Community Health Needs Assessment 2017

North Texas Zone 6

Baylor Scott & White Surgical Hospital at Sherman

The prioritized list of significant health needs has been presented and approved by the hospital facilities' governing body, and the full assessment must be made available to the public at no cost for download on our website at BaylorScottandWhite.com/CommunityNeeds or upon request. Retain this document through the fiscal year ending June 30, 2020.

Approved by: Baylor Scott & White Health – North Texas Policy and Procedure Board on June 27, 2017

Posted to BaylorScottandWhite.com/CommunityNeeds on June 30, 2017

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Baylor Scott & White Health Mission Statement

OUR MISSION

Baylor Scott & White Health exists to serve all people by providing personalized health and wellness through exemplary care, education and research as a Christian ministry of healing.

"Personalized health" refers to our commitment to develop innovative therapies and procedures focusing on predictive, preventive and personalized care. For example, we use data from our electronic health record to help us predict the possibility of disease in a person or a population. And with that knowledge, we can put measures in place to either prevent the disease altogether or significantly decrease its impact on the patient or the population. We tailor our care to meet the individual medical, spiritual and emotional needs of our patients.

"Wellness" refers to our ongoing effort to educate the people we serve, helping them get healthy and stay healthy.

"Christian ministry" reflects the heritage of Baylor Health Care's founders and Drs. Scott and White, who showed their dedication to the spirit of servanthood — to equally serve people of all faiths and those of none.

WHO WE ARE

In 2013, Baylor Health Care System and Scott & White Healthcare became one.

The largest not-for-profit health care system in Texas, and one of the largest in the United States, Baylor Scott & White Health (BSWH) was born from the 2013 combination of Baylor Health Care System and Scott & White Healthcare.

Known for exceptional patient care for more than a century, the two organizations serve adjacent regions of Texas and operated on a foundation of complementary values and similar missions. BSWH includes 48 licensed hospitals, more than 1,000 patient access points, more than 6,600 active physicians, 43,750+ employees and the Scott & White Health Plan.

Over the years, Baylor and Scott & White worked together as members of the High Value Healthcare Collaborative, the Texas Care Alliance and Healthcare Coalition of Texas and were two of the best known, top-quality health care systems in the country, not to mention in Texas.

After years of thoughtful deliberation, the leaders of Baylor Health Care System and Scott & White Healthcare decided to combine the strengths of the two health systems and create a new model system able to meet the demands of health care reform, the changing needs of patients and extraordinary recent advances in clinical care.

With a commitment to and a track record of innovation, collaboration, integrity and compassion for the patient, BSWH stands to be one of the nation's exemplary health care organizations.

OUR CORE VALUES & QUALITY PRINCIPLES

Our values define our culture and should guide every conversation, decision and interaction we have with each other and with our patients and their loved ones:

- *Integrity*: Living up to high ethical standards and showing respect for others
- *Servanthood*: Serving with an attitude of unselfish concern
- *Teamwork:* Valuing each other while encouraging individual contribution and accountability
- *Excellence*: Delivering high quality while striving for continuous improvement
- *Innovation*: Discovering new concepts and opportunities to advance our mission
- *Stewardship*: Managing resources entrusted to us in a responsible manner

Executive Summary

As the largest not-for-profit healthcare system in Texas, BSWH understands the importance of serving the health needs of its communities. To be successful, we must first take a comprehensive look at the issues our patients, their families and neighbors face when making healthy life choices and healthcare decisions.

In June 2015, Baylor University Medical Center, an affiliate of Baylor Scott & White Health, acquired the hospital facility known as Heritage Park Surgical Hospital through a partnership with United Surgical Partners. The hospital facility was renamed Baylor Scott & White Surgical Hospital at Sherman. The new partnership is controlled by Baylor University Medical Center which requires Baylor Scott & White Surgical Hospital at Sherman to meet the requirements as set forth in Internal Revenue Code Section (IRC) Section 501(r).

Beginning in early 2017, a task force led by the hospital executive team as well as the BSWH community benefit, tax compliance and corporate marketing departments began the process of assessing the current health needs of the community served by Baylor Scott & White Surgical Hospital at Sherman. Truven Health Analytics was engaged to help collect and analyze data for this process and to compile a final report made publicly available in June, 2017.

For the 2017 assessment, Baylor Scott & White Surgical Hospital at Sherman has defined its community as the geographical area of Grayson County. The community served was determined based on the county that made up at least 75 percent of the facility's inpatient and outpatient encounters over the period of calendar year 2016.

With the aid of Truven Health Analytics, we examined 80 public health indicators and conducted a benchmark analysis of this data comparing the community to overall State of Texas and U.S. values. For a qualitative analysis, and to get input directly from the community, we interviewed several key informants in Grayson County who were community leaders and public health experts; those interviewed also represented minority, underserved and indigent populations' needs.

Significant community health needs were identified through the weight of quantitative and qualitative data obtained when assessing the community. Needs which were supported by data showing the community to be worse than the state by a greater magnitude, and were also a frequent theme during interviews, were determined to be significant.

These significant needs were prioritized based on input gathered from the benchmark analysis and the key informant interviews. Key informant interviewees were asked to identify the top health needs of the community based on the importance they placed on addressing the need. Through this process, the significant health needs were prioritized based on the frequency in which they were listed as the top healthcare needs.

Hospital leadership reviewed the quantitative and qualitative analysis of the data and the resultant rankings to arrive at a consensus prioritization of significant needs based on leadership's understanding of the quantitative and qualitative community data analyzed. Through this process, the health needs were prioritized. The prioritized health needs of this community are below:

1. Chronic disease (chronic lower respiratory disease, chronic obstructive pulmonary disease, ischemic heart disease, arthritis, hyperlipidemia)
2. Economic status/poverty
3. Access to care: healthcare costs for the un/underinsured
4. Un/underinsured population
5. Access to primary care providers (physician and non-physician)
6. Substance abuse
7. Mental health
8. Access to exercise opportunities

Also, as part of the assessment process, internal resources as well as resources and facilities from the community that are available to address the significant needs of the community were identified. They are identified in the body of this report and will be included in the formal implementation strategy to address needs identified in this assessment, which will be approved and made publicly available by the 15th day of the 5th month following the end of the tax year.

Baylor Scott & White Surgical Hospital at Sherman became subject to IRC Section 501(r) in June 2015 and must complete its first CHNA by June 30, 2017. Because no previous CHNA or Implementation Strategy was required, or performed, there is no evaluation of a prior implementation strategy in this CHNA as described in Treas. Reg. 1.501(r)-3(b)(6)(F). A subsequent implementation strategy will be drafted by November 15, 2017. An evaluation of the impact and effectiveness of interventions and activities outlined the implementation strategy will be included as part of the hospital's next community needs assessment due to be completed by June 2020.

The prioritized list of significant health needs has been presented and approved by the hospital facility's governing body and the full assessment is available to the public at no cost for download on our website at CommunityNeeds.BSWHealth.com.

This assessment and corresponding implementation strategy is intended to meet the requirements for community benefit planning and reporting as set forth in federal laws including, but not limited to, IRC Section 501(r).

Community Health Needs Assessment Requirement

As a result of the Patient Protection and Affordable Care Act (PPACA), all tax-exempt organizations operating hospital facilities are required to assess the health needs of the community they serve through a Community Health Needs Assessment (CHNA) once every three years. A CHNA is a written document developed for a hospital facility that defines the community served by the organization; the process used to conduct the assessment; how the hospital took into account input from community members, including those from public health department(s) and members or representatives of medically underserved, low-income and minority populations; organizations with whom the hospital has worked on the assessment; and the significant health needs identified through the assessment process.

The written CHNA report must include descriptions of the following:

- The community served and how the community was determined.
- The process and methods used to conduct the assessment, including sources of the data, and other information, as well as the analytical methods applied to identify significant community health needs.
- How the organization took into account input from persons representing the broad interests of the community served by the hospital, including a description of when and how the hospital consulted with these persons or the organizations they represent
- The prioritized community health needs identified through the CHNA, as well as a description of the process and criteria used to prioritize the identified significant needs
- The existing healthcare facilities and other resources within the community available to meet the significant community health needs
- An evaluation of the impact of any actions that were taken, since the hospital's most recent CHNA, to address the significant health needs identified in that last CHNA

The PPACA also requires hospitals to adopt an Implementation Strategy to address prioritized community health needs identified through the assessment. An Implementation Strategy is a written plan that addresses each of the significant community health needs identified through the CHNA and is a separate but related document to the CHNA report.

The written Implementation Strategy must include the following:

- List of the prioritized needs the hospital plans to address and the rationale for not addressing other significant health needs identified
- Actions the hospital intends to take to address the chosen health needs
- The anticipated impact of these actions and the plan to evaluate such impact (e.g. identify data sources that will be used to track the plan's impact)
- Identify programs and resources the hospital plans to commit to address the health needs

- Describe any planned collaboration between the hospital and other facilities or organizations in addressing the health needs

A CHNA is considered conducted in the taxable year that the written report of its findings, as described above, is approved by the hospital's governing body and made widely available to the public. The Implementation Strategy is considered adopted on the date it is approved by the governing body. Organizations must adopt and make public their Implementation Strategy by the 15th day of the 5th month following the end of the tax year in which the CHNA was performed. CHNA compliance is reported on IRS Form 990, Schedule H.

Baylor Scott & White Health: Community Health Needs Assessment Overview, Methodology and Approach

BSWH partnered with Truven Health Analytics (Truven Health) to complete a CHNA for Baylor Scott & White Surgical Hospital at Sherman.

Consultant Qualifications & Collaboration

Truven Health and its legacy companies have been delivering analytic tools, benchmarks and strategic consulting services to the healthcare industry for over 50 years. Truven Health combines rich data analytics in demographics (including the Community Needs Index, developed with Catholic Healthcare West, now Dignity Health), planning and disease prevalence estimates with experienced strategic consultants to deliver comprehensive and actionable Community Health Needs Assessments. Truven Health was acquired by IBM in 2016 to help form a new business, Watson Health. Watson Health aspires to improve lives and give hope by delivering innovation to address the world's most pressing health challenges through data and cognitive insights.

Defining the Community Served

BSWH has chosen a common methodology and approach to define the communities served for each of its facilities and this same methodology and approach has been utilized for this CHNA. For the 2017 assessment, Baylor Scott & White Surgical Hospital at Sherman has defined their community to be the geographical area of Grayson County. The community served was determined based on the county that made up at least 75 percent of the hospital facility's calendar year 2016 inpatient and outpatient encounters.

Community Health Needs Assessment
Map of Community Served for Baylor Scott & White Surgical Hospital at Sherman


JV HOSPITAL
GRAYSON
Preston
Pottsboro
Denison
Hagerman National Wildlife Refuge
Whitesboro
Southmayd
Sherman
Bells
Collinsville
Howe
Van Alstyne
Pilot Grove
75
82
69

Assessment of Health Needs – Methodology and Data Sources

To assess the health needs of the community served, a quantitative and qualitative approach was taken. In addition to collecting data from multiple public and Truven Health proprietary sources, interviews were conducted with individuals representing public health, community leaders/groups, public organizations and other providers.

Quantitative Assessment of Health Needs

Quantitative data in the form of public health indicators were collected and analyzed to assess community health needs. Eight categories of eighty-one indicators were collected and evaluated for the county where data were available. The categories and indicators are included in the table below and the sources of these indicators can be found in ***Appendix A***.

Population
- High School Graduation Rate
- High School Drop Outs
- Some College
- Children in Poverty
- Children in Single-Parent Households
- Unemployment
- Income Inequality
- Poverty
- Disability
- Children Eligible for Free Lunch
- Homicides
- Violent Crime

Injury & Death
- Heart Disease Death Rate
- Overall Cancer Death Rate
- Chronic Lower Respiratory Disease (CLRD) Death Rate
- Stroke Death Rate
- Infant Mortality
- Child Mortality
- Premature Death
- Motor Vehicle Crash Mortality Rate

Mental Health
- Mental Health Providers
- Poor Mental Health Days

Prevention
- Diabetic Screening
- Mammography Screening

Health Outcomes
- Poor or Fair Health Status
- Average Number of Poor Physical Unhealthy Days in Past Month
- Cancer (all causes) Incidence
- Female Breast Cancer
- Colon Cancer
- Lung Cancer
- Prostate Cancer
- Diabetes
- Stroke
- Arthritis
- Alzheimer's/ Dementia
- Atrial Fibrillation
- COPD
- Kidney Disease
- Depression
- Heart Failure
- Hyperlipidemia
- Heart Disease
- Hypertension
- Schizophrenia
- Osteoporosis
- HIV Prevalence
- Low Birth Rate
- Very Low Birth Rate
- Preterm Births

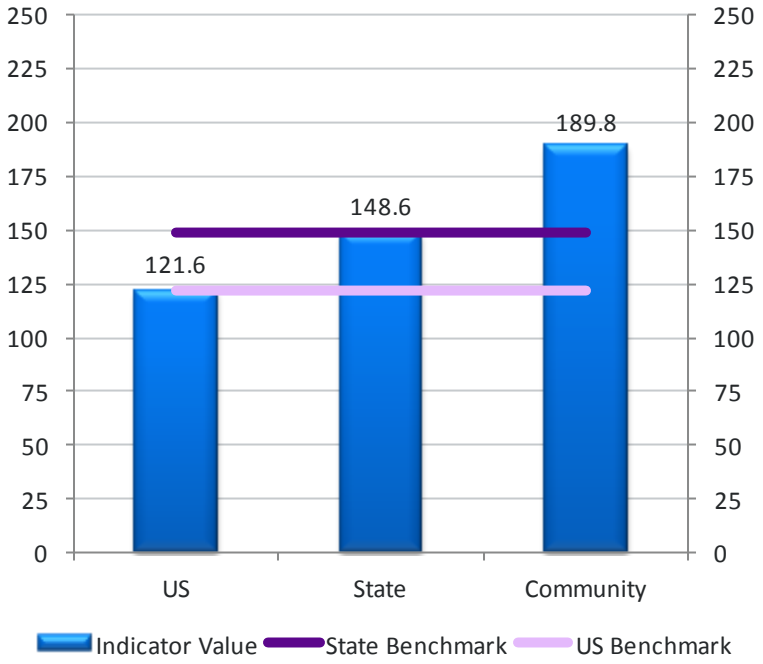
Health Behaviors
- Obesity
- Physical Inactivity
- No Exercise
- Adult Smoking
- Excessive Drinking
- Teen Birth Rate
- Sexually Transmitted Infections
- Alcohol Impaired Driving Deaths
- Drug Overdose Deaths
- Prenatal Care
- Smoking During Pregnancy

Access to Care
- Uninsured
- Uninsured Children
- Primary Care Physicians
- Other Primary Care Providers
- Dentists
- Preventable Hospital Stays
- Affordability of Healthcare
- Healthcare Costs

Environment
- Limited Access to Healthy Foods
- Food Insecurity
- Food Environment Index
- Access to Exercise Opportunities
- Air Quality/ Pollution
- Housing
- Commute/ Long
- Commute/ Alone
- Social Associations

To determine which public health indicators demonstrated a community health need, a benchmark analysis was conducted for each indicator collected for the community served. Benchmark health indicators were also collected and included, when available, for the United States, State of Texas and goal-setting benchmarks, such as Healthy People 2020 and/or County Health Rankings Best Performer values.

Health Indicator Benchmark Analysis Example



Source: Truven Health Analytics, 2017

According the America's Health Rankings, Texas ranks 33rd out of the 50 states. The health status of Texas compared to other states in the nation identifies many opportunities to impact health within local communities, even for those communities that rank highly within the state. Therefore, the benchmark for the community served was set to the state value. Needs were identified when one or more of the indicators for the community served did not meet the state benchmarks. An index of magnitude analysis was then conducted on those indicators that did not meet state benchmarks to determine the degree to which they differed from the benchmark and to understand the relative severity of needs.

The outcomes of the quantitative data analysis were then compared to the qualitative data findings.

Qualitative Assessment of Health Needs (Community Input)

In addition to analyzing quantitative data, ten (10) key informant interviews were conducted in May of 2017 to take into account the input of persons representing the broad interests of the community served. The interviews were conducted to solicit feedback from leaders and representatives who serve the community and have insight into its needs. The interviews were designed to help understand and gain insight into how participants felt about the general health status of the community and the factors contributing to that health status.

To qualitatively assess the health needs for the community, participation was solicited from at least one state, local, tribal, or regional governmental public health department (or equivalent department or agency) with knowledge, information, or expertise relevant to the health needs of the community, as well as individuals or organizations serving and/or representing the interests of medically underserved, low-income and minority populations in the community.

To ensure the input received also represented the broad interests of the community served, participation was also sought from community leaders/groups, public health organizations, other healthcare organizations and other healthcare providers.

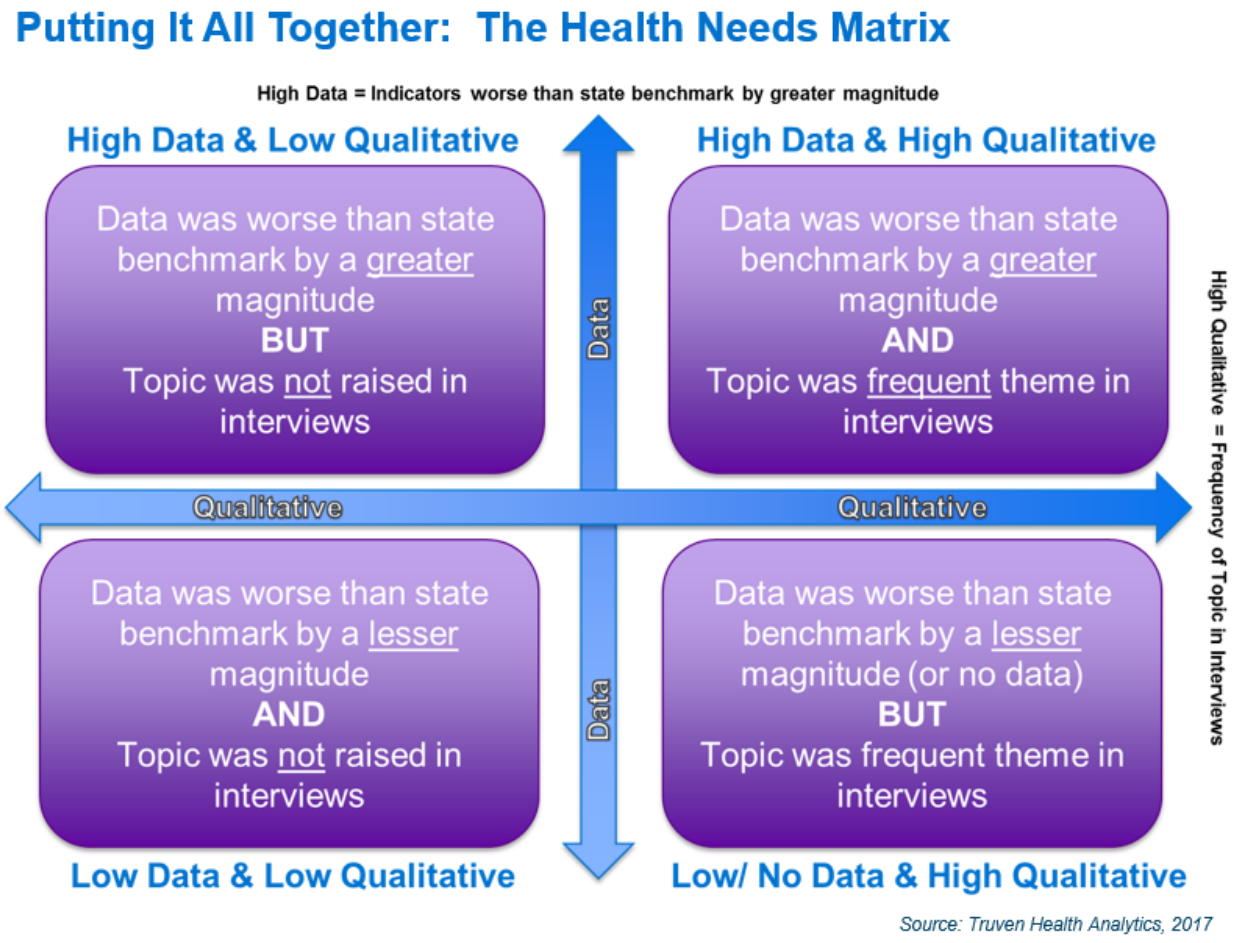
In addition to soliciting input from public health and various interests of the community, hospitals are also required to take into consideration written input received on their most recently conducted CHNA and subsequent implementation strategies. As already described earlier, Baylor Scott & White Surgical Hospital at Sherman was not previously subject to IRC Section 501(r) and the CHNA requirements, therefore, no written input has been received on prior CHNAs. Subsequent CHNAs will include input received on the assessment and implementation plan. BSWH has an active portal on their website where the assessment for Baylor Scott & White Surgical Hospital at Sherman has been made available and asking for public comment or feedback on the report findings. This information is located at CommunityNeeds.BSWHealth.com.

Input collected from the participants during the interviews was organized into themes around community needs and compared to the quantitative data findings.

Methodology for Defining Community Need

Using qualitative feedback from the interviews, as well as the health indicator data, the issues currently impacting the community served were consolidated and assembled in the Health Needs Matrix below to identify the significant health needs for the community served.

The upper right quadrant of the matrix is where the qualitative data (interview feedback) and quantitative data (health indicators) converge. For the sake of this analysis, the upper right quadrant contains the most significant health needs identified.



Information Gaps

Most public health indicators were only available at the county level; in Texas, health indicators were not available for every county due to variation in population density. In evaluating data for entire counties versus more localized data, it was difficult to understand the health needs for specific population pockets within the county. It can also be a challenge to tailor programs to address community health needs as placement and access to those programs in one part of the county may or may not actually impact the population who truly need the service. Truven Health supplemented health indicator data with Truven Health's ZIP code estimates to assist in identifying specific populations within a community where health needs may be greater.

Existing Resources to Address Health Needs

Part of the assessment process included gathering input on community resources potentially available to address the significant health needs identified through the CHNA. A description of these resources is provided in ***Appendix B***.

Prioritizing Community Health Needs

The prioritization of community health needs identified through the assessment was based on the weight of quantitative and qualitative data obtained when assessing the community. A thorough description of the process can be found in the "Prioritizing Community Health Needs" section of the assessment.

Evaluation of Implementation Strategy Impact

Baylor Scott & White Surgical Hospital at Sherman became subject to IRC Section 501(r) upon the partnering of Baylor Scott & White Health and Heritage Park Surgical Hospital. Because no previous CHNA or Implementation Strategy was required, or performed, there is no evaluation of a prior implementation strategy in this CHNA as described in Treas. Reg. 1.501(r)-3(b)(6)(F). A subsequent implementation strategy will be drafted by November 15, 2017. An evaluation of the impact and effectiveness of interventions and activities outlined the implementation strategy will be included as part of the hospital's next community needs assessment due to be completed by June 2020.

Demographic and Socioeconomic Summary

According to population statistics, Grayson County is expected to grow 5%, or 6,748 people in the next five years. That population growth rate is lower than Texas overall (7%) but higher than the United States growth rate (4%). The community had a lower median household income than both state and national benchmarks, along with a less racially diverse population. Grayson County has a greater proportion of seniors than both the state and the country. The community, overall, appears to have fewer social barriers experienced by its population except for a higher proportion of non-English speaking population and higher proportion of population without a high school degree than the state benchmark.

Demographic and Socioeconomic Comparison: Community Served and State/US Benchmarks

Demographic / Socioeconomic Variables	Benchmarks		Community Served
	United States	Texas	
Total Current Population	325,139,271	28,172,387	131,003
5 Yr Proj Pop Chg	4%	7%	5%
Population 0-17	23%	26%	23%
Population 65+	15%	12%	18%
Women Age 15-44	20%	21%	18%
Non-White Population	39%	58%	18%
Median HH Income	$58,960	$57,978	$52,826
Limited English	3%	3%	5%
No High School Diploma	13%	13%	14%
Un-employed	9%	9%	9%
Insurance Coverage: Medicaid	15%	14%	12%
Poverty	16%	17%	16%

Source: Truven Health Analytics, 2017

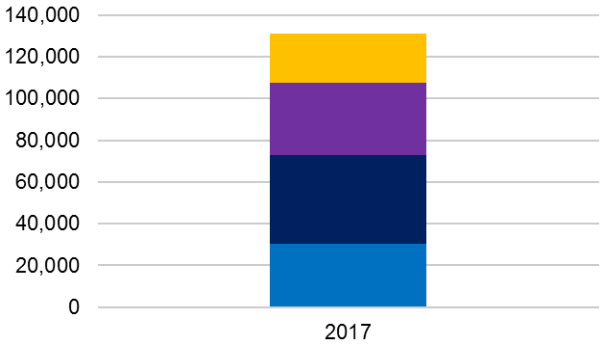
Grayson County is expected grow 5.2% (6,748 people) over the next five years. The ZIP codes with the highest expected growth in the next five years are:

- 75092 Sherman – 1,549 people (6.3%)
- 75090 Sherman – 961 people (3.9%)
- 75020 Denison – 763 people (3.4%)

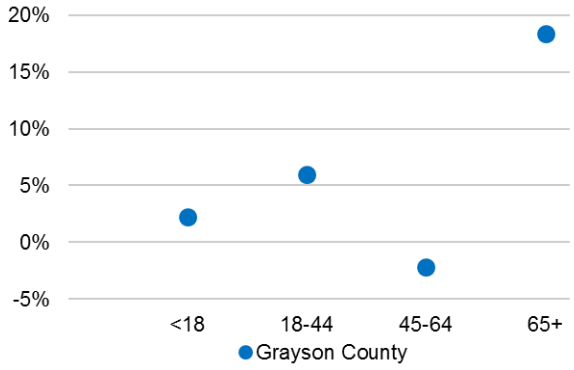
Growth is projected for every ZIP code in the county, but there is significant variation in the expected change between age groups. The population of middle-aged adults aged 45-64 will decrease by 2.2%; however, Grayson County is expected to see a significant (18.3%) increase in the 65+ population over the next 5 years, approximately 4,300 people. This 65+ senior cohort is estimated to experience the most growth (15%+) over the next five years in each ZIP code. Growth in this population will likely contribute to increased utilization of services as the population continues to age.

Population by Age Cohort

2017 Total Population



5 Year Projected Population Growth Rate

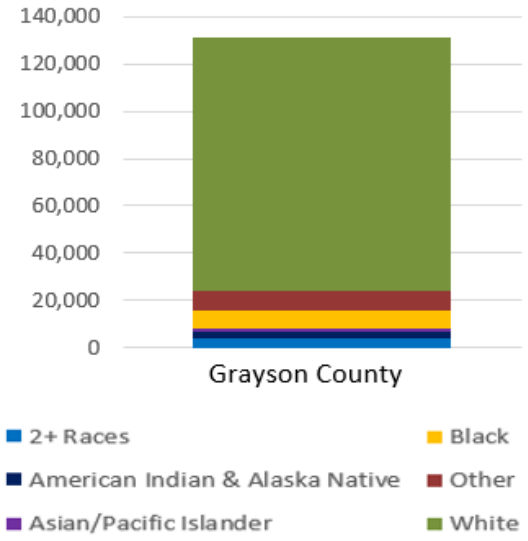


Source: Truven Health Analytics (An IBM Company) / The Nielsen Company, 2017

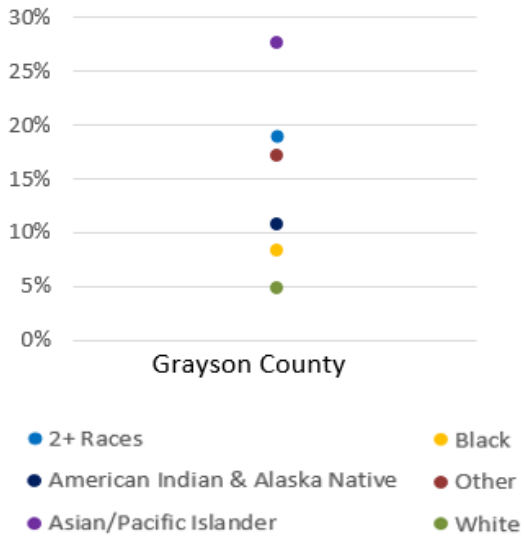
Diversity in the community is projected to increase. In Grayson County, 82% of the population was white (107,325 people) and 13% were of Hispanic ethnicity (17,342 people). The projected growth of minority populations, including Asian/Pacific Islanders and Hispanics, is expected to outpace all other groups. The Hispanic population will increase by 2,994 people by 2022.

Population by Race

2015 Total Population



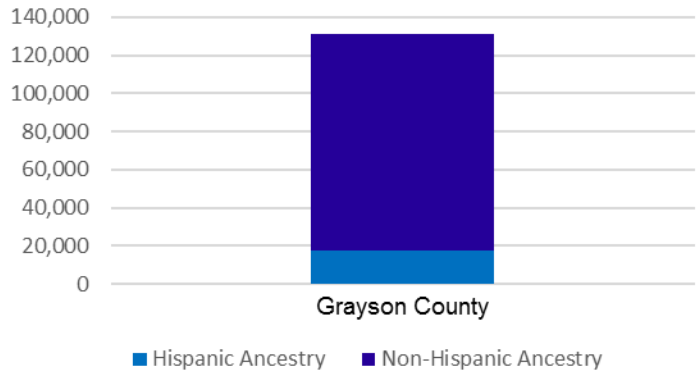
5 Year Projected Population Growth Rate



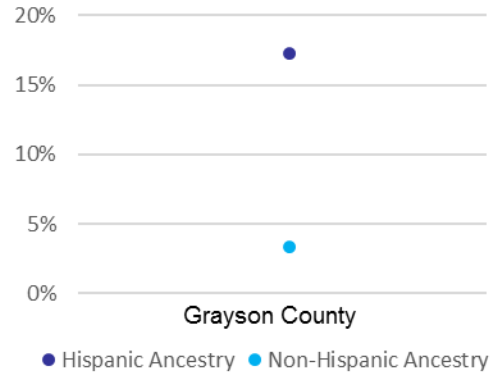
Source: Truven Health Analytics (An IBM Company) / The Nielsen Company, 2017

Population by Hispanic Ethnicity

2017 Total Population



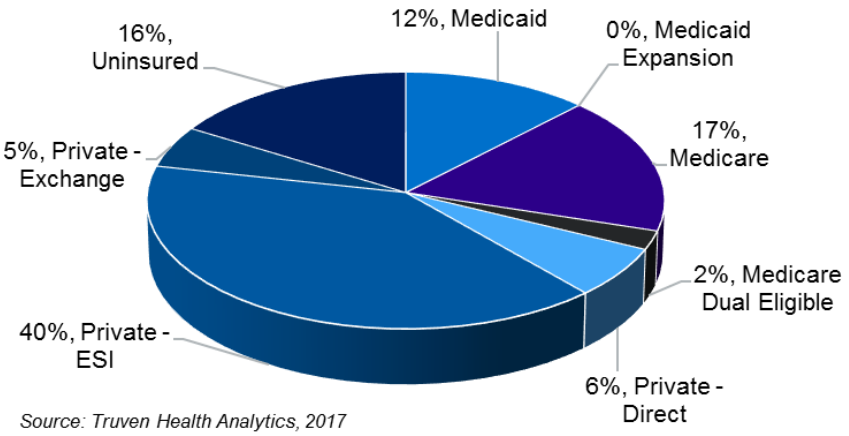
5 Year Projected Population Growth Rate



Source: Truven Health Analytics (An IBM Company) / The Nielsen Company, 2017

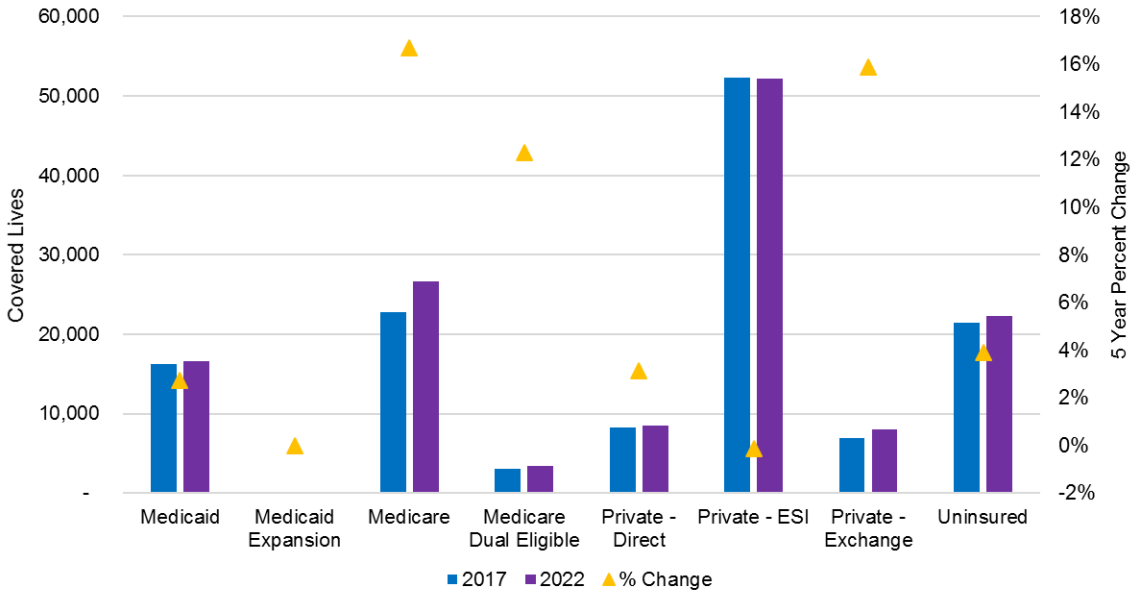
The median household income for the community served is $52,826, less than both the state and U.S. benchmarks. The current insurance coverage mix in the market will shift significantly by 2022. Unsurprisingly, Medicare insured residents will see the largest percentage increase of 17% driven by the projected age shift in the population. Fifty-two percent of the population currently has private (commercial) insurance which is projected to increase 2% (1,200 people) over the next five years. The increase will come from those purchasing insurance directly and through exchanges. There will also be projected increases in the uninsured (4%) and Medicaid populations (3%) over the next 5 years.

2017 Estimated Distribution of Covered Lives by Insurance Category



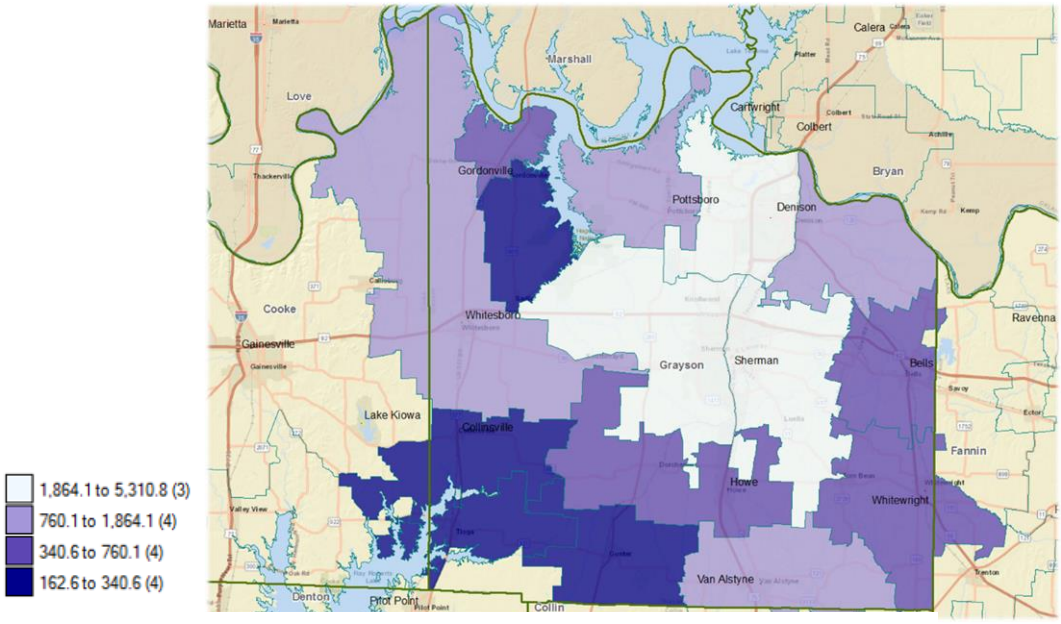
Source: Truven Health Analytics, 2017

Estimated 2017 Covered Lives and Projected Growth by Insurance Category



Source: Truven Health Analytics (An IBM Company) / The Nielsen Company, 2017

2017 Estimated Uninsured Lives by ZIP Code



Source: Truven Health Analytics (An IBM Company) / The Nielsen Company, 2017

The community includes two (2) Health Professional Shortage Areas and two (2) Medically Underserved Area as designated by the U.S. Department of Health and Human Services Health Resources Services Administration.[1] ***Appendix C*** includes the details on each of these designations.

Health Professional Shortage Areas and Medically Underserved Areas and Populations

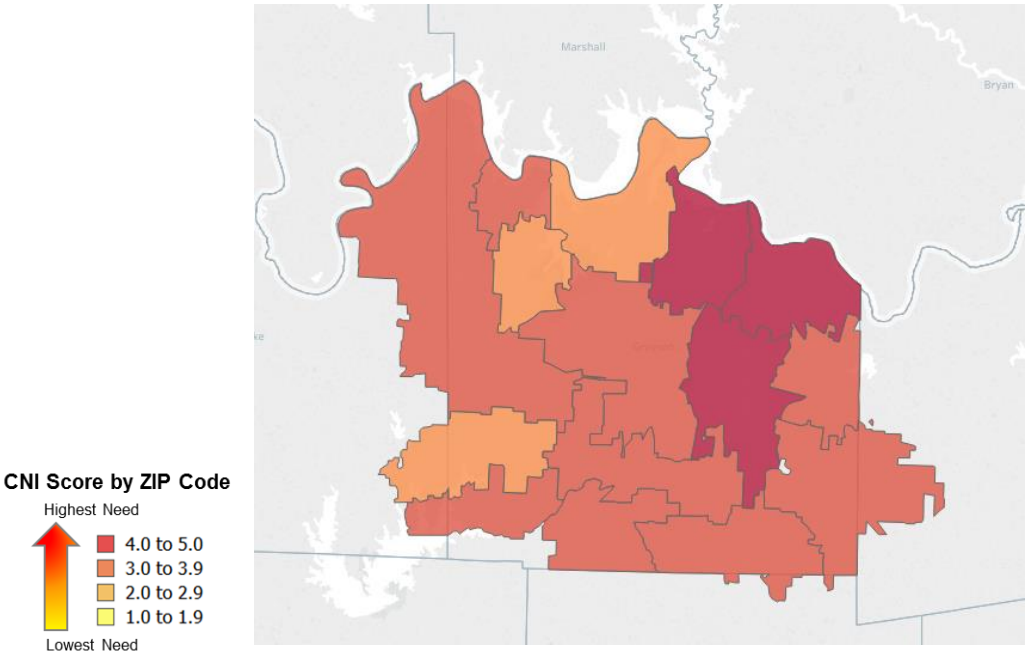
	Health Professional Shortage Area (HPSA)	Medically Underserved Area/Population (MUA/P)
COUNTY	TOTAL HPSA Shortage Areas	TOTAL MUA/P
Grayson	2	2
TOTAL	**2**	**2**

The Truven Health Community Need Index (CNI) is a statistical approach to identifying potential health needs in a community. The CNI takes into account vital socio-economic factors (income, cultural, education, insurance and housing) about a community to generate a CNI score for every populated ZIP code in the United States. The CNI is strongly linked to variations in community healthcare needs and is a strong indicator of a community's demand for various healthcare services. The CNI score by ZIP code identifies specific areas within a community where healthcare needs may be greater.

[1] U.S. Department of Health and Human Services, Health Resources and Services Administration, 2017

The community served was above the CNI national average of 3.0, as the overall county had a CNI of 3.8. Several areas of Grayson County scored 4.0 or higher on the index, ZIP codes 75090 (Sherman), 75021 and 75020 (Denison).

2017 Community Need Index by ZIP Code



Source: Truven Health Analytics (An IBM Company) / The Nielsen Company, 2017

Public Health Indicators

Public health indicators were collected and analyzed to assess community health needs. Eighty-one indicators were evaluated for the community served. For each health indicator, a comparison was made between the most recently available community data and benchmarks for the same/similar indicator. Benchmarks were based on available data and included the United States and the State of Texas. Health needs were identified where the county indicator did not meet the State of Texas comparative benchmark. The indicators that did not meet the state benchmark for this community include the following:

Category	Indicator
Access to care	Population to primary care physician ratio
Access to care	Healthcare costs
Access to care	Hospital stays for ambulatory-care sensitive conditions
Access to care	Population to non-physician primary care provider ratio
Access to care	Percentage of population under age 65 without health insurance
Environment	Air pollution - particulate matter (daily density)
Environment	Population with adequate access to locations for physical activity
Environment	Limited access to healthy foods (percent of low income)
Environment	Food insecure households
Health behaviors	Drug overdose death rate
Health behaviors	Teen birth rate per 1,000 female population, ages 15-19
Health behaviors	Driving deaths with alcohol involvement
Health behaviors	Physical inactivity
Health behaviors	Adult smoking
Health behaviors	Adults engaging in binge drinking
Health behaviors	Adult obesity
Health outcomes	Lung cancer incidence
Health outcomes	Colon cancer incidence
Health outcomes	Cancer (all causes) incidence
Health outcomes	Chronic Obstructive Pulmonary Disease (COPD) rate
Health outcomes	Ischemic Heart Disease rate
Health outcomes	Arthritis rate
Health outcomes	First trimester entry into prenatal care
Health outcomes	Hyperlipidemia rate
Health outcomes	Heart Failure rate
Health outcomes	Low birth weight rate
Health outcomes	Hypertension rate
Health outcomes	Stroke rate
Health outcomes	Depression rate
Health outcomes	Female breast cancer incidence
Health outcomes	Atrial Fibrillation rate
Health outcomes	Preterm Births <37 weeks gestation
Health outcomes	Alzheimer's disease/Dementia rate
Health outcomes	Schizophrenia and other psychotic disorders rate
Health outcomes	Average number of physically unhealthy days reported

Category	Indicator
Health outcomes	Very low birth weight rate
Injury & death	Motor vehicle crash death rate
Injury & death	Premature death
Injury & death	Chronic Lower Respiratory Disease (CLRD) death rate
Injury & death	Stroke death rate
Mental health	Average number of mentally unhealthy days reported
Population	Children in single-parent households
Population	Individuals who report being disabled
Population	High school dropouts
Population	Some college education
Prevention	Diabetic monitoring

Truven Health Community Data

Truven Health Analytics supplemented the publicly available data with estimates of localized prevalence of heart disease and cancer, as well as emergency department visit estimates.

Unsurprisingly, Truven Health estimated hypertension as the most prevalent heart disease diagnoses in Grayson County with 38,087 cases. The cities of Sherman and Denison account for nearly 60% of each type of heart disease type within Grayson County.

2017 Estimated Heart Disease Cases

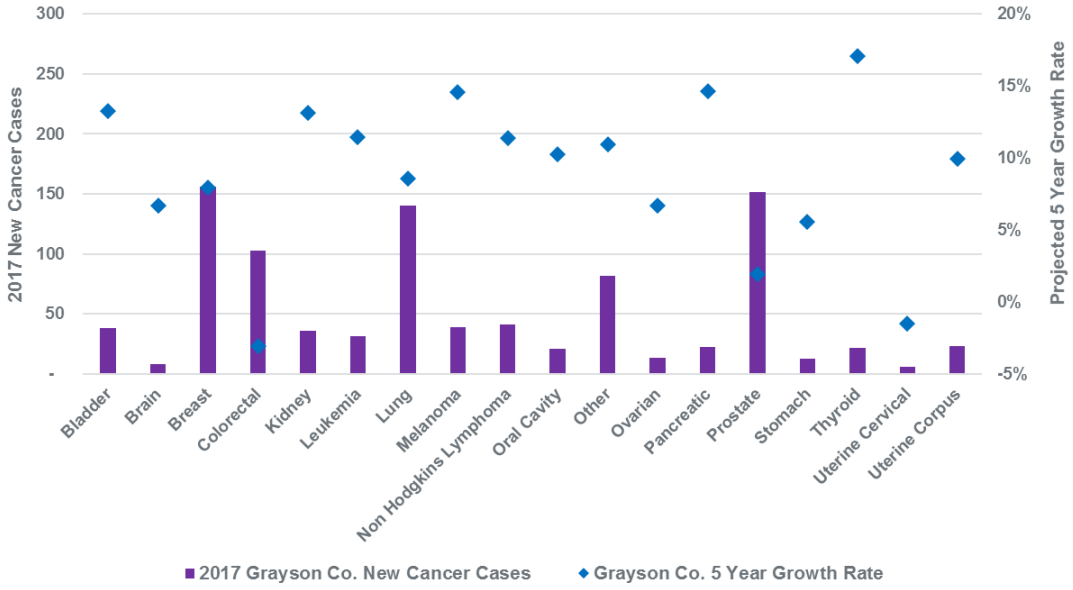
Disease Type	Grayson County
ARRHYTHMIAS	7,955
CONGESTIVE HEART FAILURE	3,934
HYPERTENSION	38,087
ISCHEMIC HEART DISEASE	7,814

Note: Prevalence cannot be aggregated across heart disease types due to co-morbidity between heart diseases.

Source: Truven Health Analytics (An IBM Company) / The Nielsen Company, 2017

Truven Health's 2017 Cancer Estimates project the greatest number of new cancer cases are breast, prostate and lung cancers. Growth in new cancer cases over the next five years is expected to be 7%, with the greatest growth rates projected for thyroid, pancreatic and skin cancers. Overall, cancer incidence is currently much higher than the state benchmark.

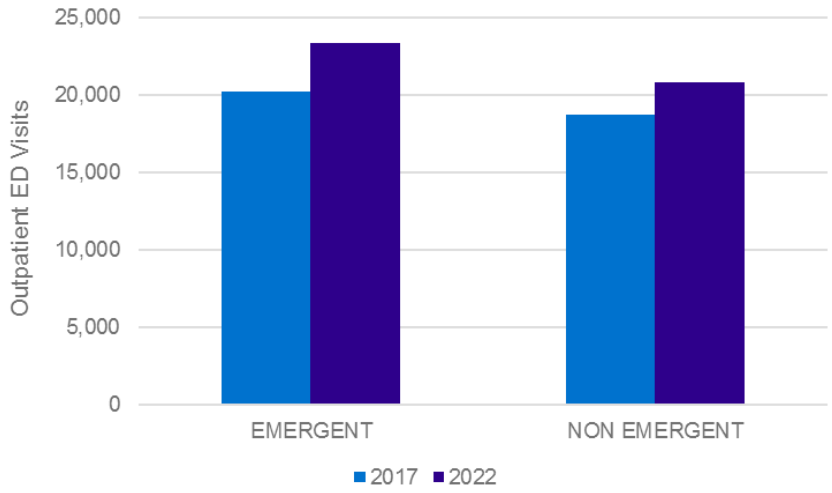
New Cases and Projected Growth by Cancer Type



Source: Truven Health Analytics (An IBM Company) / The Nielsen Company, 2017

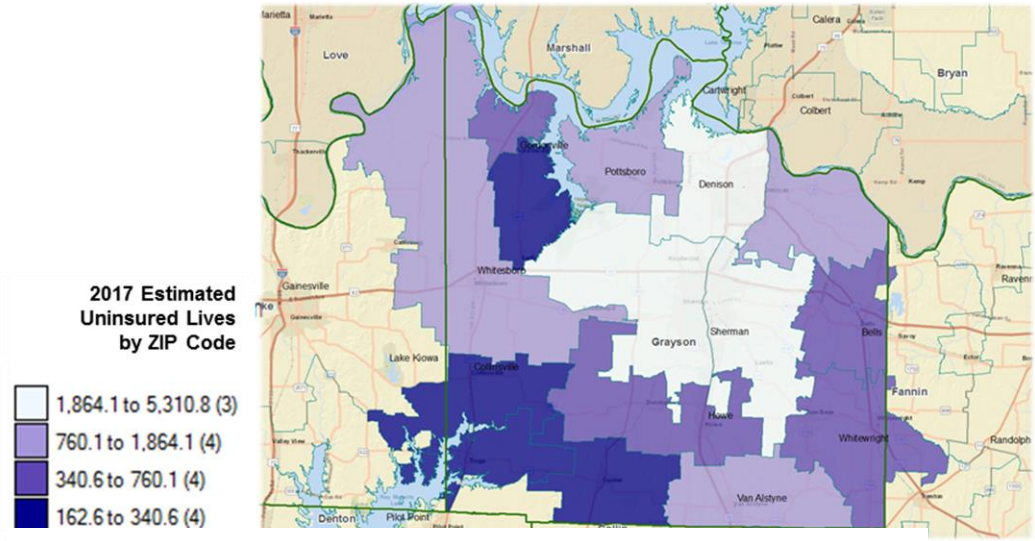
Outpatient emergency department (ED) visits are those that are treated and released without resulting in an inpatient admission. Truven Health estimated the highest volume of outpatient ED visits in Grayson County was expected to come from residents in the towns of Sherman, Denison and Whitesboro, which will account for nearly 70% of the total volume in the community. The overall county volume of outpatient ED visits is expected to grow 13% over the next 5 years, including an 11% growth in non-emergent visits and a 15% growth in emergent visits. Non-emergent outpatient ED visits are lower acuity visits that present to the ED but can often be treated in other, more appropriate and less intensive outpatient settings. Non-emergent ED visits can be an indication that there are systematic issues with access to primary care or managing chronic conditions.

Emergent and Non-Emergent ED Visits



Source: Truven Health Analytics (An IBM Company) / The Nielsen Company, 2017

2017 Estimated Non-Emergent ED Visits by ZIP Code



Source: Truven Health Analytics (An IBM Company) / The Nielsen Company, 2017

Interviews

In the interview sessions, the participants were asked to identify factors that contribute to the current health status of the community. Factors the participants considered included; the rise in obesity for both adults and children, increase in drug use and addiction, access to care and providers for the uninsured and those with government payors, increase in homeless individuals and an environment that supports healthy lifestyles (low crime, healthy food access, recreation access).

For the community served, the top health needs identified in the interview process included:

1. Prevalence of chronic conditions and diseases
2. Obesity and sedentary lifestyles
3. Lack of healthcare education, knowledge around healthy lifestyles and managing chronic conditions
4. Substance abuse and mental health
5. Access to primary and preventative care, particularly care options with lower costs

Barriers to good healthcare in this community include socioeconomic status (poverty and low-wage jobs), lack of affordable housing (impacting economic status), lack of affordable health insurance options and lack of public transportation. The following populations were identified as vulnerable groups that will need special attention when addressing health needs:

- Elderly
- Children and youth
- Homeless
- Low-income
- Uninsured

Community resources were identified by the participants to address the top needs identified. ***Appendix B*** includes the list of existing community resources identified by the participants.

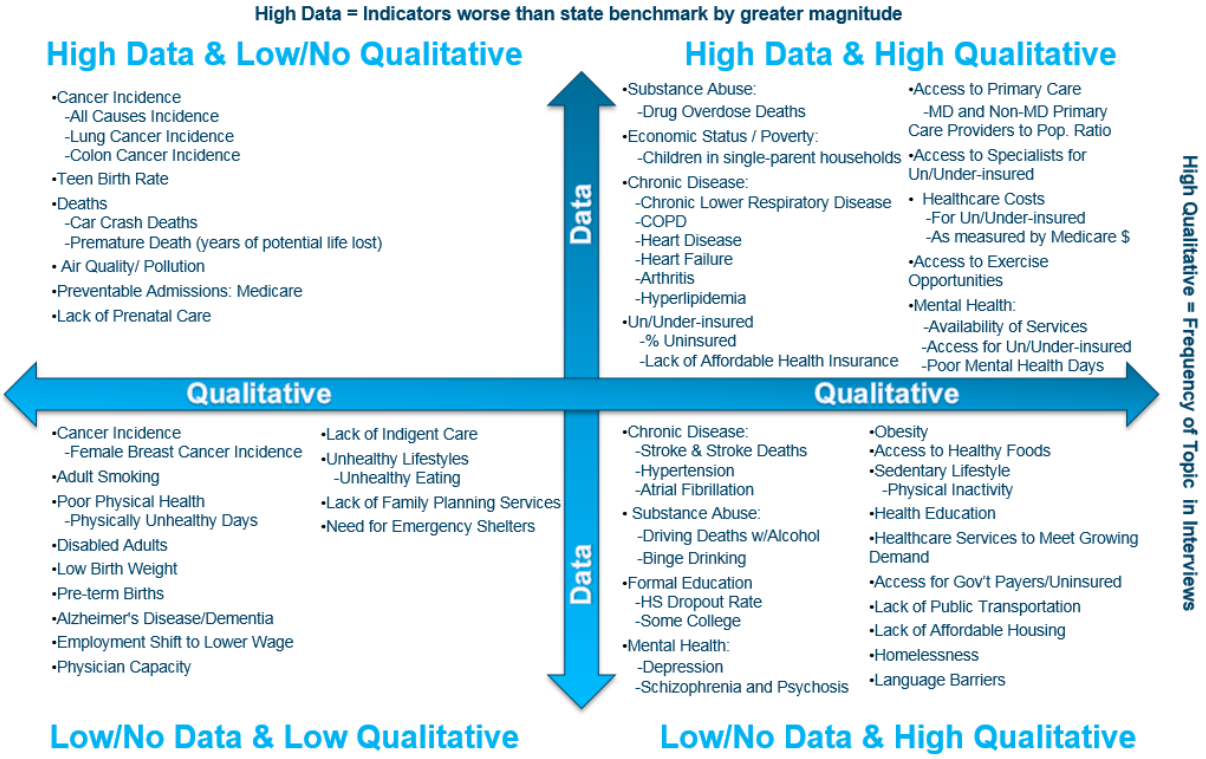
The interview participants and the populations they serve for this community are documented in the following table.

Key Informant Interview Participants			
Community Leaders/ Groups	**Public and Other Organizations**		**Other Providers**
Sherman Chamber of Commerce (Interview)	Grayson County Crisis Center (Interview) MP	New Beginning Food Pantry (Interview) LI, MP	Grayson County Health Clinic (Interview) MU
Texoma Council of Governments (Interview)	Callie Clinic (Interview) MU, MP, CD	United Way of Grayson County (Interview) MU, LI, CD, MP	Grayson County Health Department (Interview) PH, MU, LI, CD, MP
	North Texas Youth Connection (Interview) LI, MP	Grayson County Shelter (Interview) MU, LI	

Represents Public Health	Represents Medically Underserved Populations	Represents Low Income Populations	Represents Populations with Chronic Disease Needs	Represents Minority Populations
PH	MU	LI	CD	MP

Health Needs Matrix

Quantitative and qualitative data were analyzed and displayed as a health needs matrix to identify the most significant community health needs. Below is the matrix for the community served by Baylor Scott & White Surgical Hospital at Sherman.



Prioritizing Community Health Needs

To identify and prioritize the significant needs of the community, the hospital facility established a comprehensive method of considering all available relevant data including community input.

First, specific needs were pinpointed when an indicator for the community served did not meet state benchmarks. Then, an index of magnitude analysis was conducted on all those indicators to determine the degree of difference from the benchmark in order to indicate the relative severity of the issue. The outcomes of this quantitative analysis were aligned with the qualitative findings of the community interview sessions to bring forth a list of health needs in the community. These health needs were then classified into one of four quadrants within a health needs matrix; high data low qualitative, low data low qualitative, low data high qualitative, or high data high qualitative.

Significant community health needs were identified through the weight of quantitative and qualitative data obtained when assessing the community. Needs which were supported by data showing the community to be worse than the state by a greater magnitude, and were also a frequent theme during interviews (those needs in the high data high qualitative quadrant of the health needs matrix), were determined to be significant.

These significant needs were prioritized based on input gathered from the benchmark analysis and the key informant interviews. Key informant interviewees were asked to identify the top health needs of the community based on the importance they placed on addressing the need. Through this process, the significant health needs were prioritized based on the frequency in which they were listed as the top healthcare needs.

Hospital leadership reviewed the quantitative and qualitative analysis of the data and the resultant rankings to arrive at a consensus prioritization of significant needs based on leadership's understanding of the quantitative and qualitative community data analyzed. Through this process, the health needs were prioritized. The prioritized health needs of this community are below:

1. Chronic disease (heart disease/failure, hyperlipidemia, arthritis, chronic obstructive pulmonary disorder and chronic lower respiratory disease)
2. Economic status/poverty
3. Access to care: healthcare costs for the un/underinsured
4. Un/underinsured population
5. Access to primary care providers (physician and non-physician)
6. Substance abuse
7. Mental health
8. Access to exercise opportunities

Description of the Prioritized Health Needs

Chronic disease

The U.S. National Center for Health Statistics defines a chronic illness or disease as a disease lasting three months or more. Chronic diseases generally cannot be prevented by vaccines or cured by medication. These conditions can significantly impact individual health and the overall health of a community. Interview participants expressed concerns over the impact of chronic diseases and conditions on the health of Grayson County residents.

Cumulatively, residents in Grayson County report poorer health than national statistics. The percentage of adults reporting fair or poor health is 17%, compared to national rates of 16.4%.[2] The average number of physically unhealthy days reported in past 30 days is also higher in Grayson County at 4%, with statewide and national rates at 3.6%.[3]

Heart disease/failure

Heart disease is the leading cause of death in America and it claims the lives of more than 610,000 Americans each year.[4] The percentage of Medicare beneficiaries in Grayson County with Ischemic Heart Disease is 6.3% higher than rates reported statewide.[5] Grayson County Medicare beneficiaries also have a higher prevalence of heart failure at 20.3% compared to statewide rates of 15.5% (and national rates of 13.5%).[6]

Hyperlipidemia

Hyperlipidemia occurs when there is an excessive amount of fat in the blood. One in every six Americans is diagnosed with hyperlipidemia.[7] People diagnosed with hyperlipidemia are at greater risk for heart disease and strokes. Grayson County residents are 5% more likely to have been diagnosed with hyperlipidemia; incidence rates in Grayson County are 51%, compared to statewide rates of 44.6% and national rates 46.1%.[8] Interview participants discussed community health events and education as opportunities to improve the impact of hyperlipidemia in the community.

Arthritis

Arthritis includes more than 100 diseases that are commonly associated with pain, swelling and the stiffening of joints.[9] In the United States, more than 54 million adults are diagnosed with arthritis.[10] At a rate of 37.8% among Medicare recipients, the rate in

[2] Behavioral Risk Factor Surveillance System. Percentage of adults reporting fair or poor health (age-adjusted); 2014
[3] Behavioral Risk Factor Surveillance System. Average number of physically unhealthy days reported in past 30 days (age-adjusted); 2014
[4] CDC, NCHS. CDC WONDER; 2015.
[5] CMS, Office of Enterprise Data and Analytics, Chronic Conditions; 2015
[6] CMS, Office of Enterprise Data and Analytics, Chronic Conditions; 2015
[7] American Heart Association; 2017.
[8] CMS, Office of Enterprise Data and Analytics, Chronic Conditions; 2015
[9] CDC, “Improving the Quality of Life for People with Arthritis at a Glance, 2016”
[10] CDC, “Improving the Quality of Life for People with Arthritis at a Glance, 2016”

Grayson County is 6.2% higher than statewide and national rates (the Texas statewide rate is 31.6%, national rate is 30.0%).[11]

Chronic Obstructive Pulmonary Disorder (COPD) and Chronic Lower Respiratory Disease (CLRD)

Chronic Obstructive Pulmonary Disorder (COPD) and Chronic Lower Respiratory Disease (CLRD) are respiratory or breathing disorders frequently associated with emphysema, chronic bronchitis, and asthma.[12] COPD/CLRD are the third leading causes of death in the United States.[13] The percentage of Medicare beneficiaries with COPD in Grayson County is 6.3% higher than rates reported statewide. Grayson County reports COPD diagnoses rates of 17.4% compared to statewide rates of 11.1% (and national rates of 11.2%).[14] Grayson County Medicare residents also have higher death rates attributed to CLRD at 42.3 per 100,000 compared to the statewide rate of 36.0 the national of 40.5 per 100,000.[15]

Interview participants discussed the impact of chronic conditions on the health of the community and believe there are opportunities to reduce the impact by encouraging healthy lifestyle choices as well as providing education on managing chronic conditions.

Economic status/poverty

Financial issues can create significant barriers to accessing healthcare. Interview participants indicated that some residents struggle with financial barriers related to poverty, shifts to lower wage jobs, lack of insurance, and the rising cost of healthcare services. Measuring the impact of these barriers can be challenging as they are not mutually exclusive and are frequently compounded, creating deeper disparities for the most vulnerable populations. Interview participants were concerned that Grayson County's healthcare system does not adequately serve residents impacted by poverty and lower socioeconomic status. While Grayson County reports unemployment rates at 4%, lower than both the statewide rate (4.5%) and the national rate (5.3%)[16], interview participants noted that employment trends are shifting to lower wage jobs. The poverty level in Grayson County is 16.2%, while better than the state level (17.3%) is higher than the national level of 15.5%.[17] Additionally, more than 23% of children live in poverty in Grayson County. This is consistent with the level of children living in Texas, but is higher than the national average at 21%.[18]

[11] CMS Chronic Condition Data Warehouse (CCW); 2015
[12] CDC, Chronic Obstructive Pulmonary Disease (COPD), 2017
[13] CDC, Chronic Obstructive Pulmonary Disease (COPD), 2017
[14] CMS, Office of Enterprise Data and Analytics, Chronic Conditions; 2015
[15] CMS, Office of Enterprise Data and Analytics, Chronic Conditions; 2015
[16] Bureau of Labor Statistics, Percentage of population ages 16 and older unemployed but seeking work; 2015
[17] U.S. Census, American Community Survey; 2011-2015
[18] US Census Small Area Income and Poverty Estimates (SAIPE), Percentage of children under age 18 in poverty; 2015

Access to care: healthcare costs for the un/underinsured

Access to healthcare relates to an individual's ability to utilize healthcare services and the available goods or services required to support healthy lifestyles. Access to healthcare services includes physicians, inpatient and outpatient care, and specialty medical services. The growing cost of healthcare services creates a barrier for some individuals. Individuals living at a lower socioeconomic status often do not have health insurance and are unable to pay for healthcare services out of pocket. Many of these individuals do not qualify for government programs/subsidies given their income levels, yet still face challenges in their ability to pay for insurance or healthcare services. Additionally, individuals who do qualify for assistance in purchasing insurance, may not be able to afford the out-of-pocket costs associated with their health plans. In Texas, more people are unable to see a doctor due to cost than those living in other states. More than 18% of Texans report that healthcare costs have prevented them from seeing a doctor, a 5% increase over national rates.[19] The percentage of residents avoiding care due to cost is not available at the county level, but other statistics indicate that Grayson County residents are faced with higher costs than those reported by other communities. The amount of price-adjusted Medicare reimbursements per enrollee in Grayson County is 14.1% higher than rates reported nationally, at $12,482 versus $10,942.[20]

Un/underinsured population

Health insurance, or the lack there of, is another financial barrier to healthcare access. Grayson County residents are also much less likely to be insured. Like most of Texas, Grayson County has an alarming number of uninsured adults. Approximately 22% of residents under the age of 65 do not have health insurance. While this is similar to the uninsured rate for state of Texas (21%), it shows a large disparity when compared to national uninsured rates of 10.6%.[21] These statistics do not include "underinsured" residents (those who have health insurance, but the coverage does not adequately cover required services). Insurance coverage is important to ensuring access to care, because individuals without coverage will often delay care in the face of other financial priorities.

Access to primary care providers (physician and non-physician)

Access to healthcare relates to an individual's ability to utilize healthcare services and the available goods or services required to support healthy lifestyles. Access to healthcare services includes physicians, inpatient and outpatient care, and specialty medical services. Interview participants identified access to primary care providers, especially for those without insurance, as an access barrier in Grayson County. Primary care providers are an important part of the healthcare system, addressing important functions related to coordinating care, ensuring adequate follow-up care, and maintaining continuity of care.

Provider to resident ratios are frequently used to evaluate the community's access to healthcare. Grayson County reports a resident to primary care provider ratio of 2,030:1.

[19] Behavioral Risk Factor Surveillance System (BRFSS); 2006-2015
[20] Dartmouth Atlas of Health Care, Percent of adults who could not see a doctor in the past 12 months due to cost; Kaiser Fund 2006-2015.
[21] US Census, Small Area Health Insurance Estimates (SAHIE); 2015

The county's available provider ratios are much lower than those reported at state and national levels, at 1,670:1 and 1,342:1, respectively.[22] Availability of non-physician primary care providers can help alleviate access to primary care but Grayson County's resident to non-physician primary care provider ratio of 1,743:1 is also higher (5.6%) than the state of Texas ratio (1,646:1).[23] Additionally, the county is a designated Health Professional Shortage Area (HPSA) for primary care providers.[24]

Substance abuse

Interview participants expressed a concern over the rise in addiction and substance abuse in the community and its long-term effects on residents. Interview participants also expressed concern over inadequate services or funding for substance abuse treatment. Available statistics indicate that Grayson County has higher rates of binge drinking, alcohol related driving deaths and drug overdose deaths than those reported at the state level. Grayson County reported rates of binge drinking are 1% higher, alcohol related driving deaths are 3% higher and drug overdose deaths are 38.3% higher than rates reported by the state of Texas.[25,26]

Mental health

Mental Health as a community health need was identified as a priority through the key informant interviews. Specifically, participants mentioned needing access to providers and support services, especially for the Medicaid and un/underinsured populations. The participants expressed a need for services to treat conditions other than "the big 3" (bi-polar disorder, schizophrenia, personality disorder). Grayson County reports potential gaps in mental health services with a mental health resident to provider ratio of 980:1 compared to the national ratio of 529:1.[27] Additionally, the county is also a designated Health Professional Shortage Area (HPSA) for mental health providers.[28] Grayson County also reports higher rates of mentally unhealthy days than the State of Texas. Grayson County reports mentally unhealthy days at 3.2 days per month. State rates for mentally unhealthy days are reported at 3.0 days per month.[29]

Access to exercise opportunities

Interview participants noted the absence of a "healthy life" culture in the community. Exercise options remain limited and are not easily accessible or safe. The ability to

[22] CMS, National Provider Identification file; 2015
[23] Area Health Resource File/American Medical Association, Ratio of population to one non-physician primary care provider; 2014
[24] [24] U.S. Department of Health and Human Services, Health Resources and Services Administration, 2017

[25] Centers for Disease Control and Prevention (CDC), Adults Engaging in Binge Drinking During the Past 30 Days; 2012
[26] Behavioral Risk Factor Surveillance System (BRFSS), Percentage of adults reporting binge or heavy drinking; 2015
[27] CMS, National Provider Identification file, 2016
[28] U.S. Department of Health and Human Services, Health Resources and Services Administration, 2017
[29] Behavioral Risk Factor Surveillance System (BRFSS), average number of reported mentally unhealthy days; 2006-2015.

choose walking or biking as transportation or exercise method are limited as the community infrastructure does not support these alternatives. Just 73% of Grayson County residents have access to locations for physical activity compared to more favorable rates of 84% of Texas residents and 85% of U.S. residents.[30] Access to locations for physical activity may have an impact on the rates of adults that report physical inactivity. The percentage of adults aged 20 and above reporting no leisure-time physical activity in Grayson County is 25%, higher than the statewide and national rates of 23%.[31]

Summary

Baylor Scott & White Surgical Hospital at Sherman conducted a Community Health Needs Assessment beginning early in 2017 to identify and begin addressing the health needs of the community they serve. Using both qualitative community feedback as well as publicly available and proprietary health indicators, Baylor Scott & White Surgical Hospital at Sherman identified and prioritized the health needs for the community served by their hospital. With the goal of improving the health of the community, an implementation plan with specific tactics and time frames will be developed for the health needs that Baylor Scott & White Surgical Hospital at Sherman has chosen to address for the community served.

[30] Business Analyst, Delorme map data, ESRI, & US Census Tigerline Files; 2010 & 2015
[31] CDC Diabetes Interactive Atlas; 2013

Appendix A: Key Health Indicator Sources

Key Health Indicator Sources	
CMS Chronic Condition Data Warehouse (CCW)	Center for Public Policy Priorities/ Texas Education Agency
National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention	Texas Education Agency
Texas Department of State Health Services	2017 County Health Rankings
National Vital Statistics System	US Census Small Area Income and Poverty Estimates (SAIPE)
CDC Wonder Mortality Data Compressed Mortality File (CMF)	American Community Survey
Fatality Analysis Reporting System (FARS)	Bureau of Labor Statistics
Small Area Health Insurance Estimates	County Business Patterns
Dartmouth Atlas of Health Care	National Center for Education Statistics
Area Health Resource File/ American Medical Association	National Center for Health Statistics
CMS, National Provider Identification File	Uniform Crime Reporting, Federal Bureau of Investigation
Feeding America	Behavioral Risk Factor Surveillance System (BRFSS)
USDA Food Environment Atlas	National Cancer Institute
Safe Drinking Water Information System	CDC Diabetes Interactive Atlas
Comprehensive Housing Affordability Strategy (CHAS)	Centers for Medicare and Medicaid Services (CMS)
Centers for Disease Control and Prevention (CDC)	Business Analyst, Delorme Map Data, ESRI, & US Census Tigerline Files
Comprehensive Housing Affordability Strategy (CHAS) Data	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
National HIV Surveillance System	US Census
Fatality Analysis Reporting System	

Appendix B: Community Resources Identified to Potentially Address Significant Health Needs

Resources Identified via Community Input

Grayson County Health Clinic	Greater Texoma Health Clinic	Grayson County Health Department	Local churches
United Way of Grayson County	St. Luke's Episcopal Church	Child & Family Guidance Center of Texoma	Cross Center Ministries
Texoma Homeless Coalition	Barnabus House	Rehabilitation Center Therapeutic Solutions For Children and Adults	Local food banks
Four Rivers Outreach	Texoma Health Foundation (public health foundation)	Texoma Community Center	Behavioral Health Leadership Team
Meadows Mental Health Policy Institute			

Community Healthcare Facilities[32]

Hospitals - Seven (7) Hospitals Serving the Community

Facility Name	Type*	Street Address	City	State	ZIP
Baylor Scott & White Surgical Hospital at Sherman	ST	3601 N Calais Street	Sherman	TX	75090
Texoma Medical Center	ST	5016 South Us Highway 75	Denison	TX	75020
Wilson N. Jones Regional Medical Center (WNJ)	ST	500 North Highland Avenue	Sherman	TX	75092
Carrus Specialty & Rehabilitation Hospital	LT	1810 Us Hwy 82 West	Sherman	TX	75092
TMC Reba McEntire® Center for Rehabilitation	LT	1200 Reba Mcentire Lane	Denison	TX	75020
TMC Behavioral Health Center	LT	2601 Cornerstone Drive	Sherman	TX	75090
Wilson N Jones Behavioral Health Services	PSY	1111 Gallagher	Sherman	TX	75090

**Type: ST=short-term; LT=long-term, PSY=psychiatric, KID = pediatric*

Free-Standing Emergency Departments and Urgent Care Centers

Facility Name	Type**	Street Address	City	State	ZIP
Select ER	FSED	4226 Us Highway 75 North	Sherman	TX	75090
One Medical	UCC	913 Cottonwood Dr.	Sherman	TX	75090
Texoma Urgent Care	UCC	3126 W Fm 120	Denison	TX	75020

***Type: FSED=free-standing emergency department; UCC=Urgent Care Center*

[32] Texas Department of State Health Services, 5/17/2017

Appendix C: Federally Designated Health Professional Shortage Areas and Medically Underserved Areas and Populations

Health Professional Shortage Areas (HPSA)[33]

County Name	HPSA ID	County Name	HPSA Discipline Class	Designation Type
Grayson County	748999481E	Low Income - Grayson County	Mental Health	Single County
Grayson County	14899948H4	Low Income - Grayson County	Primary Care	Single County

Medically Underserved Areas and Populations (MUA/P)[34]

County Name	Service Area Name	MUA/P Source Identification Number	Designation Type
Grayson County	Grayson Service Area	03530	Medically Underserved Area
Grayson County	Grayson Census Tracts 5.01, 5.02, 7, 6, 2, 14, 16.01, 16.02, 17	07693	Medically Underserved Population

[33] U.S. Department of Health and Human Services, Health Resources and Services Administration, 2017
[34] U.S. Department of Health and Human Services, Health Resources and Services Administration, 2017