseline rate measures of patients under PCMH management. Baseline rates of HbA1c. Goal: measure the proportion of persons under the PCMH program and the proportion with HbA1c above and below 9%. P- 3 Develop and test data systems Metric: be able to provide data on proportion of patients under the PCMH program and to measure their HbA1c levels at any time.	**Improvement Milestone :IT-1.10** Diabetes Care: HbA1c poor control (>9.0%) – NQF 0059) Reduce proportion over 9% from baseline by 5%. Standalone Measure Metric: Numerator: Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had hemoglobin A1c (HbA1c) control > 9.0%. b Denominator: Members 18 to 75 years of age as of December 31 of the measurement year with diabetes (type 1 and type 2) c Data Source: EHR, Registry, Claims, Administrative clinical data	**IT-1.10** Diabetes Care: HbA1c poor control (>9.0%) – NQF 0059) Reduce proportion over 9% from baseline by 10%. Standalone Measure Metric: Numerator: Percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had hemoglobin A1c (HbA1c) control > 9.0%. b Denominator: Members 18 to 75 years of age as of December 31 of the measurement year with diabetes (type 1 and type 2) c Data Source: EHR, Registry, Claims, Administrative clinical data
Amount:	Year 3 Estimated Outcome Amount: $126,976	Year 4 Estimated Outcome Amount: $203,752	Year 5 Estimated Outcome Amount: $295,292
ENTIVE PAYMENTS FO 4-YEAR PERIOD (add milestone bundle amounts over DYs 2-5): $680,791			

-END-

Identifying Outcome Measure: IT-1.10 Diabetes Care: HbA1c poor control (>9.0%) – NQF 0059) Standalone Measure
Unique project ID: 085144601.3.6
Performing Provider Name/TPI: University of Texas Health Science Center San Antonio 085144601
Related Category 1 or 2 Projects: 2.1, 2.4

Measure Description:
UTHSCSA proposes to measure outcomes resultant from Process and Improvement milestones by trending improvements in the percentage of patients diagnosed with diabetes whose HbA1c is above 9.0%, otherwise known as poor control. As the project fully implements the chronic care management model the benefits of focusing on care management will result in patients diagnosed with diabetes, following a more controlled regimen of medication and lifestyle changes. Establishing a care team including professionals from multiple disciplines is expected to yield a lower percentage of the targeted patient population whose HbA1c is in poor control.

UTHSCSA expects that a 7% reduction in the number of adult patients with Type 2 diabetes whose HbA1c is in poor control (>9.0%). The baseline value will be established in DY 2.

Rationale:
Diabetes is one of the most costly and highly prevalent chronic diseases in the United States. Approximately 20.8 million Americans have diabetes, and half these cases are undiagnosed. Complications from the disease cost the country nearly $100 billion annually. In addition, diabetes accounts for nearly 20 percent of all deaths in people over 25 years of age. Many complications, such as amputation, blindness, and kidney failure, can be prevented if detected and addressed in the early stages. Although many people live with diabetes years after diagnosis, it is a costly condition that leads to serious and potentially fatal health complications. Diabetes control can improve the quality of life for millions of Americans and save billions of health care dollars.

Outcome Measure Valuation:
Numerator: Percentage of patients 18 – 75 years of age with diabetes (type 2) who had hemoglobin A1c (HbA1c) in poor control (>9.0%).
Denominator: Members 18 – 75 years of age as of December 31 of the measurement year with diabetes (type 2).

The HbA1c measure was selected due to the prevalence of this disease within the local population and its related impact on healthcare costs. Recent data from RHP 5 indicates that 31% of the population has type 2 diabetes, with 50% unaware of their diagnosis. Through chronic care management these patients will improve their health and reduce the per capita cost of health care.

Outcome data will be obtained through the CCM program's electronic medical records system. As the project progresses, it will be possible to share clinical information with clinics, other hospitals and others HIPPA protected entities through the Health Information Exchange. We

will be in a better position to identify problems early on, coordinate with others to develop an effective care plan, and work with the patient and family to achieve the outcome measure.

	Reference Number 2.2	Project Components 2.2.1	Diabetes Care HbA1c poor control (>9.0%)
			TPI# UTHSCSA
ojects: 2.1, 2.4			Identifier TPI#085144601
		37.14%	
013	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Establish baseline olled mong Care am nt:	**Process Milestone 2**: P-3. Develop and test data system Metric 1: P-3.1 Establish data system for tracking CCM patients. Enter data and conduct test of system. Estimated Incentive Payment: $439,531	**Process Milestone 3: P-4.** Conduct a plan Do Study Act (PDSA) cycle to improve data collection and navigation services Metric 1: implement PDSA cycle on issue identified by stakeholders and staff, jointly study and implement solution Estimated Incentive Payment: $352,647 **Improvement Target 4:IT-1.10** Diabetes care: *HbA1c poor control (>9.0%)233- NQF 0059 (Standalone measure)* Metric: 1-10. Percentage of patients with HbA1c control >9.0% Improvement Target: 4% decrease over baseline Estimated Incentive Payment: $587,745	**Process Milestone 5: P-4.** Conduct a plan Do Study Act (PDSA) cycle to improve data collection and navigation services Metric 1: implement PDSA cycle on issue identified by stakeholders and staff, jointly study and implement solution Estimated Incentive Payment: $425,902 **Improvement Target 4:IT-1.10** Diabetes care: *HbA1c poor control (>9.0%)233- NQF 0059 (Standalone measure)* Metric: 1-10. Percentage of patients with HbA1c control >9.0% Improvement Target: 7% decrease over baseline Estimated Incentive Payment: $425,902
Amount:	Year 3 Estimated Outcome Amount: $366,276	Year 4 Estimated Outcome Amount: $587,745	Year 5 Estimated Outcome Amount: $851,804
NCENTIVE PAYMENTS FOR 4-YEAR PERIOD (add milestone bundle amounts over DYs 2-5): $ 1,963,821			

Identifying Outcome Measure: IT-12.5 Other USPSTF-endorsed screening outcome measures (diabetes, hypertension and hypercholesterolemia)
Unique RHP outcome identification number(s): 085144601.3.7
Performing Provider/TPI: UTHSCSA / 085144601
Related Category 1 or 2 Projects: 085144601.2.3

Measure Description:

We propose to measure outcomes resultant for Process and Improvement milestones by trending improvements in the percentage of patients screened for diabetes, hypertension and hypercholesterolemia. As the van project is implemented we will screen an increased number of people for these conditions. Those patients diagnosed with one of these conditions will be brought into the full array of patient navigation services so that these conditions are treated and self-managed. Implementing the core components of the patient navigation services will identify more individuals who are at risk for diabetes, hypertension and hypercholesterolemia, provide them support as they make behavior changes, and provide referrals to medical homes. All of these programmatic elements will results in their diabetes, hypertension and hypercholesterolemia brought under control.

We expect to use EMR data to measure these three non standalone measures. Patients of the mobile van who are enrolled patient navigation services will receive a range of services that lead to a percentage increase in the number of adult patients screened for diabetes, hypertension and hypercholesterolemia. We expect to see a 10% increase among the population who are screened for each of the three conditions: diabetes, hypertension and hypercholesterolemia. Currently 50% are unaware of their diagnosis and are therefore untreated (Fisher-Hoch et al, 2012).

OD- 12 Primary Care and Primary Prevention
IT-12.5 Other USPSTF-endorsed screening outcome measures (diabetes, hypertension and hypercholesterolemia)

Process Milestones:

DY2: P-1 Project planning, engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans
DY3: P-3 Develop and test data systems
P-2 – Establish baseline rates for rate
DY4: P-4. Conduct a plan Do Study Act (PDSA) cycle to improve data collection and navigation services
DY5: P-4. Conduct a plan Do Study Act (PDSA) cycle to improve data collection and navigation services

Outcome Improvement Targets:

DY4: IT-12.5: increase USPSTF-endorsed screening outcome measures for diabetes, hypertension and hypercholesterolemia
DY5: IT-12.5: increase USPSTF-endorsed screening outcome measures for diabetes, hypertension and hypercholesterolemia

Rationale:

Identifying any one of the target conditions individually is important and cost savings. Identifying individuals with multiple conditions is exponentially important, particularly among individuals with low or no insurance coverage.

Diabetes: Diabetes is one of the most costly and highly prevalent chronic diseases in the United States. Approximately 20.8 million Americans have diabetes, and half these cases are undiagnosed. Complications from the disease cost the country nearly $100 billion annually. In addition, diabetes accounts for nearly 20 percent of all deaths in people over 25 years of age. Many complications, such as amputation, blindness, and kidney failure, can be prevented if detected and addressed in the early stages. Although many people live with diabetes years after diagnosis, it is a costly condition that leads to serious and potentially fatal health complications. Diabetes control can improve the quality of life for millions of Americans and save billions of health care dollars.

Hypertension: Approximately 76.4 million (33.5 percent) of people in the United States have high blood pressure. Numerous clinical trials have shown that aggressive treatment of high blood pressure reduces mortality from heart disease, stroke and renal failure; results are particularly striking in elderly hypertensives, which are more likely to have heart failure. A pool of past clinical trials demonstrated that a 5 mm to 6 mm Hg reduction in diastolic blood pressure was associated with a 42 percent reduction in stroke mortality and a 14 percent to 20 percent reduction in mortality from coronary heart disease (CHD). Literature from clinical trials indicates that 53 percent to 75 percent of people under treatment achieved control of their blood pressure.

Hypercholesterolemia: Total blood cholesterol is directly related to the development of coronary artery disease (CAD) and coronary heart disease (CHD), with most of the risk being associated with low-density lipoprotein cholesterol (LDL-C). When LDL-C levels are high, cholesterol can build up within the walls of the arteries, causing atherosclerosis, the build-up of plaque. Hemorrhaging or clot formation can occur at the site of plaque build-up, blocking arteries and causing heart attack and stroke. Reducing cholesterol in patients with known heart disease is critically important, as treatment can reduce morbidity (heart attack and stroke) and mortality by as much as 40%. The National Cholesterol Education Program (NCEP) has established guidelines for managing cholesterol levels in patients with heart disease. The guidelines established the need for close monitoring of LDL cholesterol in patients with coronary heart disease and set a target for LDL-C of less than or equal to 100 mg/dL for such patients. Cholesterol screening and control depends on the combined efforts of patient, physician and organization. Lifestyle factors and new medications offer tangible means for reducing cholesterol and the risk of heart disease.

Outcome Measure Valuation:

a Numerators: Number of people screened for blood glucose or HbA1c consistent with diabetes. Number of people screened for hypertension. Number of people screened for elevated cholesterol.

b Denominators: Number of adults aged 18 to 85 years of age as of December 31 of the measurement year in the patient or target population.

c Data Source: EMR

These outcome measures were selected because in RHP 5, 70% of the population has one or more chronic conditions. A similar proportion has currently no health insurance, such that preventive care and intervention is neglected and patients often only present to clinics or emergency departments with advanced severe disease. Patients in our rural underserved areas often lack transportation, primary care access, and preventive services. No navigation services are in place for these in those rural areas.
Outcome data will be obtained through the mobile van's electronic medical records system. Through this model, the van will be in a better position to identify problems early on, coordinate with others to develop an effective care plan, and work with the patient and family to achieve the outcome measure.

Category 3 outcome measure: 085144601.3.7	Reference Number IT 12.5	Project Components 2.9.1 [a-e]	**Other USPSTF**-endorsed screening outcome measures (diabetes, hypertension and hypercholesterolemia)
UTHSCSA			TPI# UTHSCSA 085144601
Related Category 1 or 2 Projects: 085144601.2.3			
Starting Point/Baseline		To be developed in DY 3	

Year 2 (10/1/2012 – 9/30/2013	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Process Milestone 1: P-1. Project planning - engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans Metric 1. P-1.1. Create a project plan for expanding mobile van services including screening, establish agreements with stakeholders, and identify resources and timelines. Estimated Incentive Payment: $42,132	**Process Milestone 2**: P-3. Develop and test data system Metric 1: P-3.1 Establish data system for tracking mobile van patients screening rates. Enter data and conduct test of system. Process Milestone 2 Estimated Incentive Payment: $48,837 **Process Milestone 3** [P-2]: Establish baseline rates Data Source: EHR; Business Intelligence Process Milestone 3 Estimated Incentive Payment: $48,837	**Process Milestone 4**: P-4. Conduct a plan Do Study Act (PDSA) cycle to improve data collection and navigation services Metric 1: implement PDSA cycle on issue identified by stakeholders and staff, jointly study and implement solution Process milestone 4 Estimated Incentive Payment: $78,366 **Outcome Improvement Target 5** IT-12.5: increase USPSTF-endorsed screening outcome measures for diabetes, hypertension and hypercholesterolemia Improvement Target: 7% increase in patients screened for diabetes, hypertension and hypercholesterolemia Data Source: Electronic medical record, chart review Outcome Improvement target 5 Estimated Incentive Payment: $78,366	**Process Milestone 6**: P-4. Conduct a plan Do Study Act (PDSA) cycle to improve data collection and navigation services Metric 1: implement PDSA cycle on issue identified by stakeholders and staff, jointly study and implement solution Process milestone 6 Estimated Incentive Payment: $113,574 **Outcome Improvement Target 7** IT-12.5: increase USPSTF-endorsed screening outcome measures for diabetes, hypertension and hypercholesterolemia Improvement Target: 10% increase in patients screened for diabetes, hypertension and hypercholesterolemia Data Source: Electronic medical record, chart review Outcome Improvement target 7 Estimated Incentive Payment: $113,574
Year 2 Estimated Outcome Amount: $42,132	Year 3 Estimated Outcome Amount: $97,674	Year 4 Estimated Outcome Amount: $156,732	Year 5 Estimated Outcome Amount: $227,148
TOTAL ESTIMATED INCENTIVE PAYMENTS FO 4-YEAR PERIOD (add milestone bundle amounts over DYs 2-5): $523,686			

Identifying Outcome Measure: IT-1.7 Controlling high blood pressure (NCQA-HEDIS 2012, NQF 0018)228 *(Standalone measure)*
Unique project ID: 085144601.3.8

Performing Provider/TPI: The University of Texas Health Science Center San Antonio (UTHSCSA) / 085144601
Related Category 1 or 2 Projects: 085144601.2.5

Measure Description:

We propose to measure outcomes resultant for Process and Improvement milestones by trending improvements in the percentage of patients with controlled high blood pressure. As the CWC is implemented we will screen and identify people who have been diagnosed with hypertension but it is uncontrolled as well as people who have undiagnosed hypertension that is also uncontrolled. Implementing the core components of the CWC will identify engage these individuals in lifestyle changes, provide them support as they make behavior changes, and provide referrals to medical homes. All of these programmatic elements will results in their blood pressure will be brought under control. This will yield an increased percentage of people with controlled blood pressure.

We expect to use CWC registry data to measure this standalone measure. Patients who are enrolled in the CWC will receive a range of services that lead to a percentage increase in the number of adult patients with controlled blood pressure. We expect to see a 10% increase among the population who is aware of their hypertension status and a 5% increase in those with this condition who have it controlled. Currently 50% are unaware of their hypertension diagnosis and are therefore untreated (Fisher-Hoch et al, 2012). It is not clear how many people with hypertension, but are aware of their disease who have it controlled.

OD-1- Primary Care and Chronic Disease Management
IT-1.7 Controlling high blood pressure (NCQA-HEDIS 2012, NQF 0018)228 *(Standalone measure)*

Process Milestones:

DY2:

P-1 Project planning, engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans

DY3:

P-3 Develop and test data systems

P-2 – Establish baseline rates for rate

DY4:

P-4. Conduct a plan Do Study Act (PDSA) cycle to improve data collection and navigation services

DY5:

P-4. Conduct a plan Do Study Act (PDSA) cycle to improve data collection and navigation services

Outcome Improvement Targets:

DY4:

1-7. Controlling high blood pressure

DY5:

1-7. Controlling high blood pressure

Rationale:

Approximately 76.4 million (33.5 percent) of people in the United States have high blood pressure. Numerous clinical trials have shown that aggressive treatment of high blood pressure reduces mortality from heart disease, stroke and renal failure; results are particularly striking in elderly hypertensives, which are more likely to have heart failure. A pool of past clinical trials demonstrated that a 5 mm to 6 mm Hg reduction in diastolic blood pressure was associated with a 42 percent reduction in stroke mortality and a 14 percent to 20 percent reduction in mortality from coronary heart disease (CHD). Literature from clinical trials indicates that 53 percent to 75 percent of people under treatment achieved control of their blood pressure. The specifications for this measure are consistent with current guidelines, such as those of the USPSTF and the Joint National Committee. Many CVD risk factors such as high blood pressure, excess weight, poor diet, and diabetes can be prevented or treated through health behavior change and appropriate medication. We propose to create a CWC that increases physical activity, healthy food choices and referrals to medical homes so that holistic treatment of high blood pressure is achieved and sustained.

Outcome Measure Valuation:

a Numerator: The number of patients in the denominator whose most recent blood pressure (BP) is adequately controlled (BP less than 140/90 mm Hg)during the measurement year

b Denominator: Patients 18 to 85 years of age as of December 31 of the measurement year with a diagnosis of hypertension

Controlled blood pressure was selected due to the prevalence of this condition in our local population and its related impact on health care costs. As demonstrated in our needs assessment, among diabetics, hypertension is the leading cause of hospitalization in RHP 5. Through the community wide campaign patient education, prevention, and care coordination will occur to improve the health of population and reduce the per capita cost of health care.

We expect to use registry records of the CWC to demonstrate improvements in this outcome measure. Patient records will be kept for those receiving services with the CWC. The baseline measure will be their initial blood pressure reading. Of those characterized with hypertension, a standalone measure of controlled high blood pressure will be taken at a follow-up measure within one year of their initial measure. BP less than 140 / 90 mm Hg will be considered adequately controlled. Patients enrolled during each performance year will be included in the outcome measure assessment.

Category 3 outcome measure: IT-1.7	Project ID: 085144601.3.8	Project Components 2.6.1	Controlling High Blood Pressure (NCQA-HEDIS 2012, NQF 0018)228 *(Standalone measure)*
UTHSCSA			UTHSCSA TPI#
Related Category 1 or 2 Projects: 085144601.2.5			Identifier TPI# 085144601
Starting Point/Baseline		To be established DY 3	

Year 2 (10/1/2012 – 9/30/2013	Year 3 (10/1/2013 – 9/30/2014)	Year 4 (10/1/2014 – 9/30/2015)	Year 5 (10/1/2015 – 9/30/2016)
Process Milestone 1: P-1. Project planning - engage stakeholders, identify current capacity and needed resources, determine timelines and document implementation plans Metric 1. P-1.1. Create a project plan for CWC services, establish agreements with stakeholders, and identify resources and timelines. Estimated Incentive Payment: $90,320	**Process Milestone 2: P-3. Develop and test data system** Metric 1: P-3.1 Establish data system for tracking CWC patients. Enter data and conduct test of system. Estimated Incentive Payment: $104,693 **Process Milestone 3:** P- 2 Establish baseline rates Metric 1. P-2.1. Determine baseline of controlled blood pressure among patients with hypertension enrolled in CWC services Estimated Incentive Payment: $104,693	**Process Milestone 4: P-4.** Conduct a plan Do Study Act (PdSA) cycle to improve data collection and intervention activities Metric 1: implement PDSA cycle on issue identified by project partners, jointly study and implement solution Estimated Incentive Payment: $167,996 **Improvement Target 5: 1-7. Controlling high blood pressure** Metric: incremental increase of in number or percent of patients with controlled high blood pressure Data source: CWC registry data Estimated Incentive Payment: $167,996	**Improvement Target 6: 1-7. Controlling high blood pressure** Metric: incremental increase in number or percent of patients with controlled high blood pressure Data source: CWC registry data Estimated Incentive Payment: $243,422 **Process Milestone 7: P-4.** Conduct a plan Do Study Act (PdSA) cycle to improve data collection and intervention activities Metric 1: implement PDSA cycle on issue identified by project partners, jointly study and implement solution Estimated Incentive Payment: $243,423
Year 2 Estimated Outcome Amount: $90,320	Year 3 Estimated Outcome Amount: $209,386	Year 4 Estimated Outcome Amount: $335,992	Year 5 Estimated Outcome Amount: $486,945
TOTAL ESTIMATED INCENTIVE PAYMENTS FO 4-YEAR PERIOD (add milestone bundle amounts over DYs 2-5): $1,122,644			

F. Category 4: Population-Focused Improvements (Hospitals only)

The performing provider hospital following information should be included:
Performing Provider involved with Category 4 (including TPI).

The following narrative and table describes Category 4 Reporting for the hospital in RHP 5 that is required to complete reporting: Doctors Hospital at Renaissance.

Category 4 – Reporting Domain 1 - Potentially Preventable Admissions (PPAs)

Performing Provider: Doctors Hospital at Renaissance (160709501)

Domain Description:

Doctors Hospital at Renaissance recognizes the region's historical healthcare challenges and provider shortages. The overall goal of this project is to expand the workforce, allaying the shortage of primary care providers, thereby reducing delays in care seeking, reducing inappropriate and costly emergency department utilization, preventing unnecessary hospital admissions, and increasing patient satisfaction. Due to a shortage in the healthcare workforce, patients in the Rio Grande Valley[65] have been limited in their access to necessary and regular provider visits that include general health check-ups and preventative screenings. This fact when coupled with socioeconomic challenges, genetics, and a low health literacy rate has led to a disproportionate impact of Diabetes and other chronic conditions in the region. In response to these circumstances, Doctors Hospital at Renaissance will focus on reducing potentially preventable admissions for patients through an increase in healthcare providers who can render the right care, at the right time, in the right place, and the right manner.

Through the development of new residency programs that increase access to primary care services in the short-term with new faculty, in the intermediate term with resident trainees, and in the long-term with graduate physicians, Doctors Hospital at Renaissance will be able to increase access of and medical management for patients with chronic conditions and socioeconomic challenges thereby improving key health metrics outlined in Domain One. All resident programs at Doctors Hospital at Renaissance (DHR) will feature innovative curriculum components focused on population health management, team-based community care, the use of chronic disease registries, and the application of data analytics including full use of Electronic Medical Record (EMR) technology. Through this population-based medical management approach, Doctors Hospital at Renaissance will work to decrease preventable admissions to the hospital in an at-risk population that is currently underserved.

Improvements through DY2-DY5:

DY2: In DY2, the residency programs at Doctors Hospital at Renaissance will be in the process of accreditation and a gap needs assessment will be drafted to ensure proper utilization of faculty and resident services. From the needs assessment, DHR will be able to determine key areas in

[65] Four County Area in South Texas including the following counties: Hidalgo County, Cameron County, Starr County, and Willacy County.

greatest need and design response programs that allow residents and services to be allocated accordingly.

DY3: In DY3, faculty of the new resident programs will work with Doctors Hospital at Renaissance and their medical staff to design and implement a community outreach and an evidence-based care program that will aim to reduce preventable admissions below the national average in a five year period. The medical programs and/or clinical services will integrate and actively monitor the key metrics and population healthcare outcomes established in domain one. Baseline metrics will be developed in DY3 when new residents enter the community for the first time.

DY4: In DY4, continuous quality improvement programs will be in operation with DHR affiliates that are receiving increased availability with the presence of residents to promote medical home and preventative care management for a healthier population. There will be an expected reduction in preventable admission rates for diabetic patients and other chronic conditions from the baseline metrics established in DY3.

DY5: In DY5, the introduction of additional residents and care providers from projects developed under Category One[66] and the outcome measures from Category 3 will prompt greater access alleviating healthcare workforce shortage issues and allow for greater access to preventative care thereby reducing preventable hospital admissions by the largest margin in the five year period.

Category 4 Domain Valuation:

The domain focus that is taken by the projects for DHR focuses on increasing the availability of healthcare services to the surrounding indigent population. The aim of this domain is decreasing preventable admissions, and the focus of the supporting projects is diabetic patients. As the residency programs are fully developed, continuous cohorts of new primary healthcare providers will enter the community. This increased access to providers will have a large impact in reducing avoidable healthcare cost in a community once plagued by a healthcare workforce shortage. The increase of healthcare availability in this community will positively change the quality of life for countless residents resulting in a high value for the system and the patients together. As conditions become manageable for those that are accessing the increased service availability, admissions and readmissions will decrease resulting in further cost savings stimulation as well as a healthier population.

[66] 160709501.1.1 Establish Primary Care/Internal Medicine Residency Training Program
160709501.1.2 Establish Primary Care/Family Medicine Training Program;
160709501.1.3 Establish Primary Care/Obstetrics & Gynecology Training Program; and
160709501.1.4 Expand high impact specialty care capacity in most impacted medical specialties (Establish General Surgery Training Program).

Category 4 – Reporting Domain 2 – 30-Day Readmissions

Performing Provider: Doctors Hospital at Renaissance (160709501)

Domain Description:

Doctors Hospital at Renaissance recognizes the region's historical healthcare challenges and provider shortage. The overall goal of this project is to expand the workforce, allaying the shortage of primary care providers thereby reducing delays in care seeking, reducing inappropriate and costly emergency department utilization, preventing unnecessary hospital admissions, and increasing patient satisfaction. Due to a shortage in the healthcare workforce, patients in the Rio Grande Valley[67] have been limited in their access to necessary and regular provider visits that include general health check-ups and preventative screenings. This fact when coupled with socioeconomic challenges, genetics, and a low health literacy rate has led to a disproportionate impact of Diabetes and other chronic conditions in the region. In response to these circumstances, Doctors Hospital at Renaissance will focus on reducing potentially preventable readmissions for patients through an increase in healthcare providers increasing the availability for follow-up care in the primary healthcare setting versus relying on the emergency department in the safety-net hospital system.

Through the development of new residency programs that increase access to primary care services in the short-term with new faculty, in the intermediate term with resident trainees, and in the long-term with graduate physicians, Doctors Hospital at Renaissance will be able to increase access of and medical management for patients with chronic conditions and socioeconomic challenges thereby improving key health metrics outlined in domain two. All resident programs at Doctors Hospital at Renaissance (DHR) will feature innovative curriculum components focused on population health management, team-based community care, the use of chronic disease registries, and the application of data analytics including full use of Electronic Medical Record (EMR) technology. Through this population-based medical management approach, Doctors Hospital at Renaissance will be able to focus on preventable readmissions to the hospital in an at-risk population that is currently underserved.

Improvements through DY2-DY5:

DY2: In DY2, the residency programs at Doctors Hospital at Renaissance will be in the process of accreditation and a gap needs assessment will be drafted to ensure proper utilization of faculty and resident services. From the needs assessment, DHR will be able to determine key areas in

[67] Four County Area in South Texas including the following counties: Hidalgo County, Cameron County, Starr County, and Willacy County.

greatest need and design response programs that allow residents and services to be allocated accordingly.

DY3: In DY3, faculty of the new resident programs will work with Doctors Hospital at Renaissance and their medical staff to design and implement a community outreach and an evidence-based care program that will aim towards reducing 30 day readmissions compared to the established baseline. The medical programs and/or clinical services will integrate and actively monitor the key metrics and population healthcare outcomes that are desired in domain two. Baseline metrics will be developed in DY3 when new residents enter the community for the first time.

DY4: In DY4, continuous quality improvement programs will be in operation with DHR affiliates that are receiving increased availability with the presence of residents to promote medical home and preventative care management for those patients that are able to utilize the newly expanded availability of follow-up services throughout the community. There will be an expected improvement in preventable 30 day readmission rates for diabetic patients and other chronic conditions from the baseline metrics established in DY3.

DY5: In DY5, the introduction of additional residents and care providers from projects developed under Category One[68] and the outcome measures from Category 3 will prompt greater access alleviating healthcare workforce shortage issues and allow for greater access to preventative care thereby reducing preventable hospital readmissions by the largest margin in the five year period.

Category 4 Domain Valuation:

The domain strategy that is taken by the projects for DHR focuses on increasing the availability of healthcare services to the surrounding indigent population. The aim of this domain is decreasing 30-day readmissions, and the focus of the supporting projects is diabetic patients. As the residency programs are fully developed, continuous cohorts of new primary healthcare providers will enter the community. This increased access to providers will have a large impact in reducing avoidable healthcare cost in a community once plagued by a healthcare workforce shortage. The increase of healthcare availability in this community will positively change the quality of life for countless residents resulting in a high value for the system and the patients together. As conditions become manageable for those that are accessing the increased service availability, admissions and readmissions will decrease resulting in further cost savings stimulation as well as a healthier population.

[68] 160709501.1.1 Establish Primary Care/Internal Medicine Residency Training Program
160709501.1.2 Establish Primary Care/Family Medicine Training Program;
160709501.1.3 Establish Primary Care/Obstetrics & Gynecology Training Program; and
160709501.1.4 Expand high impact specialty care capacity in most impacted medical specialties (Establish General Surgery Training Program).

Category 4 – Reporting Domain 3 – Potentially Preventable Complications (PCCs)

Performing Provider: Doctors Hospital at Renaissance (160709501)

Domain Description:

Doctors Hospital at Renaissance recognizes the region's historical healthcare challenges and provider shortage. The overall goal of this project is to expand the workforce, allaying the shortage of primary care providers thereby reducing delays in care seeking, reducing inappropriate and costly emergency department utilization, preventing unnecessary hospital admissions, and increasing patient satisfaction. Due to a shortage in the healthcare workforce, patients in the Rio Grande Valley[69] have been limited in their access to necessary and regular provider visits that include general health check-ups and preventative screenings. This fact when coupled with socioeconomic challenges, genetics, and a low health literacy rate has led to a disproportionate impact of Diabetes and other chronic conditions in the region. In response to these circumstances, Doctors Hospital at Renaissance will focus on reducing potentially preventable complications (PPC's) for patients through an increase in the use of medical homes, patient navigation systems, and the availability for follow-up care in the primary healthcare setting.

Through the development of new residency programs that increase access to primary care services in the short-term with new faculty, in the intermediate term with resident trainees, and in the long-term with graduate physicians, Doctors Hospital at Renaissance will be able to increase access of and medical management for patients with chronic conditions and socioeconomic challenges thereby improving key health metrics outlined in domain three. All resident programs at Doctors Hospital at Renaissance (DHR) will feature innovative curriculum components focused on population health management, team-based community care, the use of chronic disease registries, and the application of data analytics including full use of Electronic Medical Record (EMR) technology. Through this population-based medical management approach, Doctors Hospital at Renaissance will be able to focus on reducing potentially preventable complications for an at-risk population that is currently underserved.

Improvements through DY2-DY5:

DY2: In DY2, the residency programs at Doctors Hospital at Renaissance will be in the process of accreditation and a gap needs assessment will be drafted to ensure proper utilization of faculty

[69] Four County Area in South Texas including the following counties: Hidalgo County, Cameron County, Starr County, and Willacy County.

and resident services. From the needs assessment, DHR will be able to assess how the PPCs will be addressed and design a metric that will create a baseline, assign improvement goals, and manage the PPCs accordingly.
DY3: In DY3, procedures will have been in place with proper documentation metrics to ensure proper data management. Additionally, there will be new residents available to render services in areas of the most need (outlined by a gap needs assessment).The baselines will be developed in DY3 since this is when the residents will be available. DHR will seek improvement on PPCs that have been stipulated by the Centers for Medicaid and Medicare Services (CMS).
DY4: In DY4, continuous quality improvement will be underway with DHR affiliates that are receiving increased workforce availability with the presence of the residents to promote increased results for a healthier population through the implementation of medical homes. DHR will be seeking improvement on the PPC measurements established in the DY 3 baseline.
DY5: In DY5, quality improvement initiatives will continue with DHR affiliates that are receiving increased workforce availability with the presence of new residents to promote increased results for a healthier population through the expansion of medical homes. Additionally, there will be an increased number of residents available to provide services as continuous cohorts are matriculated. DHR will seek the largest measured improvement on PPC outcomes from the original DY 3 baseline through key metrics established by CMS.

Category 4 Domain Valuation:

The domain strategy that is taken by the projects for DHR focuses on increasing the availability of healthcare services to the surrounding indigent population. The aim of this domain is reducing the rate of preventable complications for the patients that are able to receive healthcare services due to the project's positive impact on the community at large. As the residency programs are fully developed, continuous cohorts of new primary healthcare providers will enter the community. This increased access to providers will have a large impact in reducing avoidable healthcare cost in a community once plagued by a healthcare workforce shortage. The increase of healthcare availability in this community will positively change the quality of life for countless residents resulting in a high value for the system and the patients together. As conditions become manageable for those that are accessing the increased service availability, potentially preventable complications will decrease resulting in further cost savings as well as a healthier population.

Category 4 – Reporting Domain 4 - Patient-Centered Health Care

Performing Provider: Doctors Hospital at Renaissance (160709501)

Domain Description:

Doctors Hospital at Renaissance has always recognized the need for continuous quality improvement and enhanced patient satisfaction through the utilization of medication management and HCAHPS measurements. As the residency program fully develops, physicians will be able to expand on patient encounters resulting in enhanced patient management and satisfaction.

Because the residency programs will be under accreditation in DY2, the HCAHPS and medication management initiative will not be in full effect until DY3. The surveys will be assessed on: integrated medication management programs, care from doctors, care from nurses, hospital environment, and patient discharge planning.

Through the development of new residency programs that increase access to healthcare provider services in the short-term with new faculty, in the intermediate term with resident trainees, and in the long-term with graduate physicians, Doctors Hospital at Renaissance will be able to increase access of and medical management for patients with chronic conditions and socioeconomic challenges thereby improving key health metrics outlined in domain four. All resident programs at Doctors Hospital at Renaissance (DHR) will feature innovative curriculum components focused on population health management, team-based community care, the use of chronic disease registries, and the application of data analytics including full use of Electronic Medical Record (EMR) technology. Through this population-based medical management approach, Doctors Hospital at Renaissance will be able to focus on improving admissions, readmissions, preventable conditions, and the patient experience.

Improvements through DY2-DY5:

DY2: In DY2, Doctors Hospital at Renaissance will implement enhanced HCAHP and medication management initiatives while the residency programs are in the process of accreditation, therefore baselines measurements will be implemented in DY3.
DY3: In DY3, procedures will be established to allow for the proper documentation of metrics to ensure HCAHP evaluation and medication management goals. Additionally, there will be new residents available to render services through the hospital as seen appropriate by the program. The baselines will be developed in DY3. There will be an expected improvement in HCAHP rates for the patients being treated in our facilities.

DY4: In DY4, continuous quality improvement will have been underway with DHR affiliates that are allowing for an enhanced patient experience with the presence of additional residents to promote increased results for a healthier population though medication management. There will be an expected improvement in HCAHP rates for the patients being treated in our facilities.
DY5: In DY5, continuous quality improvement will have been underway with DHR affiliates that are receiving increased availability with the presence of the residents to promote increased results for a healthier population. Additionally, there will be an increased number of residents available to provide services as continuous cohorts are matriculated. There will be an expected improvement in HCAHP rates for the patients being treated in our facilities.

Category 4 Domain Valuation:

The strategy of this domain is patient centered health care, which influences continuous quality improvement stemming from the HCAHP evaluations and patient outcomes from medication management. As the residency programs are fully developed, continuous cohorts of new primary healthcare providers will become available to Doctors Hospital at Renaissance (DHR) while these physicians complete their requirements throughout the program. This increased access to providers throughout the hospital will have a large impact in quality of healthcare available to the patients that are being serviced by DHR. With the increased exposure to physicians, the hospital as a whole is positively influenced as the patients now have greater access to quality healthcare resulting in positive outcomes.

Category 4 – Reporting Domain 5 - Emergency Department

Performing Provider: Doctors Hospital at Renaissance (160709501)

Domain Description:

This domain focuses primarily on the median response time for a patient that utilizes a hospital's emergency department (ED) and the determination of their observation/inpatient status. This domain will measure and improve a hospital's triage system, the care procedures and patient throughput mechanism utilized in the respective emergency department, and the available staffing resources for patient care.

The goal, first and foremost is to ensure that the patients are triaged correctly so that those that are critical are stabilized, while still maintaining safe, quality care for the remaining patients in the ED. The reporting metric for domain 5 is the following:

> ***RD-5. Emergency Department***
>
> *Admit decision time to ED departure time for admitted patients (NQF 0497)*
>
> *a. Decision Time to transfer an emergency patient to another facility (not Transport Time), i.e. decision to make the first call from arrival in transferring ED until call initiated. Recommend threshold of < 1 hour for critical patient.*

This reporting domain's requirements, in combination with the reporting domain strategies will position Doctors Hospital at Renaissance to track process improvements and make adjustments accordingly to ensure constant quality improvement for our patients. All resident programs at Doctors Hospital at Renaissance (DHR) will feature innovative curriculum components focused on population health management, team-based community care, the use of chronic disease registries, and the application of data analytics including full use of Electronic Medical Record (EMR) technology. Through this medical home management approach, Doctors Hospital at Renaissance will be able to incorporate each of these components into its ED processes allowing for improvements according to optimal patient value. As the demonstrations years are completed, DHR will expect to see improvements in all of the reporting measures, including the waiting times in its ED.

Improvements through DY2-DY5:

<u>DY2:</u>

- Create an analysis of throughput time in the ED.

- Set baselines off of historical numbers from FY11.
- Assess which areas of the ED need immediate attention for improvement
- ***Metrics:*** Timing of admit decision determination

DY3: Implementation of continuous quality improvement will help achieve an improvement on admit decision determination.
DY4: Implementation of continuous quality improvement will help achieve an improvement on admit decision determination.
DY5: Implementation of continuous quality improvement will help achieve an improvement on admit decision determination.
Category 4 Domain Valuation:

The domain strategy that is taken by the projects for DHR focuses on increasing the availability of healthcare services to the surrounding indigent population. The aim of this domain is improving preventable conditions for the patients that are able to receive healthcare services due to the projects positive impact on the community at large. The services available will be incorporated not only in areas of limited healthcare access, but also throughout the hospital so that more patients can be brought through the facility's ED with an increased number of physicians. The aim of this domain is increasing the throughput of the ED to help improve on the decision times on how patients are transferred between departments and facilities accordingly. As more patients are able to be seen, it becomes vital that this service line of the hospital be at optimal conditions to further enhance its goals of providing safe, quality healthcare.

Category 4: Population-Focused Measures Doctors Hospital at Renaissance (160709501)				
	Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Capability to Report Category 4	**Milestone:** Status report submitted to HHSC confirming system capability to report Domains 1, 2, 4, 5, and 6.	**Milestone:** Status report submitted to HHSC confirming system capability to report Domains 3.		
Estimated Maximum Incentive Amount	$620301	$292,330		
Domain 1: Potentially Preventable Admissions (PPAs)				
Planned Reporting Period: 1 or 2		2	2	2
Domain 1 - Estimated Maximum Incentive Amount		$292,330	$314,796	$322,446
Domain 2: Potentially Preventable Readmissions (30-day readmission rates)				
Planned Reporting Period: 1 or 2		2	2	2
Domain 2 - Estimated Maximum Incentive Amount		$292,330	$314,796	$322,446
Domain 3: Potentially Preventable Complications (PPCs) Includes a list of 64 measures identified in the RHP Planning Protocol.				
Planned Reporting Period: 1 or 2			2	2
Domain 3 - Estimated Maximum Incentive Amount			$314,796	$322,446
Domain 4: Patient Centered Healthcare				
Patient Satisfaction - HCAHPS				
Measurement period for report				
Planned Reporting Period: 1 or 2				
Medication Management				
Measurement period for report				
Planned Reporting Period: 1 or 2		2	2	2
Domain 4 - Estimated Maximum Incentive Amount		$292,330.00	$314,796.00	$322,446.00
Domain 5: Emergency Department				
Measurement period for report				
Planned Reporting Period: 1 or 2		2	2	2
Domain 5 - Estimated Maximum Incentive Amount		$292,330.00	$314,796.00	$322,446.00
OPTIONAL Domain 6: Children and Adult Core Measures				

RHP Plan for Region 5 350

Category 4: Population-Focused Measures Doctors Hospital at Renaissance (160709501)				
	Year 2 (10/1/2012 – 9/30/2013)	**Year 3 (10/1/2013 – 9/30/2014)**	**Year 4 (10/1/2014 – 9/30/2015)**	**Year 5 (10/1/2015 – 9/30/2016)**
Initial Core Set of Health Care Quality Measures for Children in Medicaid and CHIP (24 measures)				
Measurement period for report				
Planned Reporting Period: 1 or 2				
Initial Core Set of Health Care Quality Measures for Medicaid-Eligible Adults (26 measures)				
Measurement period for report				
Planned Reporting Period: 1 or 2				
Domain 6 - Estimated Maximum Incentive Amount		$n/a	$n/a	$n/a
Grand Total Payments Across Category 4	$620,301.00	$1,461,650.00	$1,573,980.00	$1,612,230.00

Section VI. RHP Participation Certifications

Each RHP participant providing State match or receiving pool payments has signed the required certification for Section VI:

By my signature below, I certify the following facts:

- I am legally authorized to sign this document on behalf of my organization;
- I have read and understand this document;
- The statements on this form regarding my organization are true, correct, and complete t best of my knowledge and belief.

Signature	Name	Organization

These are included in the Plan as follows:

- Hidalgo County
- Border Region Behavioral Health
- Cameron County
- DHR (Doctors Hospital at Renaissance)
- Driscoll Children's Hospital
- Nueces County
- Starr County Memorial Hospital
- Tropical Texas Behavioral Health
- University of Texas Health Science Center – San Antonio

Section VI. RHP Participation Certifications

Each RHP participant that will be providing State match or receiving pool payments must sign the following certification.

By my signature below, I certify the following facts:

- I am legally authorized to sign this document on behalf of my organization;
- I have read and understand this document;
- The statements on this form regarding my organization are true, correct, and complete to the best of my knowledge and belief.

Signature	Name	Organization
Ramon Garcia	Ramon Garcia	Hidalgo County

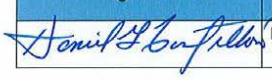
APPROVED BY
COMMISSIONERS' COURT
ON: 11/06/12

Section VI. RHP Participation Certifications

Each RHP participant that will be providing State match or receiving pool payments must sign the following certification.

By my signature below, I certify the following facts:

- I am legally authorized to sign this document on behalf of my organization;
- I have read and understand this document;
- The statements on this form regarding my organization are true, correct, and complete to the best of my knowledge and belief.

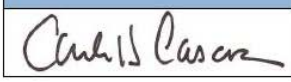
Signature	Name	Organization
	Daniel G. Castillon	Border Region Behavioral Health Center

Section VI. RHP Participation Certifications

Each RHP participant that will be providing State match or receiving pool payments must sign the following certification.

By my signature below, I certify the following facts:

- I am legally authorized to sign this document on behalf of my organization;
- I have read and understand this document;
- The statements on this form regarding my organization are true, correct, and complete to the best of my knowledge and belief.

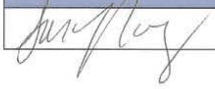
Signature	Name	Organization
	*Carlos H. Cascos, CPA*	*Cameron County*

Section VI. RHP Participation Certifications

Each RHP participant that will be providing State match or receiving pool payments must sign the following certification.

By my signature below, I certify the following facts:

- I am legally authorized to sign this document on behalf of my organization;
- I have read and understand this document;
- The statements on this form regarding my organization are true, correct, and complete to the best of my knowledge and belief.

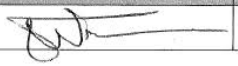
Signature	Name	Organization
	Susan S Turley	DHR

Section VI. RHP Participation Certifications

Each RHP participant that will be providing State match or receiving pool payments must sign the following certification.

By my signature below, I certify the following facts:

- I am legally authorized to sign this document on behalf of my organization;
- I have read and understand this document;
- The statements on this form regarding my organization are true, correct, and complete to the best of my knowledge and belief.

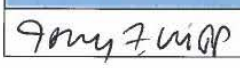
Signature	Name	Organization
	STOUT WERNER	Driscoll Children's Hospital

Section VI. RHP Participation Certifications

Each RHP participant that will be providing State match or receiving pool payments must sign the following certification.

By my signature below, I certify the following facts:

- I am legally authorized to sign this document on behalf of my organization;
- I have read and understand this document;
- The statements on this form regarding my organization are true, correct, and complete to the best of my knowledge and belief.

Signature	Name	Organization
	*Jonny F. Hipp*	*Nueces County Hospital District*

Section VI. RHP Participation Certifications

Each RHP participant that will be providing State match or receiving pool payments must sign the following certification.

By my signature below, I certify the following facts:

- I am legally authorized to sign this document on behalf of my organization;
- I have read and understand this document;
- The statements on this form regarding my organization are true, correct, and complete to the best of my knowledge and belief.

Signature	Name	Organization
Thalia H. Munoz	*Thalia H Munoz*	*Starr County Memorial Hospital*

Section VI. RHP Participation Certifications

Each RHP participant that will be providing State match or receiving pool payments must sign the following certification.

By my signature below, I certify the following facts:

- I am legally authorized to sign this document on behalf of my organization;
- I have read and understand this document;
- The statements on this form regarding my organization are true, correct, and complete to the best of my knowledge and belief.

Signature	Name	Organization
	W Terry Crooker	Tropical Texas Behavioral Health

Section VI. RHP Participation Certifications

Each RHP participant that will be providing State match or receiving pool payments must sign the following certification.

By my signature below, I certify the following facts:

- I am legally authorized to sign this document on behalf of my organization;
- I have read and understand this document;
- The statements on this form regarding my organization are true, correct, and complete to the best of my knowledge and belief.

Signature	Name	Organization
Andrea Marks	*Andrea Marks* *VP & CFO*	*UT Health Science Center at San Antonio*

Section VII. Addendums

This RHP 5 Plan includes the following documents described below. All of the Addendum documents referenced here are submitted to HHSC as PDF files. They are also included in the hard-copies of the RHP 5 Plan, below.

Private Hospital Certifications

Included in the Plan is a Certification of Governmental Entity Participation for Hospital Affiliates on behalf of Cameron County and on behalf of Hidalgo County.

Additionally, Indigent Care Affiliation Agreements are included for the following private, affiliated hospitals:

- Doctors Hospital Renaissance
- Knapp Medical Center
- McAllen Hospitals
- Mission Hospital
- Rio Grande Regional Hospital
- Valley Baptist Medical Center

DSRIP Projects Considered but Not Included in the RHP 5 Plan

A number of DSRIP projects for RHP 5 were considered but ultimately not selected to be included in the RHP 5 Plan for Pass 1 DSRIP projects. A table listing these projects is included as an addendum. These projects were originally considered by Starr County Memorial Hospital, Tropical Texas Behavioral Health and University of Texas Health Science Center San Antonio (UTHSCSA).

Supporting Evidence of Stakeholder Participation

As supporting evidence of stakeholder participation in RHP 5, we are including a letter of support from the Cameron-Willacy Counties Medical Society.

We are also including a sign-in sheet of stakeholders who participated in an anchor-sponsored meeting in January 2012.

2011 COMMUNITY HEALTH REPORT

2011 PRC Community Health Report

Sponsored by

KNAPP Medical Center

Primary Service Area
Hidalgo County, Texas

PRC Experience Excellence

Professional Research Consultants, Inc.
11326 "P" Street • Omaha, Nebraska 68137-2316
(800) 428-7455 • www.prconline.com • 2010-0791-02 • © PRC, 2011

Table Of Contents

INTRODUCTION

The PRC Community Health Assessment is a systematic, data-driven approach to determining the health status, behaviors and needs of our community residents.

Project Overview

Project Goals

This Community Health Assessment is a systematic, data-driven approach to determining the health status, behaviors and needs of residents in the primary service area of Knapp Medical Center. Subsequently, this information may be used to inform decisions and guide efforts to improve community health and wellness.

A PRC Community Health Assessment provides the information so that communities may identify issues of greatest concern and decide to commit resources to those areas, thereby making the greatest possible impact on community health status. This Community Health Assessment will serve as a tool toward reaching three basic goals:

- **To improve residents' health status, increase their life spans, and elevate their overall quality of life.** A healthy community is not only one where its residents suffer little from physical and mental illness, but also one where its residents enjoy a high quality of life.
- **To reduce the health disparities among residents.** By gathering demographic information along with health status and behavior data, it will be possible to identify population segments that are most at-risk for various diseases and injuries. Intervention plans aimed at targeting these individuals may then be developed to combat some of the socio-economic factors which have historically had a negative impact on residents' health.
- **To increase accessibility to preventive services for all community residents.** More accessible preventive services will prove beneficial in accomplishing the first goal (improving health status, increasing life spans, and elevating the quality of life), as well as lowering the costs associated with caring for late-stage diseases resulting from a lack of preventive care.

Methodology

This assessment incorporates data from three distinct sources: quantitative primary research (the PRC Community Health Survey); qualitative primary research (key informant focus groups);and quantitative secondary research (vital statistics and other existing health-related data). It also allows for comparison to benchmark data at the state and national levels.

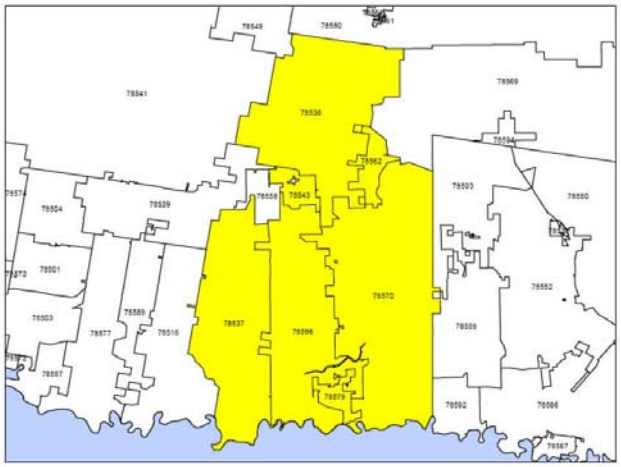
PRC Community Health Survey

Survey Instrument

The survey instrument used for this study is based largely on the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), as well as various other public health surveys and customized questions addressing gaps in indicator data relative to health promotion and disease prevention objectives and other recognized health issues. The final survey instrument was developed by the Knapp Medical Center and Professional Research Consultants (PRC).

Community Defined for This Assessment

The study area for the survey effort (referred to as the "Total Area" in this report) includes ZIP codes comprising the Primary Service Area of Knapp Medical Center, including: 78537, 78538, 78543, 78562, 78570, 78579, 78596, and 78599. A geographical description of the Total Area is illustrated in the following map.



Secondary data indicators (public health/vital statistics data) are provided at the county level (Hidalgo County, Texas).

Sample Approach & Design

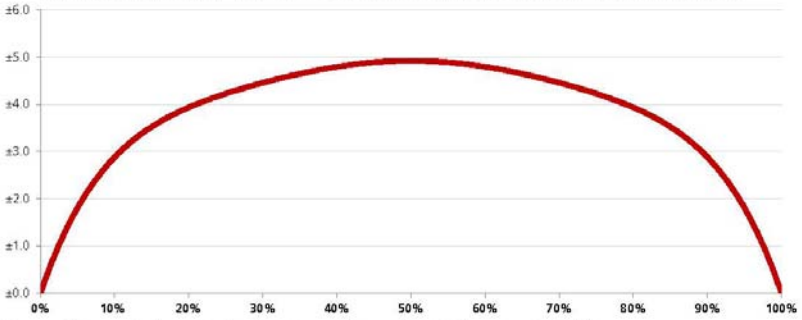
A precise and carefully executed methodology is critical in asserting the validity of the results gathered in the *PRC Community Health Survey*. Thus, to ensure the best representation of the population surveyed, a telephone interview methodology was employed. The primary advantages of telephone interviewing are timeliness, efficiency and random-selection capabilities.

The sample design used for this effort consisted of a random sample of 400 individuals age 18 and older in the Total Area. All administration of the surveys, data collection and data analysis was conducted by Professional Research Consultants, Inc. (PRC).

Sampling Error

For statistical purposes, the maximum rate of error associated with a sample size of 400 respondents is ±4.9% at the 95 percent level of confidence.

Expected Error Ranges for a Sample of 400 Respondents at the 95 Percent Level of Confidence



Note: • The "response rate" (the percentage of a population giving a particular response) determines the error rate associated with that response. A "95 percent level of confidence" indicates that responses would fall within the expected error range on 95 out of 100 trials.

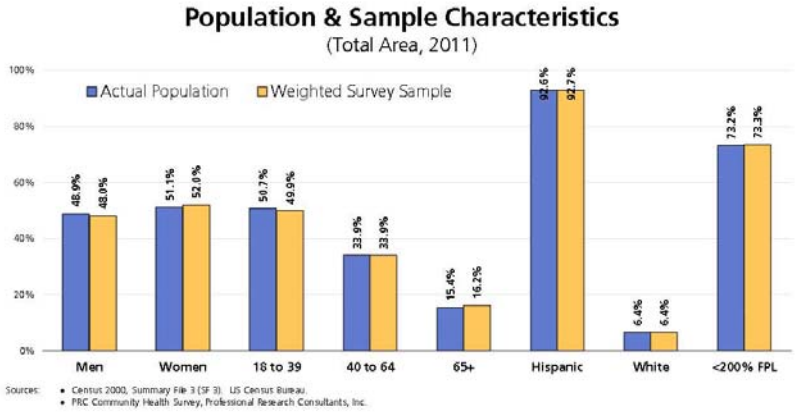
Examples: • If 10% of the sample of 400 respondents answered a certain question with a "yes," it can be asserted that between 7.1% and 12.9% (10% ± 2.9%) of the total population would offer this response.

• If 50% of respondents said "yes," one could be certain with a 95 percent level of confidence that between 45.1% and 54.9% (50% ± 4.9%) of the total population would respond "yes" if asked this question.

Sample Characteristics

To accurately represent the population studied, PRC strives to minimize bias through application of a proven telephone methodology and random-selection techniques. And, while this random sampling of the population produces a highly representative sample, it is a common and preferred practice to "weight" the raw data to improve this representativeness even further. This is accomplished by adjusting the results of a random sample to match the geographic distribution and demographic characteristics of the population surveyed (poststratification), so as to eliminate any naturally occurring bias. Specifically, once the raw data are gathered, respondents are examined by key demographic characteristics (namely gender, age, race, ethnicity, and poverty status) and a statistical application package applies weighting variables that produce a sample which more closely matches the population for these characteristics. Thus, while the integrity of each individual's responses is maintained, one respondent's responses may contribute to the whole the same weight as, for example, 1.1 respondents. Another respondent, whose demographic characteristics may have been slightly oversampled, may contribute the same weight as 0.9 respondents.

The following charts outline the characteristics of the Total Area sample for key demographic variables, compared to actual population characteristics revealed in census data. [Note that the sample consisted solely of area residents age 18 and older; data on children were given by proxy by the person most responsible for that child's healthcare needs, and these children are not represented demographically in this chart.]



Further note that the poverty descriptions and segmentation used in this report are based on administrative poverty thresholds determined by the US Department of Health & Human Services. These guidelines define poverty status by household income level and number of persons in the household *(e.g., the 2011 guidelines place the poverty threshold for a family of four at $22,350 annual household income or lower)*. In sample segmentation: "<200% FPL" (or less than twice the Federal Poverty Level) refers to community members living in a household with defined poverty status, along with those households living just above the poverty level, earning up to twice the poverty threshold; and "200%+" refers to those households living on incomes which are twice or more the federal poverty level.

The sample design and the quality control procedures used in the data collection ensure that the sample is representative. Thus, the findings may be generalized to the total population of community members in the defined area with a high degree of confidence.

Key Informant Focus Groups

As part of the community health assessment, there were 4 focus groups held in the defined community. These focus groups included meetings with 44 key informants in the community, including physicians, other health professionals, social services providers, employers and other community leaders.

A list of recommended participants for the focus groups was provided by Knapp Medical Center. Potential participants were chosen because of their ability to identify primary concerns of the populations with whom they work, as well as of the community overall. Focus group candidates were first contacted by letter to request their participation. Follow-up phone calls were then made to ascertain whether or not they would be able to attend. Confirmation calls were placed the day before the groups were scheduled to insure they would have a reasonable turnout. Final participation rates are segmented below.

DATE	TIME	GROUP	PARTICIPANTS
July 27, 2011	7 am	Other Healthcare Professionals	11
July 27, 2011	Noon	Physicians	7
July 28, 2011	7 am	Community Leaders	6
July 28, 2011	Noon	Social Services	20

The focus group sessions were recorded on audio tapes from which verbatim comments in the report are taken. There are no names connected with the comments, as participants were asked to speak candidly and assured of confidentiality.

NOTE: These findings represent qualitative rather than quantitative data. The groups were designed to gather input from participants regarding their opinions and perceptions of the health of the residents in the area. Thus, these findings are based on perceptions, not facts.

Public Health, Vital Statistics & Other Data

A variety of existing (secondary) data sources was consulted to complement the research quality of this Community Health Assessment. Data for Hidalgo County were obtained from the following sources (specific citations are included with the graphs throughout this report):

- Texas Department of State Health Services
- Texas Department of Family and Protective Services
- Centers for Disease Control & Prevention
- ESRI BIS Demographic Portfolio (Projections Based on the US Census)
- National Center for Health Statistics

Note that secondary data reflect county-level data.

Benchmark Data

Texas Risk Factor Data

Statewide risk factor data are provided where available as an additional benchmark against which to compare local survey findings; these data are reported in the most recent *BRFSS (Behavioral Risk Factor Surveillance System) Prevalence and Trend Data* published by the Centers for Disease Control and Prevention and the US Department of Health & Human Services. State-level vital statistics are also provided for comparison of secondary data indicators.

Nationwide Risk Factor Data

Nationwide risk factor data, which are also provided in comparison charts, are taken from the *2011 PRC National Health Survey*; the methodological approach for the national study is identical to that employed in this assessment, and these data may be generalized to the US population with a high degree of confidence. National-level vital statistics are also provided for comparison of secondary data indicators.

Healthy People 2020

Healthy People provides science-based, 10-year national objectives for improving the health of all Americans. The Healthy People initiative is grounded in the principle that setting national objectives and monitoring progress can motivate action. For three decades, Healthy People has established benchmarks and monitored progress over time in order to:

- Encourage collaborations across sectors.
- Guide individuals toward making informed health decisions.
- Measure the impact of prevention activities.

Healthy People 2020 is the product of an extensive stakeholder feedback process that is unparalleled in government and health. It integrates input from public health and prevention experts, a wide range of federal, state and local government officials, a consortium of more than 2,000 organizations, and perhaps most importantly, the public. More than 8,000 comments were considered in drafting a comprehensive set of Healthy People 2020 objectives.

Summary of Findings

Areas of Opportunity for Community Health Improvement

The following "health priorities" represent recommended areas of intervention, based on the information gathered through this Community Health Assessment and the guidelines set forth in *Healthy People 2020*. From these data, opportunities for health improvement exist in the region with regard to the following health areas (see also the summary tables presented in the following section). These areas of concern are subject to the discretion of area providers, the steering committee, or other local organizations and community leaders as to actionability and priority.

Areas of Opportunity Identified Through This Assessment	
Access to Healthcare	• Insurance Coverage & Instability • Barriers to Healthcare Access • Prescription Affordability • Specific Source of Ongoing Medical Care • Routine Medical Checkups (Adults) • ER Utilization • Ratings of Local Healthcare Services
Cancer	• Age-/Gender-Appropriate Screenings
Diabetes	• Prevalence of Diabetes
Family Planning	• Births to Teenagers
Heart Disease & Stroke	• Blood Pressure Screenings • Cholesterol Screenings
HIV Testing	• HIV Testing
Immunization & Infectious Disease	• Mumps Incidence • Pertussis Incidence • Tuberculosis Incidence • Flu Vaccinations (High-Risk Adults Under 65) • Pneumonia Vaccinations (Adults 65+)
Injury & Violence Prevention	• Use of Bike Helmets (Children 5-17) • Violent Crime Victimization
Mental Health	• "Fair/Poor" Mental Health • Chronic Depression • Seeking Professional Help
Nutrition & Overweight	• Fruit & Vegetable Consumption • Overweight & Obesity (Adults & Children)
Oral Health	• Dental Care (Adults) • Dental Insurance Coverage
Physical Activity	• Moderate & Vigorous Physical Activity • Screen Time (Children)
Substance Abuse	• Drug Abuse & Availability of Treatment Services (From Key Informant Focus Groups)
Tobacco Use	• Cigar Smoking
Vision	• Blindness/Trouble Seeing • Recent Eye Exams

Top Community Health Concerns Among Community Key Informants

At the conclusion of each key informant focus group, participants were asked to write down what they individually perceive as the top five health priorities for the community, based on the group discussion as well as on their own experiences and perceptions. Their responses were collected, categorized and tallied to produce the top-ranked priorities as identified among key informants. These should be used to complement and corroborate findings that emerge from the quantitative dataset.

Top-Ranked Priorities as Identified by Key Informants

1. **Health Education**
   - *Mentioned resources available to address this issue: billboards, health fairs, outreach programs, schools, hospitals, health care providers*
2. **Diabetes & Obesity**
   - *Mentioned resources available to address this issue: schools, Knapp Medical Center Diabetes Center*
3. **Substance Abuse**
   - *Mentioned resources available to address this issue: Alcoholics Anonymous (AA), church support groups, Mothers Against Drunk Driving (MADD)*
4. **Mental Health**
   - *Mentioned resources available to address this issue: church support groups, suicide hotline, Tropical Texas Behavioral Health, Doctors Hospital at Renaissance, South Texas Behavioral Health, Rio Grande State Center/South Texas Health Care System (RGSC)*
5. **Uninsured, Underinsured & Indigent Populations**
   - *Mentioned resources available to address this issue: local, state and federal governments*
6. **Collaboration**

Summary Tables: Comparisons With Benchmark Data

Survey Data Indicators: Trends for survey-derived indicators represent significant changes since YEAR1. *Note that survey data reflect the ZIP Code-defined Total Area.*

Other (Secondary) Data Indicators: Trends for other indicators (e.g., public health data) represent point-to-point changes between the most current reporting period and the earliest presented in this report (typically representing the span of roughly a decade). *Note that secondary data reflect county-level data for the Total Area.*

The following tables provide an overview of quantitative indicators in the Total Area. These data are grouped to correspond with the Focus Areas presented in Healthy People 2020.

Reading the Summary Tables

■ In the following charts, Total Area results are shown in the larger, blue column.

■ The columns to the right of the Total Area column provide comparisons between the Total Area and any available state and national findings, and Healthy People 2020 targets. Again, symbols indicate whether the Total Area compares favorably (○), unfavorably (●), or comparably (◌) to these external data.

Note that blank table cells signify that data are not available or are not reliable for that area and/or for that indicator.

Access to Health Services	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
% [Age 18-64] Lack Health Insurance	50.3	26.8	14.9	0.0
% [65+] With Medicare Supplement Insurance	33.6		75.5	
% [Insured] Insurance Covers Prescriptions	85.5		93.9	
% [Insured] Went Without Coverage in Past Year	18.3		4.8	
% Difficulty Accessing Healthcare in Past Year (Composite)	47.2		37.3	
% Inconvenient Hrs Prevented Dr Visit in Past Year	18.1		14.3	
% Cost Prevented Getting Prescription in Past Year	30.9		15.0	
% Cost Prevented Physician Visit in Past Year	27.5		14.0	
% Difficulty Getting Appointment in Past Year	15.5		16.5	
% Difficulty Finding Physician in Past Year	16.8		10.7	
% Transportation Hindered Dr Visit in Past Year	14.5		7.7	
% Skipped Prescription Doses to Save Costs	22.9		14.8	
% Difficulty Getting Child's Healthcare in Past Year	5.5		1.9	
% [Age 18-64] Have a Specific Source of Ongoing Care	60.4		75.1	89.4
% [Age 65+] Have a Specific Source of Ongoing Care	57.5		82.6	100.0
% Have Had Routine Checkup in Past Year	61.5		67.3	
% Child Has Had Checkup in Past Year	93.0		87.0	
% Two or More ER Visits in Past Year	15.3		6.5	
% Rate Local Healthcare "Fair/Poor"	31.3		15.3	
		better	similar	worse

Arthritis, Osteoporosis & Chronic Back Conditions	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
% [50+] Arthritis/Rheumatism	38.8		35.4	
% [50+] Osteoporosis	13.5		27.6	5.3
% Sciatica/Chronic Back Pain	15.1		21.5	
% Migraine/Severe Headaches	16.2		16.9	
% Chronic Neck Pain	9.3		8.3	
		better	similar	worse

Cancer	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
Cancer (Age-Adjusted Death Rate)	122.0	173.9	181.0	160.6
Lung Cancer (Age-Adjusted Death Rate)	26.9	49.0	51.6	45.5
Prostate Cancer (Age-Adjusted Death Rate)	13.8	22.2	23.9	21.2
Female Breast Cancer (Age-Adjusted Death Rate)	16.9	22.6	23.5	20.6
Colorectal Cancer (Age-Adjusted Death Rate)	10.1	16.6	17.2	14.5
% Skin Cancer	1.4		8.1	
% Cancer (Other Than Skin)	2.1		5.5	
% [Men 50+] Prostate Exam in Past 2 Years	58.2		70.5	
% [Women 50-74] Mammogram in Past 2 Years	69.5	72.8	79.9	81.1
% [Women 21-65] Pap Smear in Past 3 Years	69.0	79.4	84.7	93.0
% [Age 50+] Sigmoid/Colonoscopy Ever	49.3	61.6	72.0	
% [Age 50+] Blood Stool Test in Past 2 Years	35.1	14.9	28.3	
		better	similar	worse

Chronic Kidney Disease	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
Kidney Disease (Age-Adjusted Death Rate)	14.7	15.3	14.5	
		better	similar	worse

Diabetes	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
Diabetes Mellitus (Age-Adjusted Death Rate)	24.3	26.7	23.5	19.6
% Diabetes/High Blood Sugar	15.3	9.7	10.1	
% [Diabetics] Taking Insulin/Medication	71.5		77.7	
		better	similar	worse

Dementias, Including Alzheimer's Disease	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
Alzheimer's Disease (Age-Adjusted Death Rate)	9.9	25.4	22.7	
		better	similar	worse

Family Planning	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
% of Births to Unwed Mothers	39.1	40.8		
% Births to Teenagers	6.4	4.9	3.2	
		better	similar	worse

General Health Status	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
% "Fair/Poor" Physical Health	34.2	17.4	16.8	
% Activity Limitations	13.6	18.9	17.0	
		better	similar	worse

Educational & Community-Based Programs	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
% Attended Health Event in Past Year	19.4		22.2	
		better	similar	worse

Hearing & Other Sensory or Communication Disorders	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
% Deafness/Trouble Hearing	6.9		9.6	
		better	similar	worse

Heart Disease & Stroke	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
Diseases of the Heart (Age-Adjusted Death Rate)	180.3	200.6	200.9	152.7
% Heart Attack	2.6	3.1		
Stroke (Age-Adjusted Death Rate)	29.4	49.1	44.2	33.8
% Angina/Coronary Heart Disease	3.0	4.4		
% Heart Disease (Heart Attack, Angina, Coronary Disease)	4.7		6.1	
% Stroke	1.4	2.8	2.7	
% Blood Pressure Checked in Past 2 Years	83.8		94.7	94.9
% Told Have High Blood Pressure (Ever)	32.9	29.1	34.3	26.9
% [HBP] Taking Action to Control High Blood Pressure	91.6		89.1	
% Cholesterol Checked in Past 5 Years	82.4	72.0	90.7	82.1
% Told Have High Cholesterol (Ever)	28.1	40.9	31.4	13.5
% [HBC] Taking Action to Control High Blood Cholesterol	87.9		89.1	
% 1+ Cardiovascular Risk Factor	88.4		86.3	
		better	similar	worse

HIV	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
HIV (Age-Adjusted Death Rate)	2.2	2.2	4.6	3.3
HIV/AIDS Incidence per 100,000	9.2	17.2	12.6	13.0
% Ever Tested for HIV	40.7			
% [Age 18-64] Ever Tested for HIV	45.3		55.5	
% [Age 18-44] HIV Test in the Past Year	26.6		19.9	16.9
		better	similar	worse

Immunization & Infectious Diseases	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
Measles per 100,000	0.0	0.0	0.0	
Mumps per 100,000	0.8	0.0	0.3	
Rubella per 100,000	0.0	0.0	0.0	
Pertussis per 100,000	5.5	8.8	4.5	
% [Age 65+] Flu Shot in Past Year	67.0	67.2	71.6	90.0
% [High-Risk 18-64] Flu Shot in Past Year	37.8		52.5	90.0
% [Age 65+] Pneumonia Vaccine Ever	42.7	68.5	68.1	90.0
% [High-Risk 18-64] Pneumonia Vaccine Ever	23.5		32.0	60.0
Tuberculosis Incidence per 100,000	11.1	6.2	4.4	1.0
% Ever Vaccinated for Hepatitis B	36.3		38.4	
% [Age 18-64 Unmarried] 3+ Sexual Partners in Past Year	11.3		7.1	
		better	similar	worse

Injury & Violence Prevention	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
Unintentional Injury (Age-Adjusted Death Rate)	25.2	40.9	39.7	36.0
Motor Vehicle Crashes (Age-Adjusted Death Rate)	14.9	16.1	14.3	12.4
% "Always" Wear Seat Belt	85.6		85.3	92.4
% Child [Age 5-17] "Always" Uses Seat Belt	92.2		91.6	
% Child [Age 0-17] "Always" Uses Seat Belt/Car Seat	93.6		91.6	
% Child [Age 5-17] "Always" Wears Bicycle Helmet	19.4		35.3	
Firearm-Related Deaths (Age-Adjusted Death Rate)	6.4	10.8	10.3	9.2
% Firearm in Home	15.9		37.9	
% [Homes With Children] Firearm in Home	13.5		34.4	
% [Homes With Firearms] Weapon(s) Unlocked & Loaded	7.7		16.9	
Homicide (Age-Adjusted Death Rate)	4.9	6.3	6.1	5.5
Violent Crime per 100,000	374.9	504.2	450.3	
% Victim of Violent Crime in Past 5 Years	5.6		1.6	
Domestic Violence Offenses per 100,000	820.3	794.8		
% Ever Threatened With Violence by Intimate Partner	6.6		11.7	
% Victim of Domestic Violence (Ever)	7.8		13.5	
Child Abuse Offenses per 100,000	11.1	10.6		
		better	similar	worse

Maternal, Infant & Child Health	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
% Received Prenatal Care in First Trimester	56.9	59.5		77.9
% of Low Birthweight Births	7.8	8.2	8.2	7.8
Infant Death Rate	5.2	6.4	6.9	6.0
		better	similar	worse

Mental Health & Mental Disorders	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
% "Fair/Poor" Mental Health	24.9		11.7	
% Major Depression	13.3		11.7	
% Symptoms of Chronic Depression (2+ Years)	37.9		26.5	
Suicide (Age-Adjusted Death Rate)	5.4	10.6	11.1	10.2
% Have Ever Sought Help for Mental Health	8.6		24.4	
% [Those With Major Depression] Seeking Help	38.9		82.0	75.1
% Typical Day Is "Extremely/Very" Stressful	8.7		11.5	
% Child [Age 5-17] Takes Prescription for ADD/ADHD	5.6		6.5	
		better	similar	worse

Nutrition & Weight Status	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
% Eat 5+ Servings of Fruit or Vegetables per Day	41.7		48.8	
% Eat 2+ Servings of Fruit per Day	55.2		60.5	
% Eat 3+ Servings of Vegetables per Day	31.5		40.1	
% Medical Advice on Nutrition in Past Year	39.0		41.9	
% Healthy Weight (BMI 18.5-24.9)	18.2		31.7	33.9
% Overweight	80.4	66.5	66.9	
% Obese	44.2	31.7	28.5	30.6
% Perceive Self as Somewhat/Very Overweight	58.0			
% Medical Advice on Weight in Past Year	28.6		25.7	
% [Overweights] Counseled About Weight in Past Year	33.4		30.9	
% [Obese Adults] Counseled About Weight in Past Year	41.7		47.4	31.8
% [Overweights] Trying to Lose Weight Both Diet/Exercise	38.6		38.6	
% Children [Age 5-17] Overweight	53.1		30.7	
% Children [Age 5-17] Obese	37.6		18.9	14.6
% [Parents] Perceive Child [2-17] "Somewhat/Very" Overwt	26.1			
% [Parents] Have Been Told That Child [2-17] Is Overweight	13.4		3.2	
		better	similar	worse

Oral Health	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
% [Age 18+] Dental Visit in Past Year	37.1	61.7	66.9	49.0
% Child [Age 2-17] Dental Visit in Past Year	85.2		79.2	49.0
% Have Dental Insurance	25.7		60.8	
		better	similar	worse

Physical Activity	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
% [Employed] Job Entails Mostly Sitting/Standing	47.6		63.2	
% No Leisure-Time Physical Activity	32.5	26.6	28.7	32.6
% Meeting Physical Activity Guidelines	30.5	48.1	42.7	
% Moderate Physical Activity	13.3		23.9	
% Vigorous Physical Activity	26.5	28.6	34.8	
% Medical Advice on Physical Activity in Past Year	43.2		47.8	
% Child [Age 5-17] Watches TV 3+ Hours per Day	28.3		19.7	
% Child [Age 5-17] Uses Computer 3+ Hours per Day	15.4		9.9	
% Child [Age 5-17] 3+ Hours per Day of Total Screen Time	59.5		43.4	
		better	similar	worse

Respiratory Diseases	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
CLRD (Age-Adjusted Death Rate)	21.0	41.4	41.5	
Pneumonia/Influenza (Age-Adjusted Death Rate)	16.0	17.6	18.1	
% Nasal/Hay Fever Allergies	16.6		27.3	
% Sinusitis	8.9		19.4	
% Chronic Lung Disease	5.7		8.4	
% Adults Asthma (Ever Diagnosed)	9.9	12.8		
% [Adult] Currently Has Asthma	4.8	7.4	7.5	
% Child [Age 2-17] Asthma (Ever Diagnosed)	8.7			
% [Child 2-17] Currently Has Asthma	5.4		6.8	
		better	similar	worse

Sexually Transmitted Diseases	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
Gonorrhea Incidence per 100,000	20.5	126.1	109.3	
Primary & Secondary Syphilis Incidence per 100,000	0.1	5.8	4.3	
Chlamydia Incidence per 100,000	363.9	392.6	391.6	
Hepatitis B Incidence per 100,000	0.6	2.4	1.3	
% Unmarried Adults Using Condoms (18-64)	52.3		37.2	
		better	similar	worse

Substance Abuse	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
Cirrhosis/Liver Disease (Age-Adjusted Death Rate)	14.6	15.3	14.5	8.2
% Current Drinker	33.4	49.9	58.8	
% Chronic Drinker (Average 2+ Drinks/Day)	3.6	4.9	5.6	
% Binge Drinker (5+ Drinks/Occasion Men, 4+ Women)	17.1	14.7	16.7	24.3
% Drinking & Driving in Past Month	3.7		3.5	
% Rode With Drunk Driver in Past Month	5.2			
% Driving Drunk or Riding with Drunk Driver	6.7		5.5	
Drug-Induced Deaths (Age-Adjusted Death Rate)	3.4	10.1	12.2	11.3
% Illicit Drug Use in Past Month	3.4		1.7	7.1
% Ever Sought Help for Alcohol or Drug Problem	2.3		3.9	
		better	similar	worse

Tobacco Use	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
% Current Smoker	13.8	15.8	16.6	12.0
% Someone Smokes at Home	12.6		13.6	
% [Non-Smokers] Someone Smokes in the Home	8.3		5.7	
% [Household With Children] Someone Smokes in the Home	9.4		12.1	
% Smoke Cigars	7.9		4.2	0.2
% Use Smokeless Tobacco	2.8		2.8	0.3
		better	similar	worse

Vision	Total Area	Total Area vs. Benchmarks		
		vs. TX	vs. US	vs. HP2020
% Blindness/Trouble Seeing	**15.1**		6.9	
% Eye Exam in Past 2 Years	**50.1**		57.5	
		better	similar	worse

GENERAL HEALTH STATUS

Overall Health Status

Self-Reported Health Status

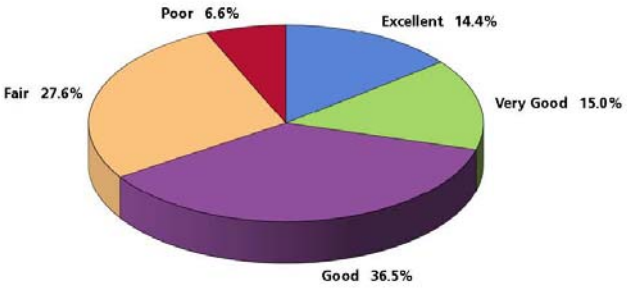
The initial inquiry of the PRC Community Health Survey asked respondents the following:

"Would you say that in general your health is: excellent, very good, good, fair or poor?"

A total of 29.4% of Total Area adults rate their overall health as "excellent" or "very good."

- Another 36.5% gave "good" ratings of their overall health.

Self-Reported Health Status
(Total Area, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 5]
Notes: • Asked of all respondents.

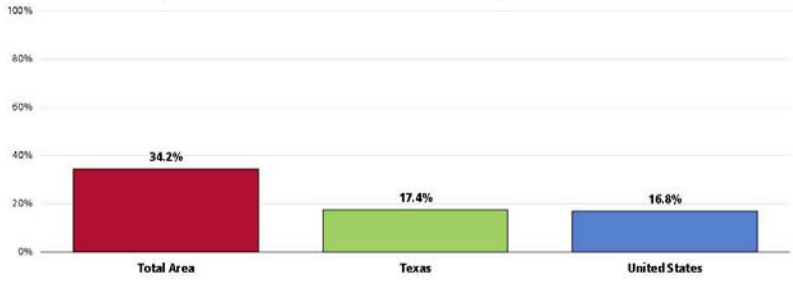
However, 34.2% of Total Area adults believe that their overall health is "fair" or "poor."

- Roughly twice as high as statewide findings.
- More than twice as high as the national percentage.

NOTE:

- Differences noted in the text represent significant differences determined through statistical testing.

Experience "Fair" or "Poor" Physical Health



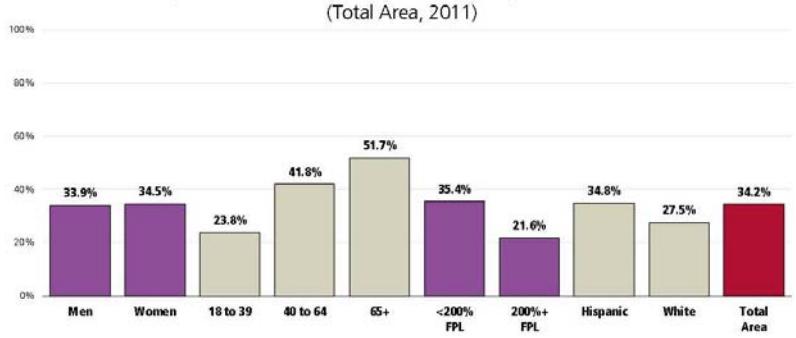
Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 5]
• Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.
• Professional Research Consultants: PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Charts throughout this report (such as that here) detail survey findings among key demographic groups – namely by gender, age groupings, income (based on poverty status), and race/ethnicity.

Adults more likely to report experiencing "fair" or "poor" overall health include:

- Those aged 40 and older.
- Residents living at lower incomes.
- Other differences within demographic groups, as illustrated in the following chart, are not statistically significant.

Experience "Fair" or "Poor" Physical Health
(Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 5]

Notes:
- Asked of all respondents.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Activity Limitations

An individual can get a disabling impairment or chronic condition at any point in life. Compared with people without disabilities, people with disabilities are more likely to:

- Experience difficulties or delays in getting the health care they need.
- Not have had an annual dental visit.
- Not have had a mammogram in past 2 years.
- Not have had a Pap test within the past 3 years.
- Not engage in fitness activities.
- Use tobacco.
- Be overweight or obese.
- Have high blood pressure.
- Experience symptoms of psychological distress.
- Receive less social-emotional support.
- Have lower employment rates.

There are many social and physical factors that influence the health of people with disabilities. The following three areas for public health action have been identified, using the International Classification of Functioning, Disability, and Health (ICF) and the three World Health Organization (WHO) principles of action for addressing health determinants.

- **Improve the conditions of daily life** by: encouraging communities to be accessible so all can live in, move through, and interact with their environment; encouraging community living; and removing barriers in the environment using both physical universal design concepts and operational policy shifts.
- **Address the inequitable distribution of resources among people with disabilities and those without disabilities** by increasing: appropriate health care for people with disabilities; education and work opportunities; social participation; and access to needed technologies and assistive supports.
- **Expand the knowledge base and raise awareness about determinants of health for people with disabilities** by increasing: the inclusion of people with disabilities in public health data collection efforts across the lifespan; the inclusion of people with disabilities in health promotion activities; and the expansion of disability and health training opportunities for public health and health care professionals.

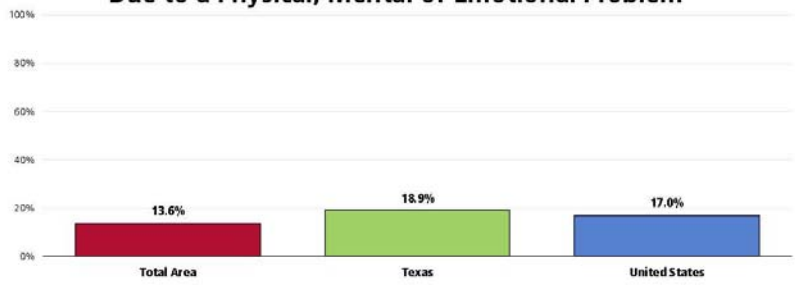
– Healthy People 2020 (www.healthypeople.gov)

A total of 13.6% of Total Area adults are limited in some way in some activities due to a physical, mental or emotional problem.

- More favorable than prevalence statewide.
- Statistically similar to the national prevalence.

RELATED ISSUE:
See also *Potentially Disabling Conditions* in the **Death, Disease & Chronic Conditions** section of this report.

Limited in Activities in Some Way Due to a Physical, Mental or Emotional Problem



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 116]
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.
- Professional Research Consultants. PRC National Health Survey. 2011.

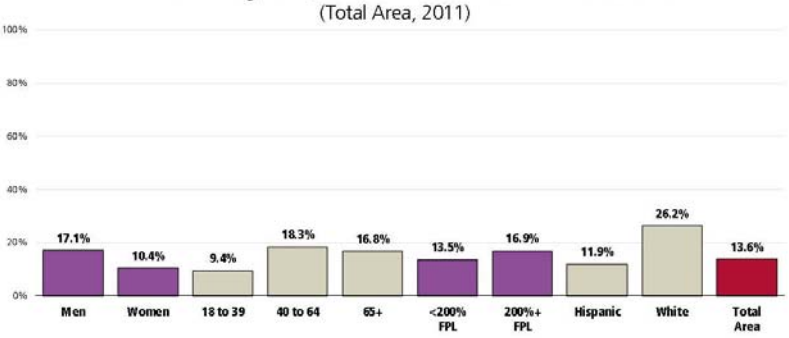
Notes:
- Asked of all respondents.

In looking at responses by key demographic characteristics, note the following:

- Adults aged 40+ are much more often limited in activities.
- Non-Hispanic Whites are more likely than Hispanics to report activity limitations.

Limited in Activities in Some Way Due to a Physical, Mental or Emotional Problem

(Total Area, 2011)

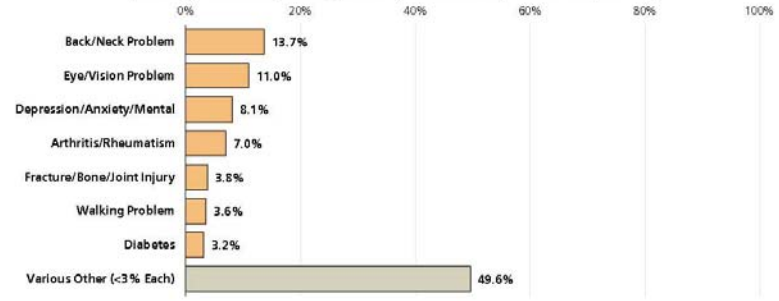


Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 116]

Notes:
- Asked of all respondents.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Among persons reporting activity limitations, these are often attributed to musculoskeletal issues, such as back/neck problems, arthritis and fractures, bone/joint injuries, or problems walking. However, uncommonly high percentages of adults with activity limitations mentioned problems with vision, depression/other mental health issues, and diabetes.

Type of Problem That Limits Activities
(Among Those Reporting Activity Limitations; Total Area, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 117]
Notes: • Asked of those respondents reporting activity limitations

Mental Health & Mental Disorders

Mental health is a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with challenges. Mental health is essential to personal well-being, family and interpersonal relationships, and the ability to contribute to community or society. Mental disorders are health conditions that are characterized by alterations in thinking, mood, and/or behavior that are associated with distress and/or impaired functioning. Mental disorders contribute to a host of problems that may include disability, pain, or death. Mental illness is the term that refers collectively to all diagnosable mental disorders.

Mental disorders are among the most common causes of disability. The resulting disease burden of mental illness is among the highest of all diseases. According to the national Institute of Mental Health (NIMH), in any given year, an estimated 13 million American adults (approximately 1 in 17) have a seriously debilitating mental illness. Mental health disorders are the leading cause of disability in the United States and Canada, accounting for 25% of all years of life lost to disability and premature mortality. Moreover, suicide is the 11th leading cause of death in the United States, accounting for the deaths of approximately 30,000 Americans each year.

Mental health and physical health are closely connected. Mental health plays a major role in people's ability to maintain good physical health. Mental illnesses, such as depression and anxiety, affect people's ability to participate in health-promoting behaviors. In turn, problems with physical health, such as chronic diseases, can have a serious impact on mental health and decrease a person's ability to participate in treatment and recovery.

The existing model for understanding mental health and mental disorders emphasizes the interaction of social, environmental, and genetic factors throughout the lifespan. In behavioral health, researchers identify: **risk factors**, which predispose individuals to mental illness; and **protective factors**, which protect them from developing mental disorders. Researchers now know that the prevention of mental, emotional, and behavioral (MEB) disorders is inherently interdisciplinary and draws on a variety of different strategies. Over the past 20 years, research on the prevention of mental disorders has progressed. The understanding of how the brain functions under normal conditions and in response to stressors, combined with knowledge of how the brain develops over time, has been essential to that progress. The major areas of progress include evidence that:

- MEB disorders are common and begin early in life.
- The greatest opportunity for prevention is among young people.
- There are multiyear effects of multiple preventive interventions on reducing substance abuse, conduct disorder, antisocial behavior, aggression, and child maltreatment.
- The incidence of depression among pregnant women and adolescents can be reduced.
- School-based violence prevention can reduce the base rate of aggressive problems in an average school by 25 to 33%.
- There are potential indicated preventive interventions for schizophrenia.
- Improving family functioning and positive parenting can have positive outcomes on mental health and can reduce poverty-related risk.
- School-based preventive interventions aimed at improving social and emotional outcomes can also improve academic outcomes.
- Interventions targeting families dealing with adversities, such as parental depression or divorce, can be effective in reducing risk for depression among children and increasing effective parenting.
- Some preventive interventions have benefits that exceed costs, with the available evidence strongest for early childhood interventions.
- Implementation is complex, and it is important that interventions be relevant to the target audiences.

In addition to advancements in the prevention of mental disorders, there continues to be steady progress in treating mental disorders as new drugs and stronger evidence-based outcomes become available.

– Healthy People 2020 (www.healthypeople.gov)

Mental Health Status

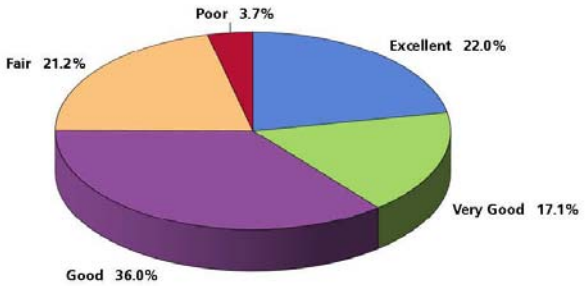
Self-Reported Mental Health Status

"Now thinking about your mental health, which includes stress, depression and problems with emotions, would you say that, in general, your mental health is: excellent, very good, good, fair or poor?"

A total of 39.1% of Total Area adults rate their overall mental health as "excellent" or "very good."

- Another 36.0% gave "good" ratings of their own mental health status.

Self-Reported Mental Health Status
(Total Area, 2011)

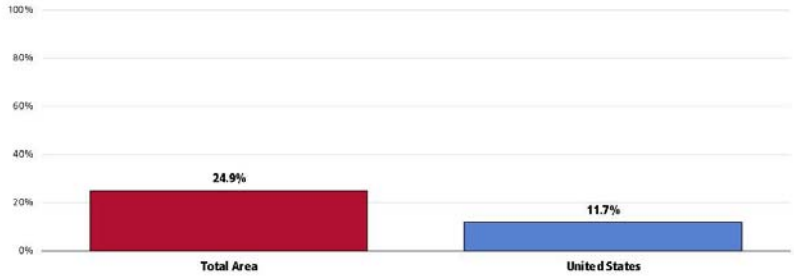


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 112]
Notes: • Asked of all respondents.

A full one-fourth (24.9%) Total Area adults, however, believes that their overall mental health is "fair" or "poor."

- More than double the "fair/poor" response reported nationally.

Experience "Fair" or "Poor" Mental Health

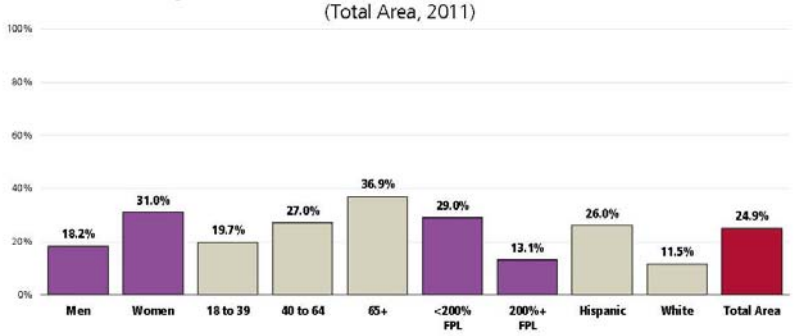


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 112]
• Professional Research Consultants, Inc. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

The following population segments are more likely to give low ratings of their mental health status:

- Women.
- Adults 65+.
- Residents living on lower incomes.
- Hispanics.

Experience "Fair" or "Poor" Mental Health
(Total Area, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 112]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

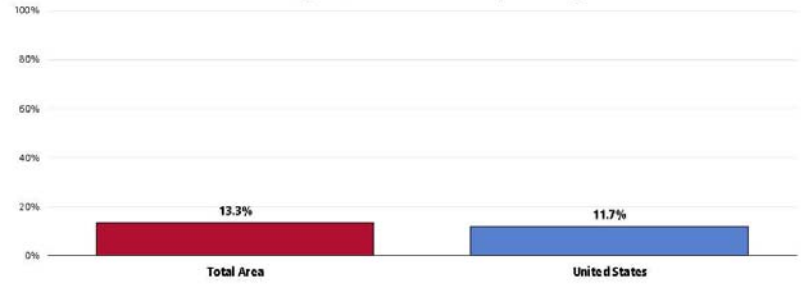
Depression

Major Depression

A total of 13.3% of Total Area adults have been diagnosed with major depression by a physician or other healthcare professional.

- Similar to the national finding.

Have Been Diagnosed With Major Depression

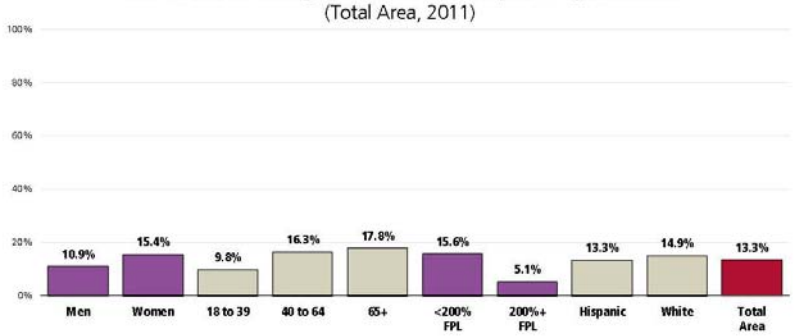


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 33]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

The prevalence of major depression is notably higher among:

- Community members living below the 200% poverty threshold.

Have Been Diagnosed With Major Depression
(Total Area, 2011)



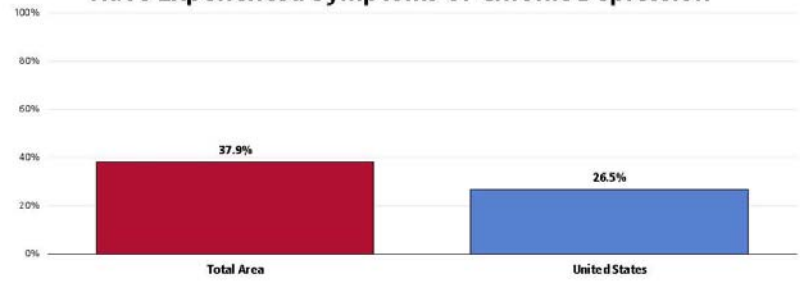
Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 33]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Symptoms of Chronic Depression

A total of 37.9% of Total Area adults have had two or more years in their lives when they felt depressed or sad on most days, although they may have felt okay sometimes (chronic depression).

- Much higher than national findings.

Have Experienced Symptoms of Chronic Depression

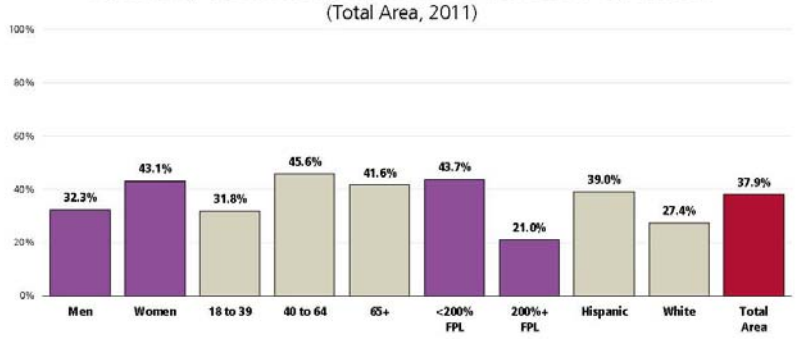


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 113]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Note that the prevalence of chronic depression is notably higher among:

- Women.
- Adults aged 40+.
- Adults living below the 200% poverty threshold.

Have Experienced Symptoms of Chronic Depression
(Total Area, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 113]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Stress

RELATED ISSUE:
See also *Substance Abuse* in the **Modifiable Health Risks** section of this report.

More than one-half of Total Area adults consider their typical day to be "not very stressful" (24.9%) or "not at all stressful" (28.7%).

- Another 37.7% of survey respondents characterize their typical day as "moderately stressful."

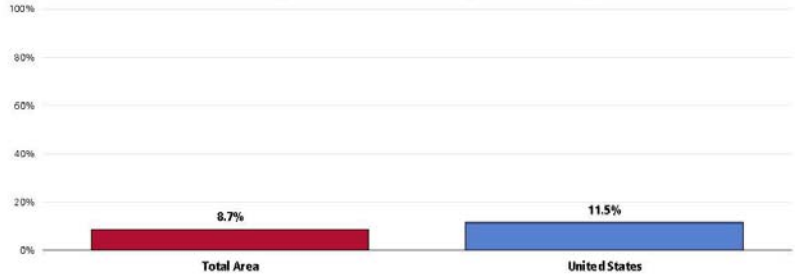
Perceived Level of Stress On a Typical Day
(Total Area, 2011)

Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 114]
Notes: • Asked of all respondents.

In contrast, 8.7% of Total Area adults experience "very" or "extremely" stressful days on a regular basis.

- Comparable to national findings.

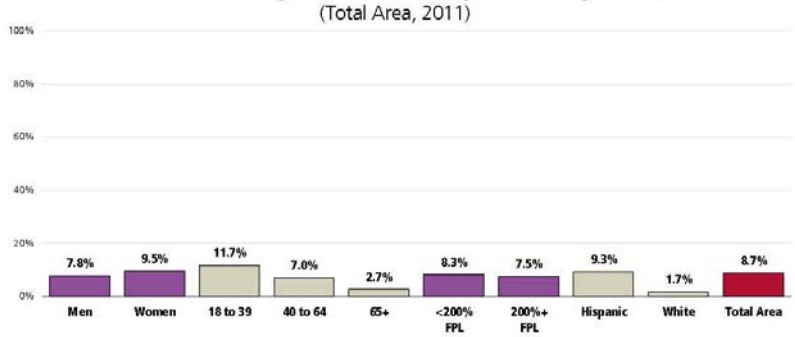
Perceive Most Days As "Extremely" or "Very" Stressful



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 114]
• Professional Research Consultants, Inc. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

- Note that high stress levels are more prevalent among adults under 40 and Hispanics.

Perceive Most Days as "Extremely" or "Very" Stressful
(Total Area, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 114]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

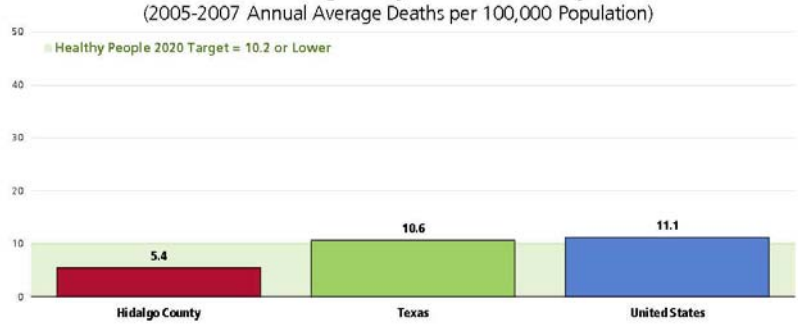
Suicide

Between 2005 and 2007, there was an annual average age-adjusted suicide rate of 5.4 deaths per 100,000 population in Hidalgo County.

- Much lower than the statewide rate.
- Much lower than the national rate.
- Satisfies the Healthy People 2020 target of 10.2 or lower.

Suicide: Age-Adjusted Mortality

(2005-2007 Annual Average Deaths per 100,000 Population)



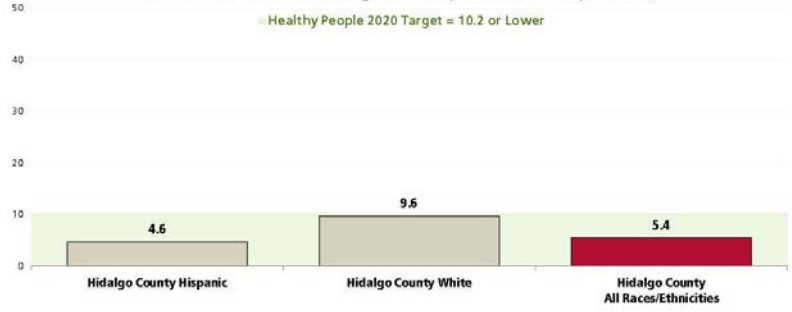
Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective MHMD-1]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.

Suicide rates are considerably higher among Whites than among Hispanics in Hidalgo County.

Suicide: Age-Adjusted Mortality by Race

(2005-2007 Annual Average Deaths per 100,000 Population)

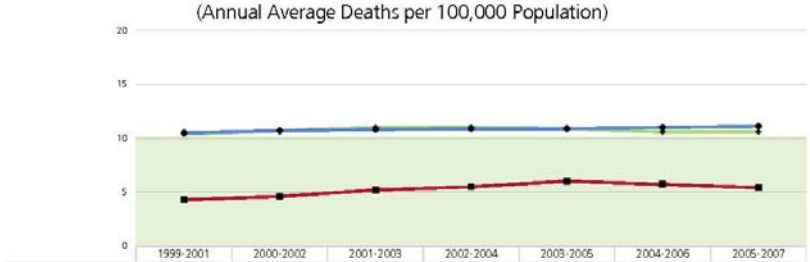


Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective MHMD-1]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- Note that the number for "White" residents represent Non-Hispanic Whites in Hidalgo County.

County suicide rates have overall trended upward, echoing state and national trends.

Suicide: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007
Healthy People 2020	10.2	10.2	10.2	10.2	10.2	10.2	10.2
Hidalgo County	4.3	4.6	5.2	5.5	6.0	5.7	5.4
Texas	10.4	10.7	11.0	11.0	10.9	10.6	10.6
United States	10.5	10.7	10.8	10.9	10.9	11.0	11.1

Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective MHMD-1]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- State and national data are simple three-year averages.

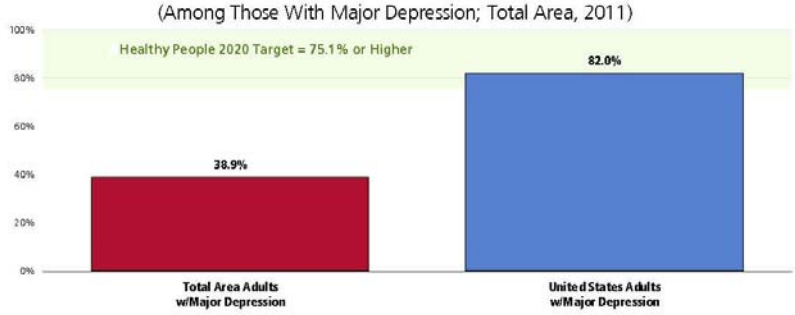
"Diagnosed depression" includes respondents reporting a past diagnosis of major depression by a physician.

Mental Health Treatment

Among adults with diagnosed depression, just 38.9% acknowledge that they have sought professional help for a mental or emotional problem.

- Much lower than national findings.
- Far from satisfying the Healthy People 2020 goal of 75.1% or higher.

Have Sought Professional Help for a Mental or Emotional Problem
(Among Those With Major Depression; Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 140]
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective MHMD-9.1]

Notes:
- Asked of those respondents with major depression.
- Trend data represent those adults with "recognized depression," including those who have been diagnosed with major depression OR have experienced 2+ years of depression at some point in their lives.

Related Focus Group Findings: Mental Health Treatment

Participants agree that there is a tremendous need for mental health services in the community particularly for youth. There are limited facilities available to treat patients on an inpatient basis and though there are several outpatient centers available, the community has a need for more.

According to participants, there are social workers and counselors available in the schools to help identify needs in students, but once those needs are identified it is often difficult finding placement for those students who need the help.

Participants commented that very often help is not obtained until someone has tried to hurt him/herself and ends up in the emergency room. Additionally, mental health services are very costly and can be out of reach for most of the community, even for those with insurance.

There was mention of a new program through Home Health that allows for a personal care provider to come into the home and care for children under 21 on Medicaid who have a mental challenge. This service offers the parents the ability to leave the house to go to work or attend to other family needs.

Some participants feel as though there is a need for social workers and chaplains in the hospital to counsel patients and families. So much of that counseling falls upon the doctors at the hospitals when it would best be suited for someone who is trained to handle counseling.

> *"It's a difficult issue for parents and families to deal with and sometimes it's a family affair. So it's really, really challenging for educators, for social workers, for anybody in the community who is trying to work with the kids because resources are so limited."*
>
> *"Patients come to the ER with an overdose and they get admitted and treated and then they get sent to the in-patient facility and they are part of the system from then on. But it has to take a major problem like that to get them involved because there is not enough psychiatrists or at least, in my specialty, enough psychiatrists comfortable treating kids and adolescents to satisfy the needs."*
>
> *"I think there's a big need for mental health services. Especially for teens. Those resources for us in the valley have really dwindled. And there's a lot of need for kids to have good mental health care. They just don't have the services. "*
>
> *"It seems like mental health services seem to be – it seems like we are an underserved community when it comes to mental health issues, that there are not resources available or they are priced out of the reach of people that tend to come and see it."*

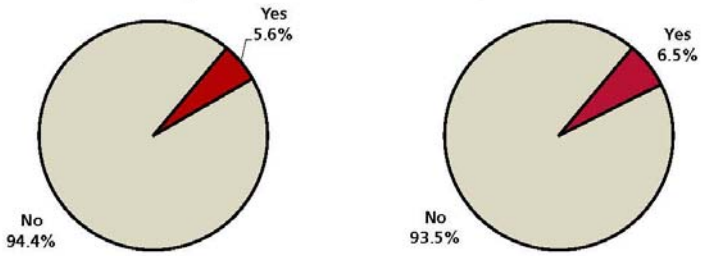
Children & ADD/ADHD

Among Total Area adults with children age 5 to 17, 5.6% report that their child takes medication for ADD/ADHD.

- Statistically similar to the national prevalence.

Child Takes Medication for ADD/ADHD

(Among Total Area Parents of Children Aged 5-17, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 131]
- Professional Research Consultants, Inc. PRC National Health Survey. 2011.

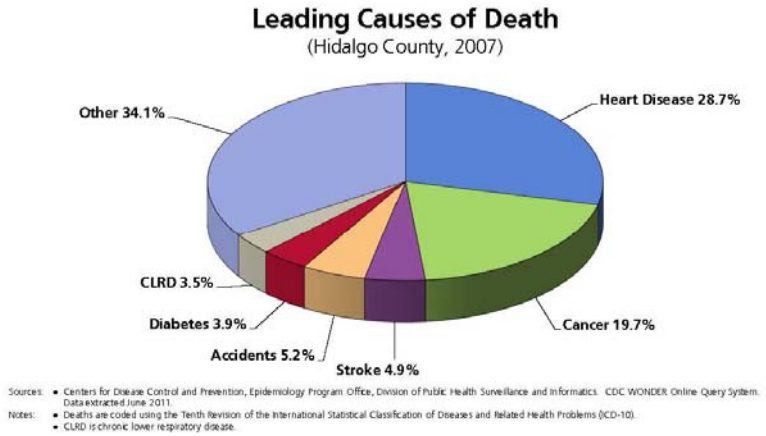
Notes:
- Asked of all respondents with children aged 5 to 17.

DEATH, DISEASE & CHRONIC CONDITIONS

Leading Causes of Death

Distribution of Deaths by Cause

Together, cardiovascular disease (including stroke) and cancers accounted for just over one-half of all deaths in Hidalgo County in 2007.



Sources: • Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
• CLRD is chronic lower respiratory disease.

Age-Adjusted Death Rates for Selected Causes

In order to compare mortality in the region with other localities (in this case, Texas and the United States), it is necessary to look at *rates* of death — these are figures which represent the number of deaths in relation to the population size (such as deaths per 100,000 population, as is used here).

Furthermore, in order to compare localities without undue bias toward younger or older populations, the common convention is to adjust the data to some common baseline age distribution. Use of these "age-adjusted" rates provides the most valuable means of gauging mortality against benchmark data, as well as *Healthy People 2020* targets.

The following chart outlines 2005-2007 annual average age-adjusted death rates per 100,000 population for selected causes of death in Hidalgo County.

For infant mortality data, see "Birth Outcomes & Risks" in the **Births** section of this report.

Age-adjusted mortality rates in Hidalgo County are similar to or better than national rates for each of the causes of death illustrated below.

Of the causes outlined in the following chart for which Healthy People 2020 objectives have been established, the following fail to satisfy the goals: heart disease, diabetes mellitus, motor vehicle accidents, and cirrhosis/liver disease.

Age-Adjusted Death Rates for Selected Causes

(2005-2007 Deaths per 100,000)

	Hidalgo County	Texas	US	HP2020
Diseases of the Heart	180.3	200.6	200.9	152.7*
Malignant Neoplasms (Cancers)	122.0	173.9	181.0	160.6
Cerebrovascular Disease (Stroke)	29.4	49.1	44.2	33.8
Unintentional Injuries	25.2	40.9	39.7	36.0
Diabetes Mellitus	24.3	26.7	23.5	19.6*
Chronic Lower Respiratory Disease (CLRD)	21.0	41.4	41.5	n/a
Pneumonia/Influenza	16.0	17.6	18.1	n/a
Motor Vehicle Crashes	14.9	16.1	14.3	12.4
Kidney Disease	14.7	15.3	14.5	n/a
Cirrhosis/Liver Disease	14.6	15.3	14.5	8.2
Alzheimer's Disease	9.9	25.4	22.7	n/a
Firearm-Related	6.4	10.8	10.3	9.2
Drug-Induced	3.4	10.1	12.2	11.3
Intentional Self-Harm (Suicide)	5.4	10.6	11.1	10.2
Homicide/Legal Intervention	4.9	6.3	6.1	5.5
HIV/AIDS *	2.2	2.2	4.6	3.3

Data extracted June 2011.

Note:
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov.
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population and coded using ICD-10 codes.
- *The Healthy People 2020 Heart Disease target is adjusted to account for all diseases of the heart, the Diabetes target is adjusted to reflect only diabetes mellitus-coded deaths.
- County, state and national data are simple three-year averages. *HIV/AIDS data is 1999-2007.

Cardiovascular Disease

Heart disease is the leading cause of death in the United States, with stroke following as the third leading cause. Together, heart disease and stroke are among the most widespread and costly health problems facing the nation today, accounting for more than $500 billion in healthcare expenditures and related expenses in 2010 alone. Fortunately, they are also among the most preventable.

The leading modifiable (controllable) risk factors for heart disease and stroke are:

- High blood pressure
- High cholesterol
- Cigarette smoking
- Diabetes
- Poor diet and physical inactivity
- Overweight and obesity

The risk of Americans developing and dying from cardiovascular disease would be substantially reduced if major improvements were made across the US population in diet and physical activity, control of high blood pressure and cholesterol, smoking cessation, and appropriate aspirin use.

The burden of cardiovascular disease is disproportionately distributed across the population. There are significant disparities in the following based on gender, age, race/ethnicity, geographic area, and socioeconomic status:

- Prevalence of risk factors
- Access to treatment
- Appropriate and timely treatment
- Treatment outcomes
- Mortality

Disease does not occur in isolation, and cardiovascular disease is no exception. Cardiovascular health is significantly influenced by the physical, social, and political environment, including: maternal and child health; access to educational opportunities; availability of healthy foods, physical education, and extracurricular activities in schools; opportunities for physical activity, including access to safe and walkable communities; access to healthy foods; quality of working conditions and worksite health; availability of community support and resources; and access to affordable, quality healthcare.

– Healthy People 2020 (www.healthypeople.gov)

Age-Adjusted Heart Disease & Stroke Deaths

The greatest share of cardiovascular deaths is attributed to heart disease.

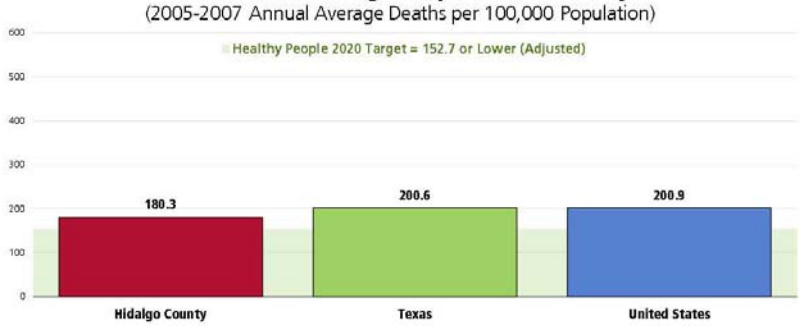
Heart Disease Deaths

Between 2005 and 2007, there was an annual average age-adjusted heart disease mortality rate of 180.3 deaths per 100,000 population in Hidalgo County.

- Lower than the statewide rate.
- Lower than the national rate.
- Fails to satisfy the Healthy People 2020 objective (as adjusted to account for all diseases of the heart).

Heart Disease: Age-Adjusted Mortality

(2005-2007 Annual Average Deaths per 100,000 Population)



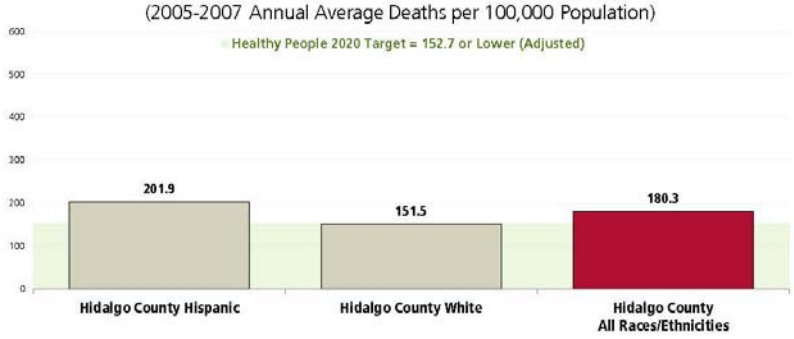
Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective HDS-2]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.
- The Healthy People 2020 Heart Disease target is adjusted to account for all diseases of the heart.

By race/ethnicity, heart disease mortality rates are higher among Hispanics when compared with Whites in Hidalgo County.

Heart Disease: Age-Adjusted Mortality by Race

(2005-2007 Annual Average Deaths per 100,000 Population)

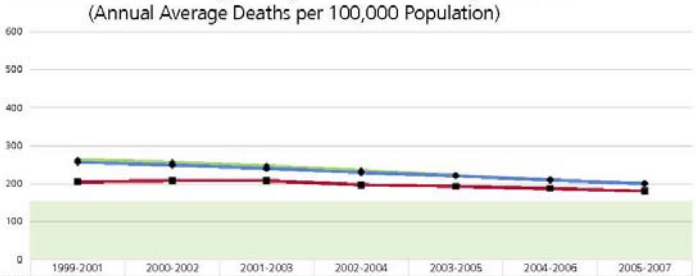


Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective HDS-2]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.
- Note that the number for "White" residents represent Non-Hispanic Whites in Hidalgo County.
- The Healthy People 2020 Heart Disease target is adjusted to account for all diseases of the heart.

Heart disease mortality rates have decreased in Hidalgo County, echoing the decreasing trends across Texas and the US overall.

Heart Disease: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007
Healthy People 2020	152.7	152.7	152.7	152.7	152.7	152.7	152.7
Hidalgo County	205.1	208.2	208.2	197.1	193.4	187.8	180.3
Texas	263.2	256.9	247.2	235.2	222.2	209.8	200.6
United States	257.3	249.0	240.4	230.3	220.4	209.7	200.9

Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective HDS-2]

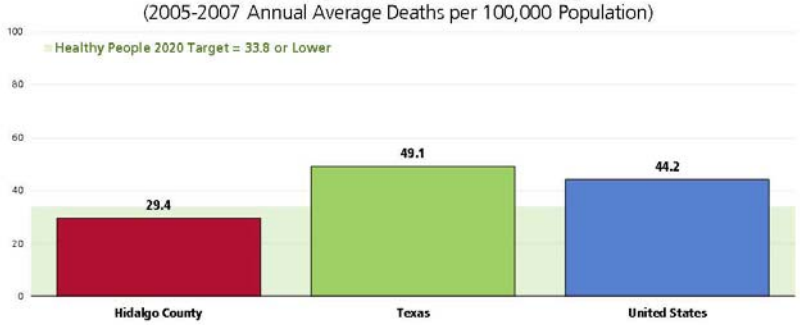
Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- State and national data are simple three-year averages.
- The Healthy People 2020 Heart Disease target is adjusted to account for all diseases of the heart.

Stroke Deaths

Between 2005 and 2007, there was an annual average age-adjusted stroke mortality rate of 29.4 deaths per 100,000 population in Hidalgo County.

- More favorable than the Texas rate.
- More favorable than the national rate.
- Satisfies the Healthy People 2020 target of 33.8 or lower.

Stroke: Age-Adjusted Mortality
(2005-2007 Annual Average Deaths per 100,000 Population)

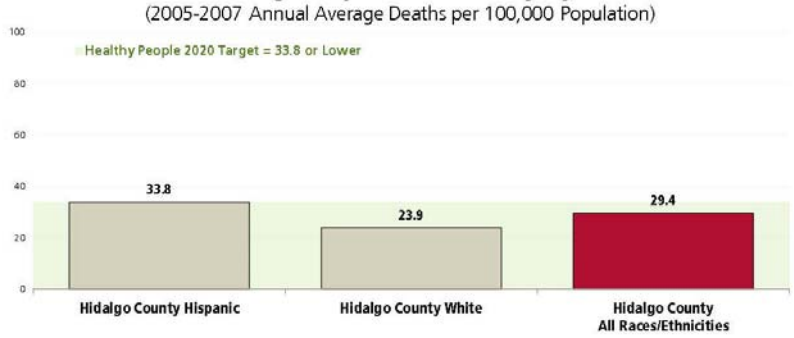


Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective HDS-3]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.

Stroke mortality is higher among Hispanics than Whites in Hidalgo County.

Stroke: Age-Adjusted Mortality by Race
(2005-2007 Annual Average Deaths per 100,000 Population)

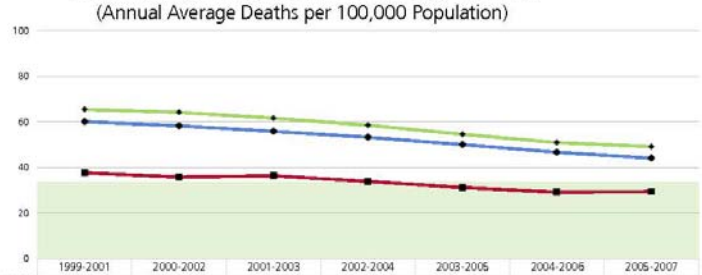


Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective HDS-3]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.
- Note that the number for "White" residents represent Non-Hispanic Whites in Hidalgo County.

Stroke rates have declined in recent years, echoing the trends reported across Texas and the US overall.

Stroke: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007
Healthy People 2020	33.8	33.8	33.8	33.8	33.8	33.8	33.8
Hidalgo County	37.6	35.9	36.4	34.0	31.3	29.2	29.4
Texas	65.5	64.2	61.6	58.5	54.5	51.0	49.1
United States	60.1	58.4	55.9	53.3	50.1	46.8	44.2

Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective HDS-3]

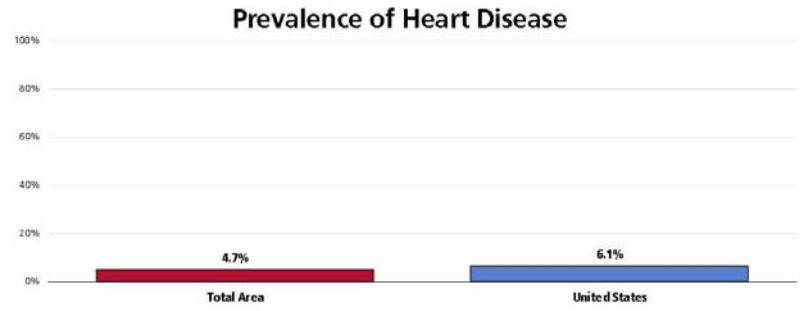
Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- State and national data are simple three-year averages.

Prevalence of Heart Disease & Stroke

Prevalence of Heart Disease

A total of 4.7% of surveyed adults report that they suffer from or have been diagnosed with heart disease, such as coronary heart disease, angina or heart attack.

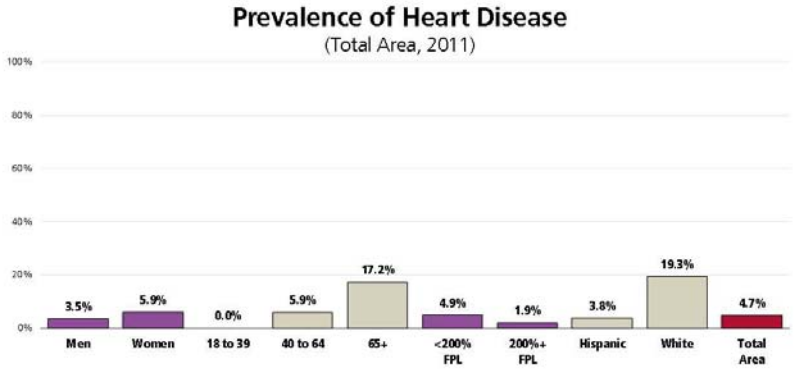
- Similar to the national prevalence.



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 141]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Adults more likely to have been diagnosed with chronic heart disease include:

- Adults 65+.
- Whites.



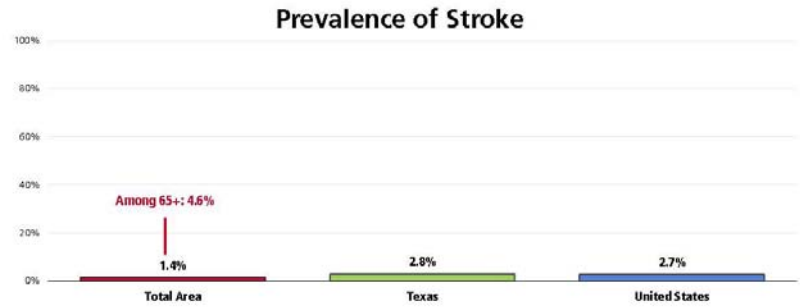
Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 141]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Prevalence of Stroke

Just 1.4% of surveyed adults report that they suffer from or have been diagnosed with cerebrovascular disease (a stroke).

- Lower than statewide findings.
- Statistically similar to national findings.

Note: Among residents age 65 and older, 4.6% have had a stroke.



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 40]
- Professional Research Consultants. PRC National Health Survey. 2011.
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010. Texas Data.

Notes:
- Asked of all respondents.

Cardiovascular Risk Factors

Hypertension (High Blood Pressure)

Controlling risk factors for heart disease and stroke remains a challenge. High blood pressure and cholesterol are still major contributors to the national epidemic of cardiovascular disease. High blood pressure affects approximately 1 in 3 adults in the United States, and more than half of Americans with high blood pressure do not have it under control. High sodium intake is a known risk factor for high blood pressure and heart disease, yet about 90% of American adults exceed their recommendation for sodium intake.

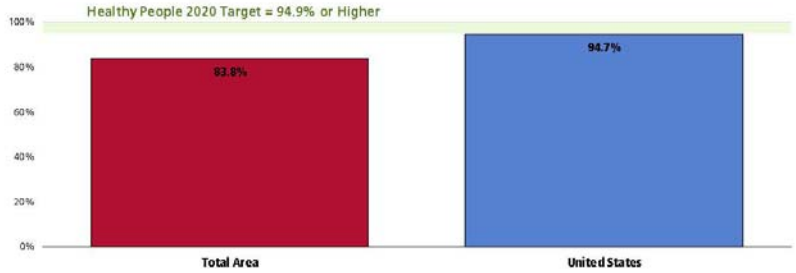
– Healthy People 2020 (www.healthypeople.gov)

High Blood Pressure Testing

A total of 83.8% of Total Area adults have had their blood pressure tested within the past two years.

- Less favorable than national findings.
- Fails to satisfy the Healthy People 2020 target (94.9% or higher).

Have Had Blood Pressure Checked in the Past 2 Years



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 49]
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective HDS-4]

Notes:
- Asked of all respondents.

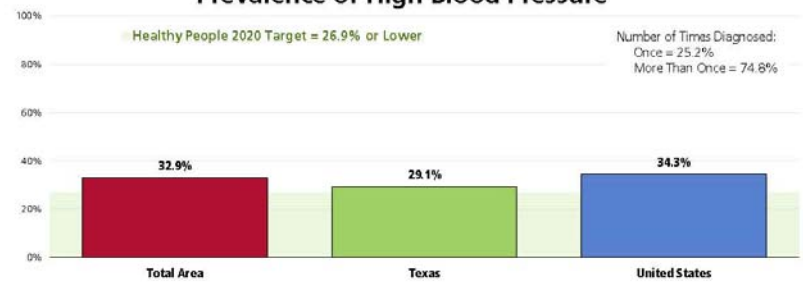
Prevalence of Hypertension

A total of 32.9% of adults have been told at some point that their blood pressure was high.

- Comparable to the Texas prevalence.
- Comparable to the national prevalence.
- Fails to satisfy the Healthy People 2020 target (26.9% or lower).

Among hypertensive adults, 74.8% have been diagnosed with high blood pressure more than once.

Prevalence of High Blood Pressure



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Items 47, 142]
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2009 Texas Data.
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective HDS-5.1]

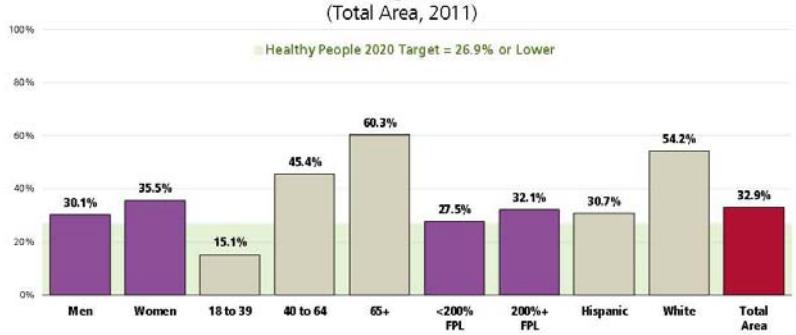
Notes:
- Asked of all respondents.

Note that 7.4% of Total Area adults have not had their blood pressure tested in the past 5 years, if ever. For these individuals, prevalence is unknown.

Hypertension diagnoses are higher among:

- Adults age 40 and older, and especially those age 65+.
- Whites.

Prevalence of High Blood Pressure
(Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 142]
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective HDS-5.1]

Notes:
- Asked of all respondents.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Hypertension Management

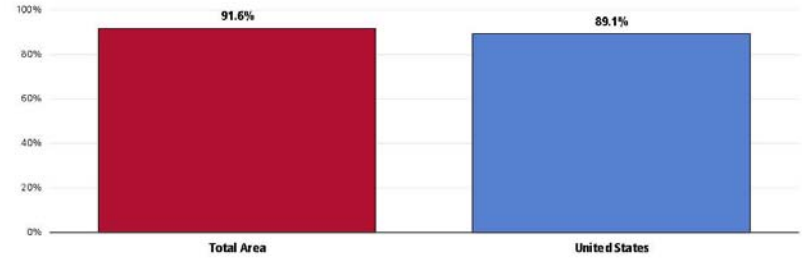
Respondents reporting high blood pressure were further asked:

"Are you currently taking any action to help control your high blood pressure, such as taking medication, changing your diet, or exercising?"

Among respondents who have been told that their blood pressure was high, 91.6% report that they are currently taking actions to control their condition.

- Similar to national findings.

Taking Action to Control Hypertension
(Among Total Area Adults with High BP, 2010)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 48]
- Professional Research Consultants. PRC National Health Survey. 2011.

Notes:
- Asked of all respondents who have been diagnosed with high blood pressure.
- In this case, the term "action" refers to medication, change in diet, and/or exercise.

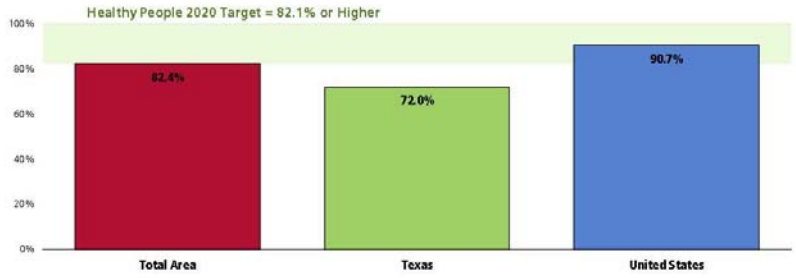
High Blood Cholesterol

Blood Cholesterol Testing

A total of 82.4% of Total Area adults have had their blood cholesterol checked within the past five years.

- More favorable than Texas findings.
- Less favorable than the national findings.
- Similar to the Healthy People 2020 target (82.1% or higher).

Have Had Blood Cholesterol Levels Checked in the Past 5 Years



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 52]
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2009. Texas Data.
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov. [Objective HDS-6]

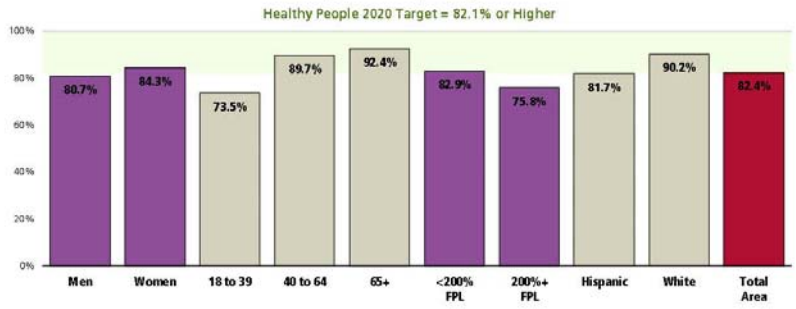
Notes:
- Asked of all respondents.

The following demographic segments report lower screening levels:

- Adults under the age of 40.
- Hispanics.

Have Had Blood Cholesterol Levels Checked in the Past 5 Years

(Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 52]
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov. [Objective HDS-6]

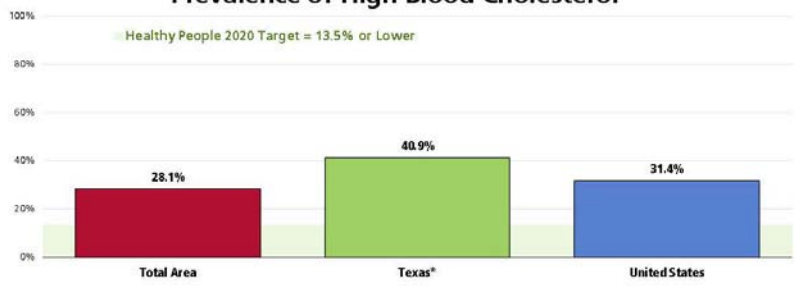
Notes:
- Asked of all respondents.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Self-Reported High Blood Cholesterol

A total of 28.1% of adults have been told by a health professional that their cholesterol level was high.

- More favorable than the Texas findings.
- Similar to the national prevalence.
- Fails to satisfy the Healthy People 2020 target (13.5% or lower).

Prevalence of High Blood Cholesterol



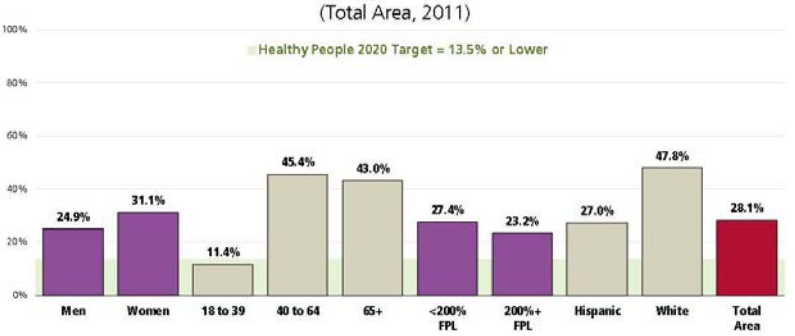
Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 143]
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2009 Texas Data.
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective HDS-7]

Notes:
- Asked of all respondents.
- *The Texas data reflects those adults who have been tested for high cholesterol and who have been diagnosed with it.

Note that 20.9% of Total Area adults have not had their blood cholesterol checked in the past 5 years, if ever. For these individuals, prevalence is unknown.

- Adults 40 and older are more likely to report high levels of blood cholesterol.
- Whites report a much higher prevalence than Hispanics.
- Keep in mind that "unknowns" are relatively high in young adults and Hispanics.

Prevalence of High Blood Cholesterol
(Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 143]
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective HDS-7]

Notes:
- Asked of all respondents.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Respondents reporting high cholesterol were further asked:

"Are you currently taking any action to help control your high cholesterol, such as taking medication, changing your diet, or exercising?"

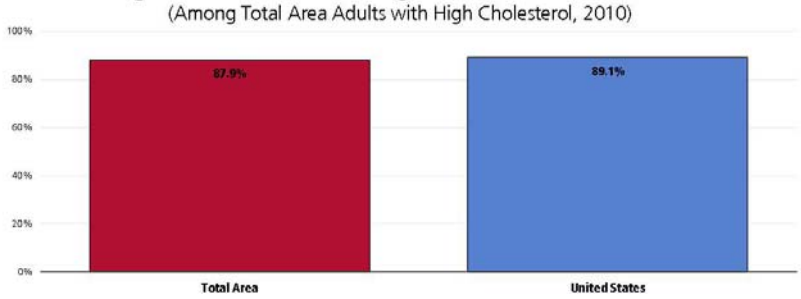
High Cholesterol Management

Among adults who have been told that their blood cholesterol was high, 87.9% report that they are currently taking actions to control their cholesterol levels.

- Similar to that found nationwide.

Taking Action to Control High Blood Cholesterol Levels

(Among Total Area Adults with High Cholesterol, 2010)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item S1]
- Professional Research Consultants. PRC National Health Survey. 2011.

Notes:
- Asked of all respondents who have been diagnosed with high blood cholesterol levels.
- In this case, the term "action" refers to medication, change in diet, and/or exercise.

Total Cardiovascular Risk

Individual level risk factors which put people at increased risk for cardiovascular diseases include:

- High Blood Pressure
- High Blood Cholesterol
- Tobacco Use
- Physical Inactivity
- Poor Nutrition
- Overweight/Obesity
- Diabetes

– National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention

Three health-related behaviors contribute markedly to cardiovascular disease:

Poor nutrition. People who are overweight have a higher risk for cardiovascular disease. Almost 60% of adults are overweight or obese. To maintain a proper body weight, experts recommend a well-balanced diet which is low in fat and high in fiber, accompanied by regular exercise.

Lack of physical activity. People who are not physically active have twice the risk for heart disease of those who are active. More than half of adults do not achieve recommended levels of physical activity.

Tobacco use. Smokers have twice the risk for heart attack of nonsmokers. Nearly one-fifth of all deaths from cardiovascular disease, or about 190,000 deaths a year nationally, are smoking-related. Every day, more than 3,000 young people become daily smokers in the US

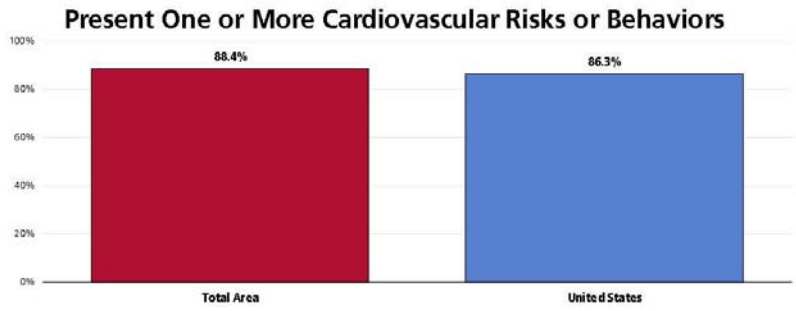
Modifying these behaviors is critical both for preventing and for controlling cardiovascular disease. Other steps that adults who have cardiovascular disease should take to reduce their risk of death and disability include adhering to treatment for high blood pressure and cholesterol, using aspirin as appropriate, and learning the symptoms of heart attack and stroke.

– National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention

A total of 88.4% of Total Area adults report one or more cardiovascular risk factors, such as being overweight, smoking cigarettes, being physically inactive, or having high blood pressure or cholesterol.

- Similar to national findings.

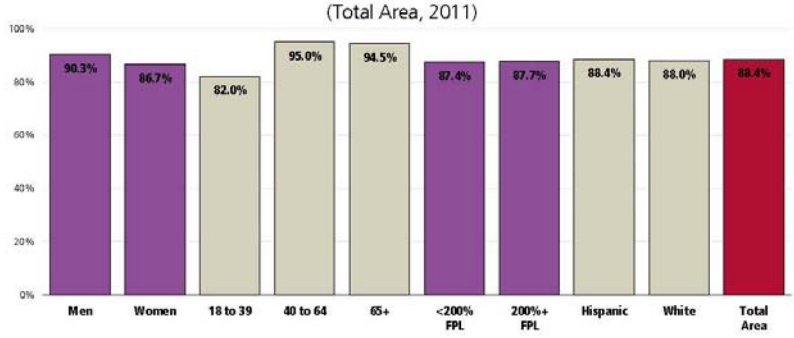
RELATED ISSUE:
See also *Nutrition & Overweight*, *Physical Activity & Fitness* and *Tobacco Use* in the **Modifiable Health Risk** section of this report.



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 144]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.
Notes: • Cardiovascular risk is defined as having no leisure-time physical activity OR regular/occasional smoking OR hypertension OR high blood cholesterol OR being overweight/obese.

Adults aged 40 and older are more likely to exhibit cardiovascular risk factors.

Present One or More Cardiovascular Risks or Behaviors
(Total Area, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 144]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
Notes: • Cardiovascular risk is defined as having no leisure-time physical activity OR regular/occasional smoking OR hypertension OR high blood cholesterol OR being overweight/obese.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Cancer

Continued advances in cancer research, detection, and treatment have resulted in a decline in both incidence and death rates for all cancers. Among people who develop cancer, more than half will be alive in five years. Yet, cancer remains a leading cause of death in the United States, second only to heart disease.

Many cancers are preventable by reducing risk factors such as: use of tobacco products; physical inactivity and poor nutrition; obesity; and ultraviolet light exposure. Other cancers can be prevented by getting vaccinated against human papillomavirus and hepatitis B virus. In the past decade, overweight and obesity have emerged as new risk factors for developing certain cancers, including colorectal, breast, uterine corpus (endometrial), and kidney cancers. The impact of the current weight trends on cancer incidence will not be fully known for several decades. Continued focus on preventing weight gain will lead to lower rates of cancer and many chronic diseases.

Screening is effective in identifying some types of cancers (see US Preventive Services Task Force [USPSTF] recommendations), including:

- Breast cancer (using mammography)
- Cervical cancer (using Pap tests)
- Colorectal cancer (using fecal occult blood testing, sigmoidoscopy, or colonoscopy)

– Healthy People 2020 (www.healthypeople.gov)

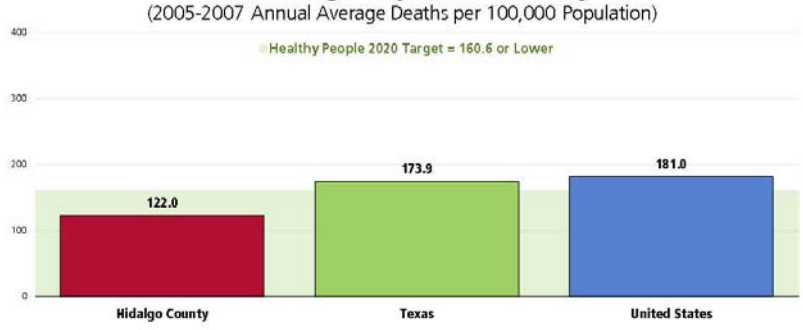
Age-Adjusted Cancer Deaths

All Cancer Deaths

Between 2005 and 2007, there was an annual average age-adjusted cancer mortality rate of 122.0 deaths per 100,000 population in Hidalgo County.

- More favorable than the statewide rate.
- More favorable than the national rate.
- Satisfies the Healthy People 2020 target of 160.6 or lower.

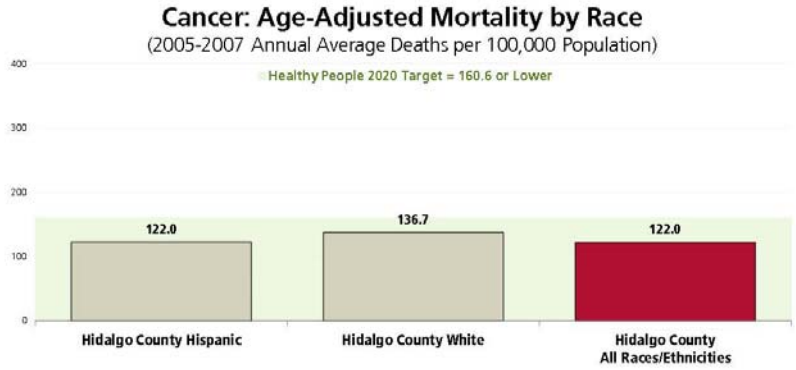
Cancer: Age-Adjusted Mortality
(2005-2007 Annual Average Deaths per 100,000 Population)



Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective C-1]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.

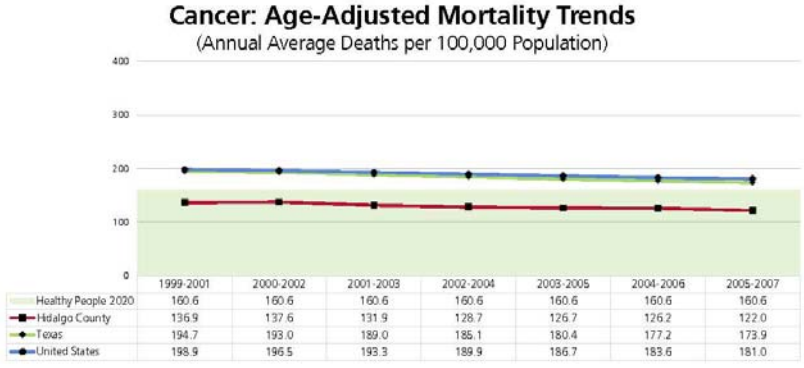
Cancer mortality rates are slightly higher among Whites than among Hispanics.



Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective C-1]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.
- Note that the number for "White" residents represent Non-Hispanic Whites in Hidalgo County.

Cancer mortality rates have decreased over the past decade in Hidalgo County; the same trend is apparent both statewide and nationwide.



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007
Healthy People 2020	160.6	160.6	160.6	160.6	160.6	160.6	160.6
Hidalgo County	136.9	137.6	131.9	128.7	126.7	126.2	122.0
Texas	194.7	193.0	189.0	185.1	180.4	177.2	173.9
United States	198.9	196.5	193.3	189.9	186.7	183.6	181.0

Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective C-1]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- State and national data are simple three-year averages.

Cancer Deaths by Site

Lung cancer is by far the leading cause of cancer deaths in Hidalgo County for both men and women.

Other leading sites include breast cancer among women, prostate cancer among men, and colorectal cancer (both genders).

As can be seen in the following chart (referencing 2005-2007 annual average age-adjusted death rates):

- **Each** Hidalgo County cancer death rate is more favorable than both the state and national rates.
- **Each** of the Hidalgo County cancer death rates detailed below satisfies the related Healthy People 2020 objective.

Age-Adjusted Cancer Death Rates by Site
(2005-2007)

	Hidalgo County	Texas	US	HP2020
Lung Cancer	26.9	49.0	51.6	45.5
Female Breast Cancer	16.9	22.6	23.5	20.6
Prostate Cancer	13.8	22.2	23.9	21.2
Colorectal Cancer	10.1	16.6	17.2	14.5

Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov.

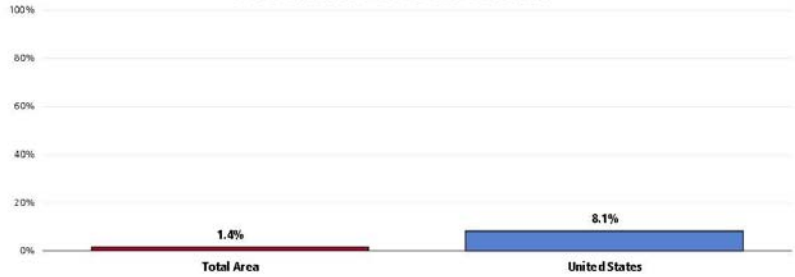
Prevalence of Cancer

Skin Cancer

Just 1.4% of surveyed Total Area adults report having been diagnosed with skin cancer.

- Much lower than the national average.

Prevalence of Skin Cancer



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 31]
- Professional Research Consultants. PRC National Health Survey. 2011.

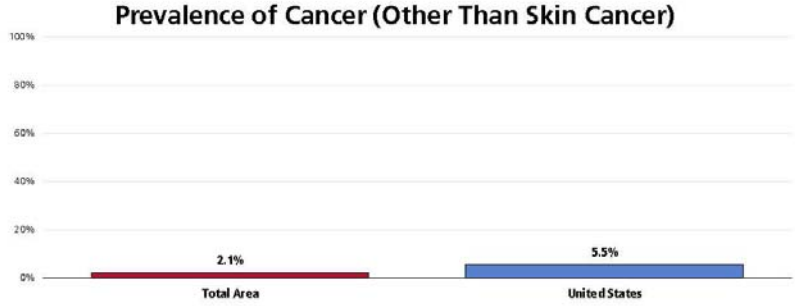
Notes:
- Asked of all respondents.

Other Cancer

A total of 2.1% of respondents have been diagnosed with some type of (non-skin) cancer.

- Less than half the national prevalence.

Prevalence of Cancer (Other Than Skin Cancer)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 30]
• Professional Research Consultants, Inc. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Cancer Risk

Reducing the nation's cancer burden requires reducing the prevalence of behavioral and environmental factors that increase cancer risk.

- All cancers caused by cigarette smoking could be prevented. At least one-third of cancer deaths that occur in the United States are due to cigarette smoking.
- According to the American Cancer Society, about one-third of cancer deaths that occur in the United States each year are due to nutrition and physical activity factors, including obesity.

– National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention

RELATED ISSUE: See also *Nutrition & Overweight*, *Physical Activity & Fitness* and *Tobacco Use* in the **Modifiable Health Risk** section of this report.

Cancer Screenings

The American Cancer Society recommends that both men and women get a cancer-related checkup during a regular doctor's checkup. It should include examination for cancers of the thyroid, testicles, ovaries, lymph nodes, oral cavity, and skin, as well as health counseling about tobacco, sun exposure, diet and nutrition, risk factors, sexual practices, and environmental and occupational exposures.

Screening levels in the community were measured in the PRC Community Health Survey relative to four cancer sites: prostate cancer (prostate-specific antigen testing and digital rectal examination); female breast cancer (mammography); cervical cancer (Pap smear testing); and colorectal cancer (sigmoidoscopy and fecal occult blood testing).

Prostate Cancer Screenings

The US Preventive Services Task Force (USPSTF) concludes that the current evidence is insufficient to assess the balance of benefits and harms of prostate cancer screening in men younger than age 75 years.

Rationale: Prostate cancer is the most common nonskin cancer and the second-leading cause of cancer death in men in the United States. The USPSTF found convincing evidence that prostate-specific antigen (PSA) screening can detect some cases of prostate cancer.

In men younger than age 75 years, the USPSTF found inadequate evidence to determine whether treatment for prostate cancer detected by screening improves health outcomes compared with treatment after clinical detection.

The USPSTF found convincing evidence that treatment for prostate cancer detected by screening causes moderate-to-substantial harms, such as erectile dysfunction, urinary incontinence, bowel dysfunction, and death. These harms are especially important because some men with prostate cancer who are treated would never have developed symptoms related to cancer during their lifetime.

There is also adequate evidence that the screening process produces at least small harms, including pain and discomfort associated with prostate biopsy and psychological effects of false-positive test results.

The USPSTF recommends against screening for prostate cancer in men age 75 years or older.

Rationale: In men age 75 years or older, the USPSTF found adequate evidence that the incremental benefits of treatment for prostate cancer detected by screening are small to none.

Given the uncertainties and controversy surrounding prostate cancer screening in men younger than age 75 years, a clinician should not order the PSA test without first discussing with the patient the potential but uncertain benefits and the known harms of prostate cancer screening and treatment. Men should be informed of the gaps in the evidence and should be assisted in considering their personal preferences before deciding whether to be tested.

– US Preventive Services Task Force, Agency for Healthcare Research and Quality, US Department of Health & Human Services.

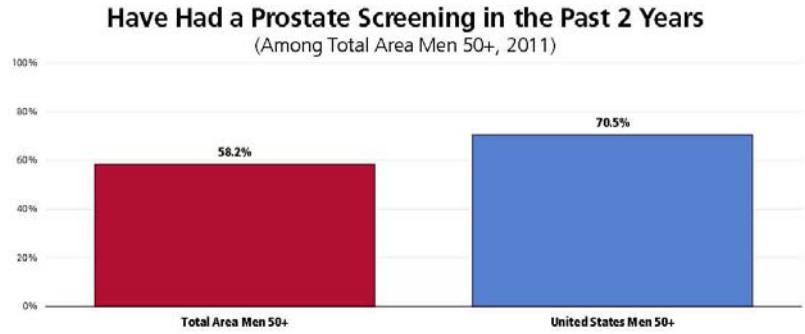
Note that other organizations (e.g., American Cancer Society, American Academy of Family Physicians, American College of Physicians, National Cancer Institute) may have slightly different screening guidelines.

Note: Due to recent (2008) changes in clinical recommendations against routine PSA testing, it is anticipated that testing levels will begin to decline.

PSA Testing and/or Digital Rectal Examination

Among men age 50 and older, 58.2% have had a PSA (prostate-specific antigen) test and/or a digital rectal examination for prostate problems within the past two years.

- Lower than national findings.



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 148]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all male respondents aged 50 and older.

Female Breast Cancer Screening

The US Preventive Services Task Force (USPSTF) recommends screening mammography, with or without clinical breast examination (CBE), every 1-2 years for women age 40 and older.

Rationale: The USPSTF found fair evidence that mammography screening every 12-33 months significantly reduces mortality from breast cancer. Evidence is strongest for women age 50-69, the age group generally included in screening trials. For women age 40-49, the evidence that screening mammography reduces mortality from breast cancer is weaker, and the absolute benefit of mammography is smaller, than it is for older women. Most, but not all, studies indicate a mortality benefit for women undergoing mammography at ages 40-49, but the delay in observed benefit in women younger than 50 makes it difficult to determine the incremental benefit of beginning screening at age 40 rather than at age 50.

The absolute benefit is smaller because the incidence of breast cancer is lower among women in their 40s than it is among older women. The USPSTF concluded that the evidence is also generalizable to women age 70 and older (who face a higher absolute risk for breast cancer) if their life expectancy is not compromised by comorbid disease. The absolute probability of benefits of regular mammography increase along a continuum with age, whereas the likelihood of harms from screening (false-positive results and unnecessary anxiety, biopsies, and cost) diminish from ages 40-70. The balance of benefits and potential harms, therefore, grows more favorable as women age. The precise age at which the potential benefits of mammography justify the possible harms is a subjective choice. The USPSTF did not find sufficient evidence to specify the optimal screening interval for women age 40-49.

– US Preventive Services Task Force, Agency for Healthcare Research and Quality, US Department of Health & Human Services.

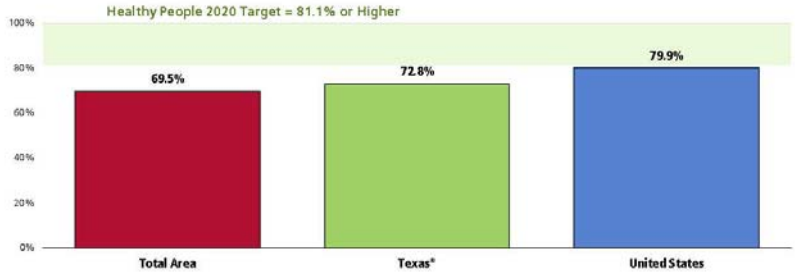
Note that other organizations (e.g., American Cancer Society, American Academy of Family Physicians, American College of Physicians, National Cancer Institute) may have slightly different screening guidelines.

Mammography

Among women age 50-74, 69.5% have had a mammogram within the past two years.

- Similar to statewide findings.
- Lower than national findings.
- Fails to satisfy the Healthy People 2020 target (81.1% or higher).

Have Had a Mammogram in the Past Two Years
(Among Total Area Women 50-74, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 146]
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective C-17]

Notes:
- Asked of all female respondents aged 50 to 74 and older.
- *Note that state data reflects all women 50 and older (compared with women 50-74 represented in the county and US figures.

Cervical Cancer Screenings

The US Preventive Services Task Force (USPSTF) strongly recommends screening for cervical cancer in women who have been sexually active and have a cervix.

Rationale: The USPSTF found good evidence from multiple observational studies that screening with cervical cytology (Pap smears) reduces incidence of and mortality from cervical cancer. Direct evidence to determine the optimal starting and stopping age and interval for screening is limited. Indirect evidence suggests most of the benefit can be obtained by beginning screening within 3 years of onset of sexual activity or age 21 (whichever comes first) and screening at least every 3 years. The USPSTF concludes that the benefits of screening substantially outweigh potential harms.

The USPSTF recommends against routinely screening women older than age 65 for cervical cancer if they have had adequate recent screening with normal Pap smears and are not otherwise at high risk for cervical cancer.

Rationale: The USPSTF found limited evidence to determine the benefits of continued screening in women older than 65. The yield of screening is low in previously screened women older than 65 due to the declining incidence of high-grade cervical lesions after middle age. There is fair evidence that screening women older than 65 is associated with an increased risk for potential harms, including false-positive results and invasive procedures. The USPSTF concludes that the potential harms of screening are likely to exceed benefits among older women who have had normal results previously and who are not otherwise at high risk for cervical cancer.

The USPSTF recommends against routine Pap smear screening in women who have had a total hysterectomy for benign disease.

Rationale: The USPSTF found fair evidence that the yield of cytologic screening is very low in women after hysterectomy and poor evidence that screening to detect vaginal cancer improves health outcomes. The USPSTF concludes that potential harms of continued screening after hysterectomy are likely to exceed benefits.

– US Preventive Services Task Force, Agency for Healthcare Research and Quality, US Department of Health & Human Services.

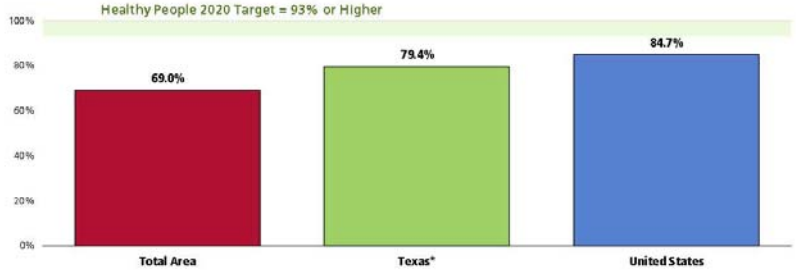
Note that other organizations (e.g., American Cancer Society, American Academy of Family Physicians, American College of Physicians, National Cancer Institute) may have slightly different screening guidelines.

Pap Smear Testing

Among women aged 21 through 65, 69.0% have had a Pap smear within the past three years.

- Lower than Texas findings (which references all women 18+).
- Lower than national findings.
- Fails to satisfy the Healthy People 2020 target (93% or higher).

Have Had a Pap Smear in the Past 3 Years
(Among Total Area Women 21-65, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 147]
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective C-15]

Notes:
- Asked of female respondents aged 21 to 65.
- *Note that the Texas percentage represents all women aged 18 and older.

Colorectal Cancer Screenings

The USPSTF recommends screening for colorectal cancer using fecal occult blood testing, sigmoidoscopy, or colonoscopy in adults, beginning at age 50 years and continuing until age 75 years.

The evidence is convincing that screening for colorectal cancer with fecal occult blood testing, sigmoidoscopy, or colonoscopy detects early-stage cancer and adenomatous polyps. There is convincing evidence that screening with any of the three recommended tests (FOBT, sigmoidoscopy, colonoscopy) reduces colorectal cancer mortality in adults age 50 to 75 years. Follow-up of positive screening test results requires colonoscopy regardless of the screening test used.

– US Preventive Services Task Force, Agency for Healthcare Research and Quality, US Department of Health & Human Services.

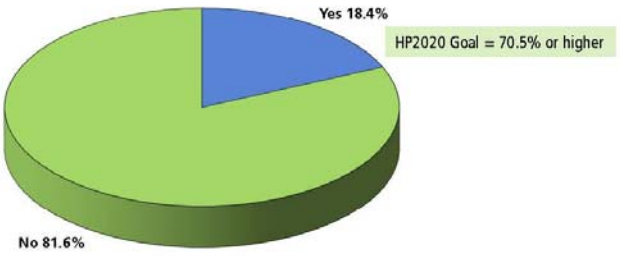
Note that other organizations (e.g., American Cancer Society, American Academy of Family Physicians, American College of Physicians, National Cancer Institute) may have slightly different screening guidelines.

Among adults age 50-75, 18.4% have had appropriate colorectal cancer screening (fecal occult blood testing in the past two years; sigmoidoscopy/ colonoscopy within the past 10 years; and some type of screening [fecal occult blood testing or sigmoidoscopy/colononscoppy] in the past year).

- Far from satisfying the Healthy People 2020 target (70.5% or higher).

Have Had a Colorectal Cancer Screening

(Total Area Adults 50-75, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 151]
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective C-16]

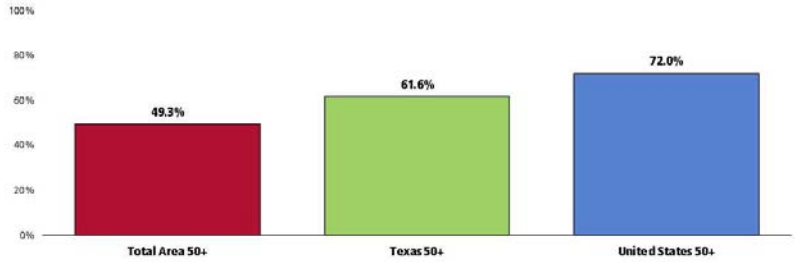
Notes:
- Asked of all respondents aged 50 through 75.
- Includes adults age 50-75 who meet the following criteria: sigmoidoscopy/colonoscopy in the past 10 years; and fecal occult blood testing in the past two years; and some type of screening (fecal occult blood testing/sigmoidoscopy/colonoscopy) in the past year.

Sigmoidoscopy/Colonoscopy

Among adults age 50 and older, 49.3% have had a sigmoidoscopy or colonoscopy at some point in their lives.

- Less favorable than Texas findings.
- Less favorable than national findings.

Have Ever Had a Sigmoidoscopy/Colonoscopy Exam
(Among Total Area Adults 50+, 2010)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 149]
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.
- Professional Research Consultants. PRC National Health Survey. 2011.

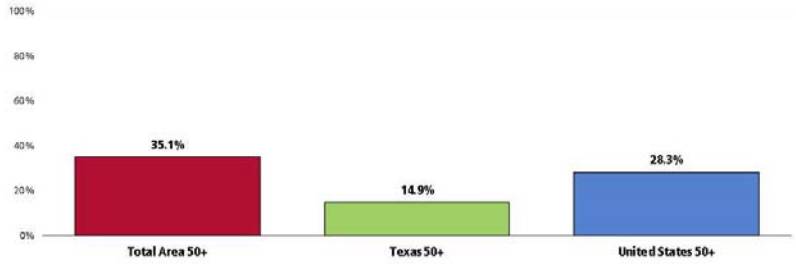
Notes:
- Asked of all respondents aged 50 and older.

Blood Stool Testing

Among adults age 50 and older, 35.1% have had a blood stool test (aka "fecal occult blood test") within the past two years.

- More favorable than Texas findings.
- Statistically comparable to national findings.

Have Had a Blood Stool Test in the Past 2 Years
(Among Total Area Adults 50+, 2010)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 150]
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.
- Professional Research Consultants. PRC National Health Survey. 2011.

Notes:
- Asked of all respondents aged 50 and older.

Respiratory Disease

Asthma and chronic obstructive pulmonary disease (COPD) are significant public health burdens. Specific methods of detection, intervention, and treatment exist that may reduce this burden and promote health.

Asthma is a chronic inflammatory disorder of the airways characterized by episodes of reversible breathing problems due to airway narrowing and obstruction. These episodes can range in severity from mild to life threatening. Symptoms of asthma include wheezing, coughing, chest tightness, and shortness of breath. Daily preventive treatment can prevent symptoms and attacks and enable individuals who have asthma to lead active lives.

COPD is a preventable and treatable disease characterized by airflow limitation that is not fully reversible. The airflow limitation is usually progressive and associated with an abnormal inflammatory response of the lung to noxious particles or gases (typically from exposure to cigarette smoke). Treatment can lessen symptoms and improve quality of life for those with COPD.

Several additional respiratory conditions and respiratory hazards, including infectious agents and occupational and environmental exposures, are covered in other areas of Healthy People 2020. Examples include tuberculosis, lung cancer, acquired immunodeficiency syndrome (AIDS), pneumonia, occupational lung disease, and smoking. Sleep Health is now a separate topic area of Healthy People 2020.

Currently in the United States, more than 23 million people have asthma. Approximately 13.6 million adults have been diagnosed with COPD, and an approximately equal number have not yet been diagnosed. The burden of respiratory diseases affects individuals and their families, schools, workplaces, neighborhoods, cities, and states. Because of the cost to the healthcare system, the burden of respiratory diseases also falls on society; it is paid for with higher health insurance rates, lost productivity, and tax dollars. Annual healthcare expenditures for asthma alone are estimated at $20.7 billion.

Asthma. The prevalence of asthma has increased since 1980. However, deaths from asthma have decreased since the mid-1990s. The causes of asthma are an active area of research and involve both genetic and environmental factors.

Risk factors for asthma currently being investigated include:

- Having a parent with asthma
- Sensitization to irritants and allergens
- Respiratory infections in childhood
- Overweight

Asthma affects people of every race, sex, and age. However, significant disparities in asthma morbidity and mortality exist, in particular for low-income and minority populations. Populations with higher rates of asthma include: children; women (among adults) and boys (among children); African Americans; Puerto Ricans; people living in the Northeast United States; people living below the Federal poverty level; and employees with certain exposures in the workplace.

While there is not a cure for asthma yet, there are diagnoses and treatment guidelines that are aimed at ensuring that all people with asthma live full and active lives.

COPD. COPD is the fourth leading cause of death in the United States. In 2006, approximately 120,000 individuals died from COPD, a number very close to that reported for lung cancer deaths (approximately 158,600) in the same year. In nearly 8 out of 10 cases, COPD is caused by exposure to cigarette smoke. In addition, other environmental exposures (such as those in the workplace) may cause COPD.

Genetic factors strongly influence the development of the disease. For example, not all smokers develop COPD. Quitting smoking may slow the progression of the disease. Women and men are affected equally, yet more women than men have died of COPD since 2000.

– Healthy People 2020 (www.healthypeople.gov)

Note: What was previously termed COPD (chronic obstructive pulmonary disease) has been reclassified as CLRD (chronic lower respiratory disease).

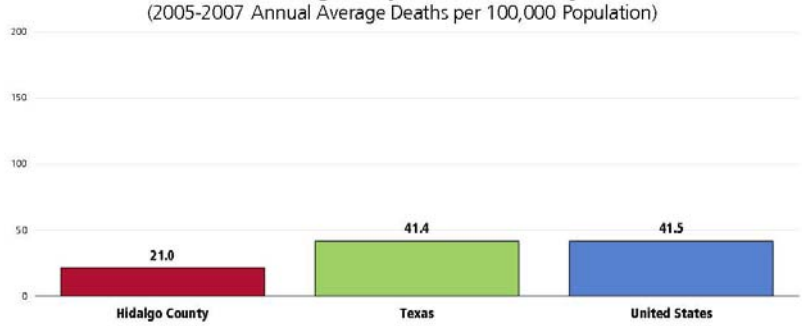
Age-Adjusted Respiratory Disease Deaths

Chronic Lower Respiratory Disease Deaths (CLRD)

Between 2005 and 2007, there was an annual average age-adjusted CLRD mortality rate of 21.0 deaths per 100,000 population in Hidalgo County.

- Lower than found statewide.
- Lower than the national rate.

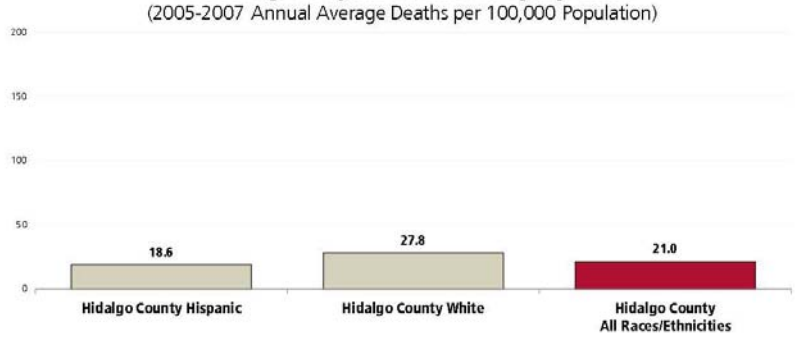
CLRD: Age-Adjusted Mortality
(2005-2007 Annual Average Deaths per 100,000 Population)



Sources: • Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
• Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
• County, state and national data are simple three-year averages.

CLRD mortality appears higher among Whites than among Hispanics in Hidalgo County.

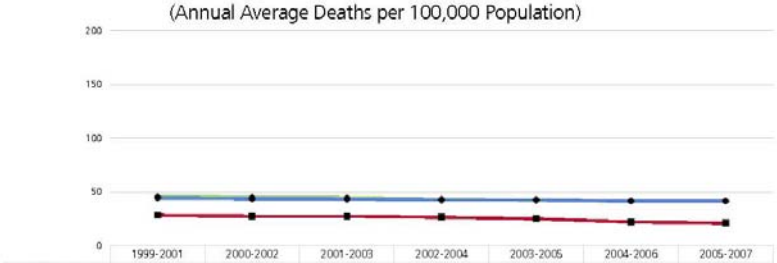
CLRD: Age-Adjusted Mortality by Race
(2005-2007 Annual Average Deaths per 100,000 Population)



Sources: • Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
• Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
• County, state and national data are simple three-year averages.
• Note that the number for "White" residents represent Non-Hispanic Whites in Hidalgo County.

CLRD mortality in the county has decreased over time, mirroring the trends reported both statewide and nationwide.

CLRD: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007
Hidalgo County	28.4	27.5	27.6	26.4	25.0	21.9	21.0
Texas	46.0	45.4	44.8	43.1	42.4	41.4	41.4
United States	44.4	43.8	43.5	42.6	42.6	41.6	41.5

Sources: • Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
• Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
• State and national data are simple three-year averages.

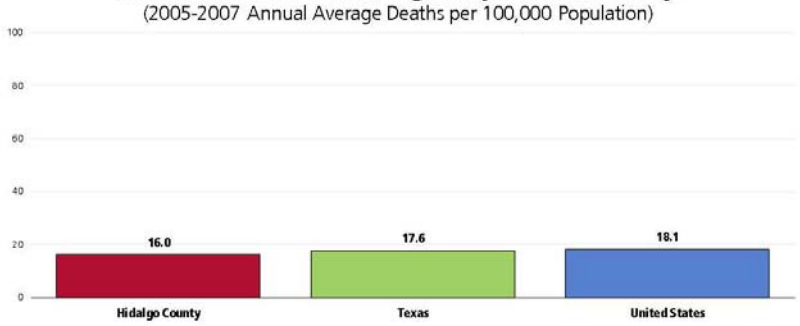
Pneumonia/Influenza Deaths

For prevalence of vaccinations for pneumonia and influenza, see also "Immunization & Infectious Disease."

Between 2005 and 2007, there was an annual average age-adjusted pneumonia/influenza mortality rate of 16.0 deaths per 100,000 population in Hidalgo County.

- Just below that found statewide.
- Just below the national rate.

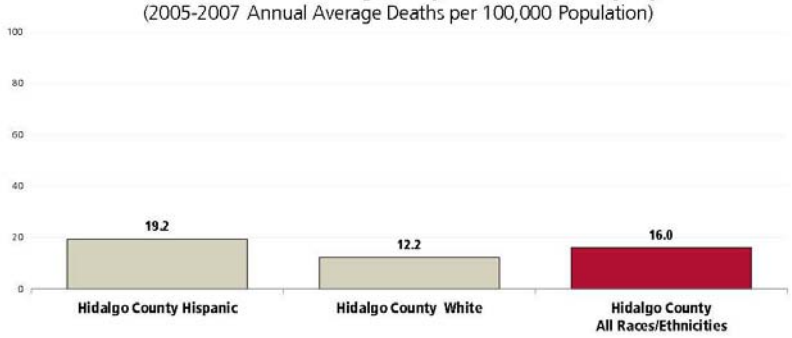
Pneumonia/Influenza: Age-Adjusted Mortality
(2005-2007 Annual Average Deaths per 100,000 Population)



Sources: • Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
• Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
• County, state and national data are simple three-year averages.

The pneumonia/influenza mortality rate in Hidalgo County is higher among Hispanics.

Pneumonia/Influenza: Age-Adjusted Mortality by Race
(2005-2007 Annual Average Deaths per 100,000 Population)

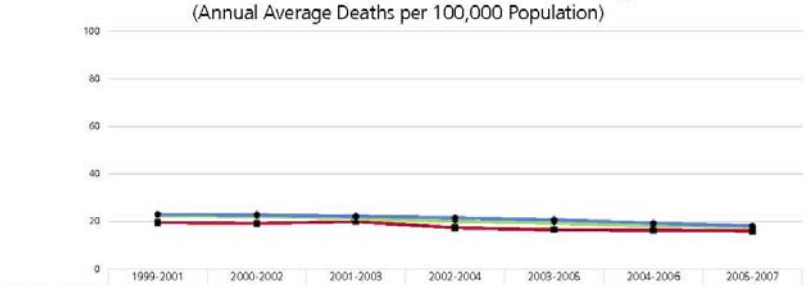


Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.
- Note that the number for "White" residents represent Non-Hispanic Whites in Hidalgo County.

Hidalgo County pneumonia/influenza mortality rates have decreased in recent years. Statewide and nationally, pneumonia/influenza death rates have decreased as well.

Pneumonia/Influenza: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007
Hidalgo County	19.5	19.2	19.9	17.4	16.4	16.2	16.0
Texas	22.4	22.2	21.4	20.0	19.3	18.2	17.6
United States	23.0	22.8	22.2	21.5	20.7	19.3	18.1

Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- State and national data are simple three-year averages.

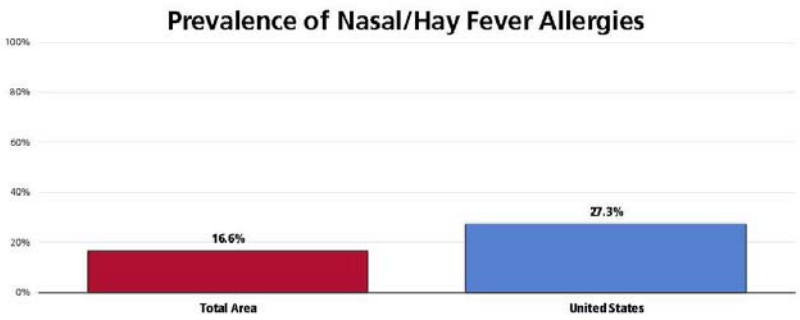
Survey respondents were next asked to indicate whether they suffer from or have been diagnosed with various respiratory conditions, including asthma, nasal/hay fever allergies, sinusitis, and/or chronic lung disease.

Prevalence of Respiratory Conditions

Nasal/Hay Fever Allergies

A total of 16.6% of Total Area adults currently suffer from or have been diagnosed with nasal/hay fever allergies.

- Much lower than the national prevalence.

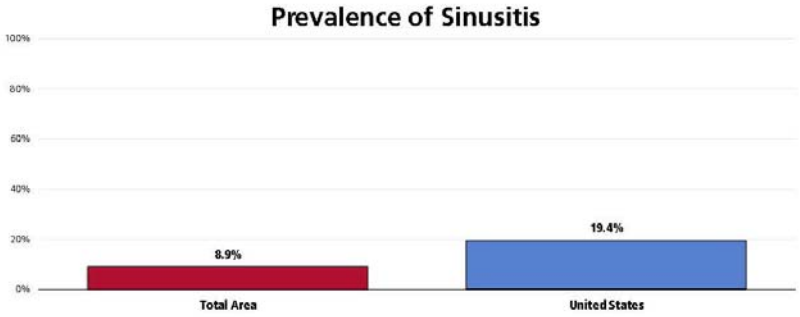


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 35]
• Professional Research Consultants, Inc. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Sinusitis

A total of 8.9% of Total Area adults suffer from sinusitis.

- Much more favorable than the national prevalence.



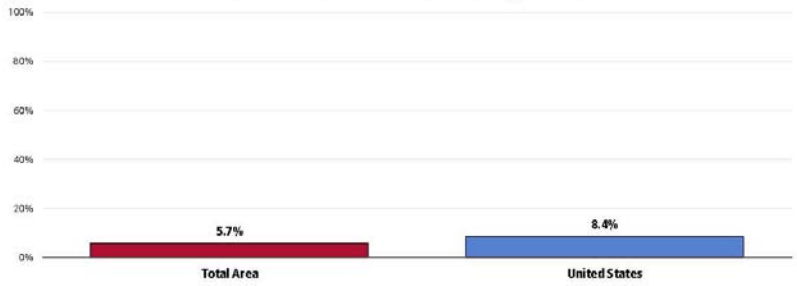
Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 34]
• Professional Research Consultants, Inc. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Chronic Lung Disease

A total of 5.7% of Total Area adults suffer from chronic lung disease.

- Statistically similar to the national prevalence.

Prevalence of Chronic Lung Disease



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 25]
- Professional Research Consultants. PRC National Health Survey. 2011.

Notes:
- Asked of all respondents.

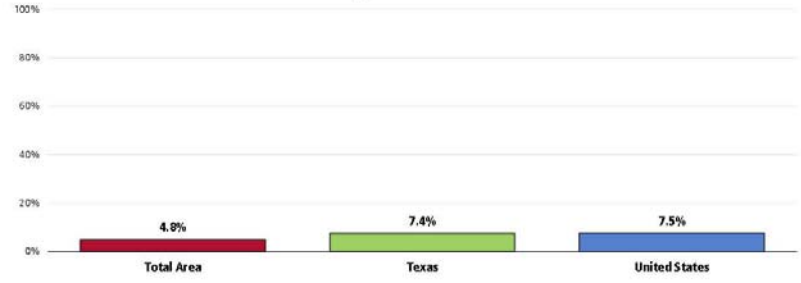
Asthma

Adults

A total of 4.8% of Total Area adults currently suffer from asthma.

- More favorable than the statewide prevalence.
- More favorable than the national prevalence.

Currently Have Asthma



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 152]
- Professional Research Consultants. PRC National Health Survey. 2011.
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.

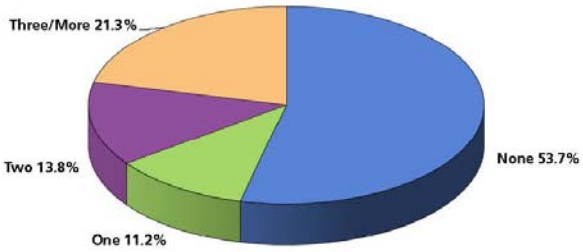
Notes:
- Asked of all respondents.

Among Total Area asthmatic adults, more than one-half (53.7%) report that they did not experience any days in the past year on which their activities were affected by asthma.

- In contrast, 21.3% of asthmatics report that their activities were affected by asthma on three or more days in the past year.

Number of Days on Which Asthma Affected Activities Last Year

(Total Area Adults With Asthma, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 43]
Notes: • Asked of all respondents with asthma.

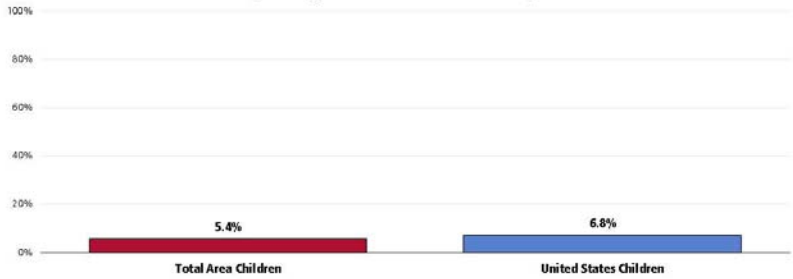
Children

Among Total Area children aged 2-17, 5.4% currently have asthma.

- Similar to national findings.

Child Has Asthma

(Among Parents of Children 2-17)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 153]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents with children aged 2 through 17.

Injury & Violence

Injuries and violence are widespread in society. Both unintentional injuries and those caused by acts of violence are among the top 15 killers for Americans of all ages. Many people accept them as "accidents," "acts of fate," or as "part of life." However, most events resulting in injury, disability, or death are predictable and preventable.

Injuries are the leading cause of death for Americans ages 1 to 44, and a leading cause of disability for all ages, regardless of sex, race/ethnicity, or socioeconomic status. More than 180,000 people die from injuries each year, and approximately 1 in 10 sustains a nonfatal injury serious enough to be treated in a hospital emergency department.

Beyond their immediate health consequences, injuries and violence have a significant impact on the well-being of Americans by contributing to:

- Premature death
- Disability
- Poor mental health
- High medical costs
- Lost productivity

The effects of injuries and violence extend beyond the injured person or victim of violence to family members, friends, coworkers, employers, and communities.

Numerous factors can affect the risk of unintentional injury and violence, including individual behaviors, physical environment, access to health services (ranging from pre-hospital and acute care to rehabilitation), and social environment (from parental monitoring and supervision of youth to peer group associations, neighborhoods, and communities).

Interventions addressing these social and physical factors have the potential to prevent unintentional injuries and violence. Efforts to prevent unintentional injury may focus on:

- Modifications of the environment
- Improvements in product safety
- Legislation and enforcement
- Education and behavior change
- Technology and engineering

Efforts to prevent violence may focus on:

- Changing social norms about the acceptability of violence
- Improving problem-solving skills (for example, parenting, conflict resolution, coping)
- Changing policies to address the social and economic conditions that often give rise to violence

– Healthy People 2020 (www.healthypeople.gov)

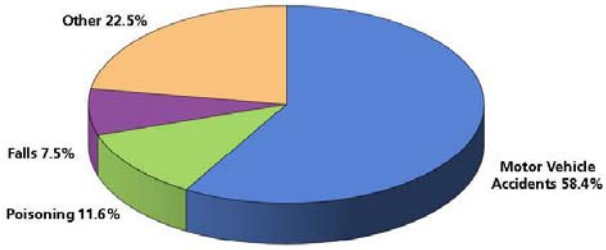
Leading Causes of Accidental Death

Motor vehicle accidents accounted for 58.4% of accidental deaths in Hidalgo County in 2007.

- Poisoning/noxious substances and falls accounted for another 19.1% of accidental deaths.

Leading Causes of Accidental Death

(Hidalgo County, 2007)



Sources: • Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).

Unintentional Injury

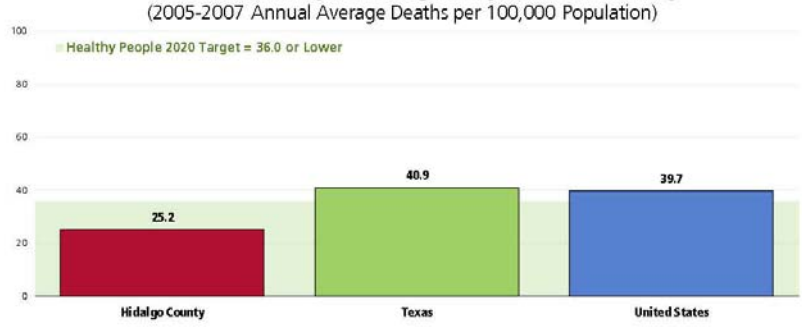
Age-Adjusted Unintentional Injury Deaths

Between 2005 and 2007, there was an annual average age-adjusted unintentional injury mortality rate of 25.2 deaths per 100,000 population in Hidalgo County.

- More favorable than the Texas rate.
- More favorable than the national rate.
- Satisfies the Healthy People 2020 target (36.0 or lower).

Unintentional Injuries: Age-Adjusted Mortality

(2005-2007 Annual Average Deaths per 100,000 Population)

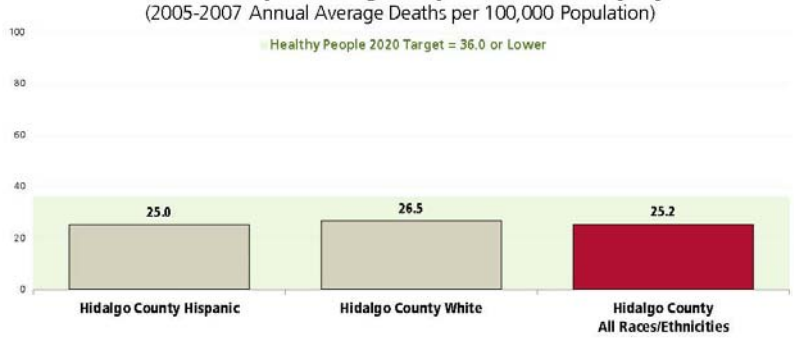


Sources: • Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
• US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective IVP-11]
Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
• Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
• County, state and national data are simple three-year averages.

Mortality rates are similar between Hispanics and Whites in Hidalgo County.

Unintentional Injuries: Age-Adjusted Mortality by Race

(2005-2007 Annual Average Deaths per 100,000 Population)



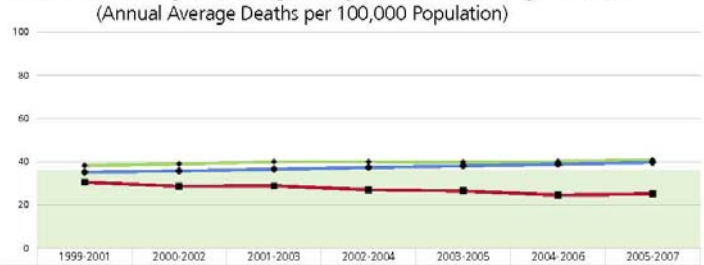
Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective IVP-11]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.
- Note that the number for "White" residents represent Non-Hispanic Whites in Hidalgo County.

There is an overall downward trend in unintentional injury mortality rates in the county; in contrast, accident mortality has increased both statewide and nationwide in recent years.

Unintentional Injuries: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007
Healthy People 2020	36.0	36.0	36.0	36.0	36.0	36.0	36.0
Hidalgo County	30.6	28.7	28.9	27.0	26.5	24.7	25.2
Texas	38.2	39.1	40.0	40.0	39.9	40.1	40.9
United States	35.3	35.8	36.7	37.4	38.1	39.0	39.7

Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective IVP-11]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- State and national data are simple three-year averages.

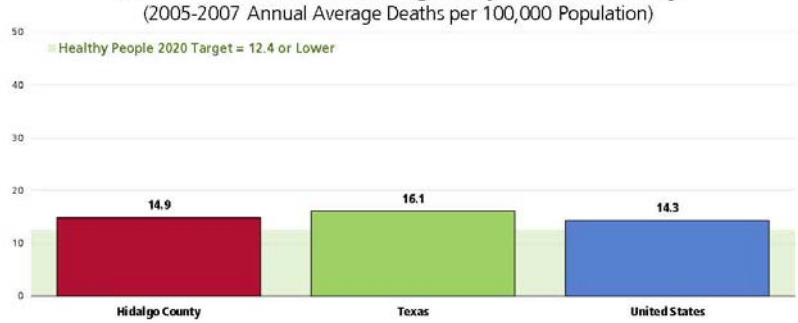
Motor Vehicle Safety

Age-Adjusted Motor-Vehicle Related Deaths

Between 2005 and 2007, there was an annual average age-adjusted motor vehicle crash mortality rate of 14.9 deaths per 100,000 population in the county.

- Lower than found statewide.
- Similar to that found nationally.
- Fails to satisfy the Healthy People 2020 target (12.4 or lower).

Motor Vehicle Crashes: Age-Adjusted Mortality
(2005-2007 Annual Average Deaths per 100,000 Population)

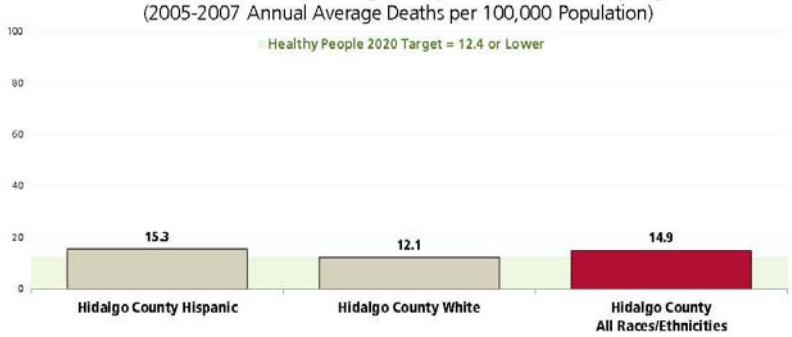


Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective IVP-13.1]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.

The motor vehicle crash mortality rate is slightly higher among Hispanics than among Whites in Hidalgo County.

Motor Vehicle Crashes: Age-Adjusted Mortality by Race
(2005-2007 Annual Average Deaths per 100,000 Population)



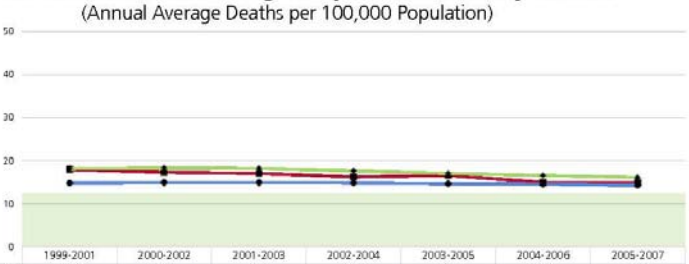
Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective IVP-13.1]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.
- Note that the number for "White" residents represent Non-Hispanic Whites in Hidalgo County.

Mortality rates decreased over the past decade for Hidalgo County, for Texas, and for the US overall.

Motor Vehicle Crashes: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007
Healthy People 2020	12.4	12.4	12.4	12.4	12.4	12.4	12.4
Hidalgo County	18.0	17.3	17.1	16.2	16.6	14.9	14.9
Texas	18.1	18.3	18.2	17.7	17.1	16.6	16.1
United States	14.8	15.0	14.9	14.9	14.7	14.6	14.3

Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective IVP-13.1]

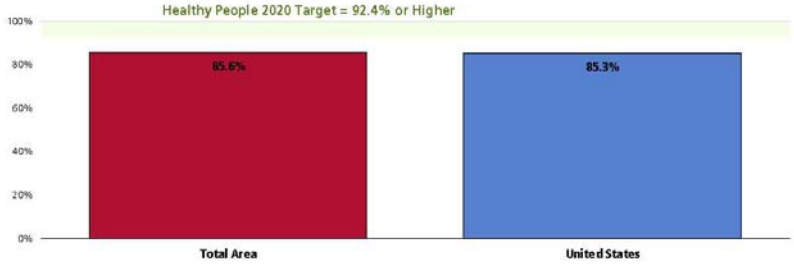
Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- State and national data are simple three-year averages.

Seat Belt Usage - Adults

According to survey results, most Total Area adults (85.6%) report "always" wearing a seat belt when driving or riding in a vehicle.

- Nearly identical to that found nationally.
- Fails to satisfy the Healthy People 2020 objective of 92.4% or higher.

"Always" Wear a Seat Belt When Driving or Riding in a Vehicle



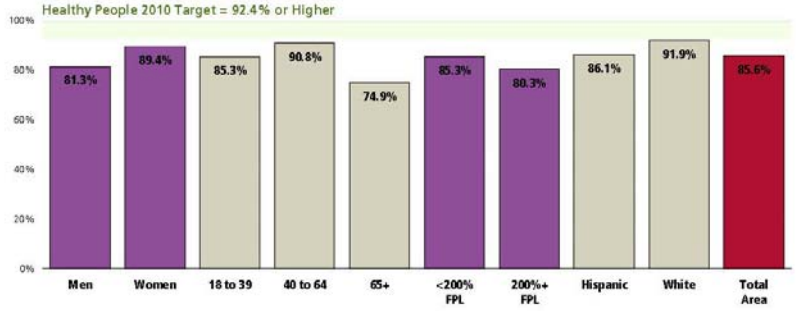
Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 53]
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective IPV-15]

Notes:
- Asked of all respondents.

These population segments are less likely to report consistent seat belt usage:

- Men.
- Adults 65+.

"Always" Wear a Seat Belt When Driving or Riding in a Vehicle
(Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 53]
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov. [Objective IPV-15]

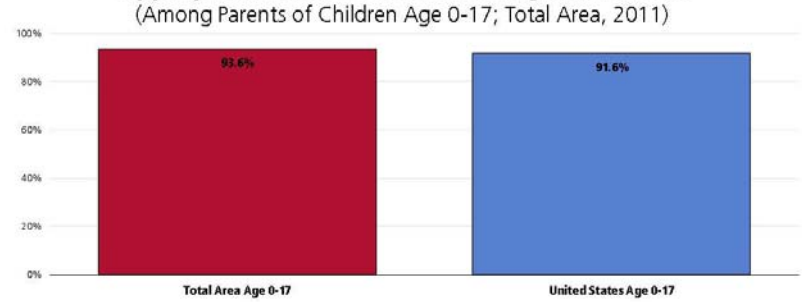
Notes:
- Asked of all respondents.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Seat Belt Usage - Children

A full 93.6% of Total Area parents report that their child (age 0 to 17) "always" wears a seat belt (or appropriate car seat for younger children) when riding in a vehicle.

- Statistically similar to what is found nationally.

Child "Always" Wears a Seatbelt or Appropriate Restraint When Riding in a Vehicle
(Among Parents of Children Age 0-17; Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Items 132, 156-157]
- Professional Research Consultants, Inc. PRC National Health Survey. 2011.

Notes:
- Asked of all respondents with children under 18 at home.

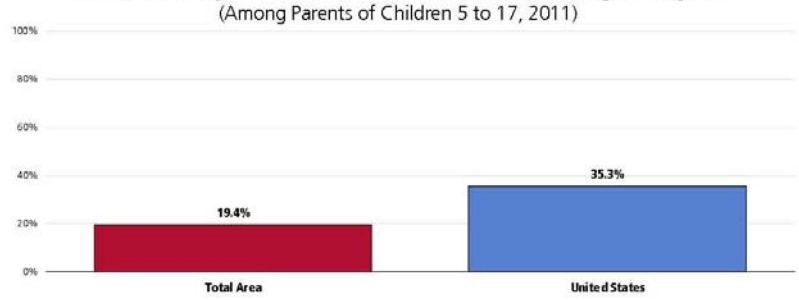
Bicycle Safety

Less than 1 in 5 (19.4%) Total Area children age 5 to 17 are reported to "always" wear a helmet when riding a bicycle.

- Much lower than the national prevalence.

Child "Always" Wears a Helmet When Riding a Bicycle

(Among Parents of Children 5 to 17, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 137]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents with children aged 5 to 17 at home.

Firearm Safety

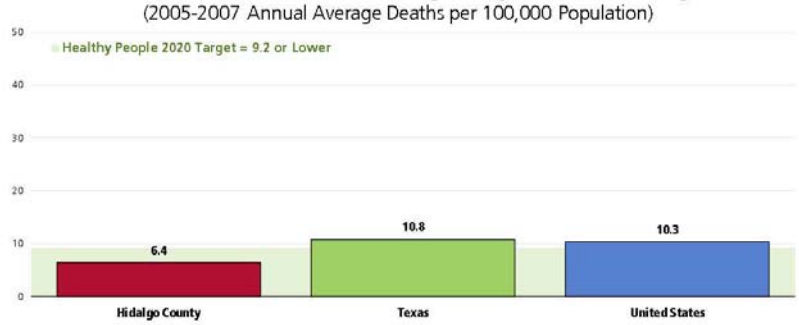
Firearm-Related Deaths

Between 2005 and 2007, there was an annual average age-adjusted firearms-related mortality rate of 6.4 deaths per 100,000 population in Hidalgo County.

- Lower than found statewide.
- Lower than found nationally.
- Satisfies the Healthy People 2020 target (12.4 or lower).

Firearms-Related Deaths: Age-Adjusted Mortality

(2005-2007 Annual Average Deaths per 100,000 Population)

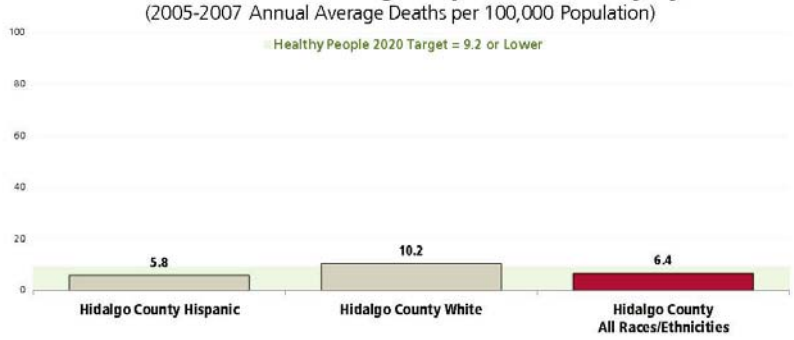


Sources: • Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
• US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective IVP-30]
Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
• Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
• County, state and national data are simple three-year averages.

The Hidalgo County firearms-related mortality rate is higher among Whites than among Hispanics.

Firearms-Related Deaths: Age-Adjusted Mortality by Race

(2005-2007 Annual Average Deaths per 100,000 Population)



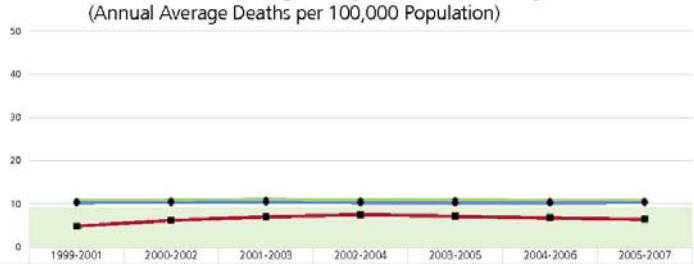
Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective IVP-30]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.
- Note that the number for "White" residents represent Non-Hispanic Whites in Hidalgo County.

Mortality rates in the county increased over the past decade. Rates remained stable, in contrast, both statewide and nationwide.

Firearms-Related Deaths: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007
Healthy People 2020	9.2	9.2	9.2	9.2	9.2	9.2	9.2
Hidalgo County	4.9	6.3	7.1	7.5	7.2	6.8	6.4
Texas	10.8	10.9	11.1	10.9	11.0	10.8	10.8
United States	10.3	10.3	10.4	10.3	10.2	10.2	10.3

Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective IVP-30]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- State and national data are simple three-year averages.

Survey respondents were further asked about the presence of weapons in the home:

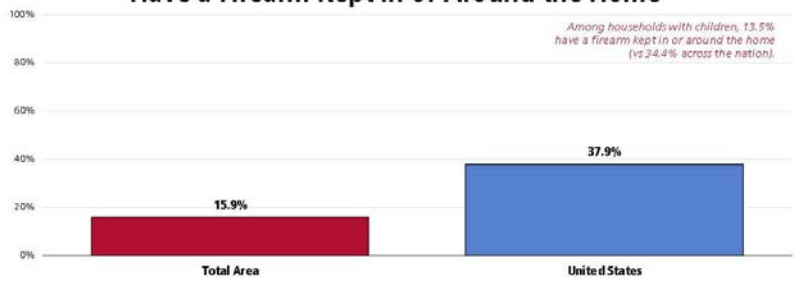
"Are there any firearms now kept in or around your home, including those kept in a garage, outdoor storage area, truck, or car? For the purposes of this inquiry, 'firearms' include pistols, shotguns, rifles, and other types of guns, but do NOT include starter pistols, BB guns, or guns that cannot fire."

Presence of Firearms in Homes

Overall, just 15.9% of Total Area adults have a firearm kept in or around their home.

- Much lower than the national prevalence.
- Among Total Area households with children, 13.5% have a firearm kept in or around the house (more favorable than reported nationally).

Have a Firearm Kept in or Around the Home



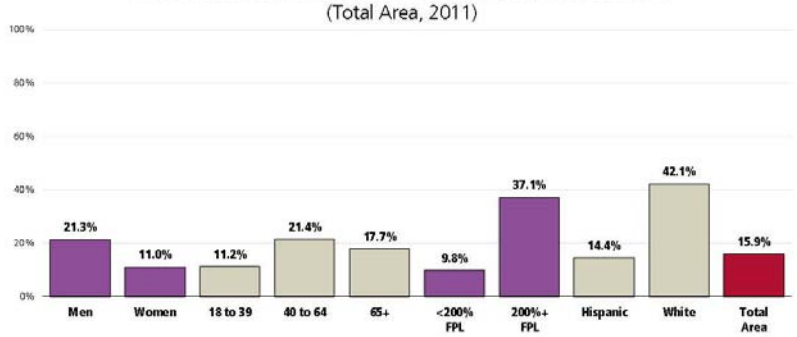
Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Items 57, 154]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Reports of firearms in or around the home are more prevalent among the following respondent groups:

- Men.
- Adults between the ages of 40 and 64.
- Higher-income households.
- White respondents.

Have a Firearm Kept in or Around the House

(Total Area, 2011)

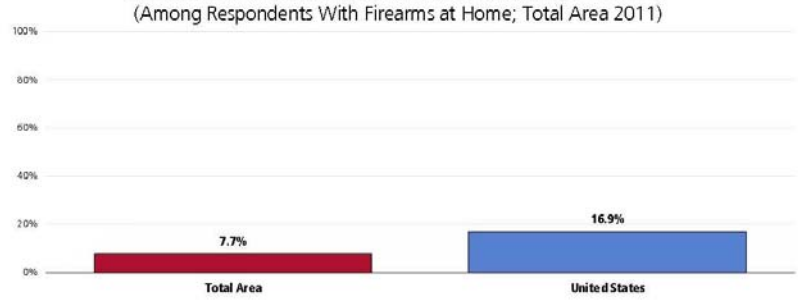


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 57]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Among Total Area households with firearms, 7.7% report that there is at least one weapon that is kept unlocked and loaded.

- More favorable than that found nationally.

Household Has an Unlocked/Loaded Firearm
(Among Respondents With Firearms at Home; Total Area 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 155]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents with firearms in or around the home.

Intentional Injury (Violence)

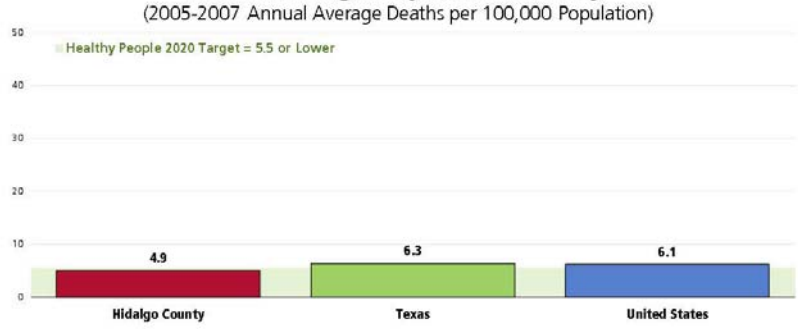
Age-Adjusted Homicide Deaths

RELATED ISSUE:
See also *Suicide* in the **Mental Health & Mental Disorders** section of this report.

Between 2005 and 2007, there was an annual average age-adjusted homicide rate of 4.9 deaths per 100,000 population in Hidalgo County.

- More favorable than the rate found statewide.
- More favorable than the national rate.
- Satisfies the Healthy People 2020 target of 5.5 or lower.

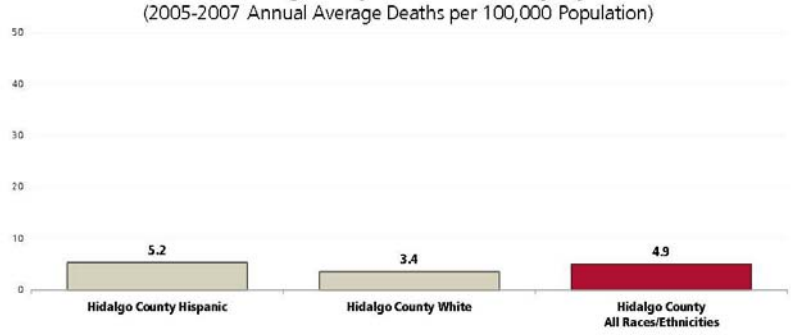
Homicide: Age-Adjusted Mortality
(2005-2007 Annual Average Deaths per 100,000 Population)



Sources: • Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
• US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective IPV-29]
Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
• Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
• County, state and national data are simple three-year averages.
• All Total Area homicide death rates are unreliable due to the low number of deaths in the community.

Homicide rates are slightly higher among Hispanics in Hidalgo County.

Homicide: Age-Adjusted Mortality by Race
(2005-2007 Annual Average Deaths per 100,000 Population)

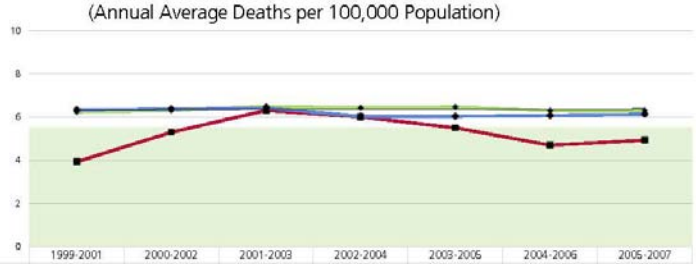


Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (IPV-29).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.
- Note that the number for "White" residents represent Non-Hispanic Whites in Hidalgo County.

Since the 1999-2001 reporting period, homicide rates in Hidalgo County have shown no clear trend.

Homicide: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007
Healthy People 2020	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Hidalgo County	3.9	5.3	6.3	6.0	5.5	4.7	4.9
Texas	6.2	6.3	6.5	6.4	6.5	6.3	6.3
United States	6.3	6.4	6.4	6.0	6.0	6.1	6.1

Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective IPV-29]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- State and national data are simple three-year averages.
- All Total Area homicide death rates are unreliable due to the low number of deaths in the county.

Violent Crime

Violent Crime Rates

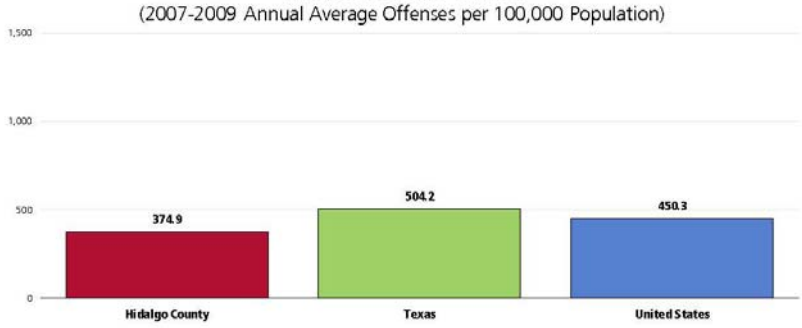
Violent crime is composed of four offenses (FBI Index offenses): murder and non-negligent manslaughter; forcible rape; robbery; and aggravated assault.

Note that the quality of crime data can vary widely from location to location, depending on the consistency and completeness of reporting among various jurisdictions.

Between 2007 and 2009, there was an annual average violent crime rate of 374.9 offenses per 100,000 population in Hidalgo County.

- More favorable than the Texas rate for the same period.
- More favorable than the national rate.

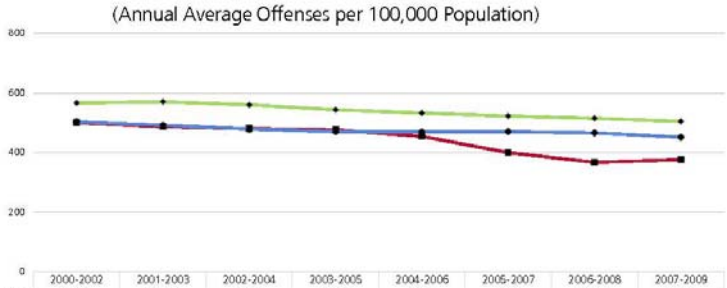
Violent Crime Rates
(2007-2009 Annual Average Offenses per 100,000 Population)



Sources: • Texas Department of Family and Protective Services
• US Department of Justice, Federal Bureau of Investigation, Crime in the US
Notes: • Rates are offenses per 100,000 population among agencies reporting.

Crime rates have declined appreciably in recent years, mirroring the state and national trends.

Violent Crime Rates
(Annual Average Offenses per 100,000 Population)



	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007	2006-2008	2007-2009
Hidalgo County	498.7	486.4	478.9	475.0	453.5	399.1	366.1	374.9
Texas	565.2	569.0	559.0	542.3	531.3	521.5	514.0	504.2
United States	501.8	491.6	477.8	469.3	468.6	469.8	465.0	450.3

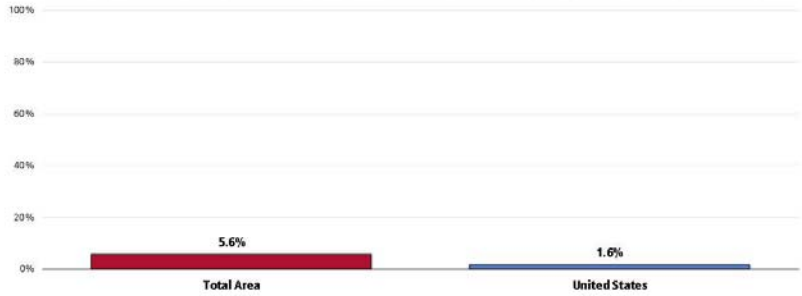
Sources: • Texas Department of Family and Protective Services
• US Department of Justice, Federal Bureau of Investigation, Crime in the US
Notes: • Rates are offenses per 100,000 population among agencies reporting.

Victimization

A total of 5.6% of Total Area adults acknowledge being the victim of a violent crime in the past five years.

- Much higher than national findings.

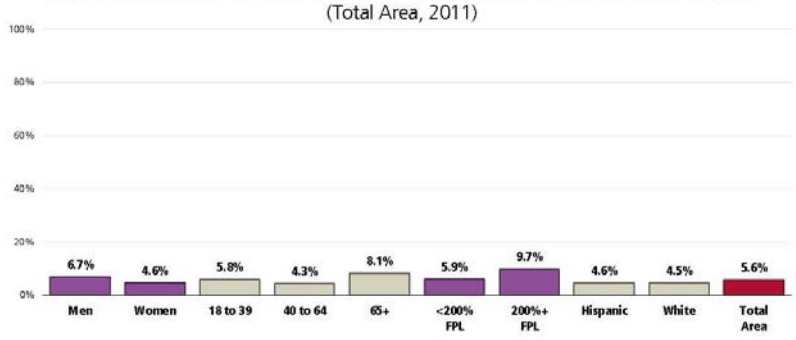
Have Been the Victim of a Violent Crime in the Past 5 Years



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item S4]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents

- No statistical differences in reports of victimization by demographic characteristics.

Have Been the Victim of a Violent Crime in the Past 5 Years
(Total Area, 2011)



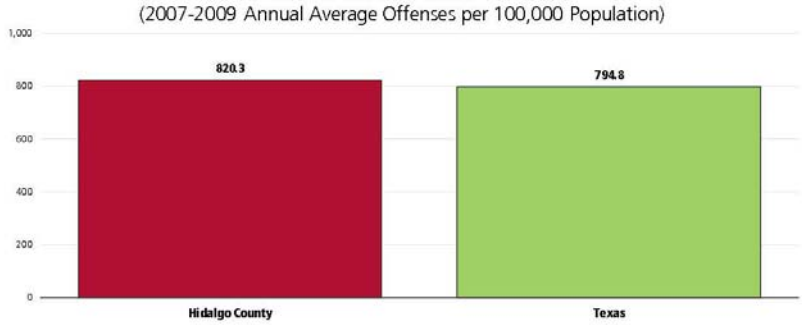
Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item S4]
Notes: • Asked of all respondents
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Family Violence

Between 2007 and 2009, there was an annual average domestic violence rate of 820.3 offenses per 100,000 population in Hidalgo County.

- Comparable to the Texas rate for the same period.

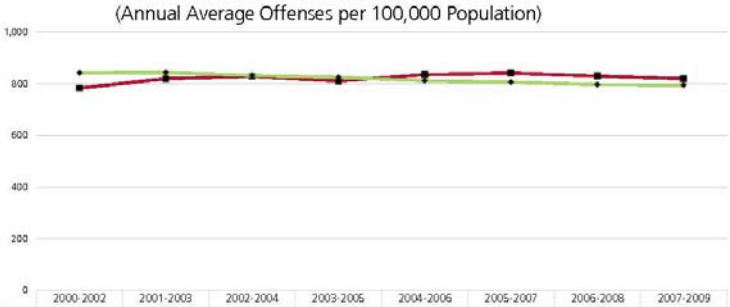
Domestic Violence Rates
(2007-2009 Annual Average Offenses per 100,000 Population)



Sources: • Texas Department of Family and Protective Services
Notes: • Rates are offenses per 100,000 population

Domestic violence rates increased in Hidalgo County between the 2000-2002 and 2007-2009 reporting periods. In contrast, Texas rates have been on the decrease.

Domestic Violence Rates
(Annual Average Offenses per 100,000 Population)



	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007	2006-2008	2007-2009
Hidalgo County	782.8	819.8	829.2	810.6	835.7	841.9	830.2	820.3
Texas	842.4	843.5	832.4	825.3	812.0	806.1	797.0	794.8

Sources: • Texas Department of Family and Protective Services
Notes: • Rates are offenses per 100,000 population

Respondents were told:

"By an intimate partner, I mean any current or former spouse, boyfriend, or girlfriend. Someone you were dating, or romantically or sexually intimate with would also be considered an intimate partner."

Self-Reported Family Violence

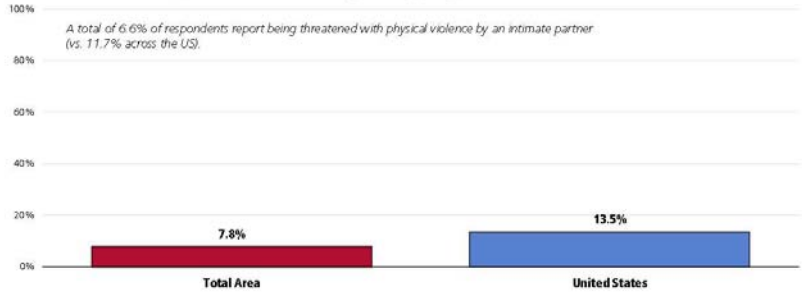
According to survey adults, a total of 6.6% of Total Area adults report that they have ever been threatened with physical violence by an intimate partner.

- More favorable than that reported nationally.

A total of 7.8% of respondents acknowledge that they have ever been hit, slapped, pushed, kicked, or otherwise hurt by an intimate partner.

- More favorable than national findings.

Have Ever Been Hit, Slapped, Pushed, Kicked, or Hurt in Any Way by an Intimate Partner

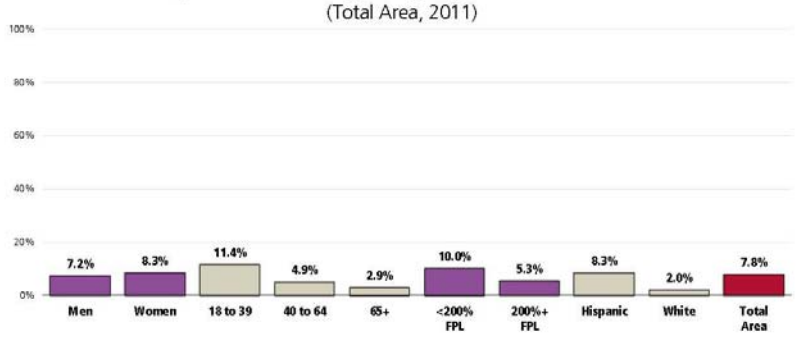


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Items 55-56]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Reports of domestic violence are also notably higher among:

- Young adults (under 40).
- Hispanics.

Have Ever Been Hit, Slapped, Pushed, Kicked, or Hurt in Any Way by an Intimate Partner
(Total Area, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 56]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

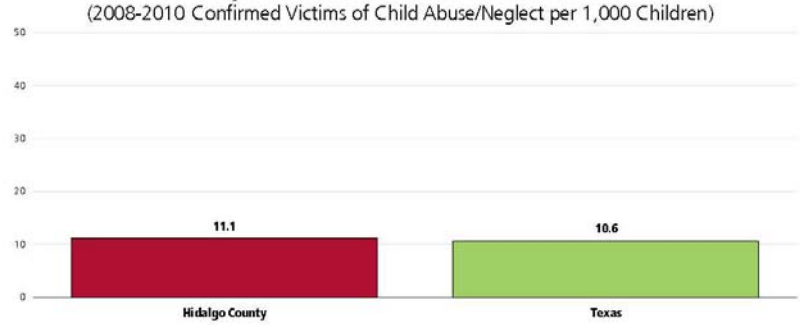
Child Abuse Rates

Between 2008 and 2010, there was an annual average child abuse offense rate of 11.1 per 1,000 children in Hidalgo County.

- Similar to the Texas rate for the same period.

Reported Child Abuse Case Rates

(2008-2010 Confirmed Victims of Child Abuse/Neglect per 1,000 Children)

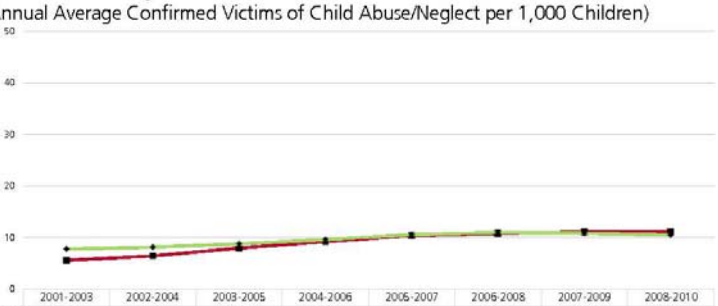


Sources: • Texas Department of Family and Protective Services
Notes: • Rates represent reported cases per 1,000 population

Reported child abuse rates have increased steadily in the county in recent years, similar to what is seen statewide.

Reported Child Abuse Case Rates

(Annual Average Confirmed Victims of Child Abuse/Neglect per 1,000 Children)



	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007	2006-2008	2007-2009	2008-2010
Hidalgo County	5.6	6.4	8.0	9.2	10.4	10.8	11.1	11.1
Texas	7.8	8.1	8.8	9.6	10.6	11.0	10.9	10.6

Sources: • Texas Department of Family and Protective Services
Notes: • Rates represent reported cases per 1,000 population

Related Focus Group Findings: Violence

The main concern with focus group participants regarding injury and violence seemed to be the violence crossing over the border from Mexico. Because of the gangs and drugs that are coming across the border, there is an increase in violence according to the participants.

Participants also mentioned the number of vehicles that are stolen. There are signs posted around the community warning people about stolen vehicles, but still there are certain makes of vehicles that come up missing quite often in the community.

Another concern for participants is domestic violence. There seems to be so much of it in the community. Some participants believe it is cultural and that women feel as though the abuse is something they must put up with instead of reporting it and getting the help they need and deserve. Participants also mentioned child abuse as being quite prevalent in the community. There is a child fatality review board that does review each child death to determine if there is something to be learned from it that could prevent that same death in another child.

> *"There's a lot of violence here, I'll tell you. Now with this cross the border thing with a lot of these gangs and drug cartels and all that, you see an increase in that as well."*
>
> *"Car theft is high here in this area."*
>
> *"There's a lot of domestic violence. "*
>
> *"There's a lot of child abuse as well."*

Diabetes

Diabetes mellitus occurs when the body cannot produce or respond appropriately to insulin. Insulin is a hormone that the body needs to absorb and use glucose (sugar) as fuel for the body's cells. Without a properly functioning insulin signaling system, blood glucose levels become elevated and other metabolic abnormalities occur, leading to the development of serious, disabling complications. Many forms of diabetes exist; the three common types are Type 1, Type 2, and gestational diabetes.

Effective therapy can prevent or delay diabetic complications. However, almost 25% of Americans with diabetes mellitus are undiagnosed, and another 57 million Americans have blood glucose levels that greatly increase their risk of developing diabetes mellitus in the next several years. Few people receive effective preventative care, which makes diabetes mellitus an immense and complex public health challenge.

Diabetes mellitus affects an estimated 23.6 million people in the United States and is the 7th leading cause of death. Diabetes mellitus:

- Lowers life expectancy by up to 15 years.
- Increases the risk of heart disease by 2 to 4 times.
- Is the leading cause of kidney failure, lower limb amputations, and adult-onset blindness.

In addition to these human costs, the estimated total financial cost of diabetes mellitus in the US in 2007 was $174 billion, which includes the costs of medical care, disability, and premature death.

The rate of diabetes mellitus continues to increase both in the United States and throughout the world. Due to the steady rise in the number of persons with diabetes mellitus, and possibly earlier onset of type 2 diabetes mellitus, there is growing concern about the possibility that the increase in the number of persons with diabetes mellitus and the complexity of their care might overwhelm existing healthcare systems.

People from minority populations are more frequently affected by type 2 diabetes. Minority groups constitute 25% of all adult patients with diabetes in the US and represent the majority of children and adolescents with type 2 diabetes.

Lifestyle change has been proven effective in preventing or delaying the onset of type 2 diabetes in high-risk individuals.

– Healthy People 2020 (www.healthypeople.gov)

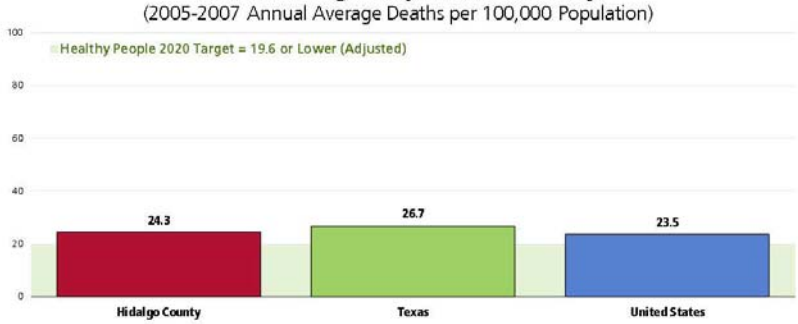
Age-Adjusted Diabetes Deaths

Between 2005 and 2007, there was an annual average age-adjusted diabetes mortality rate of 24.3 deaths per 100,000 population in Hidalgo County.

- More favorable than that found statewide.
- Similar to the national rate.
- Fails to satisfy the Healthy People 2020 target (19.6 or lower).

Diabetes: Age-Adjusted Mortality

(2005-2007 Annual Average Deaths per 100,000 Population)



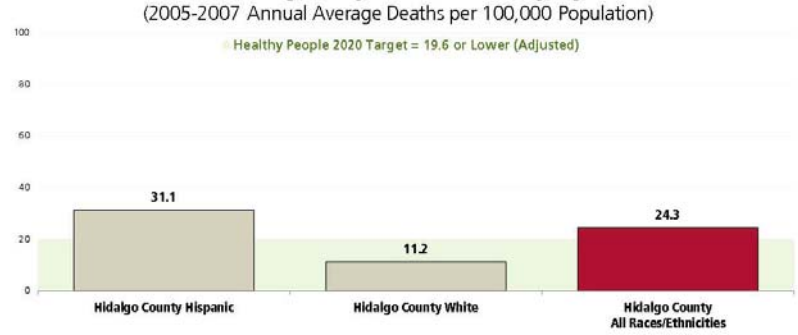
Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective D-3]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.
- The Healthy People 2010 target for Diabetes is adjusted to account for only diabetes mellitus coded deaths.

Diabetes mortality rates in the county are notably higher among Hispanics than among Whites.

Diabetes: Age-Adjusted Mortality by Race

(2005-2007 Annual Average Deaths per 100,000 Population)

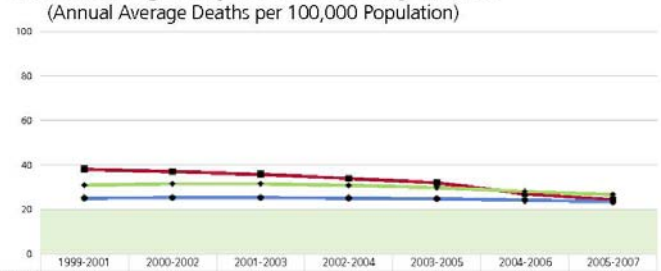


Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective D-3]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.
- Note that the number for "White" residents represent Non-Hispanic Whites in Hidalgo County.
- The Healthy People 2010 target for Diabetes is adjusted to account for only diabetes mellitus coded deaths.
- The Hispanic and Non-Hispanic Other death rates are unreliable due to the low number of deaths within each population.

Diabetes mortality has decreased in the county in recent years. Rates have decreased both statewide and nationwide as well, although less dramatically.

Diabetes: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007
Healthy People 2020 (Adjusted)	19.6	19.6	19.6	19.6	19.6	19.6	19.6
Hidalgo County	38.0	37.1	35.8	34.0	32.0	27.1	24.3
Texas	30.9	31.6	31.6	30.8	29.8	28.1	26.7
United States	25.1	25.3	25.4	25.1	24.8	24.2	23.5

Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective D-3].

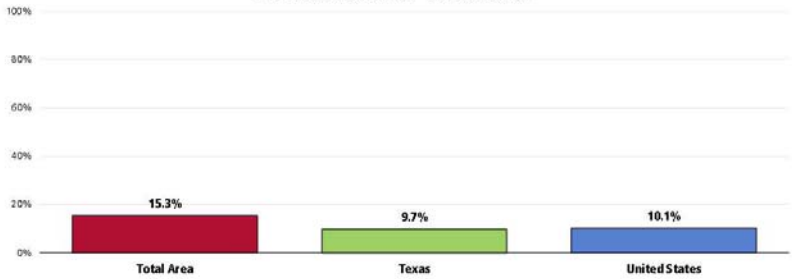
Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- State and national data are simple three-year averages.
- The Healthy People 2010 target for Diabetes is adjusted to account for only diabetes mellitus coded deaths.

Prevalence of Diabetes

A total of 15.3% of Total Area adults report having been diagnosed with diabetes.

- Less favorable than the proportion statewide.
- Less favorable than the national proportion.

Prevalence of Diabetes

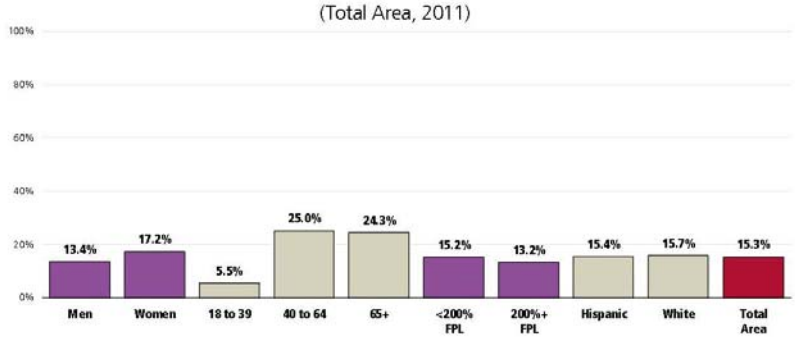


Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 44]
- Professional Research Consultants. PRC National Health Survey. 2011.
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.

Notes:
- Asked of all respondents.

A higher prevalence of diabetes is reported among adults aged 40 and older in the Total Area.

Prevalence of Diabetes
(Total Area, 2011)



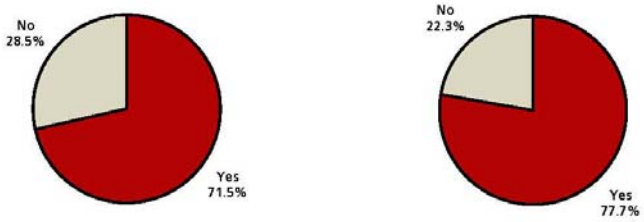
Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 44]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Diabetes Treatment

Among adults with diabetes, most (71.5%) are currently taking insulin or some type of medication to manage their condition.

- Statistically similar to national findings.

Taking Insulin or Other Medication for Diabetes
(Among Diabetics; Total Area, 2011)



Total Area Diabetics | US Diabetics

Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 45]
• Professional Research Consultants, Inc. PRC National Health Survey. 2011.
Notes: • Asked of all diabetic respondents.

Alzheimer's Disease

Dementia is the loss of cognitive functioning—thinking, remembering, and reasoning—to such an extent that it interferes with a person's daily life. Dementia is not a disease itself, but rather a set of symptoms. Memory loss is a common symptom of dementia, although memory loss by itself does not mean a person has dementia. Alzheimer's disease is the most common cause of dementia, accounting for the majority of all diagnosed cases.

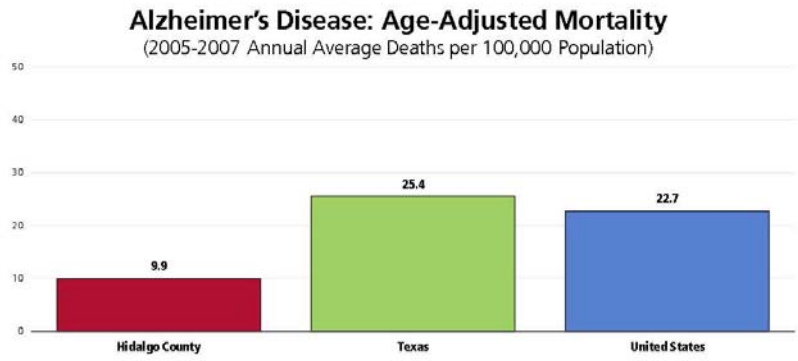
Alzheimer's disease is the 6th leading cause of death among adults age 18 years and older. Estimates vary, but experts suggest that up to 5.1 million Americans age 65 years and older have Alzheimer's disease. These numbers are predicted to more than double by 2050 unless more effective ways to treat and prevent Alzheimer's disease are found.

– Healthy People 2020 (www.healthypeople.gov)

Age-Adjusted Alzheimer's Disease Deaths

Between 2005 and 2007, there was an annual average age-adjusted Alzheimer's disease mortality rate of 9.9 deaths per 100,000 population in Hidalgo County.

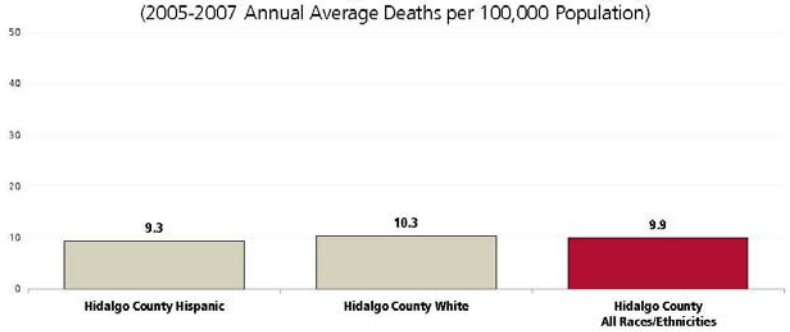
- Much more favorable than the statewide rate.
- Much more favorable than the national rate.



Sources: • Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
• Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
• County, state and national data are simple three-year averages.

Alzheimer's disease mortality rates are fairly comparable by race.

Alzheimer's Disease: Age-Adjusted Mortality by Race
(2005-2007 Annual Average Deaths per 100,000 Population)

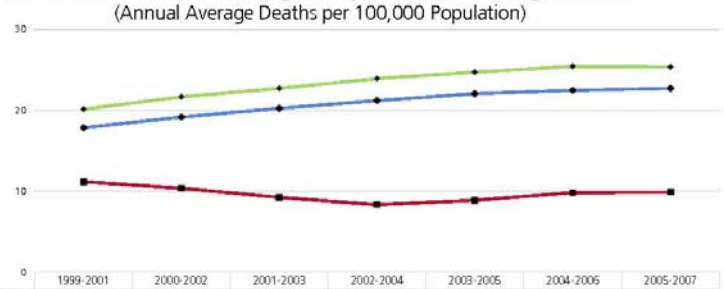


Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.
- Note that the number for "White" residents represent Non-Hispanic Whites in Hidalgo County.

Hidalgo County Alzheimer's mortality rates have increased in recent years, after decreasing in the early 2000s; in contrast, state and national rates have increased consistently.

Alzheimer's Disease: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007
Hidalgo County	11.2	10.4	9.3	8.4	8.9	9.8	9.9
Texas	20.1	21.7	22.7	23.9	24.7	25.4	25.4
United States	17.9	19.2	20.3	21.2	22.1	22.5	22.7

Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

Kidney Disease

Chronic kidney disease and end-stage renal disease are significant public health problems in the United States and a major source of suffering and poor quality of life for those afflicted. They are responsible for premature death and exact a high economic price from both the private and public sectors. Nearly 25% of the Medicare budget is used to treat people with chronic kidney disease and end-stage renal disease.

Genetic determinants have a large influence on the development and progression of chronic kidney disease. It is not possible to alter a person's biology and genetic determinants; however, environmental influences and individual behaviors also have a significant influence on the development and progression of chronic kidney disease. As a result, some populations are disproportionately affected. Successful behavior modification is expected to have a positive influence on the disease.

Diabetes is the most common cause of kidney failure. The results of the Diabetes Prevention Program (DPP) funded by the national Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) show that moderate exercise, a healthier diet, and weight reduction can prevent development of type 2 diabetes in persons at risk.

– Healthy People 2020 (www.healthypeople.gov)

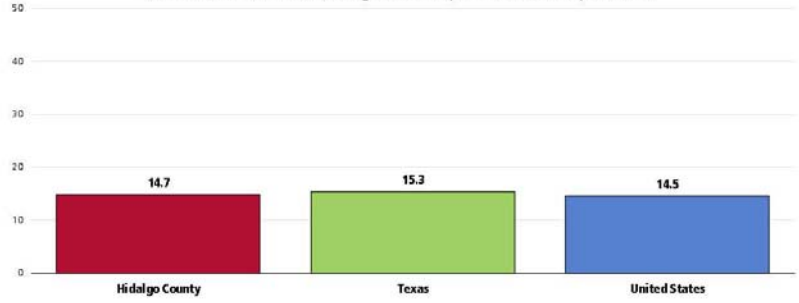
Age-Adjusted Kidney Disease Deaths

Between 2005 and 2007, there was an annual average age-adjusted kidney disease mortality rate of 14.7 deaths per 100,000 population in Hidalgo County.

- Similar to the rate found statewide.
- Similar to the national rate.

Kidney Disease: Age-Adjusted Mortality

(2005-2007 Annual Average Deaths per 100,000 Population)

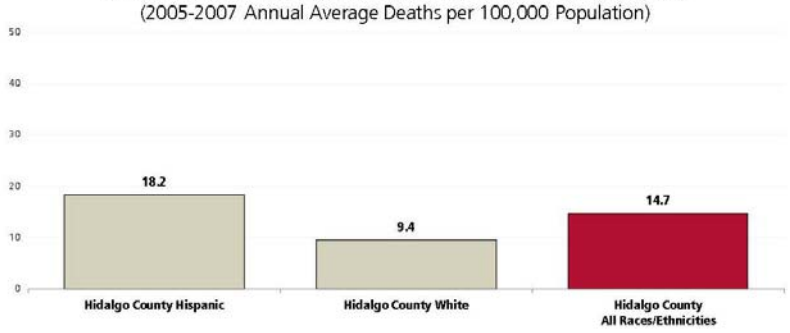


Sources: • Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.

Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
• Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
• County, state and national data are simple three-year averages.

The kidney disease mortality rate in Hidalgo County is twice as high among Hispanics as it is among Whites.

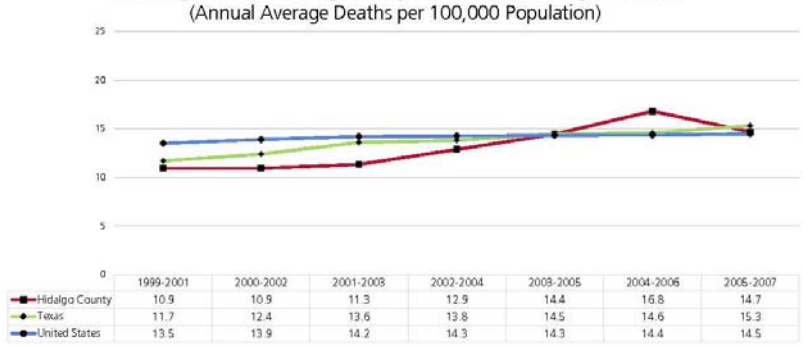
Kidney Disease: Age-Adjusted Mortality by Race
(2005-2007 Annual Average Deaths per 100,000 Population)



Sources: • Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
• Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
• County, state and national data are simple three-year averages.
• Note that the number for "White" residents represent Non-Hispanic Whites in Hidalgo County.

Between1999 and 2007, the age-adjusted kidney disease death rate increased in the county, as did the Texas rate. The US rate increased during this time as well, although less sharply.

Kidney Disease: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007
Hidalgo County	10.9	10.9	11.3	12.9	14.4	16.8	14.7
Texas	11.7	12.4	13.6	13.8	14.5	14.6	15.3
United States	13.5	13.9	14.2	14.3	14.3	14.4	14.5

Sources: • Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted May 2011.
Notes: • Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
• Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

Potentially Disabling Conditions

There are more than 100 types of arthritis. Arthritis commonly occurs with other chronic conditions, such as diabetes, heart disease, and obesity. Interventions to treat the pain and reduce the functional limitations from arthritis are important, and may also enable people with these other chronic conditions to be more physically active. Arthritis affects 1 in 5 adults and continues to be the most common cause of disability. It costs more than $128 billion per year. All of the human and economic costs are projected to increase over time as the population ages. There are interventions that can reduce arthritis pain and functional limitations, but they remain underused. These include: increased physical activity; self-management education; and weight loss among overweight/obese adults.

Osteoporosis is a disease marked by reduced bone strength leading to an increased risk of fractures (broken bones). In the United States, an estimated 5.3 million people age 50 years and older have osteoporosis. Most of these people are women, but about 0.8 million are men. Just over 34 million more people, including 12 million men, have low bone mass, which puts them at increased risk for developing osteoporosis. Half of all women and as many as 1 in 4 men age 50 years and older will have an osteoporosis-related fracture in their lifetime.

Chronic back pain is common, costly, and potentially disabling. About 80% of Americans experience low back pain in their lifetime. It is estimated that each year:

- 15%-20% of the population develop protracted back pain.
- 2-8% have chronic back pain (pain that lasts more than 3 months).
- 3-4% of the population is temporarily disabled due to back pain.
- 1% of the working-age population is disabled completely and permanently as a result of low back pain.

Americans spend at least $50 billion each year on low back pain. Low back pain is the:

- 2nd leading cause of lost work time (after the common cold).
- 3rd most common reason to undergo a surgical procedure.
- 5th most frequent cause of hospitalization.

Arthritis, osteoporosis, and chronic back conditions all have major effects on quality of life, the ability to work, and basic activities of daily living.

– Healthy People 2020 (www.healthypeople.gov)

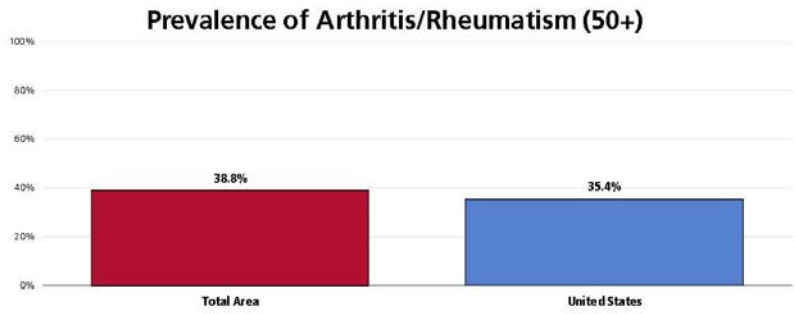
Arthritis, Osteoporosis, & Chronic Pain

Prevalence of Arthritis/Rheumatism

Nearly 40% of Total Area adults aged 50 and older report suffering from arthritis or rheumatism.

- Similar to that found nationwide.

RELATED ISSUE:
See also *Activity Limitations* in the **General Health Status** section of this report.

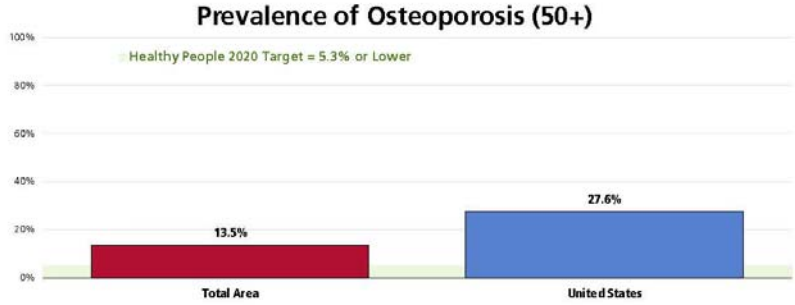


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 158]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents aged 50 and older.

Prevalence of Osteoporosis

A total of 13.5% of survey respondents age 50 and older have osteoporosis.

- More favorable than that found nationwide.
- Fails to satisfy the Healthy People 2020 objective of 5.3% or lower.

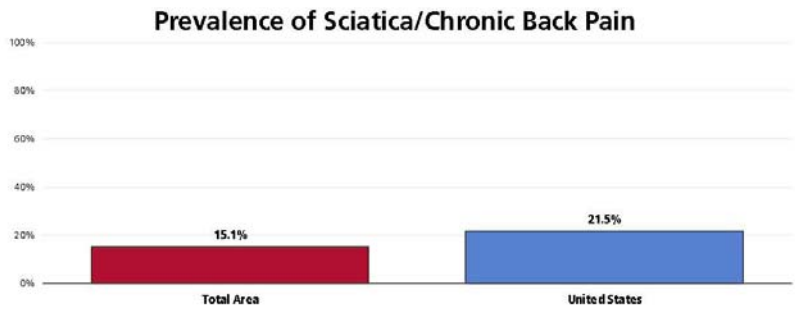


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 159]
• Professional Research Consultants. PRC National Health Survey. 2011.
• US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective AOCBC-10]
Notes: • Asked of all respondents aged 50 and older.

Prevalence of Sciatica/Chronic Back Pain

A total of 15.1% of survey respondents suffers from chronic back pain or sciatica.

- More favorable than that found nationwide.

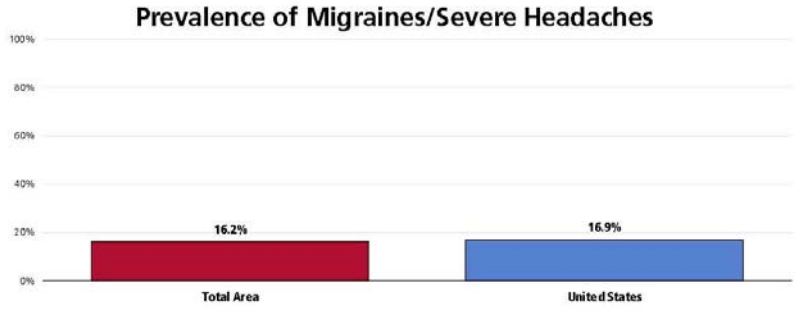


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 29]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Prevalence of Migraines/Severe Headaches

A total of 16.2% of survey respondents reports suffering from migraines or severe headaches.

- Nearly identical to that found nationwide.

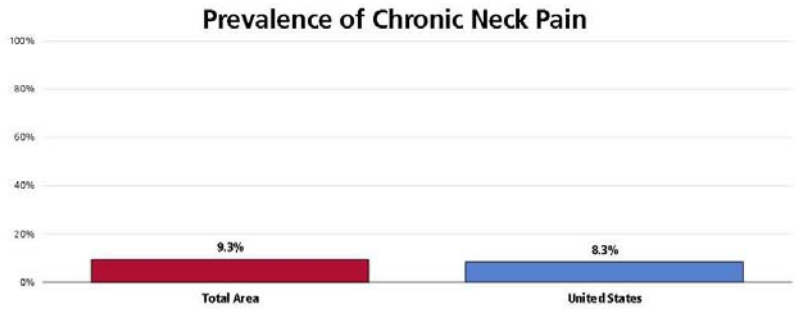


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 36]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Prevalence of Chronic Neck Pain

A total of 9.3% of survey respondents currently suffer from chronic neck pain.

- Comparable to that found nationwide.



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 37]
- Professional Research Consultants. PRC National Health Survey. 2011.

Notes:
- Asked of all respondents.

Vision & Hearing Impairment

Vision Trouble

Vision is an essential part of everyday life, influencing how Americans of all ages learn, communicate, work, play, and interact with the world. Yet millions of Americans live with visual impairment, and many more remain at risk for eye disease and preventable eye injury.

The eyes are an important, but often overlooked, part of overall health. Despite the preventable nature of some vision impairments, many people do not receive recommended screenings and exams. A visit to an eye care professional for a comprehensive dilated eye exam can help to detect common vision problems and eye diseases, including diabetic retinopathy, glaucoma, cataract, and age-related macular degeneration.

These common vision problems often have no early warning signs. If a problem is detected, an eye care professional can prescribe corrective eyewear, medicine, or surgery to minimize vision loss and help a person see his or her best.

Healthy vision can help to ensure a healthy and active lifestyle well into a person's later years. Educating and engaging families, communities, and the nation is critical to ensuring that people have the information, resources, and tools needed for good eye health.

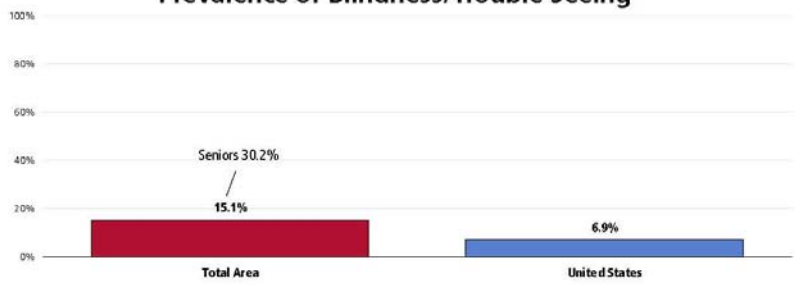
– Healthy People 2020 (www.healthypeople.gov)

RELATED ISSUE:
See also *Vision Care* in the **Access to Health Services** section of this report.

A total of 15.1% of Total Area adults are blind, or have trouble seeing even when wearing corrective lenses.

- Much less favorable than found nationwide.
- Among Total Area adults age 65 and older, the prevalence doubles.

Prevalence of Blindness/Trouble Seeing



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 26]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Hearing Trouble

An impaired ability to communicate with others or maintain good balance can lead many people to feel socially isolated, have unmet health needs, have limited success in school or on the job. Communication and other sensory processes contribute to our overall health and well-being. Protecting these processes is critical, particularly for people whose age, race, ethnicity, gender, occupation, genetic background, or health status places them at increased risk.

Many factors influence the numbers of Americans who are diagnosed and treated for hearing and other sensory or communication disorders, such a social determinants (social and economic standings, age of diagnosis, cost and stigma of wearing a hearing aid, and unhealthy lifestyle choices). In addition, biological causes of hearing loss and other sensory or communication disorders include: genetics; viral or bacterial infections; sensitivity to certain drugs or medications; injury; and aging.

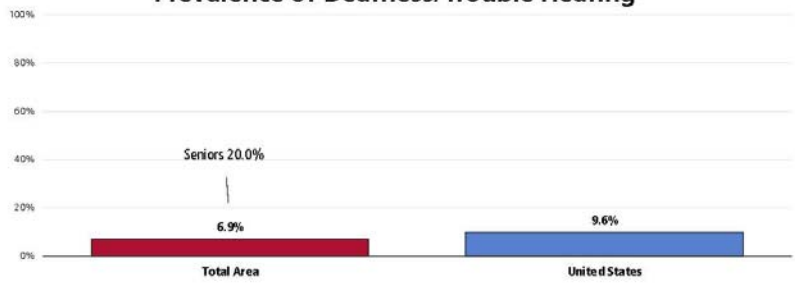
As the nation's population ages and survival rates for medically fragile infants and for people with severe injuries and acquired diseases improve, the prevalence of sensory and communication disorders is expected to rise.

– Healthy People 2020 (www.healthypeople.gov)

In all, 6.9% of Total Area adults report being deaf or having difficulty hearing.

- Similar to that found nationwide.
- Among Total Area adults 65+, 1 in 5 has partial or complete hearing loss.

Prevalence of Deafness/Trouble Hearing



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 27]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

INFECTIOUS DISEASE

Vaccine-Preventable Conditions

The increase in life expectancy during the 20th century is largely due to improvements in child survival; this increase is associated with reductions in infectious disease mortality, due largely to immunization. However, infectious diseases remain a major cause of illness, disability, and death. Immunization recommendations in the United States currently target 17 vaccine-preventable diseases across the lifespan.

People in the US continue to get diseases that are vaccine-preventable. Viral hepatitis, influenza, and tuberculosis (TB) remain among the leading causes of illness and death across the nation and account for substantial spending on the related consequences of infection.

The infectious disease public health infrastructure, which carries out disease surveillance at the national, state, and local levels, is an essential tool in the fight against newly emerging and re-emerging infectious diseases. Other important defenses against infectious diseases include:

- Proper use of vaccines
- Antibiotics
- Screening and testing guidelines
- Scientific improvements in the diagnosis of infectious disease-related health concerns

Vaccines are among the most cost-effective clinical preventive services and are a core component of any preventive services package. Childhood immunization programs provide a very high return on investment. For example, for each birth cohort vaccinated with the routine immunization schedule, society:

- Saves 33,000 lives.
- Prevents 14 million cases of disease.
- Reduces direct healthcare costs by $9.9 billion.
- Saves $33.4 billion in indirect costs.

– Healthy People 2020 (www.healthypeople.gov)

"Incidence rate" or "case rate" is the number of new cases of a disease occurring during a given period of time.

It is usually expressed as cases per 100,000 population per year.

Measles, Mumps, Rubella & Pertussis

Between 2007 and 2009, there were no reported cases of measles or rubella in Hidalgo County. The annual average mumps rate during this time period was 0.8 cases per 100,000 population (higher than state and national rates).

In contrast, the county pertussis rate was 5.5.

- Lower than the Texas rate.
- Higher than the US rate.

Reported Case Rates for Vaccine-Preventable Diseases
(2007-2009)

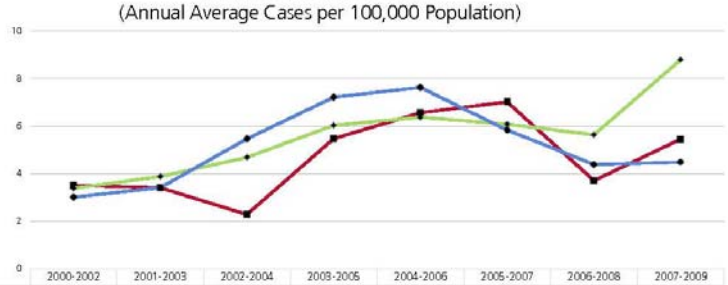
	Hidalgo County	Texas	US*
Measles	0.0	0.0	0.0
Mumps	0.8	0.0	0.3
Rubella	0.0	0.0	0.0
Pertussis	5.5	8.8	4.5

Sources:
- Texas Department of State Health Services
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics.

Notes:
- US measles cases include only those infected while in the United States.
- US data is 2006 to 2008.

Pertussis incidence has fluctuated in Hidalgo County in recent years, increasing overall. The same can be said for both state and national pertussis incidence rates.

Pertussis Incidence
(Annual Average Cases per 100,000 Population)



	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007	2006-2008	2007-2009
Hidalgo County	3.5	3.4	2.3	5.5	6.6	7.0	3.7	5.5
Texas	3.4	3.9	4.7	6.0	6.4	6.1	5.6	8.8
United States	3.0	3.4	5.5	7.2	7.6	5.8	4.4	4.5

Sources: • Texas Department of State Health Services
• Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics
Notes: • Rates are annual average new cases per 100,000 population.

Influenza & Pneumonia Vaccination

Acute respiratory infections, including pneumonia and influenza, are the 8th leading cause of death in the nation, accounting for 56,000 deaths annually. Pneumonia mortality in children fell by 97% in the last century, but respiratory infectious diseases continue to be leading causes of pediatric hospitalization and outpatient visits in the US. On average, influenza leads to more than 200,000 hospitalizations and 36,000 deaths each year. The 2009 H1N1 influenza pandemic caused an estimated 270,000 hospitalizations and 12,270 deaths (1,270 of which were of people younger than age 18) between April 2009 and March 2010.

– Healthy People 2020 (www.healthypeople.gov)

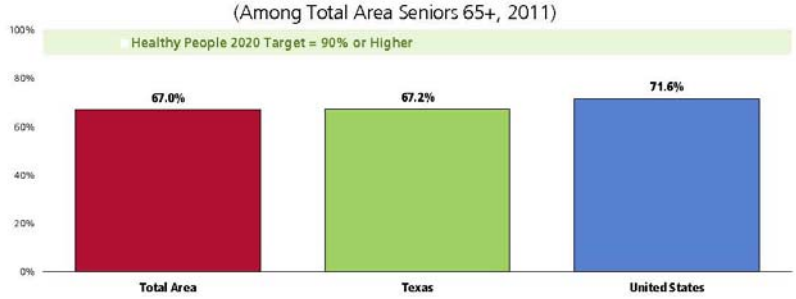
Flu Vaccinations

Among Total Area adults 65+, 67.0% received a flu shot (or FluMist vaccine) within the past year.

- Nearly identical to Texas findings.
- Comparable to the national finding.
- Fails to satisfy the Healthy People 2020 target (90% or higher).

Have Had a Flu Vaccination in the Past Year

(Among Total Area Seniors 65+, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 160]
- Professional Research Consultants. PRC National Health Survey. 2011.
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective ID-12.7]

Notes:
- Asked of all respondents aged 65 and older.
- Includes FluMist® as a form of vaccination.

"High-risk" includes adults who report having been diagnosed with heart disease, diabetes or respiratory disease.

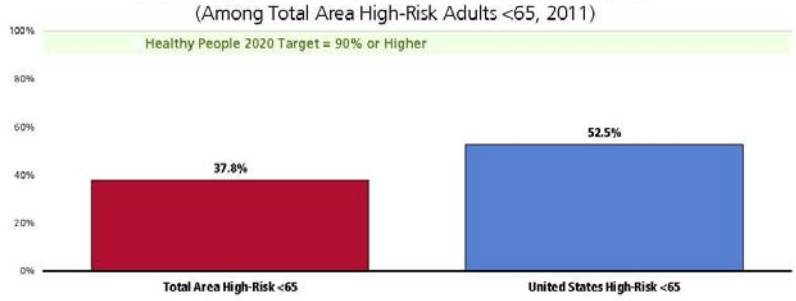
High-Risk Adults

A total of 37.8% of high-risk adults age 18 to 64 received a flu vaccination (flu shot or FluMist) within the past year.

- Less favorable than national findings.
- Fails to satisfy the Healthy People 2020 target (90% or higher).

Have Had a Flu Vaccination in the Past Year

(Among Total Area High-Risk Adults <65, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 161]
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective ID-12.6]

Notes:
- Asked of all high-risk respondents under 65.
- "High-Risk" includes adults aged 18 to 64 who have been diagnosed with heart disease, diabetes or respiratory disease.
- Includes FluMist® as a form of vaccination.

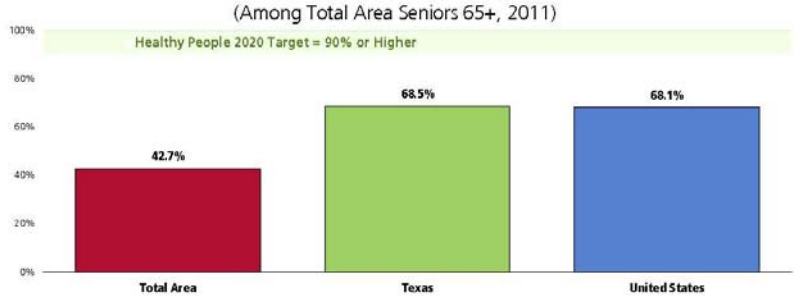
Pneumonia Vaccination

Among adults age 65 and older, 42.7% have received a pneumonia vaccination at some point in their lives.

- Lower than the Texas finding.
- Lower than the national finding.
- Fails to satisfy the Healthy People 2020 objective of 90% or higher.

Have Ever Had a Pneumonia Vaccine

(Among Total Area Seniors 65+, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 162]
- Professional Research Consultants. PRC National Health Survey. 2011.
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective ID-13.1]

Notes:
- Asked of all respondents aged 65 and older.

"High-risk" includes adults who report having been diagnosed with heart disease, diabetes or respiratory disease.

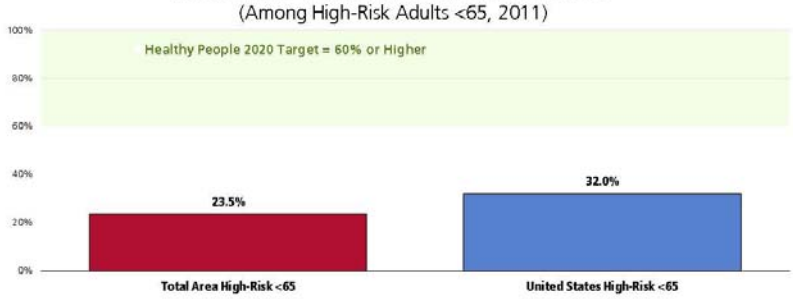
High-Risk Adults

A total of 23.5% of high-risk adults age 18 to 64 have ever received a pneumonia vaccination.

- Statistically similar to national findings.
- Fails to satisfy the Healthy People 2020 target (60% or higher).

Have Ever Had a Pneumonia Vaccine

(Among High-Risk Adults <65, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 169]
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective ID-13.2]

Notes:
- Asked of all high-risk respondents under 65.
- "High-Risk" includes adults aged 18 to 64 who have been diagnosed with heart disease, diabetes or respiratory disease.

Tuberculosis

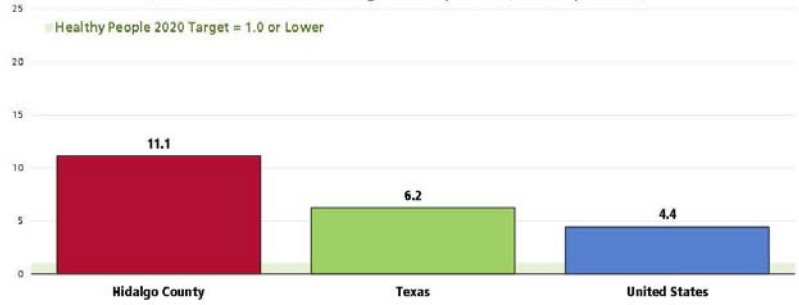
Viral hepatitis and tuberculosis (TB) can be prevented, yet healthcare systems often do not make the best use of their available resources to support prevention efforts. Because the US healthcare system focuses on treatment of illnesses, rather than health promotion, patients do not always receive information about prevention and healthy lifestyles. This includes advancing effective and evidence-based viral hepatitis and TB prevention priorities and interventions.

– Healthy People 2020 (www.healthypeople.gov)

Between 2007 and 2009, the annual average tuberculosis incidence rate (new cases per year) in the county was 11.1 cases per 100,000 population.

- Well above both the Texas and the US incidence rates.
- Fails to satisfy the Healthy People 2020 target (1.0 or lower).

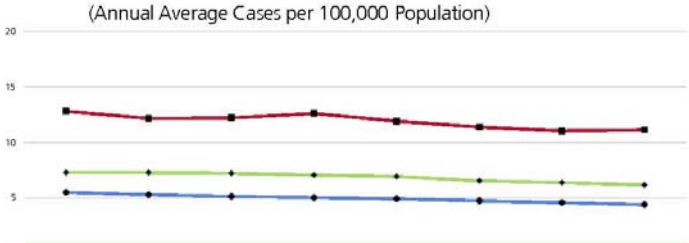
Tuberculosis Incidence
(2007-2009 Annual Average Cases per 100,000 Population)



Sources: • Texas Department of State Health Services
• Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics.
• US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective ID-29]
Notes: • Rates are annual average new cases per 100,000 population. National data is 2006-2008 as 2009 rates are not yet available.

Tuberculosis incidence has decreased in recent years in Hidalgo County. This decreasing trend is noted across the state and US as well.

Tuberculosis Incidence
(Annual Average Cases per 100,000 Population)



	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007	2006-2008	2007-2009
Healthy People 2020	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Hidalgo County	12.8	12.2	12.2	12.6	11.9	11.4	11.1	11.1
Texas	7.3	7.3	7.2	7.1	6.9	6.6	6.4	6.2
United States	5.5	5.3	5.2	5.1	4.9	4.8	4.6	4.4

Sources: • Texas Department of State Health Services
• Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics.
• US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective ID-29]
Notes: • Rates are annual average new cases per 100,000 population.

HIV

The HIV epidemic in the United States continues to be a major public health crisis. An estimated 1.1 million Americans are living with HIV, and 1 in 5 people with HIV do not know they have it. HIV continues to spread, leading to about 56,000 new HIV infections each year.

HIV is a preventable disease, and effective HIV prevention interventions have been proven to reduce HIV transmission. People who get tested for HIV and learn that they are infected can make significant behavior changes to improve their health and reduce the risk of transmitting HIV to their sex or drug-using partners. More than 50% of new HIV infections occur as a result of the 21% of people who have HIV but do not know it.

In the era of increasingly effective treatments for HIV, people with HIV are living longer, healthier, and more productive lives. Deaths from HIV infection have greatly declined in the United States since the 1990s. As the number of people living with HIV grows, it will be more important than ever to increase national HIV prevention and healthcare programs.

There are gender, race, and ethnicity disparities in new HIV infections:

- Nearly 75% of new HIV infections occur in men.
- More than half occur in gay and bisexual men, regardless of race or ethnicity.
- 45% of new HIV infections occur in African Americans, 35% in whites, and 17% in Hispanics.

Improving access to quality healthcare for populations disproportionately affected by HIV, such as persons of color and gay and bisexual men, is a fundamental public health strategy for HIV prevention. People getting care for HIV can receive:

- Antiretroviral therapy
- Screening and treatment for other diseases (such as sexually transmitted infections)
- HIV prevention interventions
- Mental health services
- Other health services

As the number of people living with HIV increases and more people become aware of their HIV status, prevention strategies that are targeted specifically for HIV-infected people are becoming more important. Prevention work with people living with HIV focuses on:

- Linking to and staying in treatment.
- Increasing the availability of ongoing HIV prevention interventions.
- Providing prevention services for their partners.

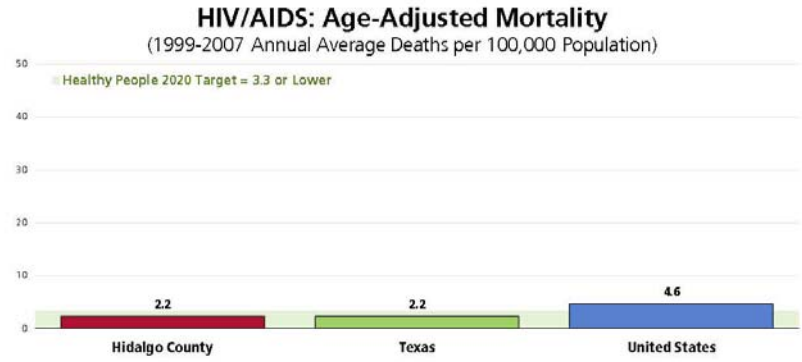
Public perception in the US about the seriousness of the HIV epidemic has declined in recent years. There is evidence that risky behaviors may be increasing among uninfected people, especially gay and bisexual men. Ongoing media and social campaigns for the general public and HIV prevention interventions for uninfected persons who engage in risky behaviors are critical.

– Healthy People 2020 (www.healthypeople.gov)

Age-Adjusted HIV/AIDS Deaths

Between 1999 and 2007, there was an annual average age-adjusted HIV/AIDS mortality rate of 2.2 deaths per 100,000 population in Hidalgo County.

- Identical to that found statewide.
- Much lower than the rate reported nationally.
- Satisfies the Healthy People 2020 target (3.3 or lower).



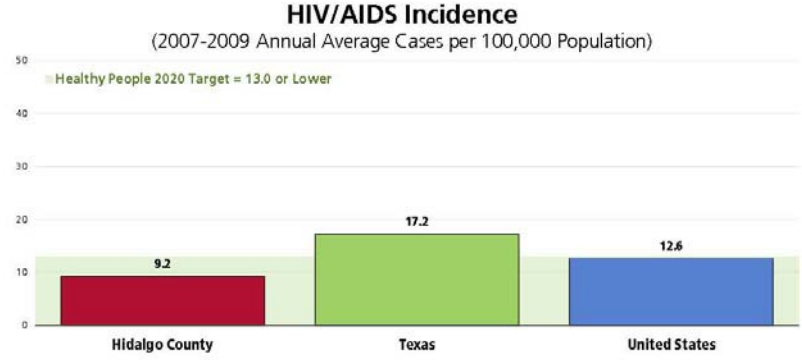
Sources:
- State of Texas Department of Health and Senior Services
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted February 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective HIV-12]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.
- Note that individual county rates are unreliable due to low number of deaths.
- All Total Area HIV death rates are unreliable due to the low number of deaths in the county (rates represent deaths between 1999 and 2007).

HIV/AIDS Incidence

Regarding HIV/AIDS incidence, between 2007 and 2009, there was an annual average of 9.2 cases per 100,000 population in Hidalgo County.

- More favorable than the Texas rate.
- More favorable than the US rate.
- Satisfies the Healthy People 2020 target of 13.0 or lower.

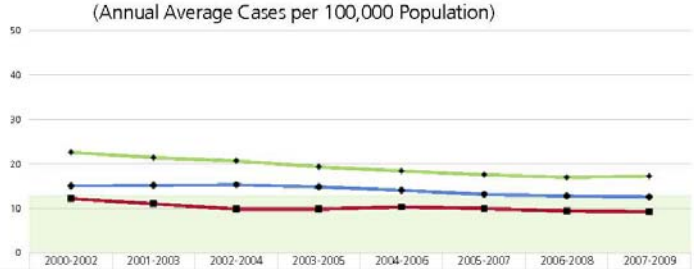


Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective HIV-4]

Notes:
- Rates are annual average new cases per 100,000 population.

HIV/AIDS incidence has decreased in Hidalgo County in the past decade, echoing the downward trends reported both statewide and nationwide.

HIV/AIDS Incidence
(Annual Average Cases per 100,000 Population)



	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007	2006-2008	2007-2009
Healthy People 2020	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Hidalgo County	12.2	11.0	9.9	9.8	10.3	10.0	9.5	9.2
Texas	22.6	21.4	20.7	19.4	18.4	17.6	17.0	17.2
United States	15.0	15.2	15.3	14.9	14.1	13.1	12.8	12.6

Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective HIV-4]

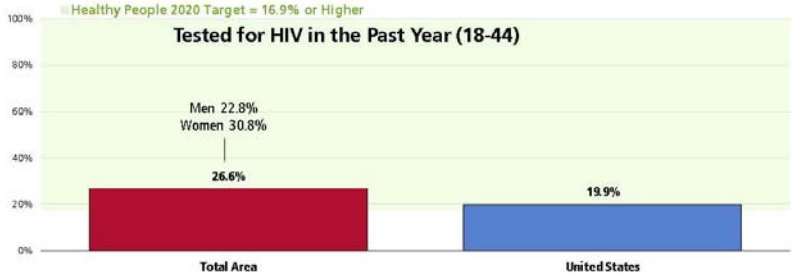
Notes:
- Rates are annual average new cases per 100,000 population.

HIV Testing

Among Total Area survey respondents aged 18-44, 26.6% report that they have been tested for human immunodeficiency virus (HIV).

- Statistically similar to the proportion found nationwide.
- Satisfies the Healthy People 2020 target of 16.9% or higher.
- No statistically significant difference by gender.

HIV Testing
(Among Respondents Aged 18 to 44, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 166]
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective HIV-14.1]

Notes:
- Asked of all respondents aged 18 to 44.
- Note that the Healthy People 2020 objective is for those aged 15 through 44.

Sexually Transmitted Diseases

STDs refer to more than 25 infectious organisms that are transmitted primarily through sexual activity. Despite their burdens, costs, and complications, and the fact that they are largely preventable, STDs remain a significant public health problem in the United States. This problem is largely unrecognized by the public, policymakers, and health care professionals. STDs cause many harmful, often irreversible, and costly clinical complications, such as: reproductive health problems; fetal and perinatal health problems; cancer; and facilitation of the sexual transmission of HIV infection.

The Centers for Disease Control and Prevention (CDC) estimates that there are approximately 19 million new STD infections each year—almost half of them among young people ages 15 to 24. Because many cases of STDs go undiagnosed—and some common viral infections, such as human papillomavirus (HPV) and genital herpes, are not reported to CDC at all—the reported cases of chlamydia, gonorrhea, and syphilis represent only a fraction of the true burden of STDs in the US. Untreated STDs can lead to serious long-term health consequences, especially for adolescent girls and young women. CDC estimates that undiagnosed and untreated STDs cause at least 24,000 women in the United States each year to become infertile. Several factors contribute to the spread of STDs.

Biological Factors. STDs are acquired during unprotected sex with an infected partner. Biological factors that affect the spread of STDs include:

- Asymptomatic nature of STDs. The majority of STDs either do not produce any symptoms or signs, or they produce symptoms so mild that they are unnoticed; consequently, many infected persons do not know that they need medical care.
- Gender disparities. Women suffer more frequent and more serious STD complications than men do. Among the most serious STD complications are pelvic inflammatory disease, ectopic pregnancy (pregnancy outside of the uterus), infertility, and chronic pelvic pain.
- Age disparities. Compared to older adults, sexually active adolescents ages 15 to 19 and young adults ages 20 to 24 are at higher risk for getting STDs.
- Lag time between infection and complications. Often, a long interval, sometimes years, occurs between acquiring an STD and recognizing a clinically significant health problem.

Social, Economic and Behavioral Factors. The spread of STDs is directly affected by social, economic, and behavioral factors. Such factors may cause serious obstacles to STD prevention due to their influence on social and sexual networks, access to and provision of care, willingness to seek care, and social norms regarding sex and sexuality. Among certain vulnerable populations, historical experience with segregation and discrimination exacerbates the influence of these factors. Social, economic, and behavioral factors that affect the spread of STDs include:

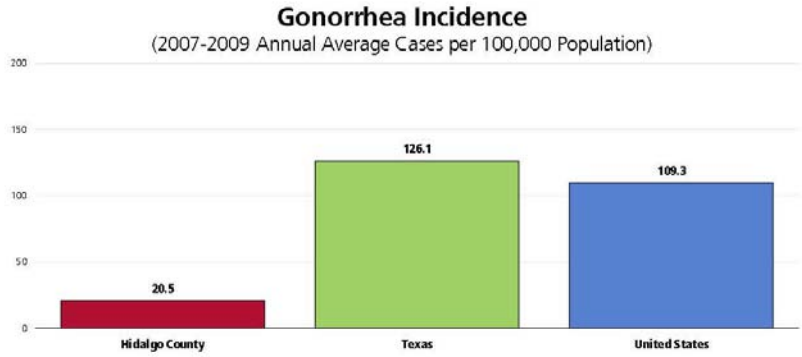
- **Racial and ethnic disparities**. Certain racial and ethnic groups (mainly African American, Hispanic, and American Indian/Alaska Native populations) have high rates of STDs, compared with rates for whites.
- **Poverty and marginalization**. STDs disproportionately affect disenfranchised people and people in social networks where high-risk sexual behavior is common, and either access to care or health-seeking behavior is compromised.
- **Access to health care**. Access to high-quality health care is essential for early detection, treatment, and behavior-change counseling for STDs. Groups with the highest rates of STDs are often the same groups for whom access to or use of health services is most limited.
- **Substance abuse**. Many studies document the association of substance abuse with STDs. The introduction of new illicit substances into communities often can alter sexual behavior drastically in high-risk sexual networks, leading to the epidemic spread of STDs.
- **Sexuality and secrecy**. Perhaps the most important social factors contributing to the spread of STDs in the United States are the stigma associated with STDs and the general discomfort of discussing intimate aspects of life, especially those related to sex. These social factors separate the United States from industrialized countries with low rates of STDs.
- **Sexual networks**. Sexual networks refer to groups of people who can be considered "linked" by sequential or concurrent sexual partners. A person may have only 1 sex partner, but if that partner is a member of a risky sexual network, then the person is at higher risk for STDs than a similar individual from a nonrisky network.

– Healthy People 2020 (www.healthypeople.gov)

Gonorrhea

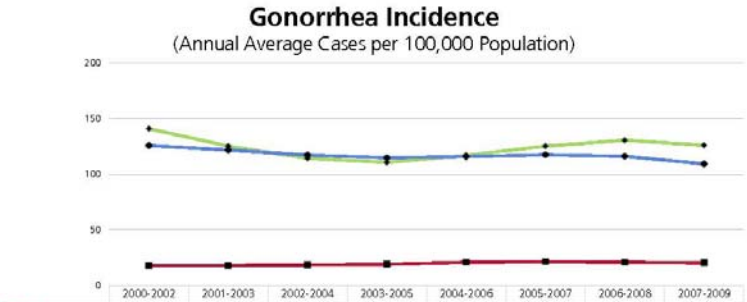
Between 2007 and 2009, the annual average gonorrhea incidence rate was 20.5 cases per 100,000 population in Hidalgo County.

- Dramatically lower than the Texas incidence rate.
- Dramatically lower than the national incidence rate.



Sources: • Texas Department of State Health Services
• Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics
Notes: • Rates are annual average new cases per 100,000 population. US data is 2006-2008.

Gonorrhea rates increased slightly between the 2000-2002 and 2007-2009 reporting periods in Hidalgo County, although it remains well below state and national rates.



	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007	2006-2008	2007-2009
Hidalgo County	18.1	18.1	18.7	19.1	20.9	21.5	21.0	20.5
Texas	140.9	125.3	114.3	110.7	116.9	125.2	130.5	126.1
United States	125.8	121.7	117.2	114.8	115.9	117.4	116.1	109.3

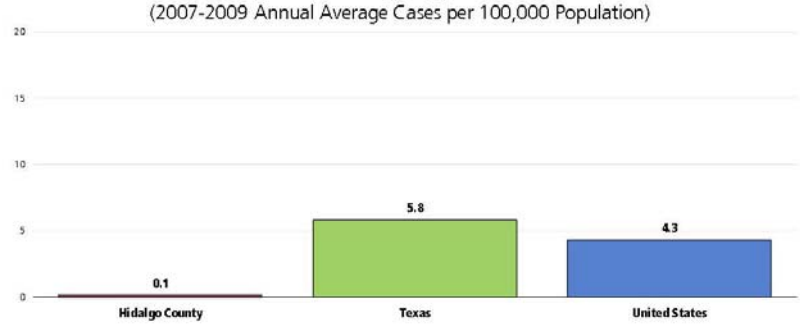
Sources: • Texas Department of State Health Services
• Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics
Notes: • Rates are annual average new cases per 100,000 population.

Syphilis

Between 2007 and 2009, the annual average primary/secondary syphilis incidence rate was just 0.1 case per 100,000 population in the county.

- Much lower than the Texas incidence rate.
- Much lower than the national incidence rate.

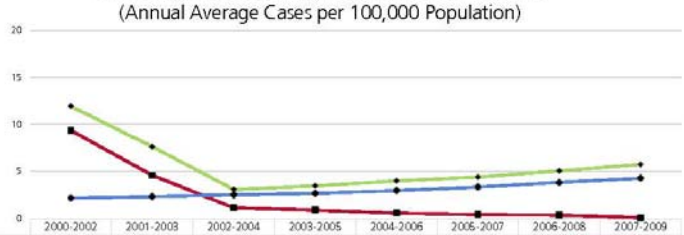
Primary/Secondary Syphilis Incidence
(2007-2009 Annual Average Cases per 100,000 Population)



Sources: • Texas Department of State Health Services
• Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics
Notes: • Rates are annual average new cases per 100,000 population. US data is 2006-2008.

Syphilis incidence has decreased in Hidalgo County over the past decade. In contrast, the statewide and nationwide rates increased steadily in recent years.

Primary/Secondary Syphilis Incidence
(Annual Average Cases per 100,000 Population)



	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007	2006-2008	2007-2009
Hidalgo County	9.4	4.6	1.2	0.9	0.6	0.4	0.4	0.1
Texas	11.9	7.6	3.1	3.5	4.0	4.4	5.1	5.8
United States	2.2	2.3	2.5	2.7	3.0	3.3	3.8	4.3

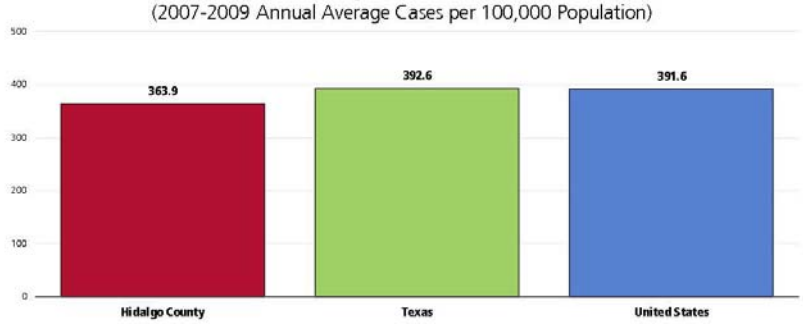
Sources: • Texas Department of State Health Services
• Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics
Notes: • Rates are annual average new cases per 100,000 population.

Chlamydia

Between 2007 and 2009, the annual average chlamydia incidence rate was 363.9 cases per 100,000 population in the county.

- More favorable than the Texas incidence rate.
- More favorable than the national incidence rate.

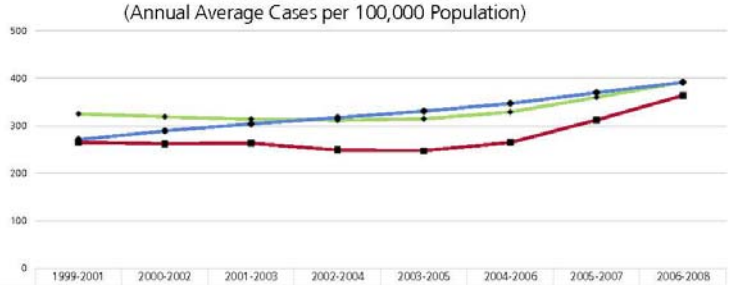
Chlamydia Incidence
(2007-2009 Annual Average Cases per 100,000 Population)



Sources: • Texas Department of State Health Services
• Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics
Notes: • Rates are annual average new cases per 100,000 population. US data is 2006-2008.

Chlamydia incidence increased steadily between the 1999-2001 and 2006-2008 reporting periods in Hidalgo County, as did the state and national incidence rates.

Chlamydia Incidence
(Annual Average Cases per 100,000 Population)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007	2006-2008
Hidalgo County	265.3	262.6	263.4	249.3	247.9	264.9	312.7	363.9
Texas	325.6	319.5	314.3	311.8	315.3	329.5	360.3	392.6
United States	270.8	289.4	304.4	317.8	331.1	347.1	370.0	391.6

Sources: • Texas Department of State Health Services
• Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics
Notes: • Rates are annual average new cases per 100,000 population.

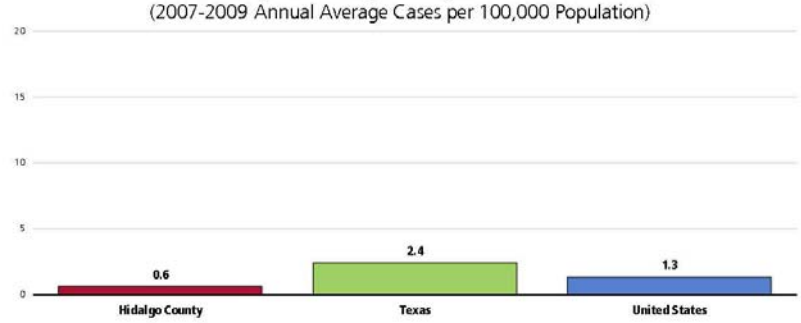
Acute Hepatitis B

Hepatitis B Incidence

Between 2007 and 2009, there were just 0.6 hepatitis B cases per 100,000 population in Hidalgo County.

- More favorable than the statewide rate.
- More favorable than the national rate.

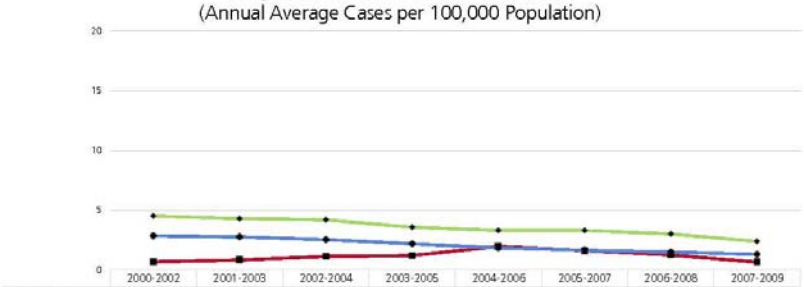
Hepatitis B (Acute) Incidence
(2007-2009 Annual Average Cases per 100,000 Population)



Sources: • Texas Department of State Health Services
• Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics
Notes: • Rates are annual average new cases per 100,000 population. US data is 2006-2008.

Decreasing in recent years, echoing the downward trend reported both statewide and nationwide.

Hepatitis B (Acute) Incidence
(Annual Average Cases per 100,000 Population)



	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007	2006-2008	2007-2009
Hidalgo County	0.7	0.8	1.1	1.2	2.0	1.6	1.2	0.6
Texas	4.5	4.3	4.2	3.6	3.3	3.3	3.0	2.4
United States	2.9	2.7	2.5	2.2	1.8	1.6	1.5	1.3

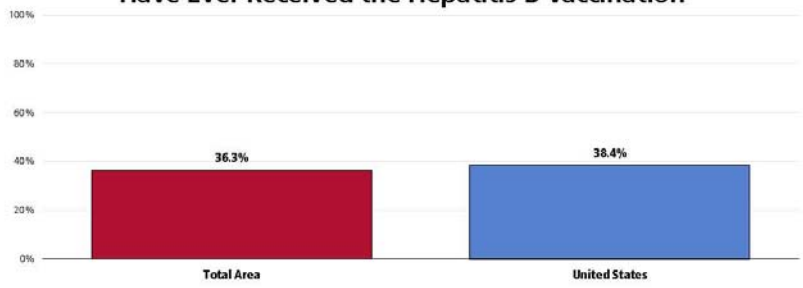
Sources: • Texas Department of State Health Services
• Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics
Notes: • Rates are annual average new cases per 100,000 population.

Hepatitis B Vaccination

Based on survey data, over one-third (36.3%) of residents report having received the hepatitis B vaccine.

- Similar to what is reported nationwide.

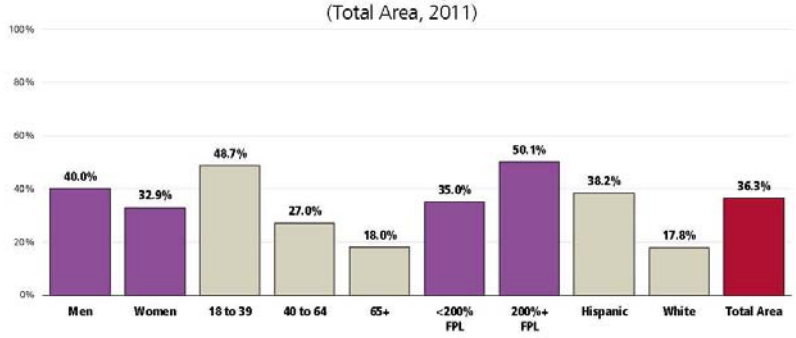
Have Ever Received the Hepatitis B Vaccination



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 77]
• Professional Research Consultants, Inc. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

- Note the negative correlation between age and hepatitis B vaccination.
- In addition, residents living at higher incomes are much more likely than those with lower incomes to have received the hepatitis B vaccine.
- Hispanics are more likely than Whites to have been vaccinated.

Have Ever Received the Hepatitis B Vaccination
(Total Area, 2011)



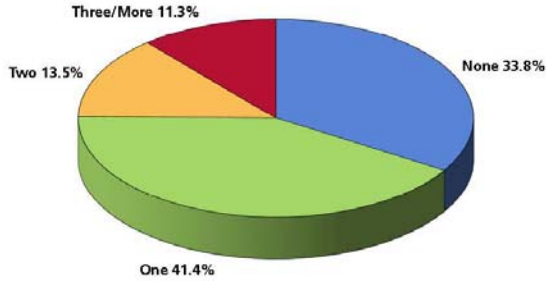
Sources: • 2010 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 77]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Safe Sexual Practices

Sexual Partners

Among unmarried Total Area adults under 65, the majority cites having one (41.4%) or no (33.8%) sexual partners in the past 12 months.

Number of Sexual Partners in Past 12 Months
(Unmarried Respondents Aged 18-64, 2011)

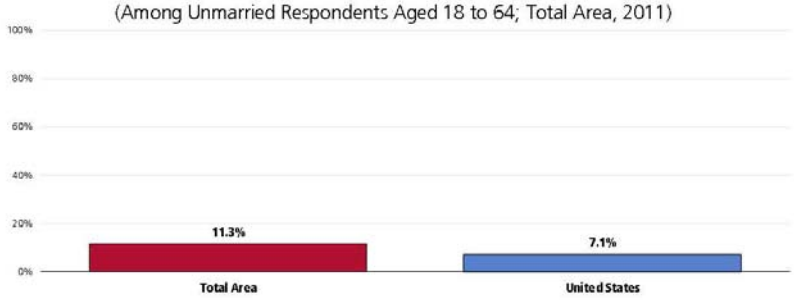


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 97]
Notes: • Asked of all unmarried respondents under the age of 65.

However, 11.3% report three or more sexual partners in the past year.

- Comparable to what is reported nationally.

Had Three or More Sexual Partners in the Past Year
(Among Unmarried Respondents Aged 18 to 64; Total Area, 2011)

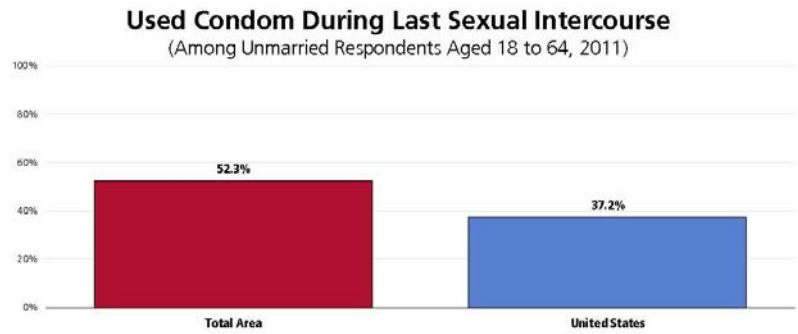


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 97]
• Professional Research Consultants, Inc. PRC National Health Survey. 2011.
Notes: • Asked of all unmarried respondents under the age of 65.

Condom Use

Among Total Area adults who are under age 65 and unmarried, 52.3% report using a condom during their last sexual intercourse.

- Higher than national findings.



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 98]
• Professional Research Consultants, Inc. PRC National Health Survey: 2011.
Notes: • Asked of all unmarried respondents under the age of 65.

BIRTHS

Prenatal Care

Improving the well-being of mothers, infants, and children is an important public health goal for the US. Their well-being determines the health of the next generation and can help predict future public health challenges for families, communities, and the healthcare system. The risk of maternal and infant mortality and pregnancy-related complications can be reduced by increasing access to quality preconception (before pregnancy) and inter-conception (between pregnancies) care. Moreover, healthy birth outcomes and early identification and treatment of health conditions among infants can prevent death or disability and enable children to reach their full potential. Many factors can affect pregnancy and childbirth, including pre-conception health status, age, access to appropriate healthcare, and poverty.

Infant and child health are similarly influenced by socio-demographic factors, such as family income, but are also linked to the physical and mental health of parents and caregivers. There are racial and ethnic disparities in mortality and morbidity for mothers and children, particularly for African Americans. These differences are likely the result of many factors, including social determinants (such as racial and ethnic disparities in infant mortality; family income; educational attainment among household members; and health insurance coverage) and physical determinants (i.e., the health, nutrition, and behaviors of the mother during pregnancy and early childhood).

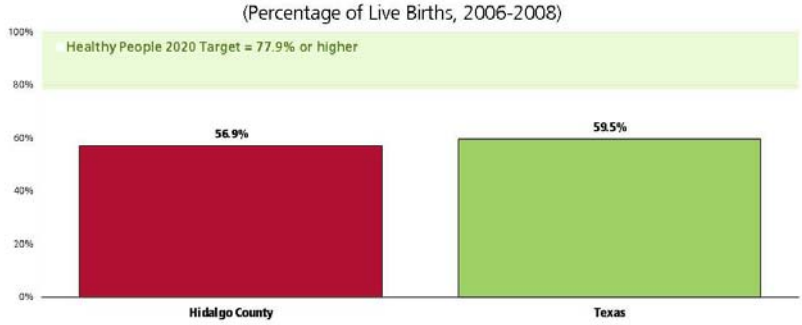
– Healthy People 2020 (www.healthypeople.gov)

Early and continuous prenatal care is the best assurance of infant health.

Between 2006 and 2008, 56.9% of all Hidalgo County births received prenatal care in the first trimester of pregnancy.

- Similar to the Texas proportion.
- Well below the Healthy People 2020 target (77.9% or higher).

Mothers Receiving Prenatal Care in the First Trimester
(Percentage of Live Births, 2006-2008)

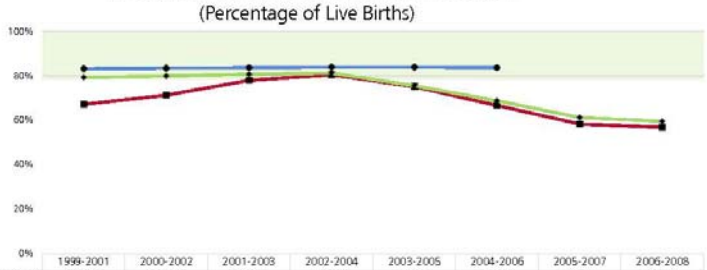


Sources:
- Texas Department of State Health Services
- Centers for Disease Control and Prevention, National Vital Statistics System.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective MICH-10.1]

Note:
- Numbers are a percentage of all live births within each population.

Receipt of prenatal care has decreased in Hidalgo County in recent years, mirroring the state trend.

Mothers Receiving Prenatal Care in the First Trimester
(Percentage of Live Births)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007	2006-2008
Healthy People 2020	77.9%	77.9%	77.9%	77.9%	77.9%	77.9%	77.9%	77.9%
Hidalgo County	67.2%	71.3%	77.9%	80.4%	75.2%	66.6%	58.3%	56.9%
Texas	79.3%	79.9%	80.7%	81.2%	75.6%	68.8%	61.2%	59.5%
United States	83.2%	83.4%	83.7%	83.8%	83.9%	83.7%		

Sources:
- Texas Department of State Health Services
- Centers for Disease Control and Prevention, National Vital Statistics System.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective MICH-10.1]

Note:
- Numbers are a percentage of all live births within each population.

Birth Outcomes & Risks

Low birthweight babies, those who weigh less than 2,500 grams (5 pounds, 8 ounces) at birth, are much more prone to illness and neonatal death than are babies of normal birthweight.

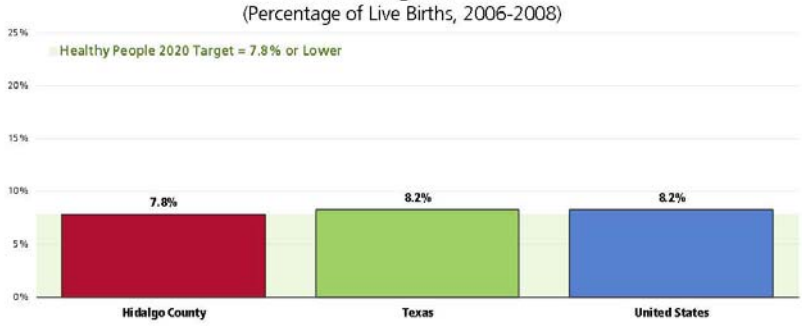
Largely a result of receiving poor or inadequate prenatal care, many low-weight births and the consequent health problems are preventable.

Low-Weight Births

A total of 7.8% of 2006-2008 Hidalgo County births were low-weight.

- Better than the Texas proportion.
- Better than the national proportion.
- Identical to the Healthy People 2020 target (7.8% or lower).

Low-Weight Births
(Percentage of Live Births, 2006-2008)

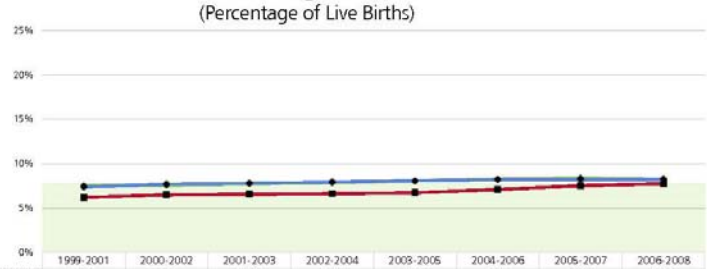


Sources:
- Texas Department of State Health Services
- Centers for Disease Control and Prevention, National Vital Statistics System.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective MICH-8.1]

Note:
- Numbers are a percentage of all live births within each population.

The proportion of low-weight births has trended upward in Hidalgo County in recent years; the same can be said for both Texas and the US.

Low-Weight Births
(Percentage of Live Births)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007	2006-2008
Healthy People 2020	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%
Hidalgo County	6.2%	6.5%	6.6%	6.6%	6.7%	7.1%	7.5%	7.8%
Texas	7.6%	7.6%	7.7%	7.9%	8.1%	8.3%	8.4%	8.2%
United States	7.4%	7.7%	7.8%	7.9%	8.1%	8.2%	8.2%	8.2%

Sources:
- Texas Department of State Health Services
- Centers for Disease Control and Prevention, National Vital Statistics System.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective MICH-8.1]

Note:
- Numbers are a percentage of all live births within each population.

Infant Mortality

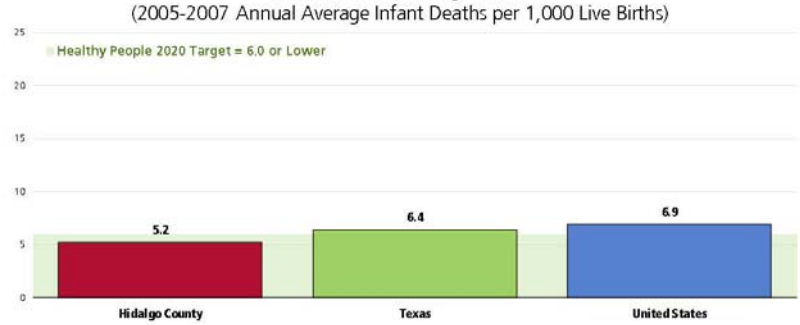
Infant mortality rates reflect deaths of children less than one year old per 1,000 live births.

Between 2005 and 2007, there was an annual average of 5.2 infant deaths per 1,000 live births in Hidalgo County.

- More favorable than the Texas rate.
- More favorable than the national rate.
- Satisfies the Healthy People 2020 target of 6.0 per 1,000 live births.

Infant Mortality Rate

(2005-2007 Annual Average Infant Deaths per 1,000 Live Births)



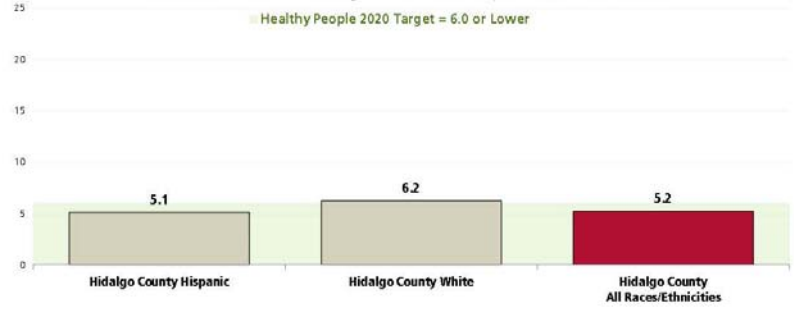
Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective MICH-1.3]

Notes:
- Rates are three-year averages of deaths of children under 1 year old per 1,000 live births.

Infant mortality is higher among Whites than among Hispanics in the county.

Infant Mortality Rate

(2005-2007 Annual Average Infant Deaths per 1,000 Live Births)



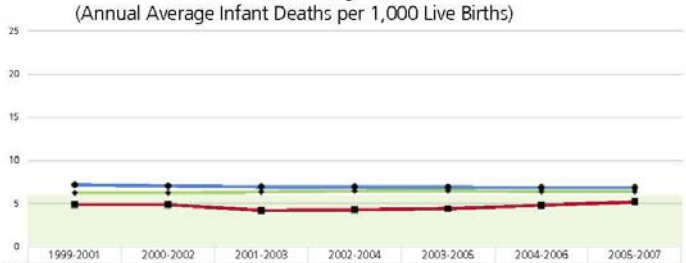
Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective MICH-1.3]

Notes:
- Rates are three-year averages of deaths of children under 1 year old per 1,000 live births.
- The Hispanic and Non-Hispanic Other death rates are unreliable due to the low number of deaths within each population.
- Note that the number for "White" residents represent Non-Hispanic Whites in Hidalgo County.

Infant mortality rates have increased in recent year in the county, echoing the trend reported for Texas. Across the US, rates decreased slightly during this time.

Infant Mortality Rate

(Annual Average Infant Deaths per 1,000 Live Births)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007
Healthy People 2020	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Hidalgo County	4.9	4.9	4.2	4.3	4.4	4.8	5.2
Texas	6.2	6.2	6.4	6.5	6.5	6.4	6.4
United States	7.2	7.0	6.9	6.9	6.9	6.9	6.9

Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov. [Objective MICH-1.3]

Notes:
- Rates are three-year averages of deaths of children under 1 year old per 1,000 live births.

Family Planning

Family planning is one of the 10 great public health achievements of the 20th century. The availability of family planning services allows individuals to achieve desired birth spacing and family size and contributes to improved health outcomes for infants, children, and women. Family planning services include contraceptive and broader reproductive health services (patient education and counseling), breast and pelvic examinations, breast and cervical cancer screening, sexually transmitted infection (STI) and HIV prevention education/counseling/testing/referral, and pregnancy diagnosis and counseling. For many women, a family planning clinic is their entry point into the healthcare system and is considered to be their usual source of care. This is especially true for women with incomes below the poverty level, women who are uninsured, Hispanic women, and Black women.

Unintended pregnancies (those reported by women as being mistimed or unwanted) are associated with many negative health and economic outcomes. In 2001, almost one-half of all pregnancies in the US were unintended. For women, negative outcomes associated with unintended pregnancy include:

- Delays in initiating prenatal care
- Reduced likelihood of breastfeeding
- Poor maternal mental health
- Lower mother-child relationship quality
- Increased risk of physical violence during pregnancy

Children born as a result of an unintended pregnancy are more likely to experience poor mental and physical health during childhood and poor educational and behavioral outcomes.

– Healthy People 2020 (www.healthypeople.gov)

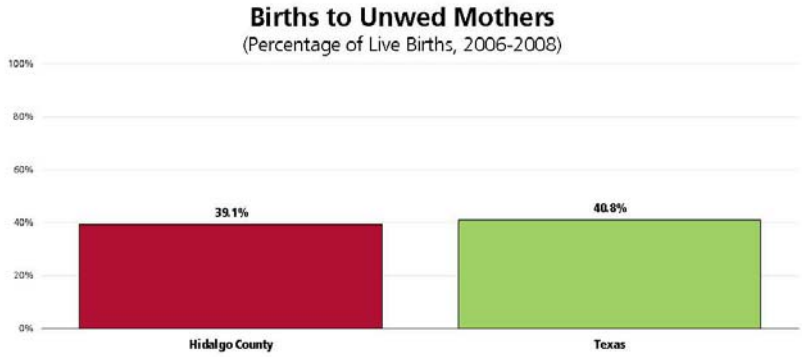
Births to Unwed Mothers

According to the CDC, an unintended pregnancy is a pregnancy that is either mistimed or unwanted at the time of conception. It is a core concept in understanding the fertility of populations and the unmet need for contraception. Unintended pregnancy is associated with an increased risk of morbidity for women, and with health behaviors during pregnancy that are associated with adverse effects. For example, women with an unintended pregnancy may delay prenatal care, which may affect the health of the infant. Women of all ages may have unintended pregnancies, but some groups, such as teens, are at a higher risk.

Because it is impossible to measure the true incidence of unintended pregnancy in the US, the following indicator looks at births occurring among unmarried mothers as a proxy measure for pregnancies that are not intended (knowing that this is not always the case).

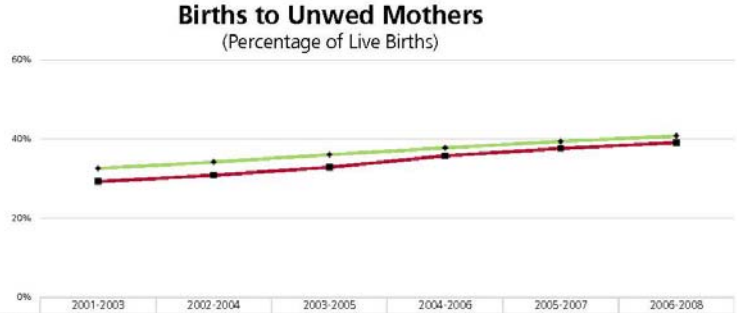
A total of 39.1% of 2006-2008 births were to unwed mothers.

- Similar to the 40.8% statewide.



Sources: • Texas Department of State Health Services
Note: • Numbers are a percentage of all live births within each population.

The percentage of births to unwed mothers in Hidalgo County increased considerably over the past decade, mirroring the state trend.



	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007	2006-2008
Hidalgo County	29.2%	30.9%	32.9%	35.7%	37.6%	39.1%
Texas	32.6%	34.2%	36.0%	37.8%	39.4%	40.8%

Sources: • Texas Department of State Health Services
Note: • Numbers are a percentage of all live births within each population.

Births to Teen Mothers

The negative outcomes associated with unintended pregnancies are compounded for adolescents. Teen mothers:

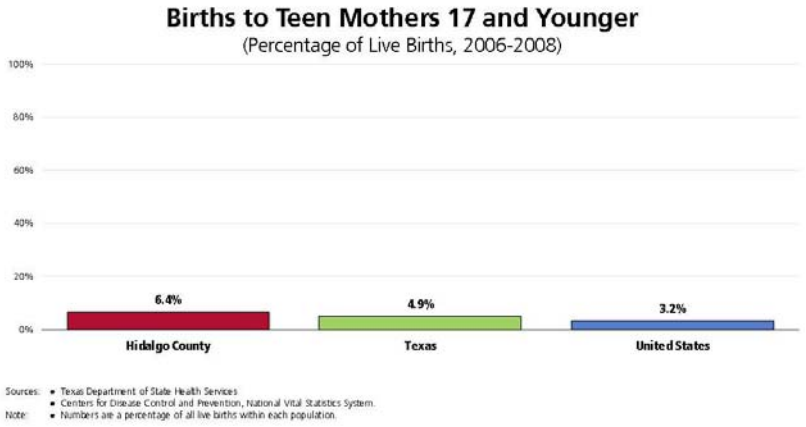
- Are less likely to graduate from high school or attain a GED by the time they reach age 30.
- Earn an average of approximately $3,500 less per year, when compared with those who delay childbearing.
- Receive nearly twice as much Federal aid for nearly twice as long.

Similarly, early fatherhood is associated with lower educational attainment and lower income. Children of teen parents are more likely to have lower cognitive attainment and exhibit more behavior problems. Sons of teen mothers are more likely to be incarcerated, and daughters are more likely to become adolescent mothers.

– Healthy People 2020 (www.healthypeople.gov)

A total of 6.4% of 2006-2008 Hidalgo County births were to teens under age 18.

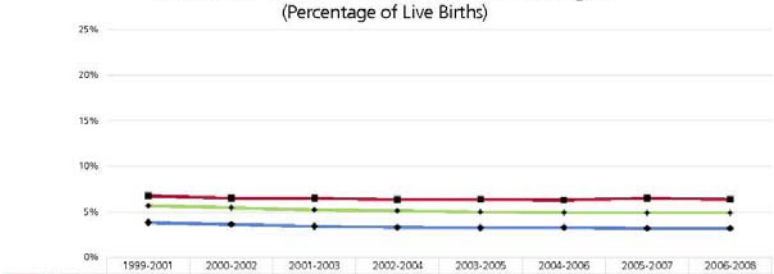
- Higher than the Texas proportion.
- Higher than the national proportion.



Sources: • Texas Department of State Health Services
• Centers for Disease Control and Prevention, National Vital Statistics System.
Note: • Numbers are a percentage of all live births within each population.

The proportion remained fairly stable over the past decade in the county.

Births to Teen Mothers 17 and Younger
(Percentage of Live Births)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007	2006-2008
Hidalgo County	6.8%	6.5%	6.5%	6.4%	6.4%	6.3%	6.5%	6.4%
Texas	5.7%	5.5%	5.3%	5.1%	5.0%	4.9%	4.9%	4.9%
United States	3.9%	3.6%	3.4%	3.3%	3.3%	3.3%	3.2%	3.2%

Sources: • Texas Department of State Health Services
• Centers for Disease Control and Prevention, National Vital Statistics System
Note: • Numbers are a percentage of all live births within each population.

Related Focus Group Findings: Teen Pregnancy

According to focus group participants, teen pregnancy is a norm in the community. Some participants feel that a big reason for the high rate of teen pregnancy is the huge Catholic population who don't want to talk about family planning or sexual issues out of fear of promoting sexual activity. But, other participants see a cycle that is so hard to break. So many girls who get pregnant in their teens never rise out of their poverty status. That so often leads to their children following in the footsteps of their parents.

Participants really would like to see parents become more involved with educating their children about sex. The community can only do so much and participants feel as though parents are the best resource for decreasing teenage pregnancy in the community.

There is a daycare offered at one of the high schools for students who have children. The daycare is very limited but the school district does realize that if there is no daycare, so many more teenage mothers would drop out of school. The schools also provide counseling help to teenage mothers who need daycare but couldn't get their child into the daycare at the high school.

> *"There's a real reluctance on the part of parents to talk to their children and the parents to allow officials, like school officials, social workers or anybody to talk to their children about this."*
>
> *"And it's not an issue with them getting prenatal care, the issue is why they are getting pregnant."*
>
> *"Daycare is an issue. Because if we lose a girl, we almost always lose them because there is no daycare." [referring to dropping out of school]*

MODIFIABLE HEALTH RISKS

Actual Causes Of Death

A 1999 study (an update to a landmark 1993 study), estimated that as many as 40% of premature deaths in the United States are attributed to behavioral factors. This study found that behavior patterns represent the single-most prominent domain of influence over health prospects in the United States. The daily choices we make with respect to diet, physical activity, and sex; the substance abuse and addictions to which we fall prey; our approach to safety; and our coping strategies in confronting stress are all important determinants of health.

The most prominent contributors to mortality in the United States in 2000 were tobacco (an estimated 435,000 deaths), diet and activity patterns (400,000), alcohol (85,000), microbial agents (75,000), toxic agents (55,000), motor vehicles (43,000), firearms (29,000), sexual behavior (20,000), and illicit use of drugs (17,000). Socioeconomic status and access to medical care are also important contributors, but difficult to quantify independent of the other factors cited. Because the studies reviewed used different approaches to derive estimates, the stated numbers should be viewed as first approximations.

These analyses show that smoking remains the leading cause of mortality. However, poor diet and physical inactivity may soon overtake tobacco as the leading cause of death. These findings, along with escalating healthcare costs and aging population, argue persuasively that the need to establish a more preventive orientation in the US healthcare and public health systems has become more urgent.

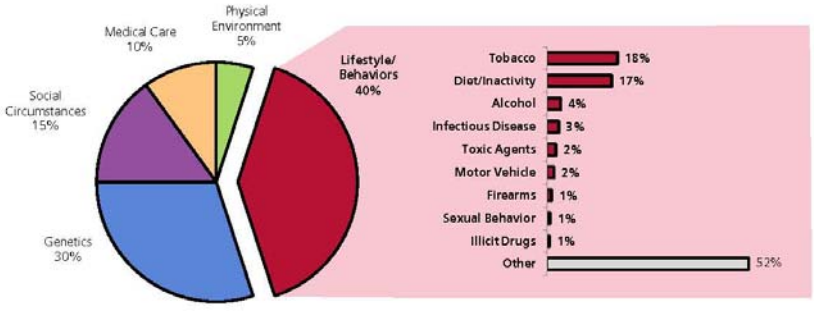
– Ali H. Mokdad, PhD; James S. Marks, MD, MPH; Donna F. Stroup, Phd, MSc; Julie L. Gerberding, MD, MPH. "Actual Causes of Death in the United States." JAMA, 291(2004):1238-1245.

While causes of death are typically described as the diseases or injuries immediately precipitating the end of life, a few important studies have shown that the actual causes of premature death (reflecting underlying risk factors) are often preventable.

Leading Causes of Death	Underlying Risk Factors (Actual Causes of Death)	
Cardiovascular disease	Tobacco use Elevated serum cholesterol High blood pressure	Obesity Diabetes Sedentary lifestyle
Cancer	Tobacco use Improper diet	Alcohol Occupational/environmental exposures
Cerebrovascular disease	High blood pressure Tobacco use	Elevated serum cholesterol
Accidental injuries	Safety belt noncompliance Alcohol/substance abuse Reckless driving	Occupational hazards Stress/fatigue
Chronic lung disease	Tobacco use	Occupational/environmental exposures

Source: National Center for Health Statistics/US Department of Health and Human Services, Health United States: 1987. DHHS Pub. No. (PHS) 88–1232.

Factors Contributing to Premature Deaths in the United States



Sources: "The Case For More Active Policy Attention to Health Promotion"; (McGinnis, Williams-Russo, Knickman) Health Affairs, Vol. 21, No. 2, March/April 2002. "Actual Causes of Death in the United States"; (Ali H. Mokdad, PhD; James S. Marks, MD, MPH; Donna F. Stroup, Phd, MSc; Julie L. Gerberding, MD, MPH) JAMA, 291(2004):1238-1245.

Nutrition

Strong science exists supporting the health benefits of eating a healthful diet and maintaining a healthy body weight. Efforts to change diet and weight should address individual behaviors, as well as the policies and environments that support these behaviors in settings such as schools, worksites, healthcare organizations, and communities.

The goal of promoting healthful diets and healthy weight encompasses increasing household food security and eliminating hunger.

Americans with a healthful diet:

- Consume a variety of nutrient-dense foods within and across the food groups, especially whole grains, fruits, vegetables, low-fat or fat-free milk or milk products, and lean meats and other protein sources.
- Limit the intake of saturated and trans fats, cholesterol, added sugars, sodium (salt), and alcohol.
- Limit caloric intake to meet caloric needs.

Diet and body weight are related to health status. Good nutrition is important to the growth and development of children. A healthful diet also helps Americans reduce their risks for many health conditions, including: overweight and obesity; malnutrition; iron-deficiency anemia; heart disease; high blood pressure; dyslipidemia (poor lipid profiles); type 2 diabetes; osteoporosis; oral disease; constipation; diverticular disease; and some cancers.

Diet reflects the variety of foods and beverages consumed over time and in settings such as worksites, schools, restaurants, and the home. Interventions to support a healthier diet can help ensure that:

- Individuals have the knowledge and skills to make healthier choices.
- Healthier options are available and affordable.

Social Determinants of Diet. Demographic characteristics of those with a more healthful diet vary with the nutrient or food studied. However, most Americans need to improve some aspect of their diet.

Social factors thought to influence diet include:

- Knowledge and attitudes
- Skills
- Social support
- Societal and cultural norms
- Food and agricultural policies
- Food assistance programs
- Economic price systems

Physical Determinants of Diet. Access to and availability of healthier foods can help people follow healthful diets. For example, better access to retail venues that sell healthier options may have a positive impact on a person's diet; these venues may be less available in low-income or rural neighborhoods.

The places where people eat appear to influence their diet. For example, foods eaten away from home often have more calories and are of lower nutritional quality than foods prepared at home.

Marketing also influences people's—particularly children's—food choices.

– Healthy People 2020 (www.healthypeople.gov)

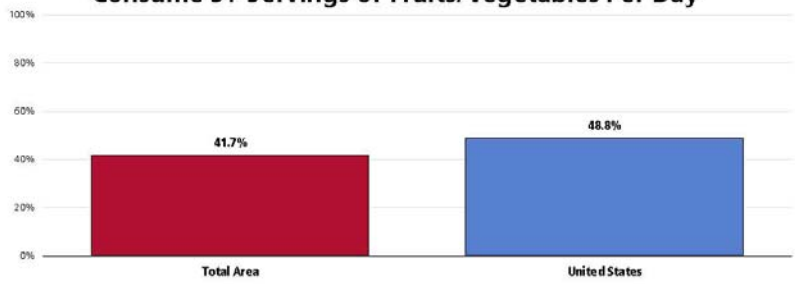
Daily Recommended Servings of Fruits/Vegetables

To measure fruit and vegetable consumption, survey respondents were asked multiple questions, specifically about the foods and drinks they consumed on the day prior to the interview.

A total of 41.7% of Total Area adults report eating five or more servings of fruits and/or vegetables per day.

- Less favorable than national findings.

Consume 5+ Servings of Fruits/Vegetables Per Day

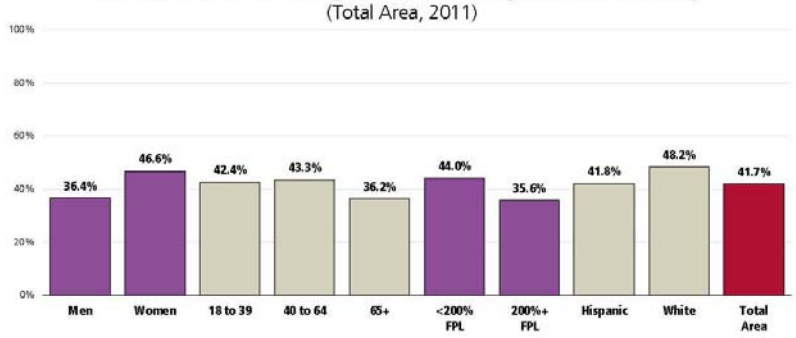


Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 168]
- Professional Research Consultants. PRC National Health Survey. 2011.

Notes:
- Asked of all respondents.
- For this issue, respondents were asked to recall their food intake on the previous day.

Area men are less likely to get the recommended servings of daily fruits/vegetables.

Consume 5+ Servings of Fruits/Vegetables Per Day
(Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 168]

Notes:
- Asked of all respondents.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
- For this issue, respondents were asked to recall their food intake on the previous day.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Fruits

The majority (55.2%) of Total Area adults reports eating at least two servings of fruit per day.

- Similar to national findings.

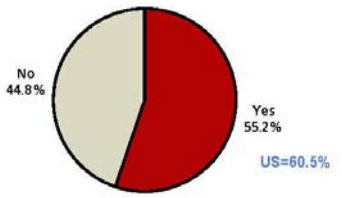
Vegetables

A total of 31.5% of survey respondents reports eating three or more servings of vegetables per day, at least one-third of which are dark green or orange vegetables.

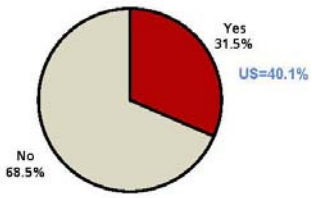
- Less favorable than national findings.

Fruits/Vegetable Consumption

(Total Area, 2011)



Consume 2+ Servings of Fruits/Fruit Juices Per Day



Consume 3+ Servings of Vegetables Per Day, One-Third of Which Are Dark Green or Orange

Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Items 169-170]
- Professional Research Consultants, Inc. PRC National Health Survey. 2011.

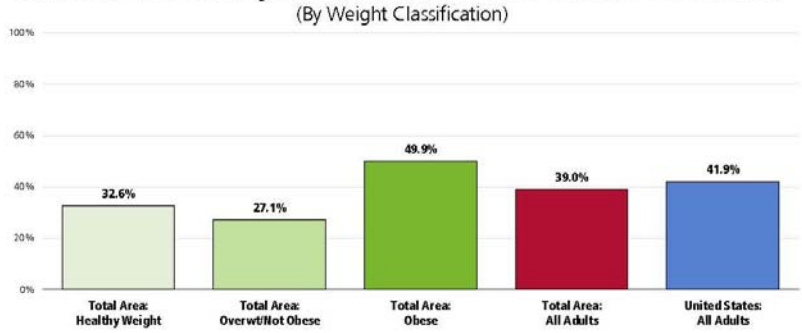
Notes:
- Asked of all respondents.

Health Advice About Diet & Nutrition

A total of 39.0% of survey respondents acknowledge that a physician counseled them about diet and nutrition in the past year.

- Similar to national findings.
- Note: Among obese respondents, 49.9% report receiving diet/nutrition advice (meaning that one-half did not).

Have Received Advice About Diet and Nutrition in the Past Year From a Physician, Nurse, or Other Health Professional
(By Weight Classification)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 18]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Related Focus Group Findings: Nutrition & Chronic Diseases

When asked about chronic diseases, participants mentioned heart disease, hypertension, diabetes, obesity, alcoholism and depression as being the most common chronic diseases in the community.

Most participants agreed that nutrition was at fault for the majority of the chronic diseases mentioned.

> *"Go in any of these Stripe stores out in north of town and you'll see those kids buying huge soda pops and huge bags of junk food."*

Physical Activity

Regular physical activity can improve the health and quality of life of Americans of all ages, regardless of the presence of a chronic disease or disability. Among adults and older adults, physical activity can lower the risk of: early death; coronary heart disease; stroke; high blood pressure; type 2 diabetes; breast and colon cancer; falls; and depression. Among children and adolescents, physical activity can: improve bone health; improve cardiorespiratory and muscular fitness; decrease levels of body fat; and reduce symptoms of depression. For people who are inactive, even small increases in physical activity are associated with health benefits.

Personal, social, economic, and environmental factors all play a role in physical activity levels among youth, adults, and older adults. Understanding the barriers to and facilitators of physical activity is important to ensure the effectiveness of interventions and other actions to improve levels of physical activity.

Factors **positively** associated with adult physical activity include: postsecondary education; higher income; enjoyment of exercise; expectation of benefits; belief in ability to exercise (self-efficacy); history of activity in adulthood; social support from peers, family, or spouse; access to and satisfaction with facilities; enjoyable scenery; and safe neighborhoods.

Factors **negatively** associated with adult physical activity include: advancing age; low income; lack of time; low motivation; rural residency; perception of great effort needed for exercise; overweight or obesity; perception of poor health; and being disabled. Older adults may have additional factors that keep them from being physically active, including lack of social support, lack of transportation to facilities, fear of injury, and cost of programs.

Among children ages 4 to 12, the following factors have a positive association with physical activity:

- Gender (boys)
- Belief in ability to be active (self-efficacy)
- Parental support

Among adolescents ages 13 to 18, the following factors have a positive association with physical activity:

- Parental education
- Gender (boys)
- Personal goals
- Physical education/school sports
- Belief in ability to be active (self-efficacy)
- Support of friends and family

Environmental influences positively associated with physical activity among children and adolescents include:

- Presence of sidewalks
- Having a destination/walking to a particular place
- Access to public transportation
- Low traffic density
- Access to neighborhood or school play area and/or recreational equipment

People with disabilities may be less likely to participate in physical activity due to physical, emotional, and psychological barriers. Barriers may include the inaccessibility of facilities and the lack of staff trained in working with people with disabilities.

– Healthy People 2020 (www.healthypeople.gov)

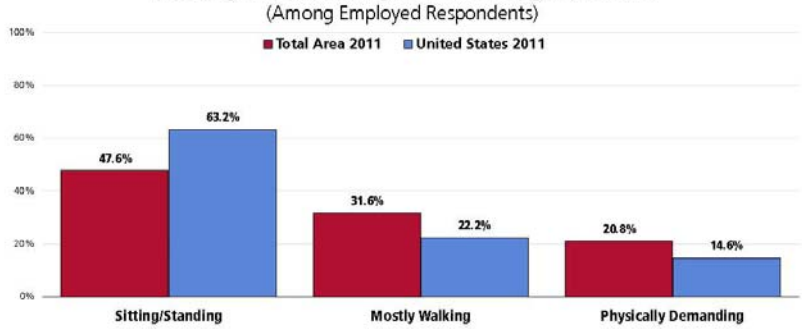
Level of Activity at Work

Total Area employed respondents report above-average levels of physical activity at work.

- Less than one-half of employed respondents (47.6%) report that their job entails mostly sitting or standing, much lower than the US figure.
- 31.6% report that their job entails mostly walking (higher than that reported nationally).
- 20.8% report that their work is physically demanding (higher than reported nationally).

Primary Level of Physical Activity At Work

(Among Employed Respondents)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 103]
- Professional Research Consultants. PRC National Health Survey. 2011.

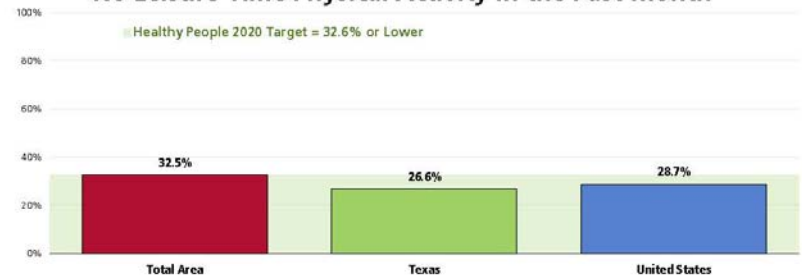
Notes:
- Asked of those respondents who are employed for wages.

Leisure-Time Physical Activity

A total of 32.5% of Total Area adults report no leisure-time physical activity in the past month.

- Less favorable than statewide findings.
- Statistically similar to national findings.
- Similar to the Healthy People 2020 objective (32.6% or lower).

No Leisure-Time Physical Activity in the Past Month

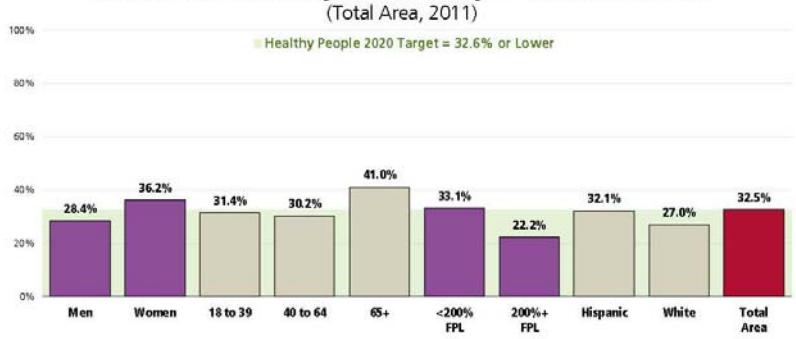


Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 104]
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective PA-1]

Notes:
- Asked of all respondents.

No statistically significant differences to note when viewed by demographic characteristics.

No Leisure-Time Physical Activity in the Past Month
(Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 104]
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective PA-1]

Notes:
- Asked of all respondents.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Activity Levels

Adults (age 18–64) should do 2 hours and 30 minutes a week of moderate-intensity, or 1 hour and 15 minutes (75 minutes) a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic physical activity. Aerobic activity should be performed in episodes of at least 10 minutes, preferably spread throughout the week.

Additional health benefits are provided by increasing to 5 hours (300 minutes) a week of moderate-intensity aerobic physical activity, or 2 hours and 30 minutes a week of vigorous-intensity physical activity, or an equivalent combination of both.

Older adults (age 65 and older) should follow the adult guidelines. If this is not possible due to limiting chronic conditions, older adults should be as physically active as their abilities allow. They should avoid inactivity. Older adults should do exercises that maintain or improve balance if they are at risk of falling.

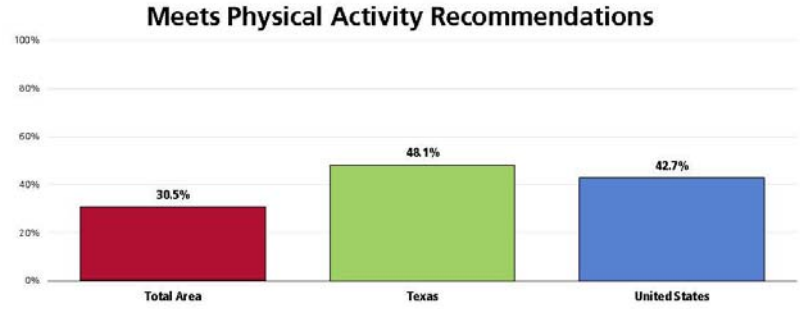
For all individuals, some activity is better than none. Physical activity is safe for almost everyone, and the health benefits of physical activity far outweigh the risks.

– 2008 Physical Activity Guidelines for Americans, U.S. Department of Health and Human Services. www.health.gov/PAGuidelines

Recommended Levels of Physical Activity

A total of 30.5% of Total Area adults participate in regular, sustained moderate or vigorous physical activity (meeting physical activity recommendations).

- Less favorable than statewide findings.
- Less favorable than national findings.

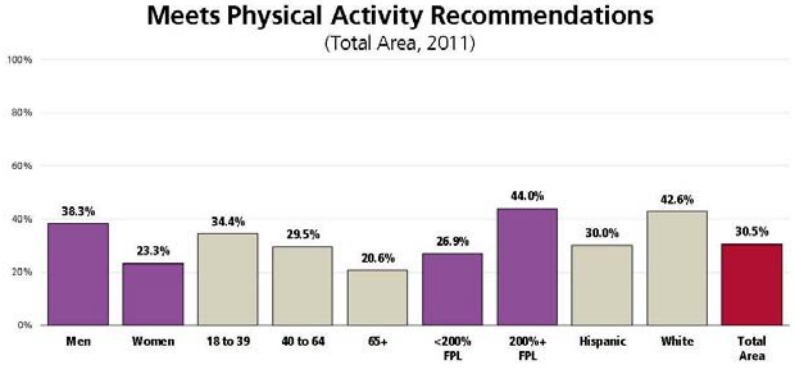


Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 171]
- Professional Research Consultants. PRC National Health Survey. 2011.
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2009 Texas Data.

Notes:
- Asked of all respondents.
- In this case the term "meets physical activity recommendations" refers to participation in moderate physical activity (exercise that produces only light sweating or a slight to moderate increase in breathing or heart rate) at least 5 times a week for 30 minutes at a time, and/or vigorous physical activity (activities that cause heavy sweating or large increases in breathing or heart rate) at least 3 times a week for 20 minutes at a time.

Those less likely to meet physical activity requirements include:

- Women.
- Adults 65+.
- Residents with lower incomes.



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 171]

Notes:
- Asked of all respondents.
- FPL = Federal Poverty Level based on household income and number of household members [US Department of Health & Human Services poverty guidelines].
- In this case the term "meets physical activity recommendations" refers to participation in moderate physical activity (exercise that produces only light sweating or a slight to moderate increase in breathing or heart rate) at least 5 times a week for 30 minutes at a time, and/or vigorous physical activity (activities that cause heavy sweating or large increases in breathing or heart rate) at least 3 times a week for 20 minutes at a time.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Moderate & Vigorous Physical Activity

The individual indicators of moderate physical activity, vigorous physical activity, and strengthening activities are shown here.

In the past month:

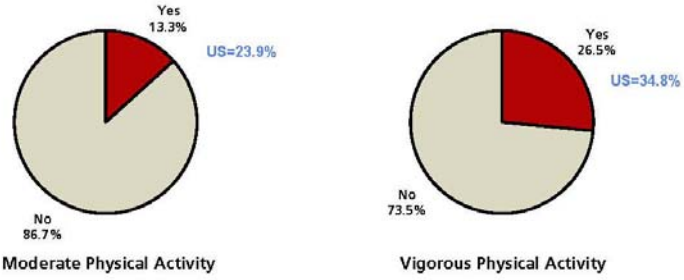
A total of 13.3% of adults participated in moderate physical activity (5 times a week, 30 minutes at a time).

- Less favorable than the national level.

A total of 26.5% participated in vigorous physical activity (3 times a week, 20 minutes at a time).

- Less favorable than the nationwide figure.
- Note that the percentage reporting vigorous physical activity is similar to the statewide proportion of 28.6% (not shown below).

Moderate & Vigorous Physical Activity
(Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Items 173-174]
- Professional Research Consultants. PRC National Health Survey. 2011.

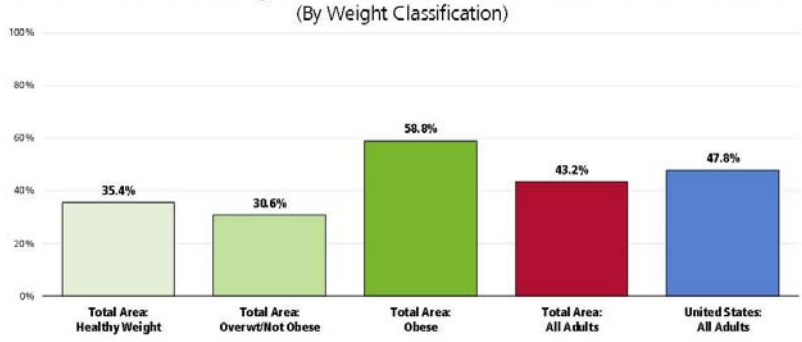
Notes:
- Asked of all respondents.
- Moderate Physical Activity: Takes part in exercise that produces only light sweating or a slight to moderate increase in breathing or heart rate at least 5 times per week for at least 30 minutes per time.
- Vigorous Physical Activity: Takes part in activities that cause heavy sweating or large increases in breathing or heart rate at least 3 times per week for at least 20 minutes per time.

Health Advice About Physical Activity & Exercise

A total of 43.2% of Total Area adults report that their physician has asked about or given advice to them about physical activity in the past year.

- Comparable to the national average.
- Note: 58.8% of obese Total Area respondents say that they have talked with their doctor about physical activity/exercise in the past year.

Have Received Advice About Exercise in the Past Year From a Physician, Nurse, or Other Health Professional
(By Weight Classification)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 19]
- Professional Research Consultants. PRC National Health Survey. 2011.

Notes:
- Asked of all respondents.

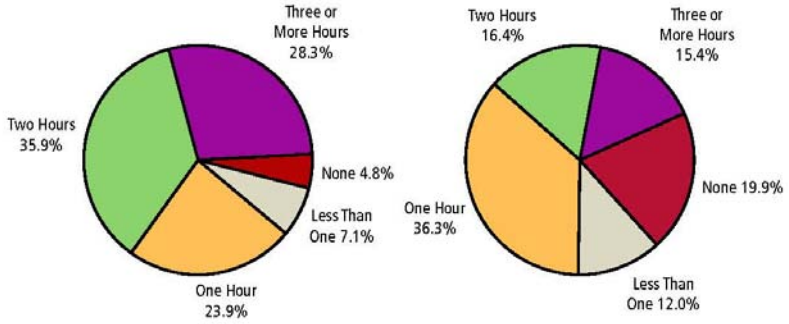
Children's Screen Time

Among children aged 5 through 17, 28.3% average three or more hours of television per day, and 15.4% spend three or more hours on other types of screen time for entertainment (video games, Internet, etc.).

- Similar to the US prevalence for both television and other screen time.
- In contrast, 35.8% of children aged 5-17 spend **one hour or less** watching television on an average day, and 68.2% spend **one hour or less** on other screen time.

Children's Screen Time

(Among Parents of Children Ages 5-17; Overall, 2011)



Number of Hours/Day of Television

Number of Hours/Day of Other Screen Time
(i.e., video games and computer/Internet entertainment)

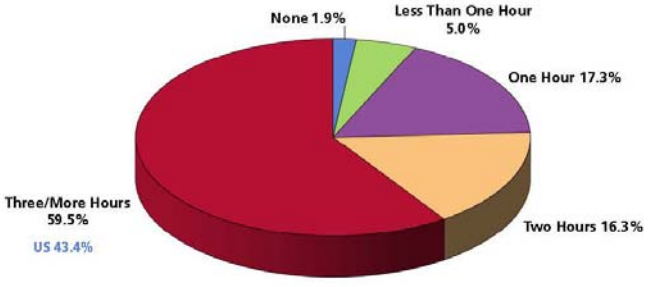
Sources: • Professional Research Consultants, Inc. PRC Community Health Survey [Items 138-139]
Notes: • Asked of respondents with a child aged 5 to 17 in the household.

When combined, 59.5% of Total Area children spend three or more hours on screen time (whether television or computer, Internet, video games, etc.) per day.

- Less favorable than the nationwide figure.

Children's Total Screen Time Per Day

(Total Area Children 5-17, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 177]
• Professional Research Consultants, Inc. PRC National Health Survey
Notes: • Asked of all respondents with children between the ages of 5 and 17.

Weight Status

Because weight is influenced by energy (calories) consumed and expended, interventions to improve weight can support changes in diet or physical activity. They can help change individuals' knowledge and skills, reduce exposure to foods low in nutritional value and high in calories, or increase opportunities for physical activity. Interventions can help prevent unhealthy weight gain or facilitate weight loss among obese people. They can be delivered in multiple settings, including healthcare settings, worksites, or schools.

The social and physical factors affecting diet and physical activity (see Physical Activity topic area) may also have an impact on weight. Obesity is a problem throughout the population. However, among adults, the prevalence is highest for middle-aged people and for non-Hispanic black and Mexican American women. Among children and adolescents, the prevalence of obesity is highest among older and Mexican American children and non-Hispanic black girls. The association of income with obesity varies by age, gender, and race/ethnicity.

– Healthy People 2020 (www.healthypeople.gov)

Body Mass Index (BMI), which describes relative weight for height, is significantly correlated with total body fat content. The BMI should be used to assess overweight and obesity and to monitor changes in body weight. In addition, measurements of body weight alone can be used to determine efficacy of weight loss therapy. BMI is calculated as weight (kg)/height squared (m^2). To estimate BMI using pounds and inches, use: [weight (pounds)/height squared ($inches^2$)] x 703.

In this report, overweight is defined as a BMI of 25.0 to 29.9 kg/m^2 and obesity as a BMI of 30 kg/m^2. The rationale behind these definitions is based on epidemiological data that show increases in mortality with BMIs above 25 kg/m^2. The increase in mortality, however, tends to be modest until a BMI of 30 kg/m^2 is reached. For persons with a BMI of 30 kg/m^2, mortality rates from all causes, and especially from cardiovascular disease, are generally increased by 50 to 100 percent above that of persons with BMIs in the range of 20 to 25 kg/m^2.

– Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report. National Institutes of Health. National Heart, Lung, and Blood Institute in Cooperation With The National Institute of Diabetes and Digestive and Kidney Diseases. September 1998.

Classification of Overweight and Obesity by BMI	BMI (kg/m^2)
Underweight	<18.5
Normal	18.5 – 24.9
Overweight	25.0 – 29.9
Obese	≥30.0

Source: Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report. National Institutes of Health. National Heart, Lung, and Blood Institute in Cooperation With The National Institute of Diabetes and Digestive and Kidney Diseases. September 1998.

Adult Weight Status

Healthy Weight

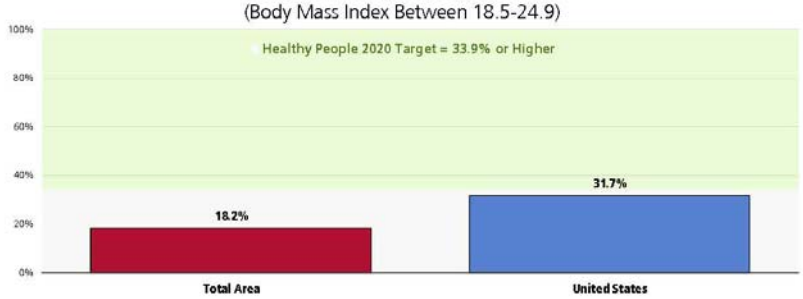
"Healthy weight "means neither underweight, nor overweight (BMI = 18.5-24.9).

Based on self-reported heights and weights, only 18.2% of Total Area adults are at a healthy weight.

- Less favorable than national findings.
- Fails to satisfy the Healthy People 2020 target (33.9% or higher).

Healthy Weight

(Body Mass Index Between 18.5-24.9)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 179]
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective NWS-8]

Notes:
- Based on reported heights and weights, asked of all respondents.
- The definition of healthy weight is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), between 18.5 and 24.9.

Overweight Status

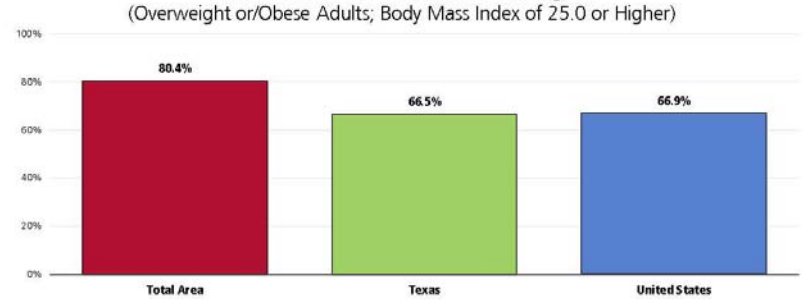
Here, "overweight" includes those respondents with a BMI value ≥25.

A full 80.4% of Total Area adults are overweight.

- Much higher than the Texas prevalence.
- Much higher than the US overweight prevalence.

Prevalence of Total Overweight

(Overweight or/Obese Adults; Body Mass Index of 25.0 or Higher)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 179]
- Professional Research Consultants. PRC National Health Survey. 2011.
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.

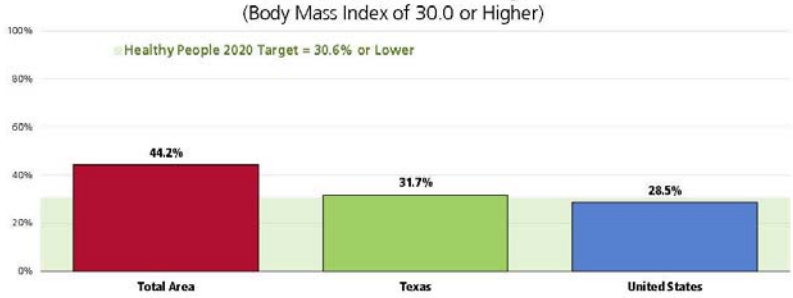
Notes:
- Based on reported heights and weights, asked of all respondents.
- The definition of overweight is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 25.0, regardless of gender. The definition for obesity is a BMI greater than or equal to 30.0.

"Obese" (also included in overweight prevalence discussed previously) includes respondents with a BMI value ≥30.

Further, 44.2% of Total Area adults are obese.

- Much less favorable than Texas findings.
- Much less favorable than US findings.
- Fails to satisfy the Healthy People 2020 target (30.6% or lower).

Prevalence of Obesity
(Body Mass Index of 30.0 or Higher)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 179]
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective NWS-9]
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.

Notes:
- Based on reported heights and weights, asked of all respondents.
- The definition of obesity is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 30.0, regardless of gender.

Obesity is notably more prevalent among:

- Adults between the ages of 40 and 64 (over 50%).
- Hispanics.

Prevalence of Obesity
(Body Mass Index of 30.0 or Higher; Total Area, 2011)

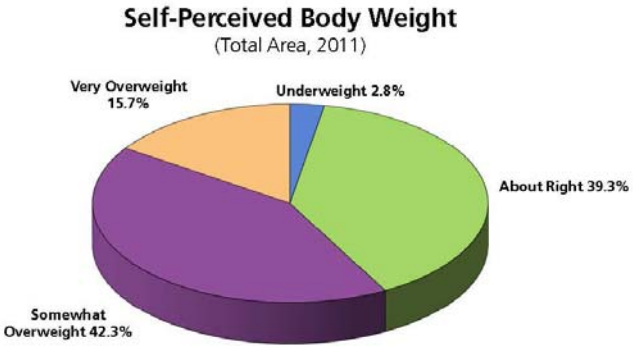
Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 179]
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective NWS-9]

Notes:
- Asked of all respondents.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
- Based on reported heights and weights, asked of all respondents.
- The definition of obesity is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 30.0, regardless of gender.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Self-Perceived Body Weight

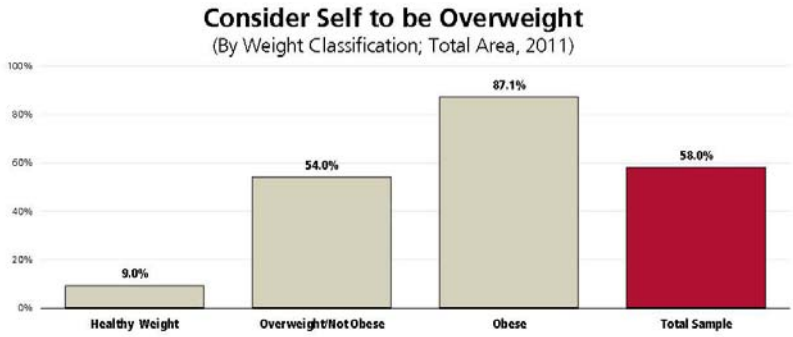
When asked to consider their own bodyweight, 39.3% of Total Area residents consider themselves to be "about right."

- In contrast, 42.3% of adults consider themselves to be "somewhat overweight" and 15.7% consider themselves to be "very overweight."



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 111]
Notes: • Asked of all respondents.

Note that only 54.0% of overweight Total Area adults consider themselves to be "very" or "somewhat overweight."



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 111]
Notes: • Based on reported heights and weights, asked of all respondents.
• The definition of overweight is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 25.0, regardless of gender. The definition for obesity is a BMI greater than or equal to 30.0.

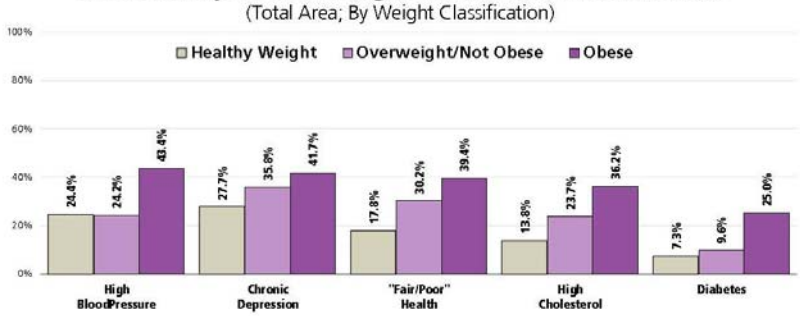
Relationship of Overweight With Other Health Issues

The correlation between overweight and various health issues cannot be disputed.

Overweight and obese adults are more likely to report a number of adverse health conditions.

Among these are: Hypertension (high blood pressure), chronic depression, "fair/poor" health, high cholesterol, and diabetes.

Relationship of Overweight With Other Health Issues
(Total Area; By Weight Classification)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Items 5, 28, 32, 35, 44, 113, 143, 143]
Notes: • Based on reported heights and weights, asked of all respondents.

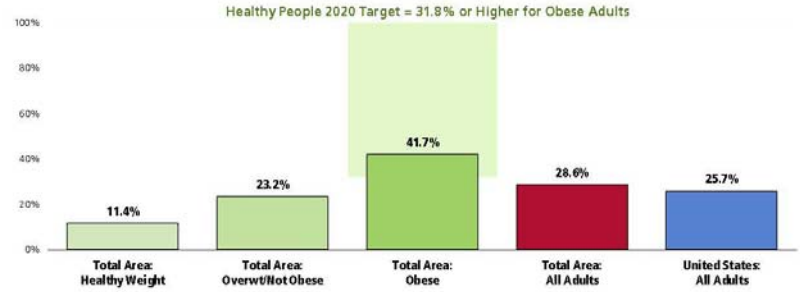
Weight Management

Health Advice

A total of 28.6% of adults have been given advice about their weight by a doctor, nurse or other health professional in the past year.

- Statistically similar to the national findings.
- Note that 41.7% of obese adults have been given advice about their weight by a health professional in the past year (while nearly 60% have not).
  - This satisfies the Healthy People 2020 target of 31.8% or higher.

Have Received Advice About Weight in the Past Year From a Physician, Nurse, or Other Health Professional
(By Weight Classification)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Items 110, 181-182]
• Professional Research Consultants. PRC National Health Survey. 2011.
• US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective NWS-6.2]
Notes: • Asked of all respondents.

Weight Control

Individuals who are at a healthy weight are less likely to:

- Develop chronic disease risk factors, such as high blood pressure and dyslipidemia.
- Develop chronic diseases, such as type 2 diabetes, heart disease, osteoarthritis, and some cancers.
- Experience complications during pregnancy.
- Die at an earlier age.

All Americans should avoid unhealthy weight gain, and those whose weight is too high may also need to lose weight.

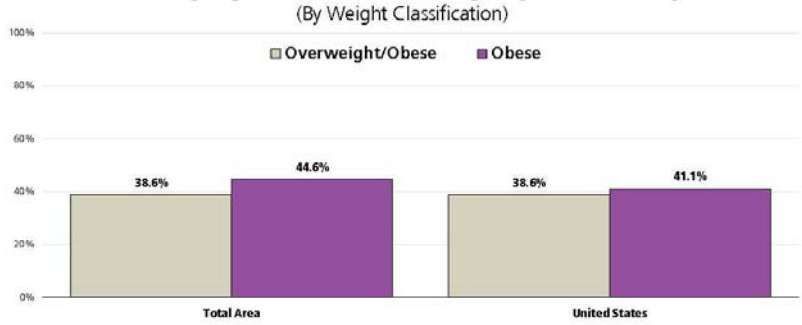
– Healthy People 2020 (www.healthypeople.gov)

A total of 38.6% of Total Area adults who are overweight say that they are both modifying their diet and increasing their physical activity to try to lose weight.

- Identical to national findings.

Note: 44.6% of obese Total Area adults report that they are trying to lose weight through a combination of diet and exercise, similar to what is found nationally.

Trying to Lose Weight by Both Modifying Diet and Increasing Physical Activity
(By Weight Classification)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 180]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Based on reported heights and weights, asked of all respondents.

Related Focus Group Findings: Exercise & Nutrition

The concerns with nutrition are the lack of inexpensive fresh foods and the plethora of cheap unhealthy foods. The Mexican culture is one that cooks with very high fat, high calorie foods that lead to weight gain when not eaten in moderation. Additionally, so many people are getting take out foods rather than preparing a healthy meal at home. Participants also mentioned that the Mexican culture sees chubby children as healthy children. More education regarding healthy living is needed in the community to change the poor nutrition habits that have developed.

Participants would like to see more of the community exercising but realize that there are challenges in that area. Unfortunately the community is not one that is full of walking trails or even sidewalks. The colonias can be dangerous, so many people prefer not to go out in the evening when they would have the chance to exercise. There was also mention that there are too few parks in the community.

Of the parks that are available, participants did mention that they seem to be in use regularly and that there are several gyms in the community that seem to attract many people.

> *"And again, it boils down to the fact that easy, cheap food is related to high calorie, fatty foods and there is not a serious commitment from anybody to teach or understand that if we make healthy food cheaper, hopefully we will change the mind of a lot of people. But it's cultural as well. There is a lot of culture involved in this and educating our families is a big, big challenge."*

> *"And the colonias would have very limited – and there are safety issues in the colonias. And the roads aren't the kind you can walk on because they are going to be rutted and wet and muddy and dark."*

> *"I know Knapp offers some education programs, but I'm not sure if that information is distributed well enough. I don't know how their attendance is, but I know they offer some – but education for sure is needed, more accessible and maybe more of it."*

> *"Everybody has such a crazy lifestyle. It's easier to drive through Wendy's and get a bag of 5 burgers for $5 bucks than to go home and cook a healthy meal."*

> *"But there are a lot of people taking those Zumba classes and the parks are full, any time of the day. So that's sort of a good sign."*

Childhood Overweight & Obesity

In children and teens, body mass index (BMI) is used to assess weight status – underweight, healthy weight, overweight, or obese. After BMI is calculated for children and teens, the BMI number is plotted on the CDC BMI-for-age growth charts (for either girls or boys) to obtain a percentile ranking. Percentiles are the most commonly used indicator to assess the size and growth patterns of individual children in the United States. The percentile indicates the relative position of the child's BMI number among children of the same sex and age.

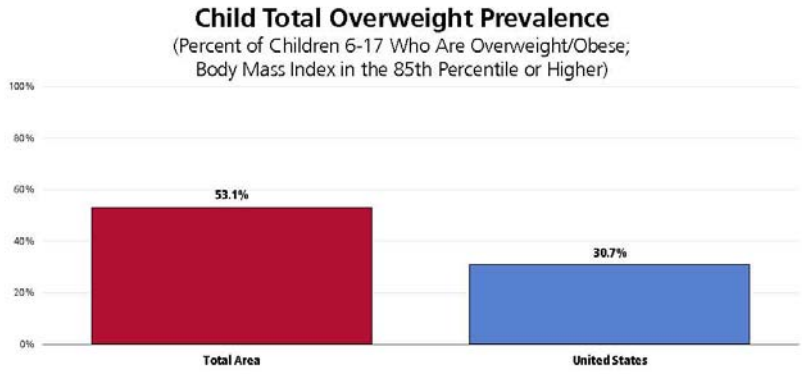
BMI-for-age weight status categories and the corresponding percentiles are shown below:

- Underweight <5th percentile
- Healthy Weight ≥5th and <85th percentile
- Overweight ≥85th and <95th percentile
- Obese ≥95th percentile

– Centers for Disease Control and Prevention.

Based on the heights/weights reported by surveyed parents, more than one-half (53.1%) of Total Area children age 6 to 17 are overweight or obese (≥85th percentile).

- Dramatically higher than found nationally.



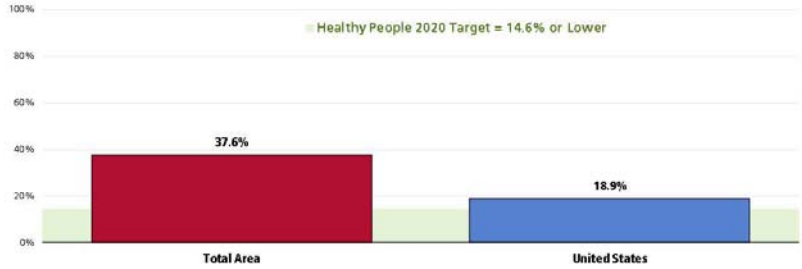
Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 183]
- Professional Research Consultants. PRC National Health Survey. 2011.

Notes:
- Asked of all respondents with children aged 6-17 at home.
- Overweight among children is estimated based on children's Body Mass Index status at or above the 85th percentile of US growth charts by gender and age.

A total of 37.6% of Total Area children age 6 to 17 are obese (≥95th percentile).

- Twice the national percentage.
- Far from satisfying the Healthy People 2020 target (14.6% or lower for children age 2-19).

Child Obesity Prevalence
(Percent of Children 6-17 Who Are Obese;
Body Mass Index in the 95th Percentile or Higher)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 183]
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov. [Objective NWS-10.4]

Notes:
- Asked of all respondents with children aged 6-17 at home.
- Obesity among children is estimated based on children's Body Mass Index status equal to or above the 95th percentile of US growth charts by gender and age.

Further note that:

- Only 26.1% of parents of children age 6-17 consider their child to be "somewhat" or "very overweight."
- Only 13.4% have been told that their child is overweight by a health professional or someone at school in the past year.

Substance Abuse

In 2005, an estimated 22 million Americans struggled with a drug or alcohol problem. Almost 95% of people with substance use problems are considered unaware of their problem. Of those who recognize their problem, 273,000 have made an unsuccessful effort to obtain treatment. These estimates highlight the importance of increasing prevention efforts and improving access to treatment for substance abuse and co-occurring disorders.

Substance abuse has a major impact on individuals, families, and communities. The effects of substance abuse are cumulative, significantly contributing to costly social, physical, mental, and public health problems. These problems include:

- Teenage pregnancy
- Human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS)
- Other sexually transmitted diseases (STDs)
- Domestic violence
- Child abuse
- Motor vehicle crashes
- Physical fights
- Crime
- Homicide
- Suicide

The field has made progress in addressing substance abuse, particularly among youth. According to data from the national Institute of Drug Abuse (NIDA) Monitoring the Future (MTF) survey, which is an ongoing study of the behaviors and values of America's youth between 2004 and 2009, a drop in drug use (including amphetamines, methamphetamine, cocaine, hallucinogens, and LSD) was reported among students in 8th, 10th, and 12th grades. Note that, despite a decreasing trend in marijuana use which began in the mid-1990s, the trend has stalled in recent years among these youth. Use of alcohol among students in these three grades also decreased during this time.

Substance abuse refers to a set of related conditions associated with the consumption of mind- and behavior-altering substances that have negative behavioral and health outcomes. Social attitudes and political and legal responses to the consumption of alcohol and illicit drugs make substance abuse one of the most complex public health issues. In addition to the considerable health implications, substance abuse has been a flash-point in the criminal justice system and a major focal point in discussions about social values: people argue over whether substance abuse is a disease with genetic and biological foundations or a matter of personal choice.

Advances in research have led to the development of evidence-based strategies to effectively address substance abuse. Improvements in brain-imaging technologies and the development of medications that assist in treatment have gradually shifted the research community's perspective on substance abuse. There is now a deeper understanding of substance abuse as a disorder that develops in adolescence and, for some individuals, will develop into a chronic illness that will require lifelong monitoring and care.

Improved evaluation of community-level prevention has enhanced researchers' understanding of environmental and social factors that contribute to the initiation and abuse of alcohol and illicit drugs, leading to a more sophisticated understanding of how to implement evidence-based strategies in specific social and cultural settings.

A stronger emphasis on evaluation has expanded evidence-based practices for drug and alcohol treatment. Improvements have focused on the development of better clinical interventions through research and increasing the skills and qualifications of treatment providers.

– Healthy People 2020 (www.healthypeople.gov)

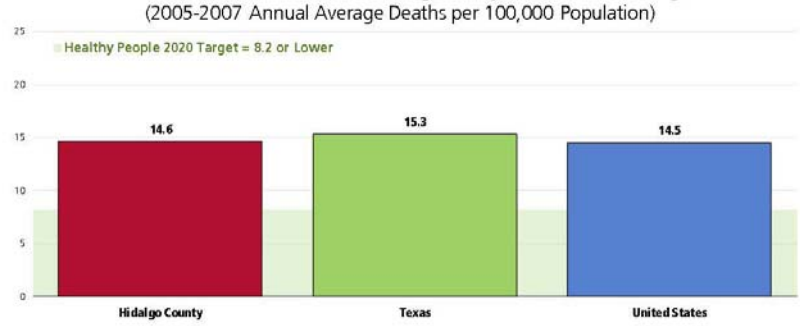
Age-Adjusted Cirrhosis/Liver Disease Deaths

Between 2005 and 2007, there was an annual average age-adjusted cirrhosis/liver disease mortality rate of 14.6 deaths per 100,000 population in Hidalgo County.

- Similar to the statewide rate.
- Similar to the national rate.
- Fails to satisfy the Healthy People 2020 target (8.2 or lower).

Cirrhosis/Liver Disease: Age-Adjusted Mortality

(2005-2007 Annual Average Deaths per 100,000 Population)



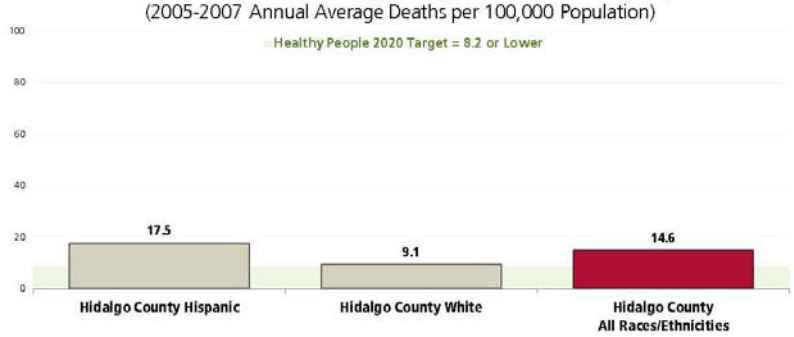
Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective SA-11]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.

Cirrhosis mortality rates are notably higher among Hispanics than among Whites in Hidalgo County.

Cirrhosis/Liver Disease: Age-Adjusted Mortality by Race

(2005-2007 Annual Average Deaths per 100,000 Population)



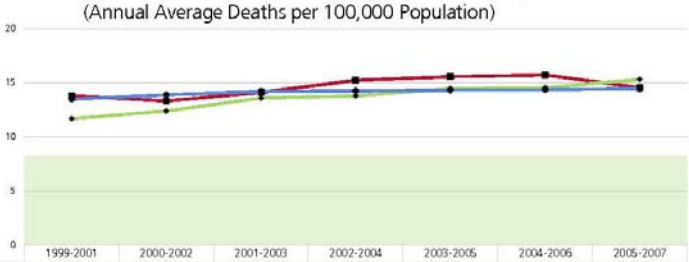
Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective SA-11]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.
- Note that the number for "White" residents represent Non-Hispanic Whites in Hidalgo County.

Mortality rates increased overall in the county in the past decade; the same can be said for state and national rates.

Cirrhosis/Liver Disease: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007
Healthy People 2020	8.2	8.2	8.2	8.2	8.2	8.2	8.2
Hidalgo County	13.8	13.3	14.1	15.2	15.6	15.7	14.6
Texas	11.7	12.4	13.6	13.8	14.5	14.6	15.3
United States	13.5	13.9	14.2	14.3	14.3	14.4	14.5

Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective SA-11]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.

High-Risk Alcohol Use

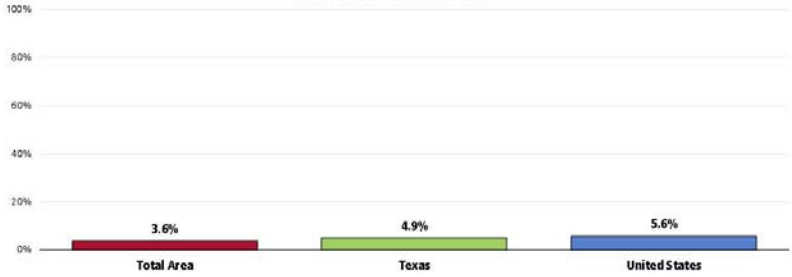
Chronic Drinking

Chronic drinkers include survey respondents reporting 60 or more drinks of alcohol in the month preceding the interview. For the purposes of this study, a "drink" is considered one can or bottle of beer, one glass of wine, one can or bottle of wine cooler, one cocktail, or one shot of liquor.

A total of 3.6% of area adults averaged two or more drinks of alcohol per day in the past month (chronic drinkers).

- Similar to the statewide proportion.
- Similar to the national proportion.

Chronic Drinkers



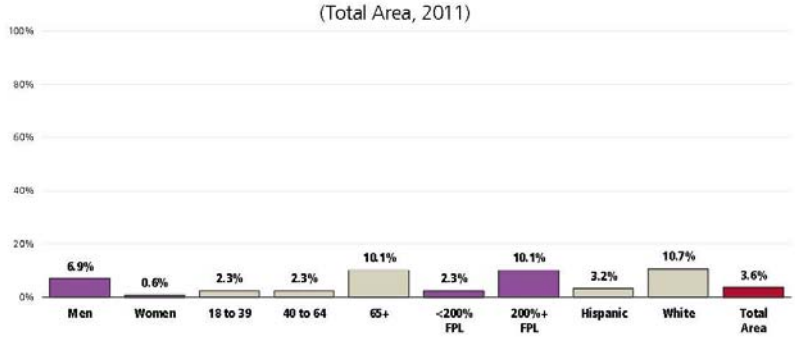
Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 189]
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.
- Professional Research Consultants. PRC National Health Survey. 2011.

Notes:
- Asked of all respondents.
- Chronic drinkers are defined at having 60+ alcoholic drinks in the past month.
- *The state definition for chronic drinkers is males consuming 2+ drinks per day and females consuming 1+ drink per day.

RELATED ISSUE:
See also *Stress* in the **Mental Health & Mental Disorders** section of this report.

Chronic drinking is more prevalent among men, adults 65+, higher-income residents, and Whites.

Chronic Drinkers
(Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 189]

Notes:
- Asked of all respondents.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
- Chronic drinkers are defined as those having 60+ alcoholic drinks in the past month.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Binge Drinking

Binge drinkers include:

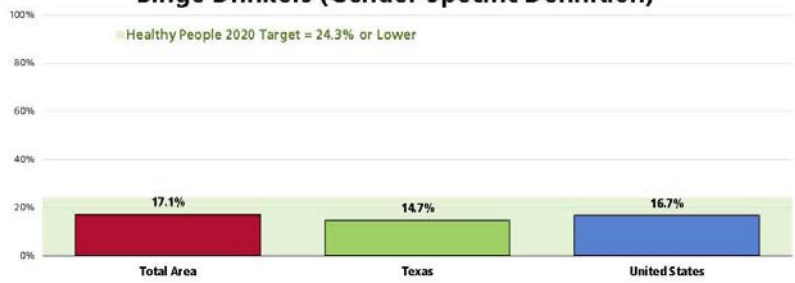
1) MEN who report drinking 5 or more alcoholic drinks on any single occasion during the past month; and

2) WOMEN who report drinking 4 or more alcoholic drinks on any single occasion during the past month.

A total of 17.1% of Total Area adults are binge drinkers.

- Similar to Texas findings.
- Similar to national findings.
- Satisfies the Healthy People 2020 target (24.3% or lower).

Binge Drinkers (Gender-Specific Definition)



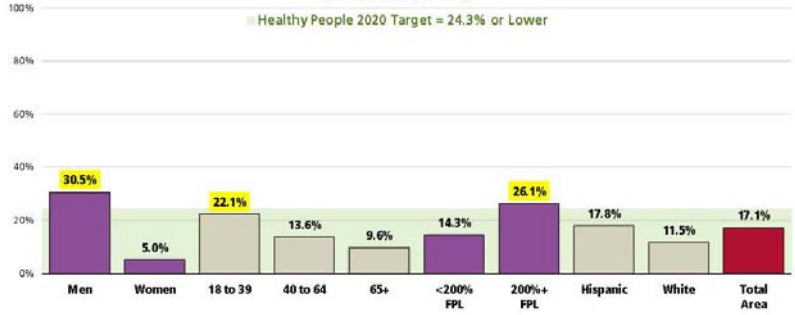
Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 190]
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective SA-14.3]

Notes:
- Asked of all respondents.
- Binge drinkers are defined as men having 5+ alcoholic drinks on any one occasion or women consuming 4+ drinks on any one occasion. In 2006, this definition did not distinguish by gender and represents the percentage of men and women consuming 5+ alcoholic drinks on one occasion.

Binge drinking is more prevalent among:

- Men.
- Adults under age 40.
- Higher-income residents.

Binge Drinkers
(Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 190]
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective SA-14.3]

Notes:
- Asked of all respondents.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
- Binge drinkers are defined as men having 5+ alcoholic drinks on any one occasion or women consuming 4+ drinks on any one occasion.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

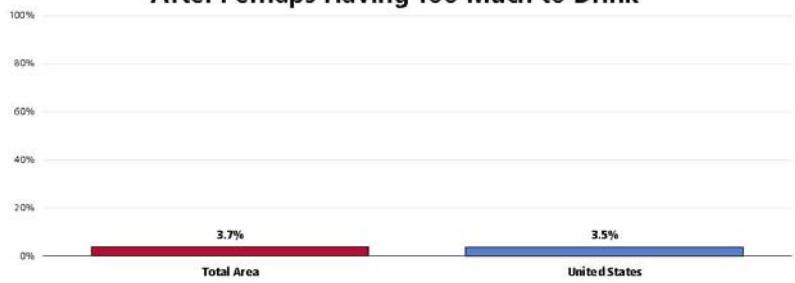
Drinking & Driving

A total of 3.7% of Total Area adults acknowledge having driven a vehicle in the past month after they had perhaps too much to drink.

- Similar to the national findings.

Note: As a self-reported measure – and because this indicator reflects potentially illegal behavior – it is reasonable to expect that it might be underreported, and that the actual incidence of drinking and driving in the community is likely higher.

Have Driven in the Past Month After Perhaps Having Too Much to Drink



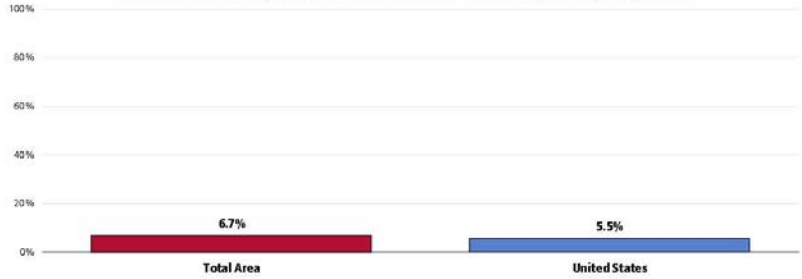
Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 70]
- Professional Research Consultants. PRC National Health Survey. 2011.

Notes:
- Asked of all respondents.

A total of 6.7% of Total Area adults acknowledge either drinking and driving or riding with a drunk driver in the past month.

- Similar to the national findings.

Have Driven Drunk OR Ridden With a Driver in the Past Month Who Had Too Much to Drink



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 191]
- Professional Research Consultants. PRC National Health Survey. 2011.

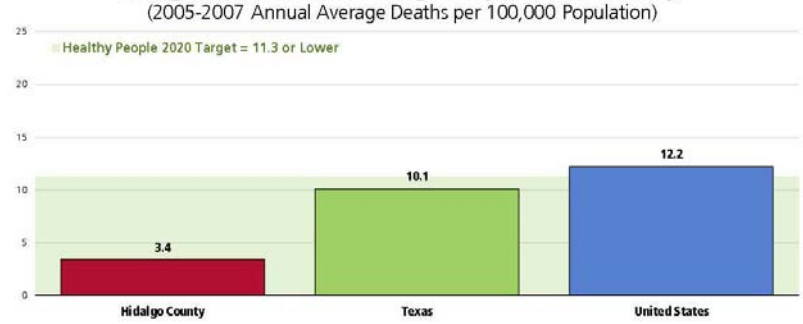
Notes:
- Asked of all respondents.

Age-Adjusted Drug-Induced Deaths

Between 2005 and 2007, there was an annual average age-adjusted drug-induced mortality rate of 3.4 deaths per 100,000 population in the Total Area.

- Much more favorable than the statewide rate.
- Much more favorable than the national rate.
- Satisfies the Healthy People 2020 target (11.3 or lower).

Drug-Induced Deaths: Age-Adjusted Mortality
(2005-2007 Annual Average Deaths per 100,000 Population)



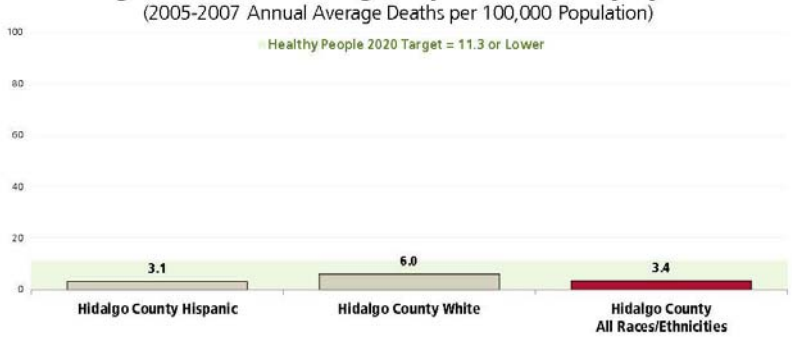
Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective SA-12]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.

Drug-induced mortality rates are higher among Whites than among Hispanics in Hidalgo County.

Drug-Induced Deaths: Age-Adjusted Mortality by Race

(2005-2007 Annual Average Deaths per 100,000 Population)



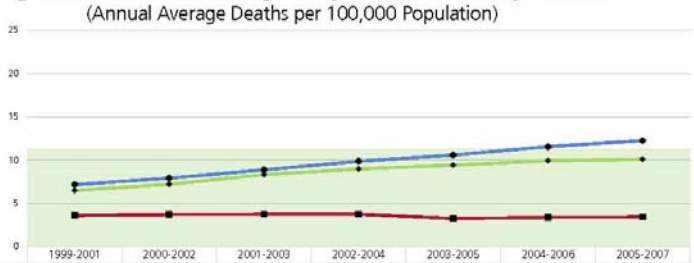
Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective SA-12]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.
- Note that the number for "White" residents represent Non-Hispanic Whites in Hidalgo County.

Across Hidalgo County, drug-induced mortality rates decreased slightly over the past decade. Statewide and nationwide, rates increased steadily during this time.

Drug-Induced Deaths: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)



	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006	2005-2007
Healthy People 2020	11.3	11.3	11.3	11.3	11.3	11.3	11.3
Hidalgo County	3.6	3.7	3.7	3.7	3.2	3.4	3.4
Texas	6.5	7.2	8.3	9.0	9.4	9.9	10.1
United States	7.2	7.9	8.9	9.8	10.6	11.5	12.2

Sources:
- Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. CDC WONDER Online Query System. Data extracted June 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective SA-12]

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- County, state and national data are simple three-year averages.

Illicit Drug Use

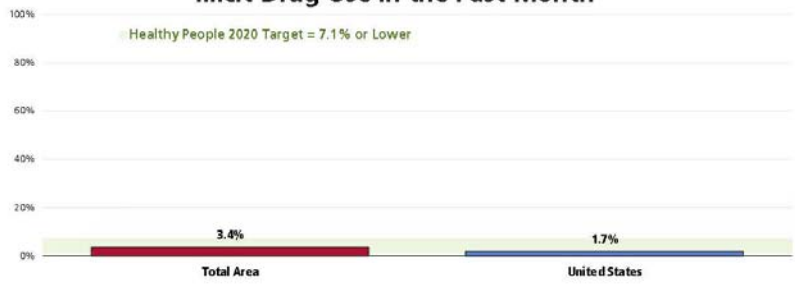
For the purposes of this survey, "illicit drug use" includes use of illegal substances or of prescription drugs taken without a physician's order.

Note: As a self-reported measure – and because this indicator reflects potentially illegal behavior – it is reasonable to expect that it might be underreported, and that actual illicit drug use in the community is likely higher.

A total of 3.4% of Total Area adults acknowledge using an illicit drug in the past month.

- Similar to the proportion found nationally.
- Satisfies the Healthy People 2020 objective of 7.1% or lower.

Illicit Drug Use in the Past Month



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 72]
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov. [Objective SA-13.3]

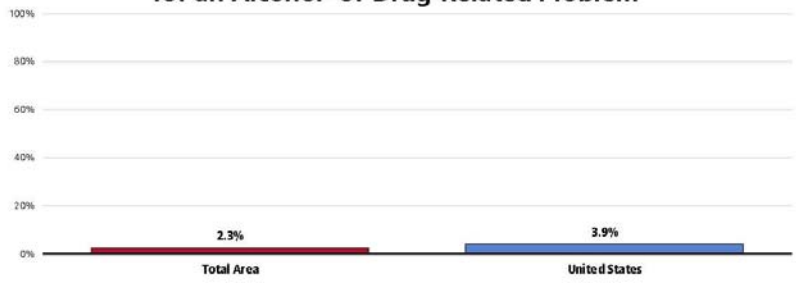
Notes:
- Asked of all respondents.

Alcohol & Drug Treatment

A total of 2.3% of Total Area adults report that they have sought professional help for an alcohol or drug problem at some point in their lives.

- Similar to national findings.

Have Ever Sought Professional Help for an Alcohol- or Drug-Related Problem



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 73]
- Professional Research Consultants. PRC National Health Survey. 2011.

Notes:
- Asked of all respondents.

Related Focus Group Findings: Substance Abuse

Participants spoke about many issues regarding substance abuse. One of their main concerns is the accessibility of prescription drugs for teenagers who are buying them in Mexico and selling them at school or on the street. Additionally, students are abusing over-the-counter medications by simply taking them in larger doses.

There is also concern about alcoholism in the community. Participants mentioned the ease of obtaining alcohol for youth as well as how often adults are consuming alcohol.

Unfortunately, according to participants, there are very few drug rehab services in the area. Students who have private insurance or Medicaid, can get services through outside counseling agencies and are able to get the services at school. However, for those without any kind of insurance, there are few options. If someone is in need of long-term residential care, it's limited.

> *"It's inexcusable that we have no drug rehab services here."*
>
> *"And for addiction, that's very limited resources for kids who have addiction issues. "*
>
> *"They can walk across to the pharmacies in Progresso and you can purchase prescription drugs over the counter there and they sell them for $2.00 a tablet in the schools."*
>
> *"There are also teenagers abusing over the counter medications also."*

Tobacco Use

Tobacco use is the single most preventable cause of death and disease in the United States. Each year, approximately 443,000 Americans die from tobacco-related illnesses. For every person who dies from tobacco use, 20 more people suffer with at least one serious tobacco-related illness. In addition, tobacco use costs the US $193 billion annually in direct medical expenses and lost productivity.

Scientific knowledge about the health effects of tobacco use has increased greatly since the first Surgeon General's report on tobacco was released in 1964.

Tobacco use causes:

- Cancer
- Heart disease
- Lung diseases (including emphysema, bronchitis, and chronic airway obstruction)
- Premature birth, low birth weight, stillbirth, and infant death

There is no risk-free level of exposure to secondhand smoke. Secondhand smoke causes heart disease and lung cancer in adults and a number of health problems in infants and children, including: severe asthma attacks; respiratory infections; ear infections; and sudden infant death syndrome (SIDS).

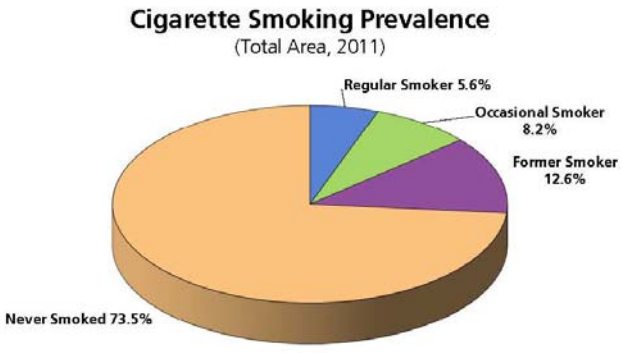
Smokeless tobacco causes a number of serious oral health problems, including cancer of the mouth and gums, periodontitis, and tooth loss. Cigar use causes cancer of the larynx, mouth, esophagus, and lung.

– Healthy People 2020 (www.healthypeople.gov)

Cigarette Smoking

Cigarette Smoking Prevalence

A total of 13.8% of Total Area adults currently smoke cigarettes, either regularly (5.6% every day) or occasionally (8.2% on some days).



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 184]
Notes: • Asked of all respondents.

- Similar to statewide findings.
- Similar to national findings.
- Similar to the Healthy People 2020 target (12% or lower).

Current Smokers

Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 184]
- Professional Research Consultants. PRC National Health Survey. 2011.
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective TU-1.1]

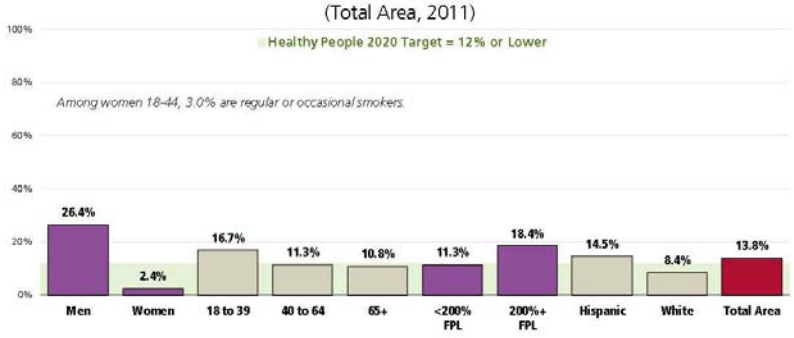
Notes:
- Asked of all respondents.
- Includes regular and occasional smokers (everyday and some days).

Cigarette smoking is 11 times more likely among Total Area men than women.

Note also:

Just 3.0% of women of child-bearing age (ages 18 to 44) currently smoke. This low percentage is favorable given that tobacco use increases the risk of infertility, as well as the risks for miscarriage, stillbirth and low birthweight for women who smoke during pregnancy.

Current Smokers
(Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Items 184-185]
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective TU-1.1]

Notes:
- Asked of all respondents.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

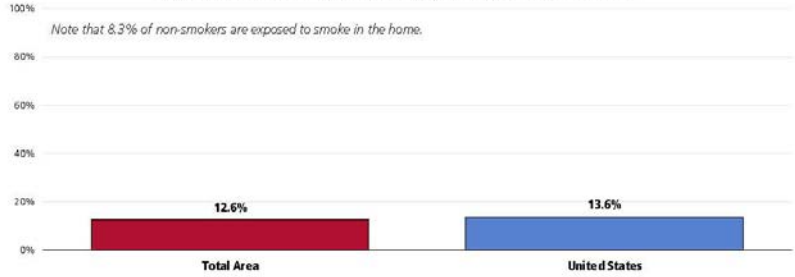
Environmental Tobacco Smoke

A total of 12.6% of Total Area adults (including smokers and non-smokers) report that a member of their household has smoked cigarettes in the home in the past month an average of four or more times per week.

- Comparable to national findings.

Note that 8.3% of Total Area non-smokers are exposed to cigarette smoke at home.

Member of Household Smokes at Home

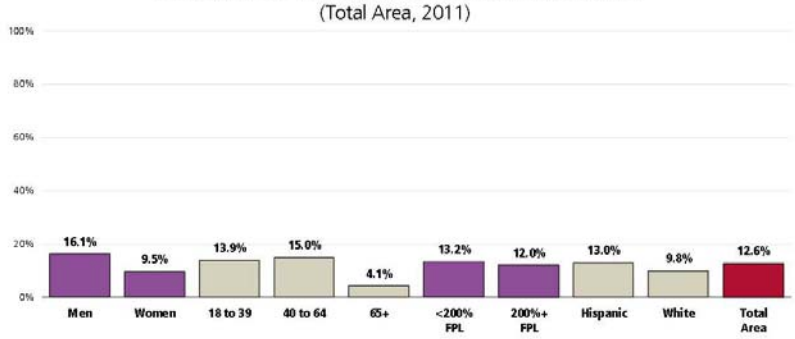


Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Items 64, 186]
- Professional Research Consultants. PRC National Health Survey. 2011.

Notes:
- Asked of all respondents.
- "Smokes at home" refers to someone smoking cigarettes, cigars, or a pipe in the home an average of four or more times per week in the past month.

Notably higher among residents under age 65.

Member of Household Smokes At Home
(Total Area, 2011)



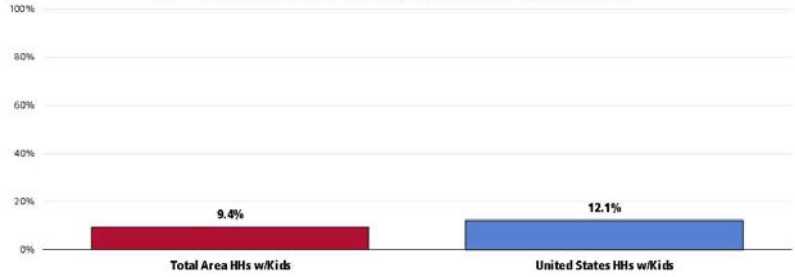
Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 64]

Notes:
- Asked of all respondents.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
- "Smokes at home" refers to someone smoking cigarettes, cigars, or a pipe in the home an average of four or more times per week in the past month.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Among households with children, 9.4% have someone who smokes cigarettes in the home.

- Similar to national findings.

Percentage of Households With Children In Which Someone Smokes in the Home



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 187]
- Professional Research Consultants. PRC National Health Survey. 2011.

Notes:
- Asked of all respondents.
- "Smokes at home" refers to someone smoking cigarettes, cigars, or a pipe in the home an average of four or more times per week in the past month.

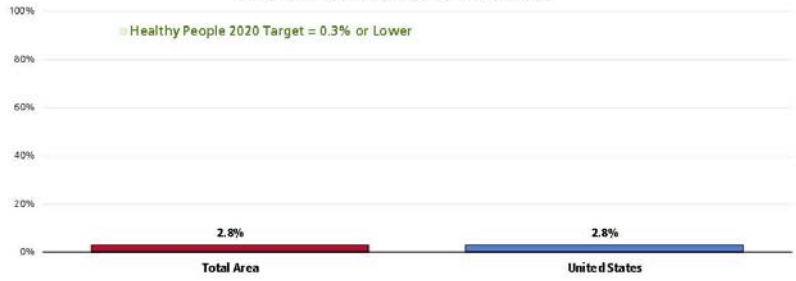
Other Tobacco Use

Smokeless Tobacco Use

A total of 2.8% of Total Area adults use some type of smokeless tobacco every day or on some days.

- Identical to the national percentage.
- Fails to satisfy the Healthy People 2020 target (0.3% or lower).

Use of Smokeless Tobacco



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 65]
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective TU-1.2]

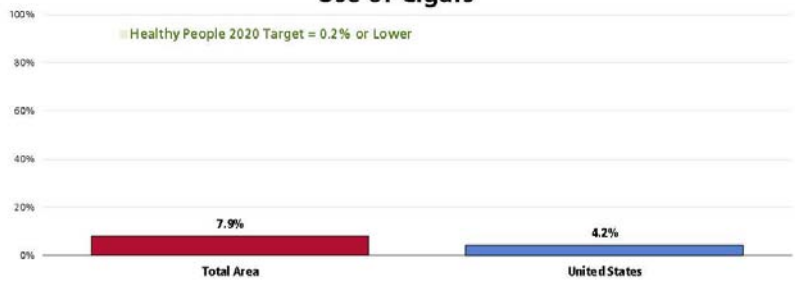
Notes:
- Asked of all respondents.
- Smokeless tobacco includes chewing tobacco or snuff.

Cigars

A total of 7.9% of Total Area adults use cigars every day or on some days.

- Higher than the national percentage.
- Far from satisfying the Healthy People 2020 target (0.2% or lower).

Use of Cigars



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 66]
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective TU-1.3]

Notes:
- Asked of all respondents

Related Focus Group Findings: Tobacco

Participants were mixed on the prevalence of tobacco usage in the community. Some feel as though cigarette smoking has decreased in the population while others feel as though it has increased in the youth population. There was agreement that smokeless tobacco is very popular in the community.

> *"It's very rampant down here, I think with the kids."*
>
> *"There's a lot of tobacco use, but not the smoking kind."*

ACCESS TO HEALTH SERVICES

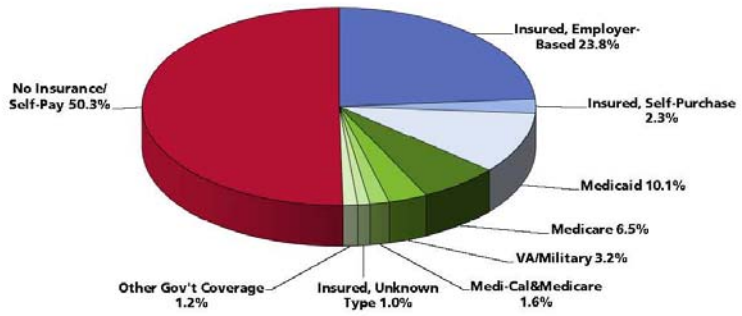
Health Insurance Coverage

Type of Healthcare Coverage

Survey respondents were asked a series of questions to determine their healthcare insurance coverage, if any, from either private or government-sponsored sources.

A total of 26.1% of Total Area adults age 18 to 64 report having healthcare coverage through private insurance. Another 22.6% report coverage through a government-sponsored program (e.g., MediCal, Medicaid, Medicare, military benefits).

Healthcare Insurance Coverage
(Among Adults Age 18 to 64; Total Area, 2011)



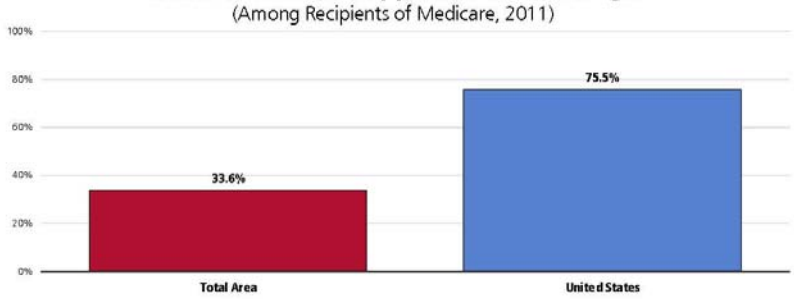
Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 192]
Notes: • Reflects respondents aged 18 to 64.

Supplemental Coverage

Among Medicare recipients, only one-third (33.6%) has additional, supplemental healthcare coverage.

- Less than half that reported among Medicare recipients nationwide.

Have Additional Supplemental Coverage
(Among Recipients of Medicare, 2011)

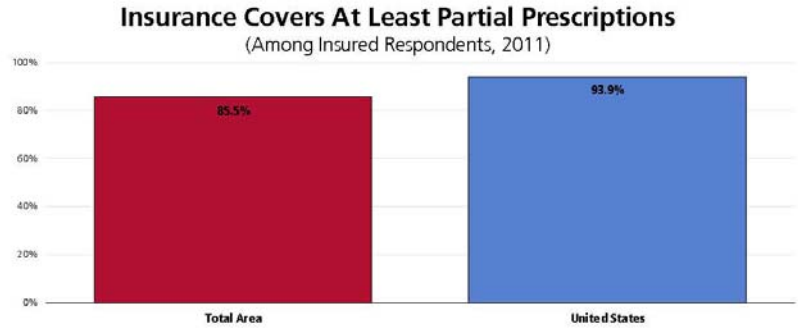


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 86]
• Professional Research Consultants, Inc. PRC National Health Survey. 2011.
Notes: • Asked of all respondents with Medicare coverage.

Prescription Drug Coverage

Among insured adults, 85.5% report having prescription coverage as part of their insurance plan.

- Less favorable than the national prevalence.

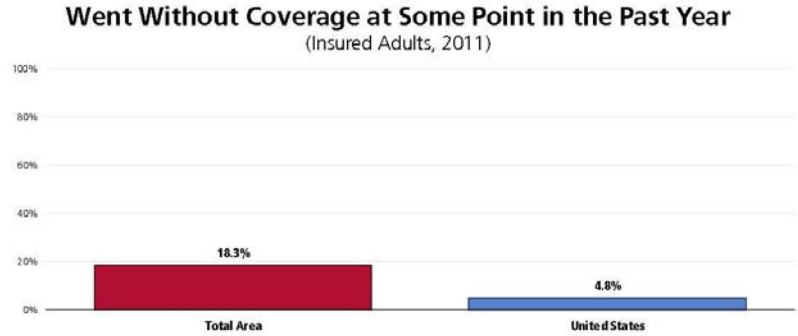


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 87]
• Professional Research Consultants, Inc. PRC National Health Survey. 2011.
Notes: • Asked of all respondents with healthcare insurance coverage.

Recent Lack of Coverage (Insurance Instability)

Among currently insured adults in the Total Area, 18.3% report that they were without healthcare coverage at some point in the past year.

- Much higher than the US finding.

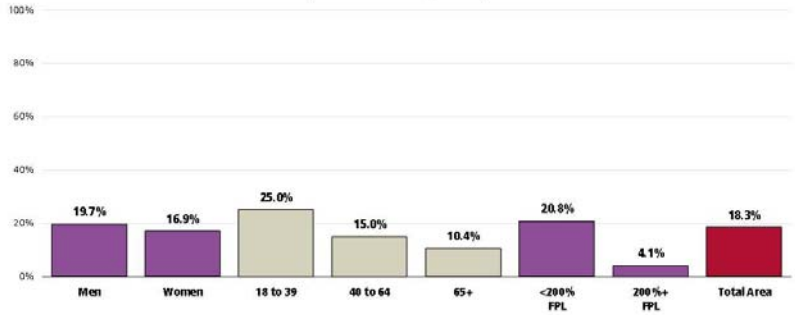


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 88]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Among insured adults, the following segments are more likely to have gone without healthcare insurance coverage at some point in the past year:

- Adults under age 40.
- Lower-income residents.

Went Without Coverage at Some Point in the Past Year
(Insured Adults, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 88]
Notes: • Asked of insured respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

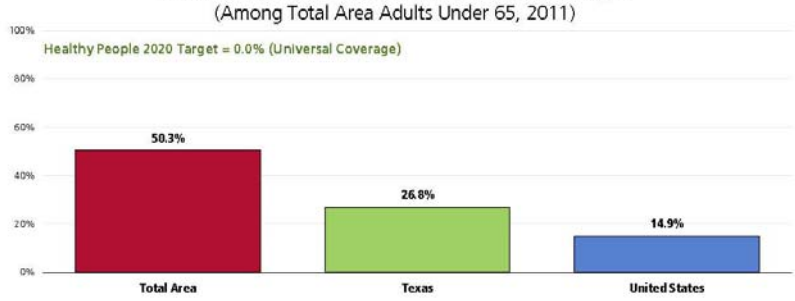
Lack of Health Insurance Coverage

Here, lack of health insurance coverage reflects respondents age 18 to 64 (thus, excluding the Medicare population) who have no type of insurance coverage for healthcare services – neither private insurance nor government-sponsored plans (e.g., Medicaid).

Among adults aged 18 to 64, a full one-half (50.3%) report having no insurance coverage for healthcare expenses.

- Nearly twice as high as state findings.
- More than three times higher than the national proportion.
- The Healthy People 2020 target is universal coverage (0% uninsured).

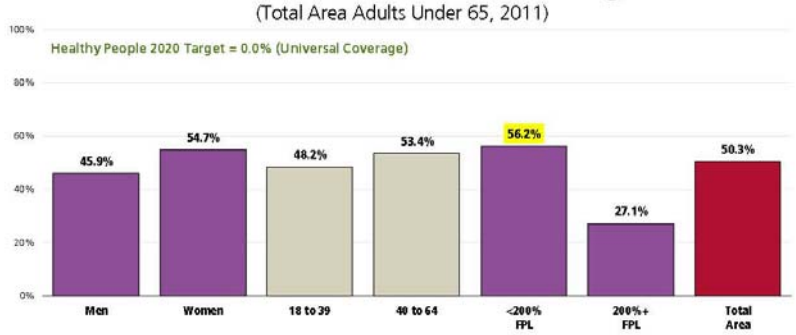
Lack of Healthcare Insurance Coverage
(Among Total Area Adults Under 65, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 192]
• Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.
• Professional Research Consultants. PRC National Health Survey. 2011.
• US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective AHS-1]
Notes: • Asked of all respondents under the age of 65.

- Residents living at lower incomes are much more likely to be without healthcare insurance coverage (note the 56.2% uninsured prevalence among adults living below the 200% poverty threshold).

Lack of Healthcare Insurance Coverage
(Total Area Adults Under 65, 2011)

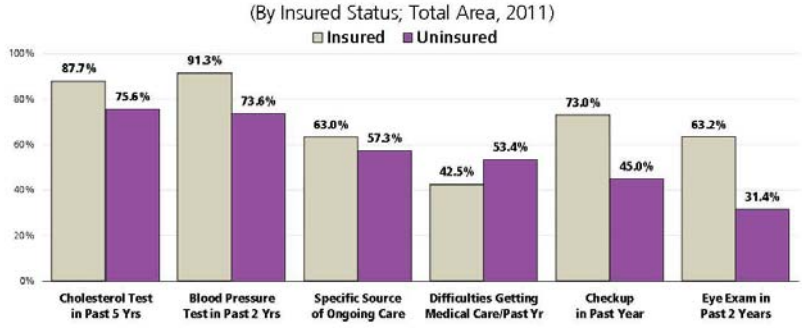


Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 192]
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective AHS-1]

Notes:
- Asked of all respondents under the age of 65.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

- As might be expected, uninsured adults in the Total Area are less likely to receive routine care and preventive health screenings, and are more likely to have experienced difficulties accessing healthcare.

Preventive Healthcare
(By Insured Status; Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Items 17, 20, 49, 52, 194, 196]

Notes:
- Asked of all respondents.

Difficulties Accessing Healthcare

Access to comprehensive, quality health care services is important for the achievement of health equity and for increasing the quality of a healthy life for everyone. It impacts: overall physical, social, and mental health status; prevention of disease and disability; detection and treatment of health conditions; quality of life; preventable death; and life expectancy.

Access to health services means the timely use of personal health services to achieve the best health outcomes. It requires three distinct steps: 1) Gaining entry into the health care system; 2) Accessing a health care location where needed services are provided; and 3) Finding a health care provider with whom the patient can communicate and trust.

– Healthy People 2020 (www.healthypeople.gov)

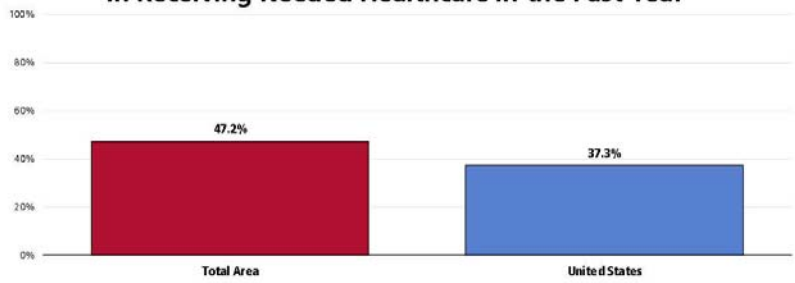
Difficulties Accessing Services

This indicator reflects the percentage of the total population experiencing problems accessing healthcare in the past year, regardless of whether they needed or sought care.

A total of 47.2% of Total Area adults report some type of difficulty or delay in obtaining healthcare services in the past year.

- Less favorable than national findings.

Experienced Difficulties or Delays of Some Kind in Receiving Needed Healthcare in the Past Year

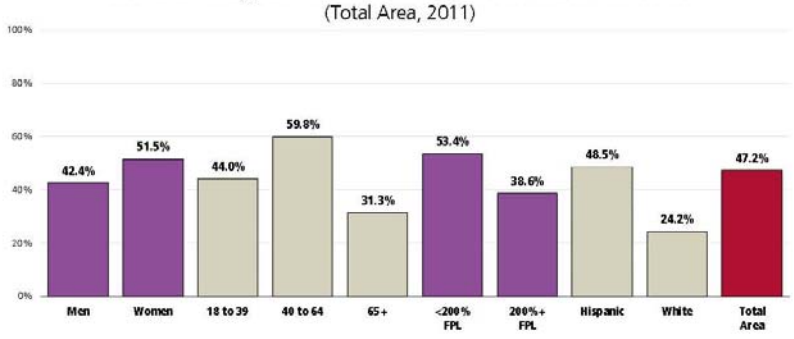


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 196]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Note that the following demographic groups more often report difficulties accessing healthcare services:

- Adults aged 40 through 64.
- Lower-income residents.
- Hispanics.

Experienced Difficulties or Delays of Some Kind in Receiving Needed Healthcare in the Past Year
(Total Area, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 196]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Related Focus Group Findings: Access to Healthcare

According to participants, there are many obstacles that people must face when trying to access healthcare. Those who make too much to have Medicaid/Medicare but don't make enough to buy their own health insurance are increasing in number and are having a difficult time getting healthcare that is affordable. There are some clinics that provide care for a relatively inexpensive cost but as one participant said, "Even $25 is too much for some people." Those who are on Medicare/Medicaid also struggle at times getting an appointment. There are more people on assistance than providers who are willing to take Medicare/Medicaid that it becomes difficult to get an appointment in a timely manner. According to participants, the wait for an appointment can be up to a month long. Many people don't want to wait that long so they end up not going at all.

Those who are here illegally often stay away from healthcare providers out of fear of being caught. Those people often end up in the emergency room once their illness has progressed to a stage where they are extremely ill.

There are also those who simply don't trust the physicians here so they go back to Mexico to get treatment. Sometimes, that treatment makes matters worse and the people end up sicker when they return than they were when they went.

Because the poverty level is so high in the community, physicians are seeing social issues stemming from a lack of education that in turn causes illness and a lack of compliance. Some houses, particularly those in the Colonias, have many, many people living in them in conditions that aren't fit for humans so when someone goes to the doctor for an illness and returns home, it doesn't take long for the illness to return.

Access to chemotherapy is a concern for participants. There are so many uninsured people who simply can't afford the chemotherapy treatments. Some find a doctor or a hospital willing to give free care, but that is so limited. And chemotherapy is so expensive that it wouldn't be realistic for it to be provided for free to everyone in

need. Additionally, it was mentioned that along the same lines people are being turned away from obtaining needed organ transplants because they have no insurance and have no way to pay for the medications needed for the rest of their lives.

Participants also mentioned the cost of medications and the choice so many people must make between buying food or buying their medications. Often times people will buy the cheaper, less healthy food so they can afford their prescriptions. One participant did mention that pharmaceutical companies do provide medications very low-cost or free for those who qualify. But, people must go online to register and many people are unaware that this program exists.

> *"It's also frustrating for individuals, even if they find that they have high blood pressure and they have diabetes or whatever, because where are they going to get treatment if they are not US Citizens."*
>
> *"And that is a frustration – or it takes two weeks or a month to get an appointment."*
>
> *"Yeah, the working poor that have no insurance because their job doesn't have insurance or they are not old enough to be on Medicare."*
>
> *"For certain tests that they don't have the money for but they don't have insurance so how are they going to get that done?"*
>
> *"They may get the first treatment while they are in the hospital, but what happens next week or three weeks from now when they need that second, third, fourth treatment? There is no money available for them. How do you say to a chemo patient, I don't know of any resources for you?"*

Related Focus Group Findings: Undocumented Residents

The undocumented population is one population which focus group participants have great concern for. Many of these people are not receiving timely medical care out of fear of being reported to the police. This is a group that is easily taken advantage of and is less likely to press charges against someone who has wronged them. This particular group lacks money, insurance and transportation—all things needed to receive adequate medical care.

> *"We would just talk to people and they were afraid to go to the clinic because they thought as soon as they ask for a social security number and if they don't have it, we're going to report them."*
>
> *"We have a big population of people who are working in the crops and everything and they are low in education and that's an immigrant fact."*
>
> *"They are afraid to ask for it then because oops, they'll find out we're not citizens."*
>
> *"Which I think is part of the big reason why that part of our community is so victimized. People know but they are afraid to come forward, afraid to pursue or afraid to say anything."*

Barriers to Healthcare Access

To better understand healthcare access barriers, survey participants were asked whether any of six types of barriers to access prevented them from seeing a physician or obtaining a needed prescription in the past year.

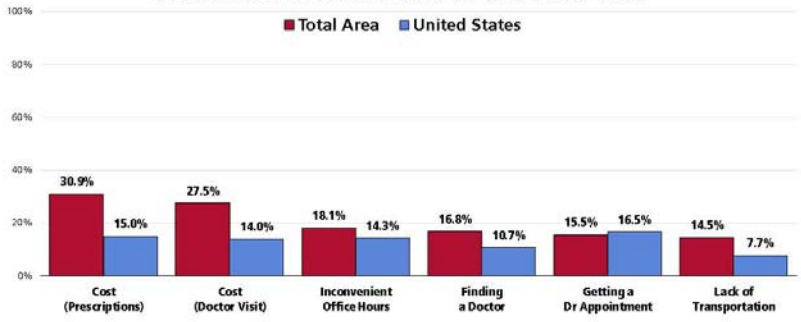
Again, these percentages reflect the total population, regardless of whether medical care was needed or sought.

Of the tested barriers, cost of a prescription medication impacted the greatest share of Total Area adults (30.9% say that cost prevented them from obtaining a needed prescription in the past year).

Nearly as many (27.5%) **report not seeing a doctor when needed in the past year because they could not afford it.**

- The proportion of Total Area adults impacted was statistically less favorable than that found nationwide for each of the tested barriers, with the exception of difficulty obtaining an appointment.

Barriers to Access Have Prevented Medical Care in the Past Year



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Items 7-12]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Related Focus Group Findings: Transportation

According to participants, the public transportation options in the area are very limited. Residents of the community who do not have their own transportation are often having to wait long lengths of time to get from one place to another using the public transportation in the community. Additionally, the stops that are made aren't always convenient to neighborhoods requiring riders to sometimes walk long distances to get from the bus stop to their destination.

Another concern is that many residents don't understand how to read the bus map and schedule so they are afraid to use the public transportation that is available to them. A suggestion given was to hold an education session on how to read the bus schedule and use the map.

For those who have limited income and can't afford the cost of public transportation, the United Way does provide transportation vouchers to those who live in the city as well as rural communities, no questions asked. According to participants, the vouchers are used quite often and have helped numerous people who otherwise wouldn't be able to access transportation.

> *"It doesn't have a sign where you can stop by and actually see the times and things like that. So it makes it more difficult for people to understand." [referring to the public bus system]*

"There's no public transportation, so if you are on a limited income and money for the car is going to be to get to work, money for the car is not going to be to go anyplace extra."

"The United Way has a program to provide vouchers for people who need to go see doctors and things. But again, it's very limited and it's that one agency."

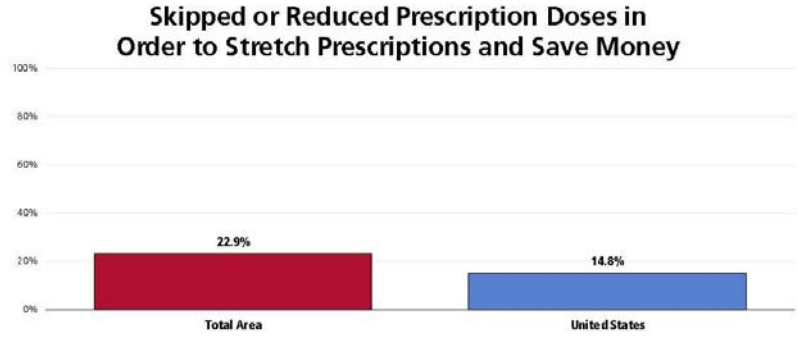
"We get all of the different transportation agencies around the valley, coming from the island and from Brownsville, McCallon transportation and there are minimal fees in some places. Other places, Medicaid might cover what differences resources might cover. You just gotta look for a way it could be covered. But there are resources."

"So that's something that comes up, how we would be able to get one centralized location where we could teach the people on how to access the transportation."

Prescriptions

Among all Total Area adults, 22.9% skipped or reduced medication doses in the past year in order to stretch a prescription and save money.

- Less favorable than national findings.

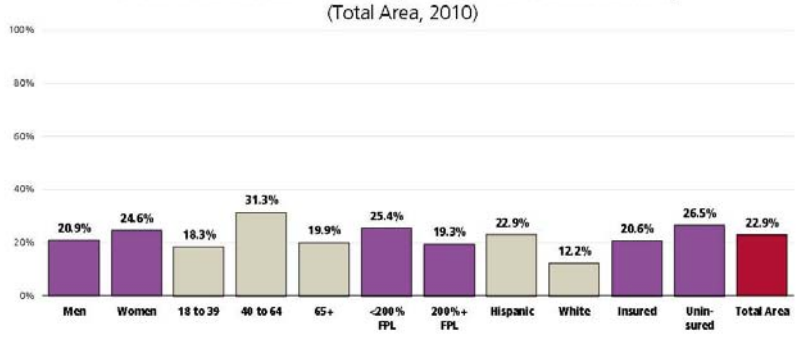


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey [Item 13]
• Professional Research Consultants, Inc. PRC National Health Survey. 2011.
Notes: • Asked of all respondents

Adults more likely to have skipped or reduced their prescription doses include:

- Adults age 40 to 64.
- Hispanics.
- Uninsured adults.

Skipped or Reduced Prescription Doses in Order to Stretch Prescriptions and Save Money
(Total Area, 2010)



Sources: • 2010 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 13]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Related Focus Group Findings: Prescriptions

Participants were concerned about the number of people who go to Mexico for medications instead of seeing a doctor in the community and getting a prescription for their ailment. Though the medications they are getting in Mexico are taking care of the pain, they are not taking care of the disease process. By the time a person is seen by a physician in the community there are often multiple diagnoses.

Physicians are also concerned that children are taking antibiotics that their parents obtained in Mexico, but the children aren't completing the regimen so they become resistant to that antibiotic. According to physicians, a large number of the pediatric population in the community is resistant to 2 out of 3 pediatric antibiotics because of this.

> *"Some will only do the things that their grandparents or great-grandparents taught."*
>
> *"So then when it gets really chronic, it's when these people are hitting our hospitals and going yeah, I've been taking all of these medications from Mexico."*

Accessing Healthcare for Children

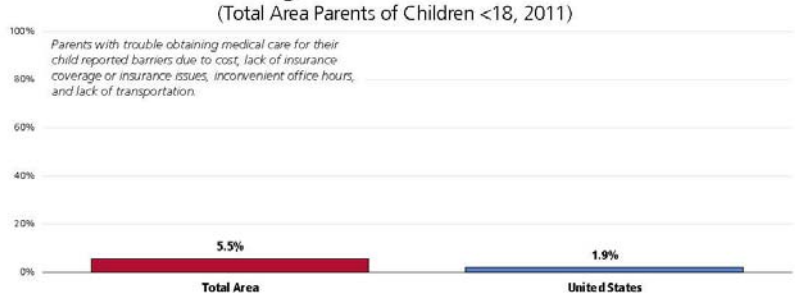
Surveyed parents were also asked if, within the past year, they experienced any trouble receiving medical care for a randomly-selected child in their household.

A total of 5.5% of parents say there was a time in the past year when they needed medical care for their child, but were unable to get it.

- Statistically similar to what is reported nationwide.

Had Trouble Obtaining Medical Care for Child in the Past Year

(Total Area Parents of Children <18, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Items 125-126]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents with children under 18 at home.

Among the parents experiencing difficulties, the majority cited **cost or a lack of insurance** as the primary reason; others cited insurance acceptance issues, inconvenient office hours, and lack of transportation.

Primary Care Services

Improving health care services depends in part on ensuring that people have a usual and ongoing source of care. People with a usual source of care have better health outcomes and fewer disparities and costs. Having a primary care provider (PCP) as the usual source of care is especially important. PCPs can develop meaningful and sustained relationships with patients and provide integrated services while practicing in the context of family and community. Having a usual PCP is associated with:

- Greater patient trust in the provider
- Good patient-provider communication
- Increased likelihood that patients will receive appropriate care

Improving health care services includes increasing access to and use of evidence-based preventive services. Clinical preventive services are services that: **prevent** illness by detecting early warning signs or symptoms before they develop into a disease (primary prevention); or **detect** a disease at an earlier, and often more treatable, stage (secondary prevention).

– Healthy People 2020 (www.healthypeople.gov)

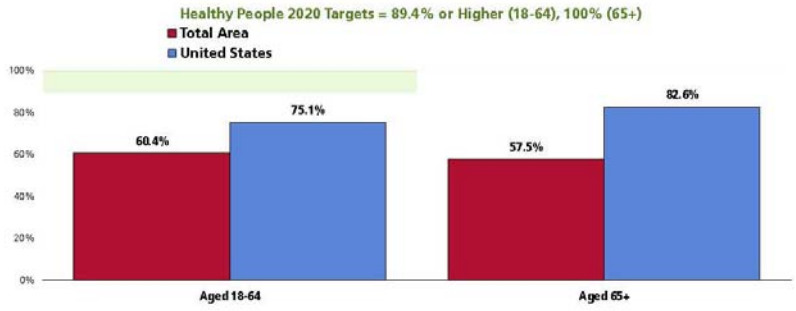
Having a specific source of ongoing care includes having a doctor's office, clinic, urgent care center, walk-in clinic, health center facility, hospital outpatient clinic, HMO or prepaid group, military/VA clinic, or some other kind of place to go if one is sick or needs advice about his or her health. A hospital emergency room is not considered a source of ongoing care in this instance.

Specific Source of Ongoing Care

A total of 59.8% of Total Area adults were determined to have a specific source of ongoing medical care.

- Less favorable than national findings.
- Among adults age 18-64, 60.4% have a specific source for ongoing medical care, less favorable than national findings.
  - Fails to satisfy the Healthy People 2020 target for this age group (89.4%or higher).
- Among adults 65+, 57.5% have a specific source for care, less favorable than the proportion reported among adults 65+ nationally.
  - Fails to satisfy the Healthy People 2020 target of 100% for adults 65+.

Have a Specific Source of Ongoing Medical Care

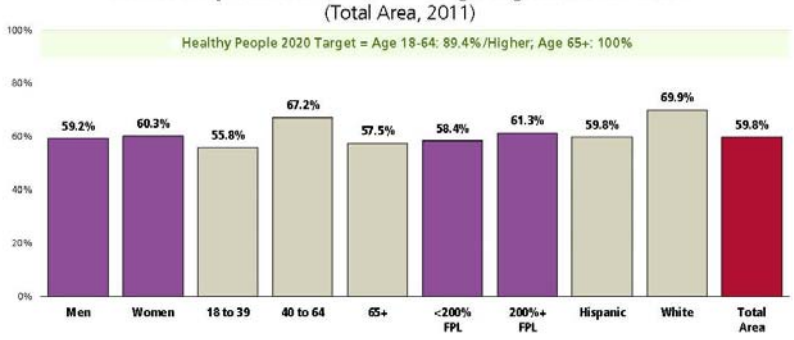


Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Items 193-195]
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objectives AHS-5.3, 5.4]

Notes:
- Asked of all respondents.

When viewed by demographic characteristics, no significant differences are reported.

Have a Specific Source of Ongoing Medical Care
(Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 193]
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objectives AHS-5.3, 5.4]

Notes:
- Asked of all respondents.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

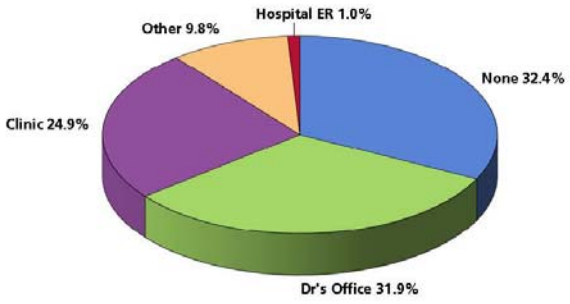
Type of Place Used for Medical Care

When asked where they usually go if they are sick or need advice about their health, the greatest share of respondents (31.9%) identified a particular doctor's office.

A total of 24.9% say they usually go to some type of clinic.

While only 1.0% say they rely on a hospital emergency room, 32.4% do not have a particular place which they use for medical care.

Particular Place Utilized for Medical Care
(Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Items 15-16]

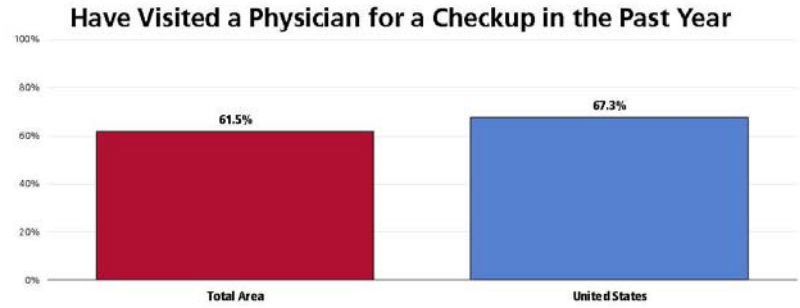
Notes:
- Asked of all respondents.

Utilization of Primary Care Services

Adults

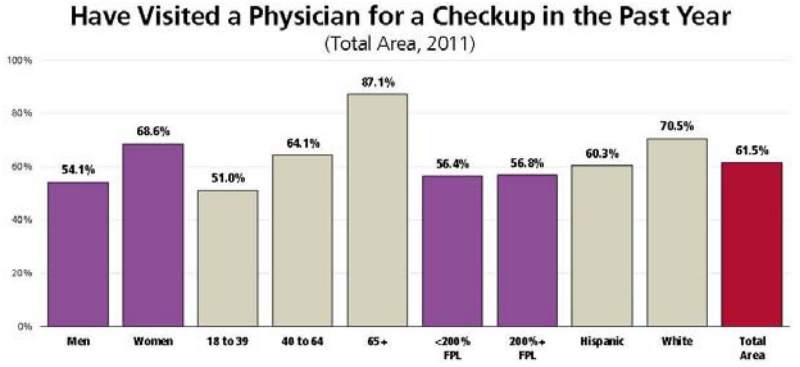
A total of 61.5% of adults visited a physician for a routine checkup in the past year.

- Less favorable than national findings.



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 17]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

- Men and adults under age 40 are less likely to have received routine care in the past year (note the positive correlation with age).



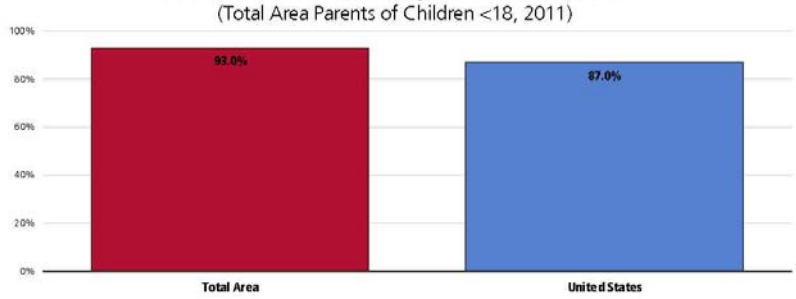
Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 17]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Children

Among surveyed parents, 93.0% report that their child has had a routine checkup in the past year.

- More favorable than national findings.

Child Has Visited a Physician for a Routine Checkup in the Past Year
(Total Area Parents of Children <18, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 127]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents with children under 18 at home.

Specialty Medical Care

Related Focus Group Findings

When asked about specialty care, focus group participants mentioned several specialties that are lacking in the area including GIs, hematologists, behavioral science, psychiatry, infectious disease, endocrinologists, gastroenterologists, and pediatric neurologists. Some participants mentioned that there have been attempts in the past to get some of the specialty fields filled, but so often when that happens the specialist suddenly is on call in the emergency room and the phone is ringing all day and all night and then the practice is limited until that specialist finally leaves. Participants see a need for specialists to be able to strike a balance in their personal and work lives so that there is an interest in staying in the community.

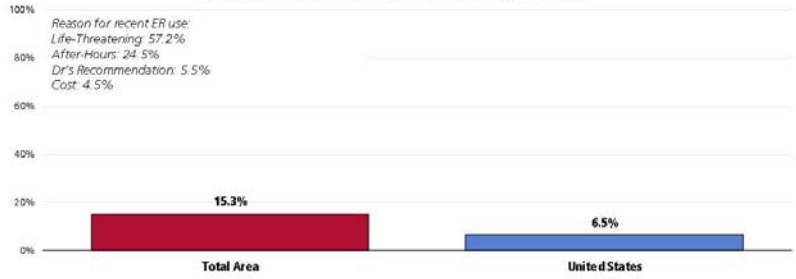
> *"In everything, we need to refer these patients either McCallon, Harlingen or whatever, or even San Antonio or something."*
>
> *"I know there's a lot of monetary constraints that's going to be hitting the hospital, but if we're going to be a better hospital, the services need to improve and they need to allocate money for different services, whether it's a stroke center or OB or surgery and look where we can be profitable and competitive as we go forward."*
>
> *"There will always be patients that need to be transferred somewhere else for surgery or whatever, but if we can develop resources to keep as many of our patients here, that's a big gain for everybody involved."*

Emergency Room Utilization

A total of 15.3% of Total Area adults have gone to a hospital emergency room more than once in the past year about their own health.

- More than twice the national figure.

Have Used a Hospital Emergency Room More Than Once in the Past Year



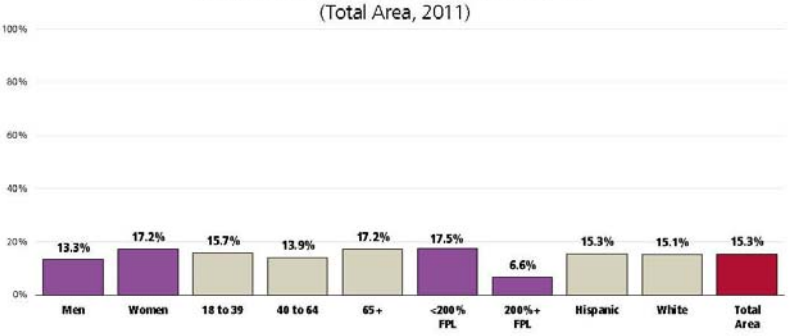
Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Items 23-24]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Of those using a hospital ER, 57.2% say this was due to an **emergency or life-threatening situation**, while 24.5% indicated that the visit was during **after-hours or on the weekend**. Another 5.5% cited a **physician's recommendation**, and 4.5% used the ER because of **cost**.

- As might be expected, ER use is highest among residents with lower incomes.

Have Used a Hospital Emergency Room More Than Once in the Past Year

(Total Area, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 23]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Oral Health

The health of the mouth and surrounding craniofacial (skull and face) structures is central to a person's overall health and well-being. Oral and craniofacial diseases and conditions include: dental caries (tooth decay); periodontal (gum) diseases; cleft lip and palate; oral and facial pain; and oral and pharyngeal (mouth and throat) cancers.

The significant improvement in the oral health of Americans over the past 50 years is a public health success story. Most of the gains are a result of effective prevention and treatment efforts. One major success is community water fluoridation, which now benefits about 7 out of 10 Americans who get water through public water systems. However, some Americans do not have access to preventive programs. People who have the least access to preventive services and dental treatment have greater rates of oral diseases. A person's ability to access oral healthcare is associated with factors such as education level, income, race, and ethnicity.

Oral health is essential to overall health. Good oral health improves a person's ability to speak, smile, smell, taste, touch, chew, swallow, and make facial expressions to show feelings and emotions. However, oral diseases, from cavities to oral cancer, cause pain and disability for many Americans. Good self-care, such as brushing with fluoride toothpaste, daily flossing, and professional treatment, is key to good oral health. Health behaviors that can lead to poor oral health include:

- Tobacco use
- Excessive alcohol use
- Poor dietary choices

Barriers that can limit a person's use of preventive interventions and treatments include:

- Limited access to and availability of dental services
- Lack of awareness of the need for care
- Cost
- Fear of dental procedures

There are also social determinants that affect oral health. In general, people with lower levels of education and income, and people from specific racial/ethnic groups, have higher rates of disease. People with disabilities and other health conditions, like diabetes, are more likely to have poor oral health.

Community water fluoridation and school-based dental sealant programs are 2 leading evidence-based interventions to prevent tooth decay.

Major improvements have occurred in the nation's oral health, but some challenges remain and new concerns have emerged. One important emerging oral health issue is the increase of tooth decay in preschool children. A recent CDC publication reported that, over the past decade, dental caries (tooth decay) in children ages 2 to 5 have increased.

Lack of access to dental care for all ages remains a public health challenge. This issue was highlighted in a 2008 Government Accountability Office (GAO) report that described difficulties in accessing dental care for low-income children. In addition, the Institute of Medicine (IOM) has convened an expert panel to evaluate factors that influence access to dental care.

Potential strategies to address these issues include:

- Implementing and evaluating activities that have an impact on health behavior.
- Promoting interventions to reduce tooth decay, such as dental sealants and fluoride use.
- Evaluating and improving methods of monitoring oral diseases and conditions.
- Increasing the capacity of State dental health programs to provide preventive oral health services.
- Increasing the number of community health centers with an oral health component.

– Healthy People 2020 (www.healthypeople.gov)

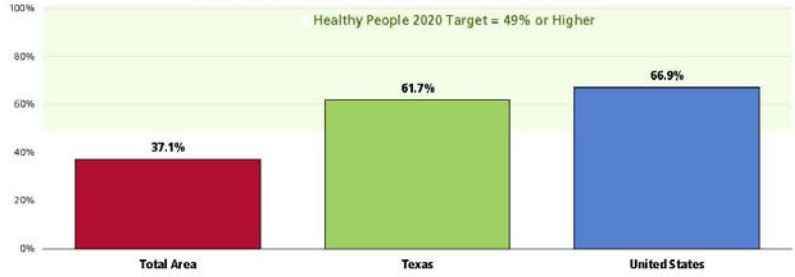
Dental Care

Adults

Only 37.1% of Total Area adults have visited a dentist or dental clinic (for any reason) in the past year.

- Much lower than statewide findings.
- Much lower than national findings.
- Fails to satisfy the Healthy People 2020 target (49% or higher).

Have Visited a Dentist or Dental Clinic Within the Past Year



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 21]
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective OH-7]
- Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2010 Texas Data.

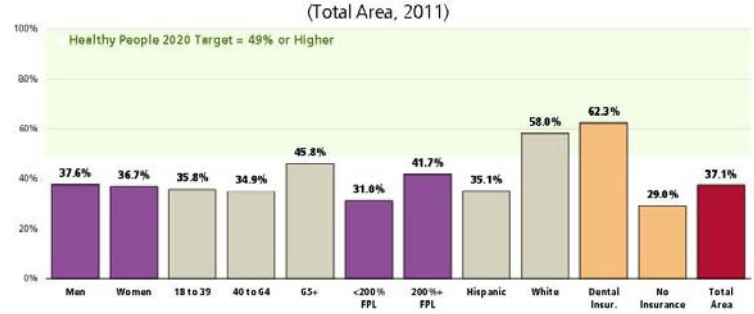
Notes:
- Asked of all respondents.

Note the following:

- ~~Hispanics~~Hispanics are much less likely than Whites to report recent dental care.
- As might be expected, persons without dental insurance report much lower utilization of oral health services than those with dental coverage.

Have Visited a Dentist or Dental Clinic Within the Past Year

(Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 21]
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective OH-7]

Notes:
- Asked of all respondents.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
- Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

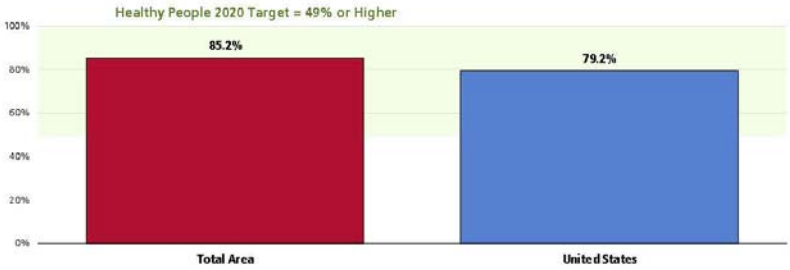
Children

A total of 85.2% of parents report that their child (age 2 to 17) has been to a dentist or dental clinic within the past year.

- Statistically similar to national findings.
- Satisfies the Healthy People 2020 target (49% or higher).

Child Has Visited a Dentist or Dental Clinic Within the Past Year

(Asked of Adults With Children Aged 2-17; Total Area, 2011)



Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 128]
- Professional Research Consultants. PRC National Health Survey. 2011.
- US Department of Health and Human Services. Healthy People 2020. December 2010 http://www.healthypeople.gov. [Objective OH-7]

Notes:
- Asked of all respondents with children aged 2 through 17.

Related Focus Group Findings: Oral Health

Focus group participants agreed that those in the community without an ability to pay for dental care, very often travel to Mexico to have their teeth cared for. It seems that there are fewer going to Mexico for dental care because of the violence, but those adults who have no insurance and little money still travel to Mexico.

For those children who have Medicaid, there is an abundance of providers who will care for those patients. For those without Medicaid or dental insurance there have been some programs that offer free dental care, but those are lacking recently.

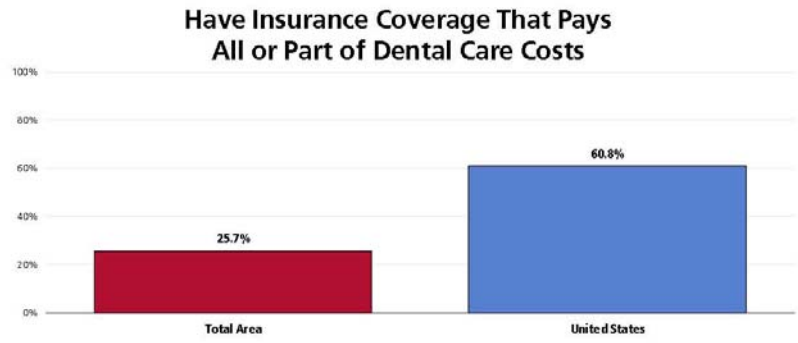
Several participants commented on the lack of breast feeding and the dental problems that go along with that. They would like to see a breast feeding initiative in the community citing that breast feeding would prevent bottle cavities, trauma, disfigurement.

> *"But everybody here – again, everything boils down to education. I tell all of the parents about the bottles, about the pacifier, but they keep having it until like 5 years of age."*
>
> *"There is Mexico. They are good and they are cheap."*
>
> *"Now, the children do get – the children we work with do get a lot of dental care through Medicaid."*

Dental Insurance

Only one-fourth of Total Area adults (25.7%) has dental insurance that covers all or part of their dental care costs.

- Less than one-half the national proportion.

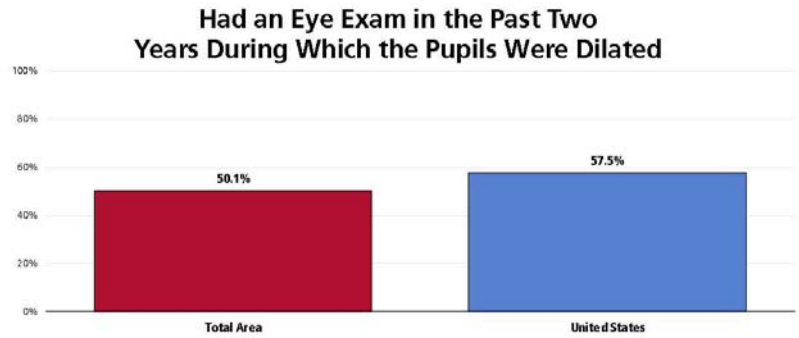


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 22]
• Professional Research Consultants, Inc. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Vision Care

One-half (50.1%) of residents had an eye exam in the past two years during which their pupils were dilated.

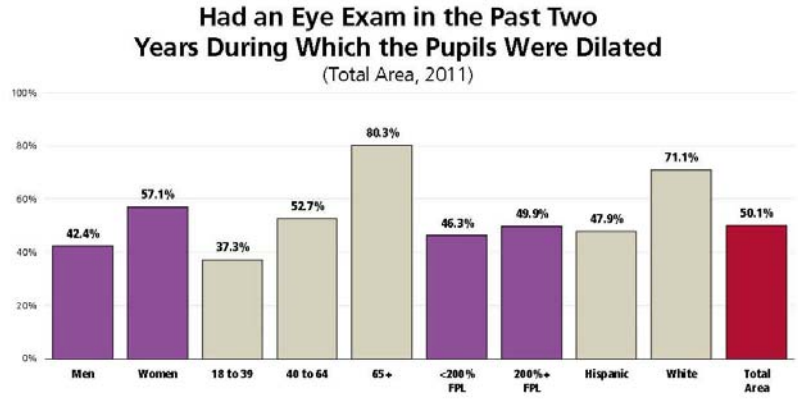
- Statistically less favorable than national findings.



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 20]
• Professional Research Consultants' PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Recent vision care in the Total Area is less often reported among:

- Men.
- Young adults.
- Hispanics.



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 20]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

HEALTH EDUCATION & OUTREACH

Healthcare Information

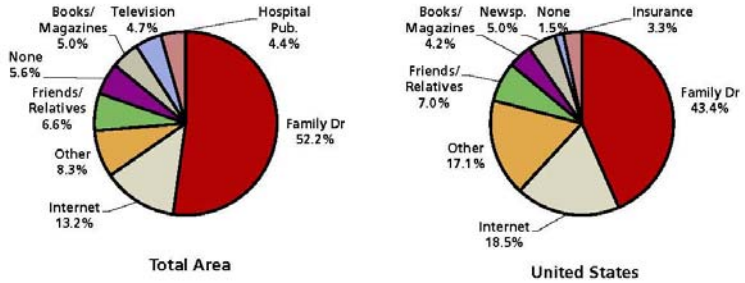
Healthcare Information Sources

Family physicians and the Internet are residents' primary sources of healthcare information.

- 52.2% of Total Area adults cited their **family physician** as their primary source of healthcare information (higher than national findings).
- The **Internet** received the second-highest response, with 13.2% (lower than found nationally.
  - Other sources mentioned include friends and relatives (6.6%), books and magazines (5.0%), television (4.7%), and hospital publications (4.4%).
- A total of 5.6% of survey respondents say that they do not receive any healthcare information.

Primary Source of Healthcare Information

(Total Area, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 118]
• Professional Research Consultants, Inc. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

Education

Related Focus Group Findings

The topic of education is one that all participants feel is extremely important because there seems to be such a lack of education in the community. There are so many people who have no idea which medications they are taking are duplicates of other medications that they are taking. They don't know what kinds of questions to ask their doctor about health. There is concern that parents aren't educated enough in healthy lifestyles including nutrition and exercise in order to help their children lead healthy lifestyles. Participants would like to see education in prevention for the community so that residents don't get to the point that they require more costly healthcare.

> *"Lack of education is practically – you can see it from the teenagers, you can see it from parenting, you can see it for all of this populations."*
>
> *"A lot of preventative – we still need to do a lot of education of our parents in the community, in terms of diet, nutrition, resources, availability."*

Participation in Health Promotion Events

Educational and community-based programs play a key role in preventing disease and injury, improving health, and enhancing quality of life.

Health status and related-health behaviors are determined by influences at multiple levels: personal, organizational/institutional, environmental, and policy. Because significant and dynamic interrelationships exist among these different levels of health determinants, educational and community-based programs are most likely to succeed in improving health and wellness when they address influences at all levels and in a variety of environments/settings.

Education and community-based programs and strategies are designed to reach people outside of traditional healthcare settings. These settings may include schools, worksites, healthcare facilities, and/or communities.

Using nontraditional settings can help encourage informal information sharing within communities through peer social interaction. Reaching out to people in different settings also allows for greater tailoring of health information and education.

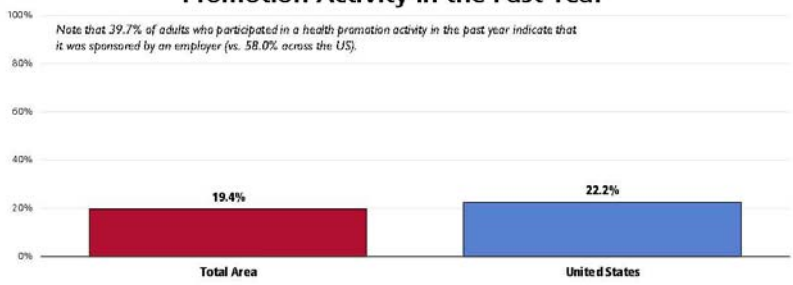
Educational and community-based programs encourage and enhance health and wellness by educating communities on topics such as: chronic diseases; injury and violence prevention; mental illness/behavioral health; unintended pregnancy; oral health; tobacco use; substance abuse; nutrition; and obesity prevention.

– Healthy People 2020 (www.healthypeople.gov)

A total of 19.4% of Total Area adults participated in some type of organized health promotion activity in the past year, such as health fairs, health screenings, or seminars.

- Comparable to the national prevalence.
- Note that 39.7% of adults who participated in a health promotion activity in the past year indicate that it was sponsored by their employer (lower than the 58.0% among adults nationwide).

Participated in a Health Promotion Activity in the Past Year

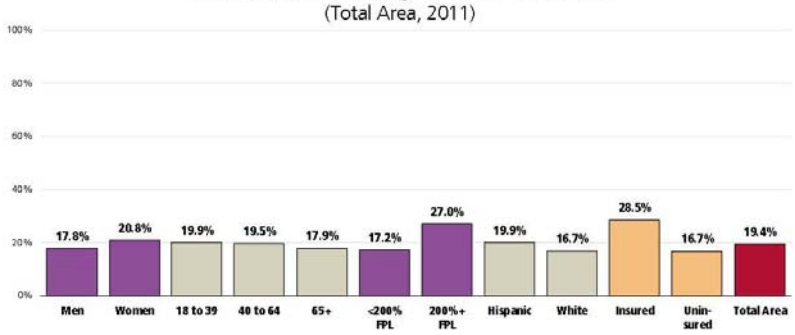


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Items 119-120]
• Professional Research Consultants, Inc. PRC National Health Survey. 2011.
Notes: • Asked of all respondents

The following chart outlines participation by various demographic characteristics.

- Note that the uninsured population less often reports participation in health promotion activities.

Participated in a Health Promotion Activity in the Past Year
(Total Area, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 119]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

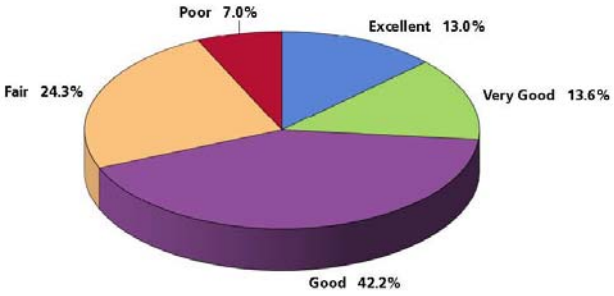
PERCEPTIONS OF HEALTHCARE

Ratings of Local Healthcare Services

Just over one-fourth of Total Area adults (26.6%) rate the overall healthcare services available in their community as "excellent" or "very good."

- Much lower than found nationally.
- Another 42.2% gave "good" ratings.

Rating of Overall Healthcare Services Available in the Community
(Total Area, 2011)

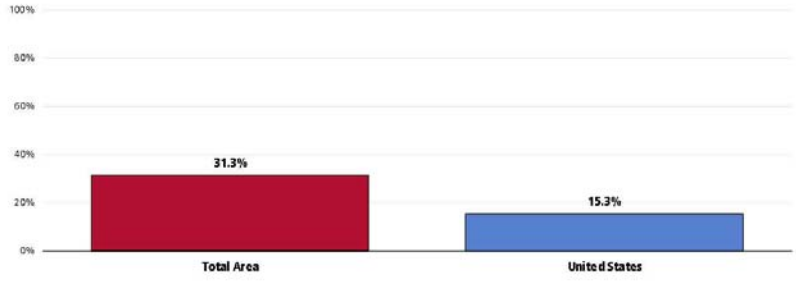


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 6]
Notes: • Asked of all respondents.

However, a full 31.3% of residents characterize local healthcare services as "fair" or "poor."

- More than twice that reported nationally.

Perceive Local Healthcare Services as "Fair" or "Poor"

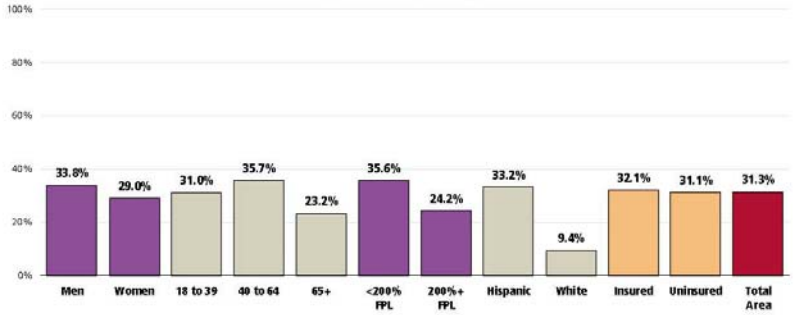


Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 6]
• Professional Research Consultants. PRC National Health Survey. 2011.
Notes: • Asked of all respondents.

The following residents are more critical of local healthcare services:

- Adults age 18 to 64.
- Residents with lower incomes.
- Hispanics.

Perceive Local Healthcare Services as "Fair" or "Poor"
(Total Area, 2011)



Sources: • Professional Research Consultants, Inc. PRC Community Health Survey. [Item 6]
Notes: • Asked of all respondents.
• Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size.
• Note that percentages for "White" respondents represent Non-Hispanic Whites in the Total Area.

Collaboration

Related Focus Group Findings

Focus group participants were divided on the topic of collaboration. According to participants there is collaboration in regards to physicians communicating very well with each. Doctors in the community are willing to put their patients first and call another doctor for help with a particular patient whether it be to get that patient in right away or to get advice on how to treat a patient. Unfortunately, some participants are concerned with the doctors who are stakeholders in Doctors Hospital Renaissance and their unwillingness to allow a patient to choose to go to a different hospital.

Additionally, participants feel as though Knapp Medical Center has so many excellent programs offered in regards to healthy living and disease conditions but they're not marketed enough. People aren't aware that so many of these education opportunities exist until there is truly a need. It was also stated that there are some who do know what is available but simply don't have the transportation to get there. Participants would like to see more of those outreach programs going out into the community and becoming more readily accessible to those with very limited resources.

There are some organizations in the community who do go into the colonias and spend time educating the population in those areas, but there is always a need for more. Participants do realize that there will always be those people who simply do not have the interest in their own health until there is a need to take care of their health.

> *"And they are always willing to call me and I think that's one thing that I see here that now the doctors get along well and they work together."*
>
> *"So many of our people, so many live north of town in neighborhoods that have been set up. And they can't get into places so they need more care to go out into the neighborhoods and into where the people are living because they can't get here to the hospital, to the sessions that are held here."*
>
> *"There's a program that's funded by the Presbyterian Church and they spend a lot of time doing prenatal care in the neighborhoods and they basically use women who grew up in the area and who go out and teach women how to take care of themselves and teach prenatal care and once the babies are born, they will go ahead and take them into basic education program."*

ANALYSIS OF DATA

Analysis of Health Status-Leading Causes of Death

	U.S. Age Adjusted Death Rates	(A) 10% of U.S. Adjusted Death Rate	County Rate	(B) County Rate Less U.S. Adjusted Death Rate	If (B)>(A), then "Health Need"
Hidalgo County					
Cancer	172.5	17.3	121.1	-51.4	
Heart Disease	178.5	17.9	170.0	-8.5	
Cerebrovascular Disease	39.0	3.9	28.6	-10.4	
Chronic Lower Respiratory Diseases	42.1	4.2	21.0	-21.1	

Analysis of Health Status-Primary Health Conditions Responsible for Inpatient Hospitalization

Women's and Children's Services
Musculoskeletal system and connective tissue disorders
Digestive disorders
Kidney and urinary tract infections
Joint replacements/spinal surgeries

Analysis of Health Outcomes and Factors

	National Benchmark	(A) 30% of National Benchmark	County Rate	(B) County Rate Less National Benchmark	If (B)>(A), then "Health Need"
Hidalgo County:					
Adult Smoking	14.0%	4.2%	13.0%	-1.0%	
Adult Obesity	25.0%	7.5%	30.0%	5.0%	
Physical Inactivity	21.0%	6.3%	24.0%	3.0%	
Excessive Drinking	8.0%	2.4%	15.0%	7.0%	Health Need
Motor Vehicle Crash Rate	12	4	13	1	
Sexually Transmitted Infections	84	25	410	326	Health Need
Teen Birth Rate	22	7	87	65	Health Need
Uninsured	11.0%	3.3%	38.0%	27.0%	Health Need
Primary Care Physicians	1067	320	2235	1168	Health Need
Dentists	1516	455	4799	3283	Health Need
Diabetic Screen Rate	90.0%	27.0%	82.0%	8.0%	
Mammography Screening	73.0%	21.9%	58.0%	15.0%	
Violent Crime Rate	66	20	360	294	Health Need
Children in Poverty	14.0%	4.2%	48.0%	34.0%	Health Need
Children in Single-Parent Households	20.0%	6.0%	32.0%	12.0%	Health Need
Limited Access to Healthy Foods	1.0%	0.3%	27.0%	26.0%	Health Need

Knapp Medical Center
Analysis of CHNA Data

Analysis of Primary Data

Healthy Communities Questionnaire	PRC Community Survey	Regional Healthcare Partnership
Poor Diet	Access to Healthcare	Diabetes
Diabetes	Cancer	Obesity
Lack of Health Insurance	Diabetes	High Blood Pressure
Cost of Drugs	Heart Disease and Stroke	Shortage of Mental Health Professionals
Violence	Immunizations	Mental Illness
Substance Abuse	Mental Health	High Uninsured Rate
	Obesity	Shortage of Primary Care Physicians
	Physical Inactivity	Lackof Knowledge Surrounding Current Delivery System (Patient Navigators)
	Substance Abuse	Emergency Room Utilization
	Tobacco Use	Health Education
		Substance Abuse
		Elevated Cholesterol
		Chronic Liver Disease
		Cardiovascular Disease
		Kidney Disease

Issues of Uninsured Persons, Low-Income Persons and Minority/Vulnerable Populations

Population	Issues
Uninsured/Working Poor Population **Persons living in Poverty**	Access to Care Lack of Health Knowledge Poor Nutrition
Children Living in Poverty	Lack of knowledge regarding healthy behaviors and choices Limited physical activities Access to pediatricians due to lack of insurance

SOURCES

Sources

2013.1 Nielsen Demographic Update, The Nielson Company, July 2012.

Regional Economic Conditions (RECON). 2008-2012, Federal Deposit Insurance Corporation, 8 Dec. 2011 < http://www2.fdic.gov/recon/index.asp>

United States Department of Labor: Bureau of Labor Statistics. 2010. U.S. Department of Census. 8 Nov. 2011 <http://www.bls.gov/cew/>.

2011 Poverty and Median Income Estimates – Counties, U.S. Census Bureau, Small Areas Estimate Branch, November 2012.

2010 Poverty and Median Income Estimates – Counties, U.S. Census Bureau, Small Areas Estimate Branch, December 2011.

2010 Health Insurance Coverage Status for Counties and States: Interactive Tables. U.S. Census Bureau, Small Area Health Insurance Estimates. 13 Jan. 2012 <http://www.census.gov/did/www/sahie/data/2009/tables.html>.

County Health Rankings: Mobilizing Action Toward Community Health. 2013. Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. 26 June 2013. <http://www.countyhealthrankings.org>.

Community Health Status Indicators: CHSI 2009. U.S. Department of Health & Human Services. 8 Nov. 2012 <http://communityhealth.hhs.gov/>.

Cost Report Data <http://www.costreportdata.com>

Texas Association of Community Health Centers<http://www.tahc.org/find_healthcare_center#>

2010 Texas Health Data <http://soupfin.tdh.state.tx.us/death10.htm>