Texas Healthcare Transformation and Quality Improvement Program

REGIONAL HEALTHCARE PARTNERSHIP (RHP) PLAN

Sections I, II and III

October 31, 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 3

Section II. Executive Overview of RHP Plan 7

Section III. Community Needs Assessment 18

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

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	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
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 T 956-994-3175 hscms@att.net
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

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)
Regional Public Health Director				Cameron County Health Department	Yvette Salinas	1390 West Expressway 83 San Benito, TX 78586 956-247-3693 ysalinas@cameron.co.tx.us
Other significant safety net provider - Hospital				Harlingen Medical Center	Tod Mann, CEO	5501 S Expressway 77 Harlingen, Texas 78550 tmann@primehealthcare.com
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	1623 S 15th Street Raymondville, Texas 78580 J.Darling@dhr-rgv.com 956-68-6565
Other – Community Association				Lower Rio Grande Valley Development Council	J. Gonzalez	2101 South McColl McAllen, TX 78503 956-668-6300 gabriel@srph.tamhsc.edu
Other – Hospital District				Willacy Hospital District	Jim Darling	301 W Railroad Weslaco, TX 78596 956-682-3481 jgonzalez@lrgvdc.org

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.	IT 2.4 Behavioral Health/Substance Abuse (BH/SA) Admission Rate *(Standalone measure)*	$74,5120
[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.	IT 2.4 Behavioral Health/Substance Abuse (BH/SA) Admission Rate *(Standalone measure)*	$1,751,210.98
[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.	IT-1.20 Other Outcome Improvement Target TBD-currently under discussion with HHSC/CMS	$13,667,149
[160709501].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.	IT-1.20 Other Outcome Improvement Target TBD-currently under discussion with HHSC/CMS	$13,667,149

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 Primary Care/Obstetrics & Gynecology Residency Training Program Doctors Hospital Renaissance 160709501	This project (1.2.4) will establish a primary care training program with 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.	IT-1.20 Other Outcome Improvement Target TBD-currently under discussion with HHSC/CMS	$13,667,149
[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.	IT-1.20 Other Outcome Improvement Target TBD-currently under discussion with HHSC/CMS	$13,667,149
[132812205].1.1 Increase, Expand, and Enhance Oral Health Services Driscoll Children's Hospital 132812205	This project (1.8.9) will expand access to dental varnish treatments.	OD-7 Oral Health IT-7.10 Prevent severe dental caries that result in operative interventions for targeted population	$6,000,000
[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.	OD-1 Primary Care and Chronic Disease Management OD-2 Access to quality care – more patients seen by MD versus Nurse Practitioner OD-1 IT-10 HbA1c Control will be a perfect fit for this type of clinic.	$600,000
[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	OD-6 Patient Satisfaction is directly tied into this project, with IT-6.1 (percent improvement over baseline of patient satisfaction scores). We would also implement OD-1 IT-1.13 into the mix of category 3 outcomes.	$1,200,000

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**
[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.	[P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores: (5) patient's overall health status/functional status (Standalone measure)	$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.	[P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores: (5) patient's overall health status/functional status (Standalone measure)	$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.	[P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores: (5) patient's overall health status/functional status (Standalone measure).	$2,444,817
[085144601].1.1 Improving Primary Care Access through expansion of internal medicine residency University of Texas Health Sciences Center-San Antonio (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.	IT-1.20 Other Outcome Improvement Target TBD-currently under discussion with HHSC/CMS	$16,163,205

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.	IT-1.20 Other Outcome Improvement Target TBD-currently under discussion with HHSC/CMS	$14,418,936
[085144601].1.3 New faculty for family medicine residency UTHSCSA 085144601	The primary goal of this project (1.2.3) 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.	IT-1.20 Other Outcome Improvement Target TBD-currently under discussion with HHSC/CMS	$6,829,121
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	IT 2.4 Behavioral Health/Substance Abuse (BH/SA) Admission Rate (Standalone measure)	$1,900,250
[132812205].2.1 Implement Evidence-based Health Promotion Programs Driscoll Children's Hospital 132812205	This project (2.7.6) 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	OD-8 Perinatal Outcome: IT-8.9 Reduce the Neonatal Length of Stay for targeted population	$10,000,000
[132812205].2.2 Implement Evidence-based Disease Prevention Programs Driscoll Children's Hospital 132812205	This project (2.7.6) will establish a Fetal Echocardiogram Program.	OD-8 Perinatal Outcome: IT-8.9 Early Detection of Fetal Anomalies	$16,000,000

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**
[136332705].2.1 Process Improvement Methodology throughout the ED Starr County Memorial Hospital 136332705	This project (2.8.3) will apply new process through our facility to increase capacities and turnaround of our ED without sacrificing the quality and safety of our patient population. This project will improve our ED Throughput.	Outcome measures will be within OD-9 and OD-6 to increase the amount of care available to our patients that have been previously turned away and to increase patient satisfaction.	$600,000
[136332705].2.2 Process Improvement through Patient Centered Healthcare Starr County Memorial Hospital 136332705	This project (2.11.3) transforms a manual medication reconciliation program from a manual to electronic system to improve patient safety.	OD-6 Patient satisfaction will improve through the use of e-prescribing.	$400,000
[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.	[P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores: (5) patient's overall health status/functional status (Standalone measure)	$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.	[P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores: (5) patient's overall health status/functional status (Standalone measure)	$13,443,573

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].2.3 Integrate Primary and Behavioral Health Care Services Tropical Texas Behavioral Health 138708601	This project (2.15.1) will reduce the use of local emergency departments for medical clearances required for psychiatric hospital admissions by utilizing primary care physicians co-located at TTBH's main clinic locations to complete the evaluations during business hours.	[P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores: (5) patient's overall health status/functional status (Standalone measure)	$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.	[P-4]: Conduct Plan Do Study Act (PDSA) cycles to improve data collection and intervention activities [IT-6.1]: Percent Improvement over baseline of patient satisfaction scores: (5) patient's overall health status/functional status (Standalone measure)	$12,360,811
[085144601].2.1 Implement medical homes in HPSA and other rural and impoverished areas. University of Texas Health Sciences Center-San Antonio (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.	P- 1 Project planning P- 2 Establish baseline rates IT-1.10 Diabetes care: HbA1c poor control (>9.0%)233- NQF 0059 (Standalone measure)	$6,766,183
[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.	P- 1 Project planning P- 2 Establish baseline rates IT-1.10 Diabetes care: HbA1c poor control (>9.0%)233- NQF 0059 (Standalone measure)	$18,960,180

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].2.3 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.	P-1 Project Planning – P-2 Establish baseline rate P-3 Develop and test data systems IT-1.7 Controlling high blood pressure (NCQA-HEDIS2012) – Stand Alone Measure IT-1.10 Diabetes care: HbA1c poor control (>9.0%)233- NQF 0059(Standalone measure)	$6,042,818
[085144601].2.4 Implement Evidence-based Health Promotion Programs UTHSCSA 085144601	This project (2.6.1) will implement the evidenced-based Community Wide Campaign (CWC) which will engage in population-based campaigns and programs to promote healthy lifestyles using evidence-based practices, including text-message support for lifestyle changes, and evidenced-based environmental changes to support maintenance of health.	P- 1 Project planning P- 2 Establish baseline rates IT-1.10 Diabetes care: HbA1c poor control (>9.0%)233- NQF 0059 (Standalone measure) IT-1.11 Diabetes care: BP control (<140/80mm Hg)234 – NQF 0061 (Standalone measure)	$3,113,045
[085144601].2.5 Implement Evidence-based Health Promotion Programs UTHSCSA 085144601	This project (2.6.2) will implement the evidenced-based Community Wide Campaign (CWC) which will include self-management programs and wellness using evidence-based designs	P- 1 Project planning P- 2 Establish baseline rates IT-1.10 Diabetes care: HbA1c poor control (>9.0%)233- NQF 0059 (Standalone measure) IT-1.11 Diabetes care: BP control (<140/80mm Hg)234 – NQF 0061 (Standalone measure)	$3,113,045
[085144601].2.6 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 in an evidence-based program to increase health literacy of a targeted population.	P- 1 Project planning P- 2 Establish baseline rates IT-1.10 Diabetes care: HbA1c poor control (>9.0%)233- NQF 0059 (Standalone measure) IT-1.11 Diabetes care: BP control (<140/80mm Hg)234 – NQF 0061 (Standalone measure)	$3,113,045

Section III. Community Needs Assessment

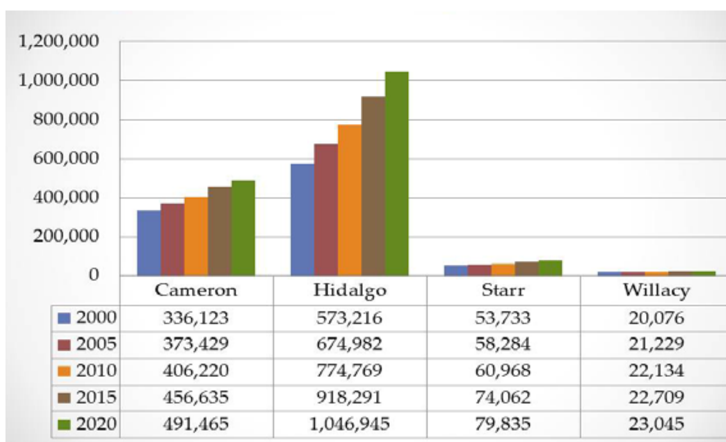
Demographics

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

Figure 1. Counties of Region 5

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 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.

---

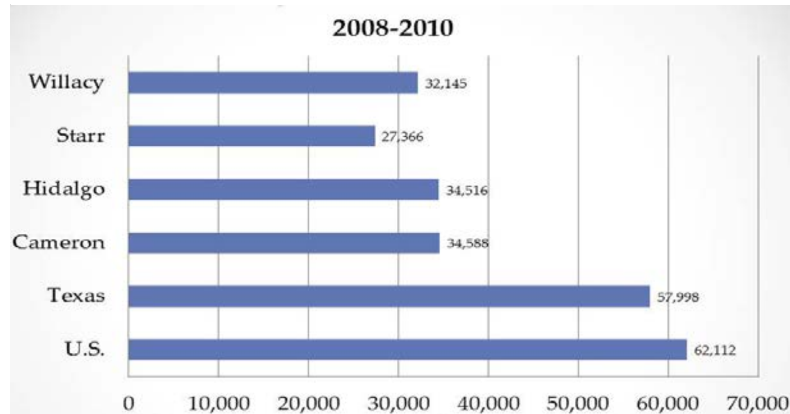
[1] Texas Department of State Health Services, Center for Health Statistics. See: https://www.dshs.state.tx.us/chs/healthcurrents/

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

Income

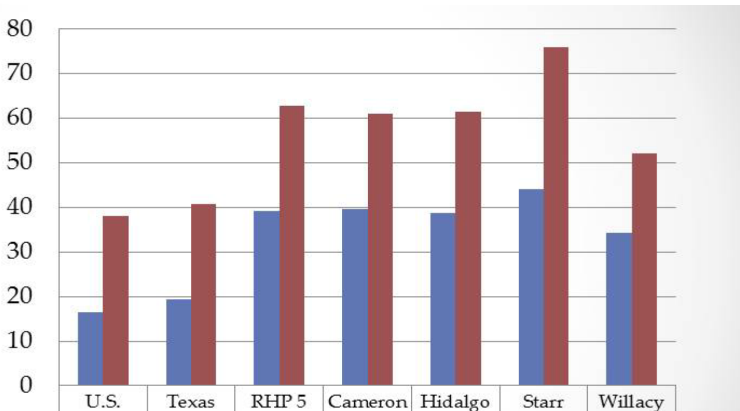
Median family income in RHP 5 ranges from $27,000 in Starr County to $34,500 in Hidalgo and Cameron Counties (Figure 3). This is between 45% and 59% of the Texas median income of $57,008, and 40% to 55% of the US median family income of $62,112. Nearly half (47%) of families in RHP 5 earn less than $25,000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

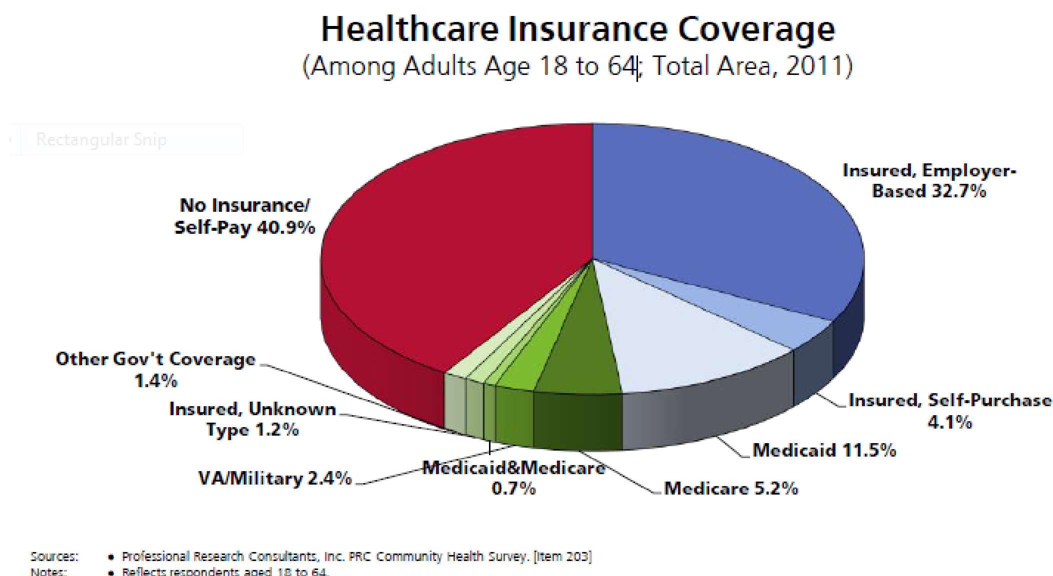
[6] McAllen Economic Development Corporation. Data from 2010. See: http://www.mcallenedc.org/mcallen-top-employers.php

[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	

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

Category		N	Population/ Worker	Workers/ 100,000 Population	Ratio RHP 5/ Texas
Nurses (RNs)					
	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

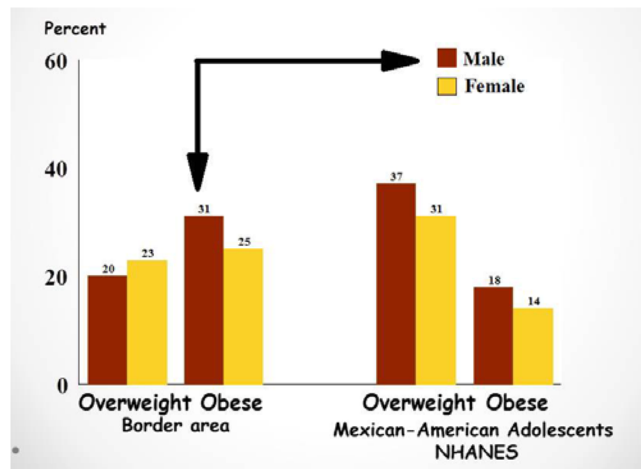
Results from the 2011 health needs assessment for the region found 76% of adults to be overweight or obese, compared to 66.5% for Texas and 70% for the U.S.[21] Obesity is implicated in many diseases, including diabetes, heart disease, and cancers. Programs to reduce obesity and prevent the onset of 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.

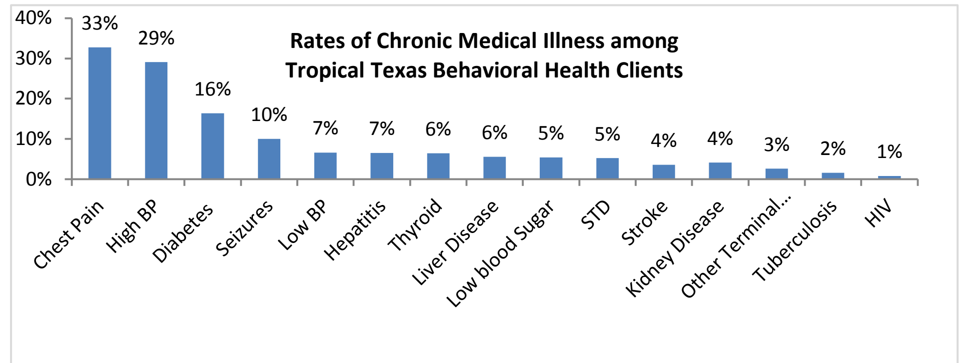
[32] Angulo P. Nonalcoholic fatty liver disease. *N Engl J Med* 2002;346:1221-31.

[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 the legislation remains intact. 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.

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.

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.