Community Health Needs Assessment

September, 2013

METHODIST MCKINNEY HOSPITAL
COMMUNITY HEALTH NEEDS ASSESSEMENT

Background of Methodist Health System

The primary mission of all the members of the Methodist Health System is to improve and save lives through quality compassionate care and in a manner that reflects "a commitment to Christian concepts of life and learning." Specifically, this mission is pursued by operating four general acute-care hospitals and other health care services, education and support programs needed by the communities in North Central Texas including Methodist Dallas Medical Center, a 515-licensed-bed teaching referral hospital in the southwestern quadrant of the City of Dallas, providing primary, secondary, and tertiary care; and Methodist Charlton Medical Center a 285-bed community hospital, providing primary and secondary care in the southern portions of Dallas and nearby suburban cities, approximately 12 miles southwest of Methodist Dallas; Methodist Mansfield Medical Center is located in Mansfield, Texas residing in the far southwest corner of Tarrant County and Methodist Richardson Medical Center, a 209-bed facility located in Richardson, Texas in the north Dallas section of the Metroplex.

Vision for the Future
To be the trusted provider of integrated quality health care in North Texas.

Core Values
Methodist Health System core values reflect our historic commitment to Christian concepts of life and learning:

Servant Heart – compassionately putting others first
Hospitality – offering a welcoming and caring environment
Innovation – courageous creativity and commitment to quality
Noble – unwavering honesty and integrity
Enthusiasm – celebration of individual and team accomplishment
Skillful – dedicated to learning and excellence

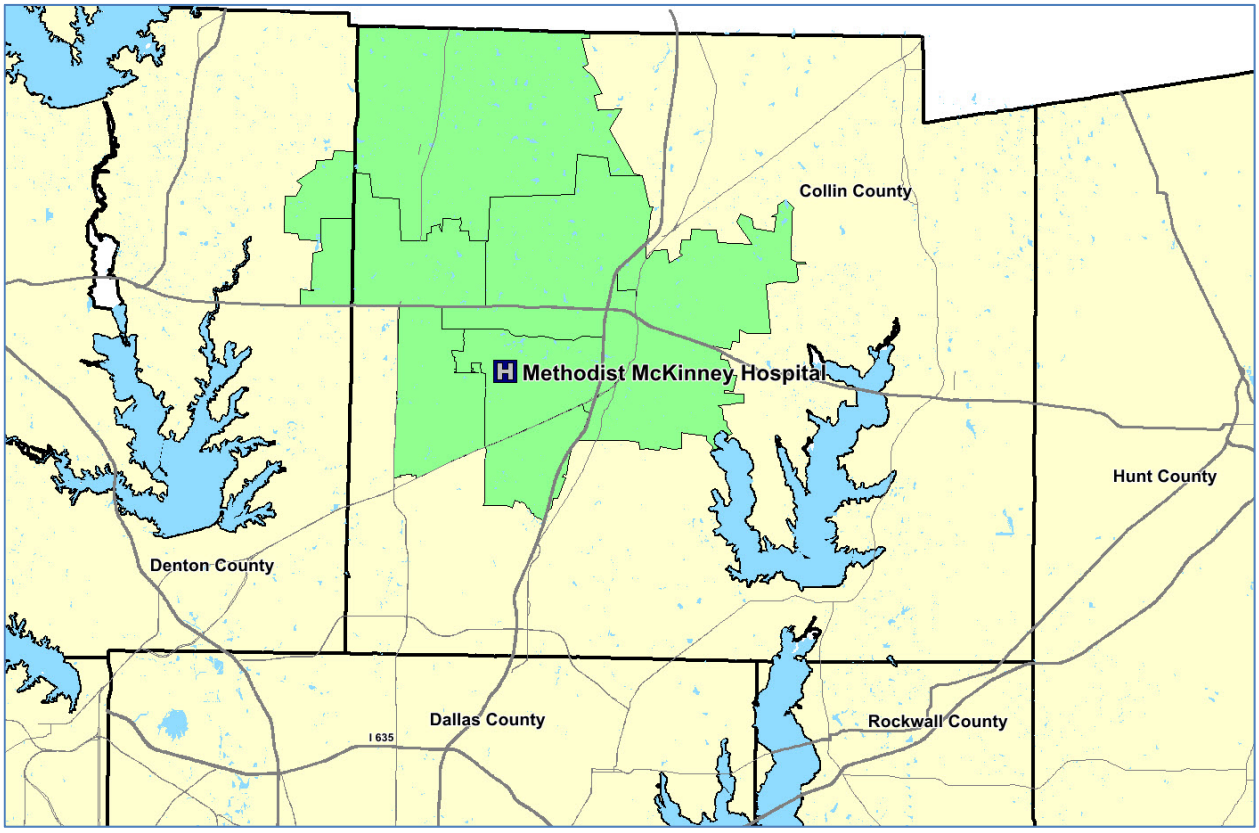
As the health care model across the nation and certainly Dallas continues to transform before our eyes, Methodist Health System has a goal to be transformative in the way care is delivered, bringing together multi-disciplinary teams to deliver specialized care to meet the demands of a growing population.

A partnership between Methodist and area physicians, the 16-bed **Methodist McKinney Hospital** opened in February 2010 to serve Collin County and the surrounding communities. Methodist

McKinney Hospital has a focus on orthopedics, as well as ear, nose, throat, and general surgery. Opened in February, 2010, the 65,000+ sq. ft. hospital serves residents of McKinney, Frisco, Allen, and surrounding areas, providing high-quality, patient-focused medical care. The hospital features six fully-equipped operating rooms, comprehensive diagnostic imaging including CT and MRI services, and 19 private patient rooms. Since opening, Methodist McKinney has continued to grow and expand service lines to meet the community needs. Last year the hospital added Plastic Surgery, an Outpatient Physical Therapy Clinic, and a Sleep Lab.

Identification of Populations and Communities Served by Methodist McKinney Hospital

As seen on the map below, the Methodist McKinney Hospital's service area is located in the northern section of Collin County.



Service Area Demographics				
Metric	MMH Service Area	MHS Service Area	DFW Metroplex	Texas
2010 Total Population	242,258	1,964,382	6,362,518	25,145,248
2013 Total Population	272,065	2,065,119	6,699,756	26,297,165
2018 Total Population	315,102	2,240,025	7,275,567	28,332,799
% Change 2013 - 2018	15.8%	8.5%	8.6%	7.7%
Average HH Income	$107,327	$68,866	$76,646	$68,955
% Unemployment	4.9%	8.5%	7.8%	7.2%
% Managed Care	52.6%	33.7%	36.8%	32.3%
% Below poverty	4.5%	12.6%	10.5%	13.2%
Age Group				
0-14	26.5%	23.9%	23.1%	22.6%
15-17	5.1%	4.8%	4.5%	4.4%
18-24	7.5%	9.6%	9.4%	10.2%
25-34	11.4%	13.4%	14.1%	13.9%
35-54	32.8%	28.4%	28.7%	26.8%
55-64	8.7%	10.6%	10.6%	10.9%
65+	7.9%	9.4%	9.7%	11.1%
Sex				
Male	49.1%	48.9%	49.3%	49.6%
Female	50.9%	51.1%	50.7%	50.4%
Race/Ethnicity				
White	63.5%	33.4%	47.7%	43.5%
Black	9.3%	24.8%	15.2%	11.5%
Hispanic	15.9%	34.1%	29.1%	39.0%
Asian & Pacific Islander	8.5%	5.8%	5.8%	4.1%
All Others	2.9%	1.9%	2.2%	1.8%

Source: TruvenHealth Analytics

According to Claritas census data the demographics for the service area are cited above. While there certainly are pockets of Methodist McKinney Hospital's service area that are weaker than others, overall in comparison to the DFW Metroplex, Methodist McKinney Hospital's service area is stronger in that it:

- has a higher average household income than the Metroplex;
- has a lower unemployment rate
- has a higher insured rate than both the MHS Svc Area, DFW Metroplex and the State of Texas; and
- has a lower below poverty percentage

Background on Methodist McKinney Hospital Service Area

Unlike other communities, Methodist McKinney's service area is experiencing low unemployment (4.9%) and high average household income ($107,327) with 42.7% of the population reporting household incomes above $100,000 annually. This is one of the highest average household incomes in the DFW Metroplex (Southlake, Murphy, Highland Park are all greater). The area is educated with 48.1% of adults over the age of 25 having earned a bachelor's, masters or PhD. If we include residents with some form of secondary education (Associate Arts, certification, licensure) this increases the educated population to 78.9%. Methodist McKinney's service area has a moderate uninsured rate at 33.0% but this figure excludes Medicare patients. Upon review of the payer mix for all inpatients in 2011, the primary payer source was Managed Care (56.0%). The rest of the payer mix includes Medicare at 28.4%, Medicaid 8.0%, Self-Pay/Charity Indigent Care at 6.9% and All Others, 0.6%.

Approximately 4.5% of families are below the level of poverty in the service area (TruvenHealth Analytics 2013 data). This percentage is lower than the state of Texas (13.2%) and US (11.3%) averages.

The projected population growth is high at 15.8% when compared with the surrounding DFW Metroplex (8.6%). The largest age cohort for this community is 35-54 (32.8%) followed by 0-17 (31.6%). Women of child-bearing years are expected to increase by 9.3% for this community. Resources will need to be allocated to address the growing 55+ population which is expected to grow 40.3% over the next five years. This age cohort showed the largest growth in the service area. Over the next five years the product lines with the greatest projected growth include; Cardiovascular (32.9%), Orthopedics (31.2%) and Nephrology/Urology (28.8%).

There are at least seven major school district for this community; McKinney, Allen, Prosper, Lovejoy, Melissa, Celina and Frisco. It is not uncommon for one zip code to have an overlap of three of these independent school districts. Specifics about the school dropout rates and children on the school free meals program is hard to calculate due to the great number of different school districts. In September of 2012, the Texas Commissioner of Education invited 23 school districts to participate in the Texas High Performance Schools Consortium, which will help develop innovative, next generation learning standards, assessments and accountability systems. McKinney ISD was one of the school districts asked to participate. 26 of the 27 McKinney ISD campus' have been rated "Exemplary" or "Recognized" by the Texas Education Agency.

The McKinney greater area has a large presence within the healthcare industry and is home to several major medical centers and Healthcare systems; Centennial Medical Center, Baylor of Frisco, Presbyterian of Allen, Baylor Medical Center of McKinney, The Medical Center of McKinney and Healthcare Services Corp. With a surplus of 438 beds and both inpatient and outpatient services, these medical facilities can meet the needs of this growing community and the surrounding area.

Methodist McKinney Hospital's service area is located in Collin County and therefore for the purposes of meeting the IRS' community health needs assessment reporting requirements, Methodist McKinney Hospital will refer in large part to the completed ***"Texas Healthcare Transformation and Quality Improvement Program"*** required CHNA for Regional Healthcare Partnership 18 covering three counties including Collin, Grayson and Rockwall counties.

Pages 6-21: Excerpts on pages 6 through 22 are taken directly from the published "Texas Healthcare Transformation and Quality Improvement Program" required CHNA for Regional Healthcare Partnership 18 covering three counties including Collin, Grayson and Rockwall counties.

Pages 22-25: Excerpts on pages 23 through 26 are reproduced here with permission from Texas Health Resources and show the results of their Community Input Summary for parts of Collin County to bring additional primary data to this CHNA analysis for Collin County.

Pages 26-93: This CHNA report also relies on information taken from the 2013 National Research Corporation (NRC) Consumer Health Report for Methodist McKinney Hospital's Service Area as seen on pages 26 through 93. The report identifies the health status of the communities served by the hospital.

The NRC Consumer Health Report uses survey methodology to measure and evaluate health status and healthcare utilization; identify the prevalence of chronic conditions; profile high-risk populations and identify gaps in care and preventive health behaviors, providing a detailed view of the health need, health status and behaviors of residents within the service area. NRC's sampling size for all market areas maintain a 95% confidence interval. To ensure proper sample representation within each tabulated market area, the data was weighted according to key demographic variables. Comparisons are made to Dallas/Plano/Irving Metro Division as well as to the state of Texas.

Section II. Executive Overview of RHP 18 Plan

High-level summary of existing RHP healthcare environment

Collin County ranks 1st of all Texas counties in *Health Indicators,* published by the Population Health Institute (PHI) at the University of Wisconsin. Rockwall County ranks 3rd, and Grayson County ranks 125th among Texas' 254 counties. Health indicators are discussed in Section III of this plan. Health indicators computed by the PHI are only one aspect of the total health portrait of RHP-18. This urban/rural area of Texas is growing at a remarkable speed. In one year Collin and Rockwall counties' populations grew by 3.8% each, and Grayson's by 0.4%, with a total of an estimated 1.01 million residents in these three counties as of July 2011. Per-capita income in Collin and Rockwall counties is higher than the average for the State of Texas; and in Grayson County it approximates the Texas average of $24,870. Nearly 77,000 (7.6%) of these individuals are estimated to be living in poverty (6.5% in Collin, 4.5% in Rockwall and 12.6% in Grayson County)[1], and about 124,196 (12%) are uninsured. Approximately 64,288 (6.3%) men, women and children are enrolled in Medicaid in RHP-18.

These counties face similar health challenges as other counties in this State. Among the key health challenges among underserved and uninsured populations are gaps in primary care access to prevent possibly avoidable use of local and remote emergency departments, limited availability of "after-hours" continuity of care clinics that address co-morbid medical/psychiatric conditions, effective linkages with nursing homes, in-home family based care for at-risk youth.

The location of health providers in RHP-18 is outdated and has not kept pace with the growth to the north, or reached out to remote areas to the northeast. Approximately 6,790 individual uninsured admission events were reported by all hospitals that treated residents from RHP 18 in 2010. If the average annual increase from 2008 to 2010 continues, an estimated 9,000 uninsured admission events would occur in 2015.

[1] United Way report on file, 2011-2015 Texoma Needs Assessment, Texoma Council of Governments

In 2010, uncompensated care (UC) represented an average of 4.2% ($197.6 million) of the gross patient revenue for all hospitals in Collin, 7.5% ($69.5 million) in Grayson, and 4.5% ($26.8 million) in Rockwall counties. With planned changes in how UC is managed and paid, this is likely to decrease, putting some pressures on community providers that cannot serve local needs sufficiently to prevent hospitalization, thus putting additional pressure on Dallas County facilities.

Hospitals and community providers must begin to cooperate in transforming health care in RHP-18.

RHP-18 providers participating in this Medicaid Transformation Waiver are focused on five of the 12 health indicators identified by the U.S. Center for Disease Control in **Healthy People 2020**. These five have emerged as important areas of need in the planning process for the Texas Healthcare Transformation and Quality Improvement Program in Collin, Grayson, and Rockwall counties.

- Access to health services
- Clinical preventive services
- Maternal, Infant, and Child Health
- Nutrition, Physical Activity and Obesity
- Social Determinants of medical and behavioral health problems

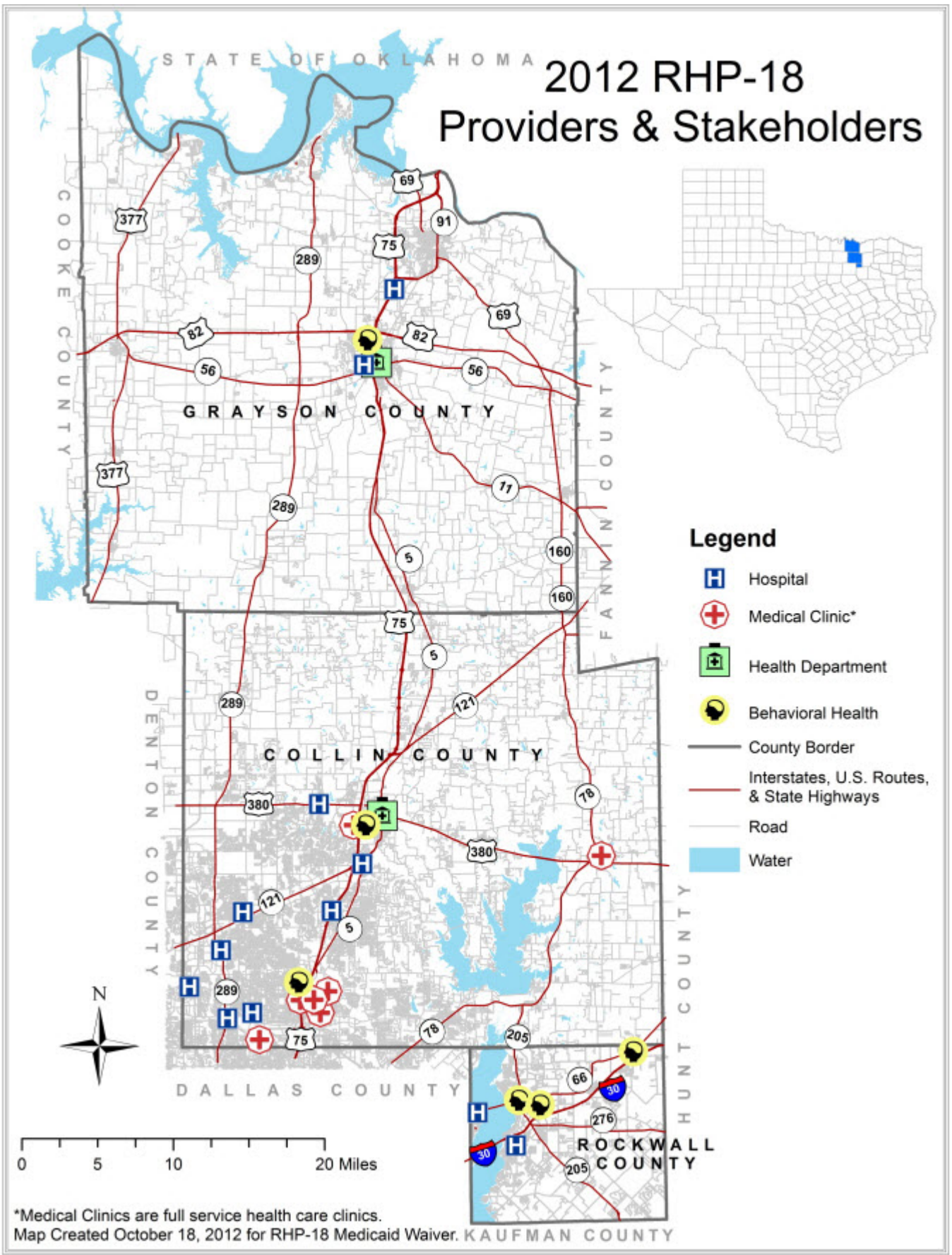
This Plan addresses these areas of need by expanding access to primary prevention and intervention in medical and behavioral health and increasing community education initiatives to prevent or avert and refer non-emergent cases presenting to emergency systems. New and expanded services will be dedicated to serving all ages and all racial and ethnic groups with innovative and collaborative evidence-based strategies. Innovation includes telemedicine, patient tracking systems, outreach and partnerships.

RHP-18 Delivery System Reform Incentive Payment (DSRIP) projects focus on expanding access to primary care for adults and children, establishing effective referral procedures, and monitoring systems. This includes addressing Potentially Preventable Admissions (PPAs) by increasing the number and type/mix of providers, expanding hours of operations, and installing follow up procedures, telephone consultations and case management activities. The medical home model for persons with chronic co-morbid physical and behavioral health conditions will be an important part of the plan. By enhancing culturally responsive programs, implementing disease registry systems, and increasing telehealth services, RHP-18 will reach out to a substantially heretofore underserved community.

Identification of regional areas, specifically listing counties covered under the partnership

RHP-18 consists of three counties in north Texas (Collin, Grayson and Rockwall) that lie as a cluster directly north of Dallas County. In the southern borders of Collin County some metropolitan areas overlap, and may lie within with Dallas County. Geographic, socio-demographic and economic characteristics of RHP-18's counties, as they pertain to this transformation waiver plan, are discussed in Section III.

On the following page we have provided a map of the counties in RHP-18 illustrating the location of healthcare providers.


2012 RHP-18
Providers & Stakeholders
STATE OF OKLAHOMA
COOKE COUNTY
GRAYSON COUNTY
FANNIN COUNTY
COLLIN COUNTY
DENTON COUNTY
DALLAS COUNTY
HUNT COUNTY
ROCKWALL COUNTY
KAUFMAN COUNTY
Legend
Hospital
Medical Clinic*
Health Department
Behavioral Health
County Border
Interstates, U.S. Routes, & State Highways
Road
Water
N
0 5 10 20 Miles
*Medical Clinics are full service health care clinics.
Map Created October 18, 2012 for RHP-18 Medicaid Waiver.

Section III. Community Needs Assessment

This section of the RHP-18 Plan provides information prescribed by HHSC. All data sources are identified.

Geographic, Socio-Demographic and Economic Characteristics

The Regional Healthcare Partnership 18 (RHP-18) consists of three counties (Collin, Grayson and Rockwall) in North Texas, geographically located directly north of Dallas County. In the southern borders of Collin County metropolitan areas overlap with Dallas County. The overlap of city limits across county lines is an important consideration for the RHP-18 plan.

According to the U.S. Census Bureau, there are an estimated 1,014,935 residents in RHP-18, approximately 172,879 (17%) of whom are estimated to be uninsured. The Texas Department of State Health Services (DSHS) Medicaid website reports that in 2012, 64,288 (6.3%) individuals in RHP-18 were enrolled in Medicaid, reflecting increases over 2011, of 10% in Collin, 3% in Grayson, and 2% in Rockwall.

Collin and Rockwall counties are included in the Dallas-Fort Worth-Arlington Standard Metropolitan Statistical Area (SMSA) as defined by the U.S. Census Bureau. Grayson County is part of the Sherman-Denison SMSA. While none of these counties is classified as rural or small, large contiguous areas of each county are considered remote when considering access to health care. The urban population density in Collin County is 2,754 persons per square mile compared to Dallas' 3,401. Regarding rural populations, in Grayson County, 43% of the population lives in rural areas as defined by the U.S. Census Bureau, in Rockwall 16%, and in Collin, 5%. In Grayson County, the rural population density is 58 compared to Collin's 71, and Rockwall's 141. As a comparison, Dallas County's rural density is about 90.

Healthcare providers have historically been located close to the urban sectors of RHP-18, particularly in Collin County where eight acute care hospitals are located along the Southern-most border.

Health Status

Table 2 displays 18 indicators for the three counties in RHP-18 that we believe to be germane to this community needs assessment, with comparison data for Texas and the Nation. The sources are noted below the table.

While these high-level indicators influence the overall approach to the plan for expanding and transforming Medicaid services, data reporting existing services and their utilization, population health status and changes, are proxies for estimates of need. The qualitative analyses of these data combined with the perspectives of the county government, the citizens, and the healthcare providers enable us to pinpoint specific issues/needs that have been subsequently addressed by the performing providers as parties to this plan. Thus this RHP-18 plan relied both on high level and local assessments to establish and guide the projects, milestones, metrics and outcomes selected for the proposed 2011-16, Delivery System Reform Incentive Payment (DSRIP) projects.

Each county in RHP-18 has distinguishing characteristics and some features in common. As shown in Table 1, these communities have relatively healthy economies, and the communities are predominantly comprised of White Non-Hispanic residents. The culture is continuously changing, however, and some demographic features indicate important areas for attention. A distinguishing feature of Collin County for example, is the presence of a large Asian population compared to the rest of Texas and the sizeable proportion of individuals who speak a language other than English at home.

Increases in non-farm employment, retail sales, median and per capita income indicate economic growth in Collin and Rockwall counties. Grayson County appears to have strong economic indicators, but faces a growing elderly population, decreased employment, and limited access to primary medical care.

Table 1. RHP 18 County and State Indicators

	COLLIN	GRAYSON	ROCKWALL	TEXAS
Land area in square miles, 2010	841	933	127	261,231.71
Persons per square mile, 2010	930	130	617	96
Population, 2011 estimate	812,226	121,419	81,290	25,674,681
Population change 4/1/10 - 7/1/11	4%	0.4%	4%	2%
Proportion of population enrolled in Medicaid	5%	13%	6%	13%
Persons under 18 years, percent, 2011	28%	24%	29%	27%
Persons under 18 enrolled in Medicaid	11%	28%	12%	32%
Persons 65 years and over, percent, 2011	8%	16%	10%	11%
Female persons, percent, 2011	51%	51%	51%	50%
Persons below poverty level, percent (2)	7%	14%	6%	17%
Percent population uninsured (ages 0 - 64)	17%	25%	19%	26%
Black	9%	6%	6%	12%
White	76%	89%	89%	81%
White non-Hispanic	62%	78%	73%	45%
Hispanic or Latino	15%	12%	17%	38%
Asian	12%	1%	3%	4%
Other racial ethnic groups	1.0%	2.0%	1.0%	1.0%
Foreign Born (2)	17%	6%	9%	16%
Over age 5: speak other language at home (2)	25%	10%	15%	34%
High school graduates over age 25 (2)	93%	85%	91%	80%
Bachelor's degree or higher over age 25 (2)	48%	19%	36%	26%
Veterans (2)	42,078	10,176	5,425	1,635,367
Housing units (3)	300,960	53,727	27,939	9,977,436
Households (2)	268,042	45,545	24,790	8,539,206
Per capita money in previous 12 months (2)	$37,362	$23,242	$33,274	$24,870
Median household income (2)	$80,504	$46,875	$78,032	$49,646
Private nonfarm employment change 2000-09	56%	-4%	74%	11%
Retail sales per capita, 2007	$16,850	$13,493	$12,797	$13,061

(1) 2011 estimates

(2) Averages for five years 2006-10

(3) for 2010

Table 2 displays key health indicators for each RHP-18 county. These data were obtained for each county at: http://www.countyhealthrankings.org/#app/texas/2012/measures/factors/9/map. Of particular note in this table are the rates of low birth weight infants that are only slightly lower than the average for all Texas counties, and higher than the national average. Also of note, RHP-18 counties overall have lower proportions of uninsured residents than the State as a whole but higher than the national estimates.

Table 2. Health Outcomes and Health Facts (1)

	Texas	Collin	Grayson	Rockwall	National
Health Outcomes		**1**	**125**	**3**	
MORTALITY RANKING		**2**	**138**	**3**	
Premature death	7,186	4,038	8,901	4,58	5,466
MORBIDITY RANKING		**14**	**121**	**8**	
Poor or fair health	19%	11%	19%	6%	10%
Poor physical health days	3.6	2.7	3.7	2.9	2.6
Poor mental health days	3.3	2.5	5.8	3.1	2.3
Low birthweight	8.20%	7.60%	7.40%	7.00%	6%
Health Factors		**2**	**54**	**4**	
HEALTH BEHAVIORS RANKING		**1**	**52**	**5**	
Adult smoking	19%	11%	24%	8%	14%
Adult obesity	29%	25%	27%	27%	25%
Physical inactivity	25%	22%	27%	27%	21%
Excessive drinking	16%	13%	11%	missing	8%
Motor vehicle crash death rate	17	9	25	1	12
Teen birth rate	63	24	63	26	22
CLINICAL CARE RANKING		**2**	**45**	**17**	
Uninsured	26%	17%	25%	19%	11%
Primary care physicians	1,050:1	681:1	1,305:1	1,080:1	631:1
Preventable hospital stays	73	66	73	82	49
Diabetic screening	81%	85%	83%	85%	89%
SOCIAL AND ECONOMIC RANKING		**3**	**81**	**5**	
Unemployment	8.20%	7.50%	8.40%	7.60%	5.40%
Children in poverty	26%	10%	21%	9%	13%
Children in single-parent households	32%	18%	33%	20%	20%

(1) University of Wisconsin Population Health Institute. County Health Rankings 2012. Accessible at www.countyhealthrankings.org.

Diabetic screening is the percent of Medicaid patients with diabetes who receive recommended annual screening

Rates of chronic disease vary slightly by source. The sources we used indicate that prevalence rates in RHP-18 for targeted conditions in this plan are equal to or lower than the State of Texas (%) for Asthma (8.2%), Diabetes (9.7%), overweight/obesity (66.7%), and Cardiovascular Disease (8.2%). More than a quarter of pregnant women in each county (28% in Collin, 42% in Grayson, and 31% in Rockwall) do not receive prenatal care within the first trimester. Higher proportions of White, compared to Black and Hispanic women, receive early prenatal care.

None of these counties has a public hospital. Local hospitals, public health departments, and publically funded clinics are the staples of the healthcare system in RHP-18. Table 3 displays total numbers from http://www.healthindicators.gov/ the Health Indicators Warehouse website, for hospital and personnel resources in RHP-18. Regarding public health departments, Collin and Grayson counties have full service public health departments. Rockwall County, however, has a different structure inasmuch as this county utilizes a city office of code enforcement and cooperates with the Dallas County Health Department for other public health related functions.

While none of these counties is a Health Professions Shortage Area or a Medically Underserved Area according to Federal criteria, there are pockets of severely limited access to primary and preventive care leading to potentially preventable hospital admissions (PPAs).

There are currently two Federally Qualified Health Clinics in RHP-18. Although it is difficult to pinpoint precisely how many primary care physicians are available per/1,000 residents, and even more difficult to document the number of physicians who accept Medicaid or uninsured persons (if any), the below table reflects the best available data from the CDC, DSHS, and other few national websites that count healthcare workers at the county level.

Table 3. Healthcare Resources

Hospital Resources	**Collin**	**Grayson**	**Rockwall**	**Total RHP 18**
Acute care hospitals	10	3	2	15
Psychiatric care licensed beds	0	0	0	0
Healthcare Personnel				
Direct Care Physicians	1,483	245	113	1,841
Primary Care Physicians	691	86	60	837
Physician Assistants and Nurse Practitioners	357	55	36	448
EMS Personnel Per 100,000 population	187	447	323	Not Available

http://www.dshs.state.tx.us/chs/hprc/tables/Emergency-Medical-Services-(EMS)-by-County-of-Residence---September,-2011/
Collin ranked 223 for EMS personnel
Grayson ranked 53 for EMS personnel
Rockwall ranked 105 for EMS personnel
Texas ranks 42nd with 212/100,000 physicians

Key health challenges specific to region

Potentially Preventable Hospital Admissions and ED Utilization

Tables 4, 5 and 6 present each county's data for each of the 10 conditions identified by DSHS as Potentially Preventable Hospital Admissions (PPAs) in Texas over a five year period of time (2006-10). We provide presented total admissions, average length of stay (ALOS), total charges in millions, average charge, percent of uninsured admissions, and the zip codes representing approximately half of the total admissions for that county per PPA. Some data were unavailable for Grayson and Rockwall counties (shaded).

Collin County

Table 4 provides Collin County data. The county seat in Collin County is McKinney. The median age in Collin County is 34, and 8% of residents are over age 65 (Table 1). Seven percent of Collin County residents live in poverty. In FY 2009, Collin County reported $669,300 spent for indigent health care.

In Collin County, two zip code areas (75070 and 75069) contributed the largest number of admissions for angina, bacterial pneumonia, congestive heart failure (CHF), dehydration, and hypertension. These factors may suggest that outreach to nursing homes may be important. The top three highest average charges were for pneumonia, CHF, and urinary tract infections (UTI), followed by chronic obstructive pulmonary disease (COPD), long-term diabetes problems, and asthma.

Table 4. Collin County Potentially Preventable Admissions - Five Years: 2006 - 2010

PPA	Total (Per Year)	ALOS*	Total Charges	Ave. Charge	Percent Uninsured	Combining Zip Codes ≥ 50%**
Angina	183 (37)	1.9	$ 3.4	$ 18,366	6.0%	070, 069, 098, 002, other
Asthma	1796 (359)	4.6	$ 54.8	$ 30,501	13.7%	069, 287, 075, other
Bacterial Pneumonia	5090 (1018)	5.6	$ 189.1	$ 37,157	6.5%	069,070, 002, other
Congestive Heart Failure	4950 (990)	5.4	$ 182.5	$ 36,866	5.8%	069, 070, 023, other
COPD	2505 (410)	5.4	$ 87.6	$ 34,970	5.2%	069, 002, 098, other
Dehydration	1394 (279)	3.6	$ 28.9	$ 20,760	4.4%	070, 069, 023, 002, other
Diabetes - Short Term	819 (164)	3.8	$ 22.4	$ 27,950	26.0%	287, 034, 069, 098, 023, other
Diabetes - Long Term	1639 (328)	6.6	$ 69.3	$ 42,276	11.3%	069, 098, 025, 002, other
Hypertension	1016 (203)	2.8	$ 23.1	$ 22,715	18.5%	069, 287, 070, 074, other
UTI	3643 (729)	4.4	$ 92.6	$ 25,418	7.5%	069, 075, 023, 074, 002, other

Grayson County

Table 5 provides Grayson County data. The county seat for Grayson County is Sherman, located near the Oklahoma border. The median age is 40, and 16% of the residents are over age 65 (Table 1). Fourteen percent of the population lives in poverty.

Table 5. Grayson County Potentially Preventable Admissions - Five Years: 2006 - 2010

PPA	Total (Per Year)	ALOS*	Total Charges	Ave. Charge	Percent Uninsured	Combining Zip Codes ≥ 50%**
Angina						
Asthma	519 (104)	4.1	$ 9.7	$ 18,640	13.9%	020, 090, 092
Bacterial Pneumonia	2322 (464)	5.3	$ 51.6	$ 22,229	5.1%	020, 090, 092
Congestive Heart Failure	1982 (396)	5.3	$ 44.3	$ 22,341	3.9%	020, 090, 092
COPD	1624 (325)	4.7	$ 32.6	$ 20,066	4.4%	020, 090
Dehydration	646 (129)	3.9	$ 9.5	$ 14,630	3.4%	020, 090
Diabetes - Short Term	306 (61)	3.8	$ 5.3	$ 17,242	22.5%	020, 090
Diabetes - Long Term	662 (132)	5.8	$ 16.3	$ 24,653	7.3%	090, 020
Hypertension	351 (70)	2.9	$ 4.9	$ 14,002	12.8%	020, 090, 092
UTI	1331 (266)	4.6	$ 22.2	$ 16,670	4.9%	020, 090, 092

In FY 2009, Grayson County reported $1,711,234 spent for indigent health care. In Grayson County, two zip code areas (75020 and 090) contributed the largest number of admissions. The highest charges over this five-year period were for pneumonia, CHF, and COPD, followed by UTI and asthma. These data also suggest follow up with nursing home residents may be important. No data were available for angina.

Rockwall County

Table 6 provides data for Rockwall County. The county seat for Rockwall County is Rockwall. The median age is 36, and 10% of the population is over age 65. In Rockwall County, 6.4% of the residents live in poverty (Table 1). In FY 2009, Rockwall County reported $197,026 spent for indigent health care.

The greatest proportion of admissions for pneumonia, CHF, COPD, and UTI came from zip code 75087. PPAs with the highest charges were long-term complications of diabetes, pneumonia, and CHF. Data were not available for angina, asthma, or hypertension.

Table 6. Rockwall County Potentially Preventable Admissions - Five Years: 2006 - 2010

PPA	Total (Per Year)	ALOS*	Total Charges	Ave. Charge	Percent Uninsured	Combining Zip Codes ≥ 50%**
Angina						
Asthma						
Bacterial Pneumonia	727 (145)	4.9	$ 19.8	$ 27,289	4.1%	087
Congestive Heart Failure	506 (101)	4.5	$ 12.8	$ 25,265	3.8%	087
COPD	403 (80)	4.2	$ 10.1	$ 25,102	0.0%	087
Dehydration	203 (40)	3.1	$ 3.3	$ 16,384	4.9%	087, 032
Diabetes - Short Term						
Diabetes - Long Term	186 (37)	5.0	$ 5.8	$ 31,631	5.4%	189
Hypertension						
UTI	406 (81)	4.0	$ 9.0	$ 22,203	4.4%	087

In every county in RHP-18, the highest proportion of uninsured potentially preventable admissions (PPAs) is diabetes for long-term problems. In Collin and Grayson, asthma and hypertension admissions include a substantial proportion of uninsured events. Of note is the presence of a co-morbid psychiatric condition in between 25% to 50% of these PPAs.

Other issues in PPAs and ED use in contiguous counties

Due to the close proximity and overlap between Collin and Dallas counties admissions to hospitals in Dallas County are of importance in planning the healthcare system. Admissions to Parkland Memorial Hospital (Parkland) for all RHP-18 counties are important, and admissions to all local RHP-18 hospitals are also critical data for planning.

Table 7 provides PPAs to hospitals located in Dallas County for Collin County residents for the past 15 months, by the total number of admissions, and the proportion of private insurance, public insurance, and uninsured events. Dallas County has a health and behavioral health care system of immense resources for Medicaid and uninsured populations, compared to RHP-18. Thus, it is an important aspect of the system when considering healthcare needs in RHP-18, in that patient flow to resources outside of RHP-18 provide an important opportunity to recognize limited or underdeveloped resources in these three counties that if expanded would reduce the burden on hospitals in Dallas particularly Parkland Memorial Hospital as the only major public hospital a large geographic area. RHP-18 also relies on private healthcare facilities in Dallas County for behavioral health emergencies.

Table 7. Collin County PPA to All Dallas County Hospitals January 2011- march 2012

Payment Source	Diabetes Short Term	Diabetes Long Term	Congestive Heart Failure	Bacterial Pneumonia	Dehydration	Hypertension	Angina (Not treated)	Adult Asthma	UTI	COPD	Totals
Totals	***126***	***83***	***168***	***252***	***72***	***48***	***6***	***33***	***164***	***91***	***1043***
Insured & Medicare	71%	43%	38%	48%	58%	52%	50%	55%	38%	43%	48%
	13%	48%	55%	47%	35%	31%	17%	30%	56%	53%	44%
Uninsured	17%	8%	8%	4%	7%	17%	33%	15%	5%	4%	8%

Tables 8 and 9 on the following pages provide information about the admissions from RHP-18 to all hospitals in these three counties and to Dallas County hospitals, combined, and admissions to Parkland Memorial Hospital. Interestingly, as shown in Table 8 and its accompanying graph, admissions were lower for Medicaid patients in 2010 compared to 2009, but higher for uninsured patients in 2010 compared to 2009. It is unclear if this is a trend or an anomaly.

In the first quarter of 2012 there were 14,035 Emergency Department (ED) visits reported for uninsured residents of RHP-18 to hospitals in RHP-18 and Dallas County hospitals combined (18.7% of all events), an increase of 15% over the previous year. Reported Medicaid and Medicare covered ED visits were 22,891, an increase of 23% over the same quarter in 2011. We also know from available data that an estimated 25% of these events are for individuals who are released without needing inpatient care. Between January 2011 and April 2012, Parkland Memorial Hospital (Parkland) discharged 577 uninsured admissions back to RHP-18, 4.3% of which were for PPAs. These individuals represent a population that will have access to expanded primary care services under the DSRIP projects proposed in this plan.

Table 8: RHP 18 Admissions to All Hospitals

Medicaid 2008	Medicaid 2009	Medicaid 2010	Uninsured 2008	Uninsured 2009	Uninsured 2010
6,085	8,643	7,408	4,537	5,022	5,100
2,677	2,791	3,020	1,050	1,170	1,239
668	839	785	468	421	451
9,430	12,273	11,213	6,055	6,613	6,790

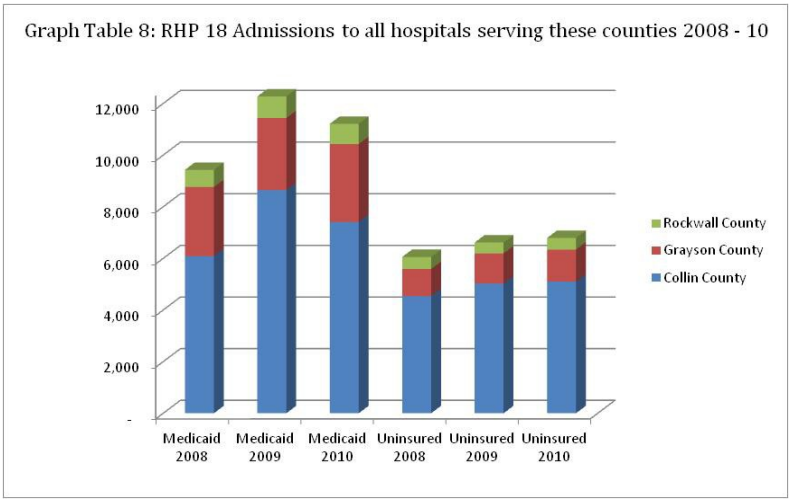
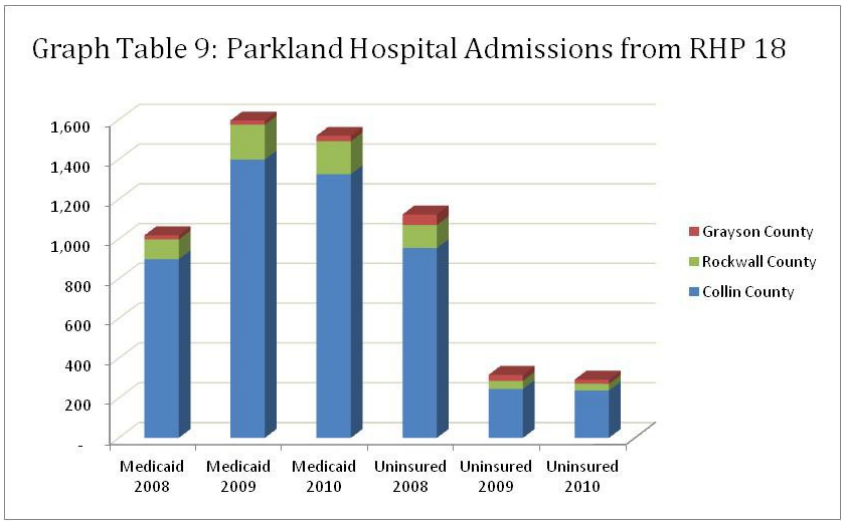


Table 9. RHP 18 Admissions To Parkland Hospital 2008-10

Medicaid 2008	Medicaid 2009	Medicaid 2010	Uninsured 2008	Uninsured 2009	Uninsured 2010
899	1,400	1,327	955	246	238
99	175	165	116	41	34
21	22	28	53	30	21
1,019	1,597	1,520	1,124	317	293



As shown in Table 9 and its accompanying graph above, RHP-18 admissions to Parkland Memorial have decreased in the total number of uninsured events. This may be a function of patient transfers among hospitals in the general metropolitan area or increasing enrollment in Medicaid.

Data in tables 7, 8 and 9 were obtained by request, from the Dallas - Fort Worth Hospital Council Foundation.

The needs in RHP-18 regarding PPAs and ED visits are at the heart of our plan to expand primary care access and implement innovative community interventions.

Children's Health

Compared to 2009, the number of children of Hispanic ethnicity is on the rise in Collin and Grayson counties and on the decline in Rockwall. In addition, there are increases in the number of Black children in all three counties. The Black population nearly doubled in Collin, and there were decreasing numbers of White non-Hispanic children in Collin and Rockwall counties. The infant mortality rate was 5.2 per 1,000 in Collin, 5.7 in Grayson, and 3.0 in Rockwall.

In Collin County, an estimated 26,798 children are uninsured, 8,039 of whom live in households earning 200% or less of the Federal Poverty Level (FPL). Grayson and Rockwall counties have 5,380 (1,264 ≤ 200% FPL) and 3,514 (1,118 ≤ 200% FPL) in that status, respectively. In 2011, rates of confirmed victims of child abuse per 1,000 were 5.4 in Collin, 10.2 in Grayson, and 3.3 in Rockwall counties.

Of the 14,035 reported uninsured ED events for RHP-18, 14.7% were for children under age 15. PPAs for children tend to involve asthma or respiratory illnesses and accidents. National statistics suggest that 1 out of 7 pre-school age children in low-income families is obese, and 17% of children age 2 to 19. White Hispanic boys, and Black, non-Hispanic girls are at higher risk for obesity than other race and ethnic groups.

Statistics for 2008 reflect that in Collin County, ~8% of all births were considered low birth weight babies, in Grayson County, 7%, and in Rockwall County 8.2%. Race, ethnicity, poverty, chronic diseases, health problems, and low birth weight babies are all factors associated with the need for expanded access to primary care for children.

A generally accepted national risk estimate for youth needing mental health and chemical dependency treatment is 9%. Youth are typically underserved because they do not come to the attention of schools or

families without a precipitating event usually violent. Many youth enter the public mental health system though the juvenile justice system. Family courts need more resources for referrals for troubled youth and families ordered for evaluation and possible counseling to avoid the child being removed from the home and placed in supervised living or foster care

Behavioral Health

The greatest three needs in behavioral health (mental health and chemical dependency) are increased access to care, targeted resources to prevent relapse/re-hospitalization/higher cost care, and expanded diversity of evidence-based services such as jail diversion/mental health courts, peer-counseling, and integrated physical/behavioral care. Crisis response systems are limited, and access to public inpatient care is primarily on an emergency basis primarily utilizing local law enforcement and Dallas County based programs for homeless and crisis services. Estimates are that over half of the persons in community based behavioral healthcare programs are uninsured.

Collin and Rockwall counties participate in the NorthSTAR Behavioral Health System operated by Value Options, a private for-profit insurance corporation (3,793 persons received services in the third quarter of 2012). LifePath Systems serves Collin County, and Rockwall County residents are served by Lakes Regional MHMR Center that also serves fourteen other counties in North Texas. Individuals who need behavioral health services in the NorthSTAR area must meet the same clinical criteria used statewide but must also document stricter financial eligibility to gain access to care.

Under the principle of open access, Collin and Rockwall County residents have equal access to care throughout the geopolitical area covered by NorthSTAR. Collin and Rockwall County residents, particularly those in proximity to Dallas, can acquire behavioral health services anywhere in the seven counties by choice or as a consequence of insufficient locally available services. According to the DSHS "NorthSTAR Data Book: Summary Information on County Trends, FY06-FY11", the NorthSTAR system spends less than one-half of the per client amount spent in the rest of Texas. NorthSTAR's open access also has had an unintended consequence of certain services, such as jail diversion, veterans' services, mobile crisis, supported housing, and after hours clinics being centralized in Dallas County rather than distributed more evenly in Collin and Rockwall counties.

Two major shifts in the NorthSTAR system for behavioral health occurred in 2010. Outpatient providers' contract became a flat-rate contract resulting in limited access for new mental health clients with consequent referrals of some residents to other NorthSTAR providers in Dallas. In September of 2009, Value Options eliminated Supportive Outpatient Therapy for substance abuse treatment, requiring these consumers to meet the higher level of care criteria of Intensive Outpatient Treatment to access care.

Collin County has been perceived traditionally by the NorthSTAR system as having less demand for behavioral health services than its largest contiguous county, Dallas. Collin County's behavioral health services needs however, are apparent from the direct and synthetic estimates of need and in the historical patterns of services utilization by Collin County residents documented in a published 2010 report. While the population in Collin County has grown 59% over the past 10 years, LifePath Systems has not expanded its capacity, and due to funding cuts has been forced to reduce services available by almost 50% from the baseline of 1999.

According to a study conducted by The Strategic Planning and Population Medicine Department of the Parkland Health & Hospital System, titled "Collin County Community Checkup 2008", the arrest rate for all drug offenses increased from 180.1 per 100,000 persons in 2002 to 276.1 in 2006. Substance abuse (SA) related death rates increased from 33 per 100,000 persons in 2000 to 33.6 in 2004. These statistics reflect the increasing need for qualified chemical dependency provider, and the importance of early intervention services to prevent criminal justice involvement and SA related deaths. http://www.dfwhc.org/documents/CollinCountyCommunityCheckup2008_000.pdf. Rockwall County has identified a critical need to improve jail diversion services. Family services to improve early intervention with juveniles to prevent criminal activities is also a critical need.

A large population not getting access to treatment is the working-poor not eligible for state-funded services, but unable to actually pay the full cost of behavioral health services. According to a 2012 Substance Abuse and Mental Health Services Administration (SAMHSA) approximately 20% of the population met the criteria for "Any Mental Illness" during a 12 month period, resulting in an estimated 155,685 Collin County individuals each year that should be receiving behavioral health services. http://www.samhsa.gov/data/NSDUH/2k12Findings/CBHSQDataReviewC2MentalHealth2012.htm

Physical and Behavioral Health services are also often not available or available in a timely manner to individuals with Intellectual and Developmental Disabilities (DD).Individuals with DD meet with access obstacles or long waiting periods for appointments, as there are too few providers who accept Medicaid. Few providers are experienced or trained in treating DD individuals with co-morbid psychiatric disorders.

RHP 18 has an estimated 2011 population of 1,014,935 (Census quick facts). The Center for Disease Control (CDC) estimated in 2012 that 1 in 88 individuals has an autism spectrum disorder (ASD). Studies also show that somewhere between one and 3 percent of Americans have DD. Thus approximately 20,289 individuals in RHP-18 may have DD. Using the CDC estimate, 11,533 individuals would have ASD. Approximately 55% of individuals with ASD also have an IQ under 70 (~6,343 individuals). People with ASD are at much higher risk (75%) of developing mental illness than people with IDD. People with IDD are estimated to experience mental illness at a rate of 33%. (Quintero and Flick, 2010)

Lakes Regional MHMR serves Rockwall County, as part of the NorthSTAR service system. Evidence suggests that an area of need is to expand access to services to segments of the community who have heretofore had limited access to care.

Texoma Community Center serves Grayson County. Evidence suggests that an area of need is to expand access to services to segments of the community that have heretofore had limited access to care.

Projected major changes in demographics, insurance coverage, and healthcare infrastructure expected to occur during the waiver period of FFY 2012 – FFY 2016

In the next five years, RHP-18 will increase in population at a rate of approximately 5.5% per year. Growth overall in RHP-18 is expected to be 25% over the 2010 census by the year 2020. The proportion of uninsured adults and children with household incomes ≤ 200% of FPL is likely to increase. There is a gap (100% vs. 200%) between the poverty eligibility criteria in RHP-18 counties and other healthcare systems.

The multi-cultural demographic character of the three counties will continue to become more complex. So much about the health of a community depends on the choices its citizens make and the values upheld by its community organizations, public and private. Economic conditions that drive health consumer choices will need to change to redirect health services utilization patterns away from higher-cost emergent care systems to lower cost effective and sustaining community support systems including health education, prevention, and long-term engagement with the healthcare consumer.

Local private and public providers need to become as easy to access as the ED, if we are going to influence healthcare consumer choices. Medical home models must provide wrap-around continuity of care programs for at-risk patients with co-morbid physical and mental challenges. Local clinics and hospitals must develop community-centered partnerships with efficient targeted patient registries, referral procedures, and follow up services to effectively engage families in a wellness model versus an illness model of care.

The DSRIP projects proposed by hospitals and community services providers are directed at these types of systems changes.

The suicide rate in Grayson County is ~15/100,000 compared to 8.5 for Collin, 10 for Dallas, and 13.8 for Rockwall counties. Counties contiguous with Grayson County have suicide rates similar to those in Grayson County. Evidence points to the need for expanded services and increased rapid access to care as well as continuity of information for patients across county borders. One way to do this in more rural areas is to enhance technical capabilities through telemedicine archiving and transmitting capabilities,

increasing the number of providers with more flexible policies regarding eligible populations, addressing substance abuse, and ensuring services for co-morbid medical and behavioral health conditions.

Summary

RHP-18 subscribes collectively to the principles recommended by the Population Health Institute in the annual national health outcomes and health factors report. These are that healthy communities depend on and are derived from community members working together to assess needs and resources, focus on issues deemed by consensus to be the most important, and create effective policies and programs to favorably impact population health.

In addition to the community needs identified through national, state and local sources, RHP-18 also is attending to six of the 12 health indicators identified by the U.S. Center for Disease Control in **Healthy People 2020**. These six indicators have emerged as important areas of need in the planning process for the Texas Healthcare Transformation and Quality Improvement Program in Collin, Grayson, and Rockwall counties of Texas.

- Access to health services
- Clinical preventive services
- Injury and violence
- Maternal, Infant, and Child Health
- Nutrition, Physical Activity and Obesity
- Social Determinants of medical and behavioral health problems

Table 10 on the following page provides the list of 14 broadly defined community needs (CN) per HHSC protocol to which providers have linked DSRIP projects.

In addition to this needs assessment, in Section V of the plan, all performing providers have included narrative documentation and associated source references for discrete needs associated with each of their proposed projects and anticipated outcomes.

Table 10.

Identification Number	**Brief Description of Community Needs Addressed through RHP Plan**	Data Source for Identified Needs
CN.1	Primary care - adults	Request for Potentially Preventable Admissions (PPA) Data - Texas Department of State Health Services (DSHS) Warehouse
CN.2	Primary care - children	DSHS web site selected data: http://www.dshs.state.tx.us/wellness/data.shtm
CN.3	Prenatal care	DSHS web site selected data: http://www.dshs.state.tx.us/wellness/data.shtm
CN.4	Urgent and Emergency care	Emergency Department data DFW Hospital Council Foundation
CN.5	Co-morbid medical and behavioral health conditions - all ages	DSHS data request; NorthSTAR Dashboard
CN.6	Health professions shortage	Federal Government Health Indicators Warehouse website
CN.7	Preventable acute care admissions	DSHS provided based on data request
CN.8	Diabetes	DSHS PPA Data
CN.9	Cardiovascular Disease	2009 Texas Behavioral Risk Factors Surveillance System, Center for Health Statistics, DSHS: http://www.dshs.state.tx.us/chs/brfss/query/brfss_form.shtm.
CN.10	Elderly at home, and Nursing Home patients	Extrapolated from DSHS PPA data
CN.11	Behavioral Health - all components - all ages	DSHS data website; Previously conducted studies and needs assessments available publicly
CN.12	Other special populations at-risk	DSHS data and surveillance reports
CN.13	Communicable Disease	Center for Disease Control
CN.14	Obesity and its co-morbid risk factors	http://www.window.state.tx.us/specialrpt/obesitycost/epidemic.php

Primary Data Assessment:
Summary of Community Input

Community Input Summary

Survey Responses – Texas Health Presbyterian Hospital Plano Averages

- Twenty-nine (29) persons from the community completed the survey summarized below, with responses ranging 1-5, where 1 is "strongly disagree" and 5 is "strongly agree".
- The top three issues of most concern:
  - ***Lack of adequate resources for indigent (low-income people) in the community***
  - ***Cost of care as a barrier to access (tied for 2nd)***
  - ***Transportation as a barrier to access (tied for 2nd)***

Indicator	Plano Average
Community members are informed and educated about health issues.	3.0
Community members know where to go for needed health services.	2.7
There are adequate health resources for children in the community.	2.8
There are adequate health resources for the elderly in the community.	2.3
There are adequate health resources for the indigent in the community.	2.0
There are adequate health resources for other vulnerable populations.	2.1
Supply (number, type of providers) is a barrier to access in this community.	3.3
Cost of care is a barrier to access in this community.	4.0
Transportation is a barrier to access in this community.	4.0
Language and culture are a barrier to access in this community.	3.6
Previous negative experiences are a barrier to access in this community.	3.2

Community Input Summary

Texas Health Presbyterian Hospital Plano Stakeholder/Community Meeting

STRENGTHS

- Faith Community Nursing Programs
- Other, Similar Community Partnerships
  - » Clinics
  - » Churches, Faith Based Organizations
  - » Plano Independent School District
  - » Texas Health Presbyterian Hospital Plano
  - » United Way
- Assertive Community Treatment (ACT) - Psychiatric Case Management
- Project Access Collin County

GAPS IN SERVICES/CARE

- Access for Uninsured and Under-insured
  - No Parkland or JPS Health Network
  - Some clinics, but not nearly enough capacity
- Transportation
- Mental Health
  - Emergency room is main provider of mental health
  - No ongoing care – only in crises situation
- Care for the Elderly
  - Biggest need for respite care, "sitters" for elderly
  - Dementia care
- Dental for Adults

SUGGESTIONS AND OPPORTUNITIES

- Reach out to service groups with tangible action items for them to do – transportation, whatever – and they will respond
- Need more collaboration information sharing – will allow for support rather than duplication
- Must develop new approaches to care for the elderly – faith based options?
- Expand specialties available through Project Access Collin County – not all specialties

COMMUNITY CONCERNS

- Obesity and Nutrition
- Coping Skills, Daily Life Skills
- Health Literacy and Awareness
- Cultural Barriers to Access
  - Language issues; privacy issues
  - Financial questions raise concerns
- Homelessness
- Bankruptcy Following Major Illness

Participants

Texas Health Presbyterian Hospital Plano /Community Meeting

- Danelle Parker, Texas Health Presbyterian Hospital Plano
- Leslie Baker, Texas Health Center for Diagnostics & Surgery
- Mary Jo Dean, Director of Community Relations, Texas Health Presbyterian Hospital Plano
- Susan Shuler, Executive Director, Plano Children's Medical Clinic
- Terrie Monroe, City of Plano Community Development Coordinator
- Patrick McCoy, Texas Health Resources Trustee
- James Thomas, Plano ISD Administration
- Carolyn Rice, Wellness Center for Older Adults
- Patti Dickson, Wellness Center for Older Adults
- Stephanie Zabel, Nursing Supervisor, DART Fleet Pool
- Seena Thomas, Texas Health Presbyterian Hospital Plano Finance
- Dr. Giep, Internal Medicine Physician
- Carol Macrorie, Texas Heath Plano Social Work
- Amy Wilson, Plano Independent School District Nurse
- Jill Vargas, Plano Independent School District Teacher
- Tonia Cunningham, Frisco Police Department
- Tammy Mahan, Life Path Systems
- John Ernst, Collin County Adult Clinic
- Tanya Stastoque, Assistance Center of Collin County
- Shannon Fitzgerald, St. Elizabeth Ann Seton
- Cassandra Graham RN BSN, Program Coordinator, Faith Community Nursing, Texas Health Presbyterian Hospital Plano
- Joan Conway, Faith Community Nurse and Maternal Child Specialist
- Anne Nejdl, Parish Nurse, Prince of Peace Catholic Church
- Angela Gwinn, Pastoral Care Minister
- Lynda Shirley, Care Van
- Debbie Gonzales, Hispanic Counselor, St. Mark's Catholic Church
- Garnetta Ashmore, Faith Community Nurse, Keller Springs Baptist Church
- Dr. Saima Sulta, American Muslin Women Physician Association
- IB, Madinah Mosque Leader
- Gloria Thomas RN, Lead Nurse, Shiloh Missionary Baptist Church
- Sandra Miller, Faith Community Nurse, Shiloh Missionary Baptist Church
- Karen Green, Director of Haven of Love Ministries Dallas
- Nancy Brill, Faith Community Nurse, St. Peter's Episcopal Church, McKinney