# CHRISTUS Mother Frances Rehabilitation Hospital a partner of *Encompass Health*



Community Health Needs Assessment 2020-2022

#### **About Texas Health Institute:**

Texas Health Institute (THI) is a non-profit, non-partisan public health institute. Since 1964, THI has served as a trusted, leading voice on public health and healthcare issues in Texas and the nation. THI's expertise, strategies, and nimble approach makes it an integral and essential partner in driving systems change efforts. THI works across and within sectors to lead collaborative efforts and facilitate connections to foster systems that provide the opportunity for everyone to lead a healthy life.

Developed by:



9111 Jollyville Road, Suite 280 Austin, Texas 78759

### TABLE OF CONTENTS Table of Contents.....iii List of Tables, Figures, and Data Sources.....iv Executive Summary ......vi Introduction \_\_\_\_\_\_1 Phase 2: Workshop for Validation and Prioritization ....... 4 Summary of Activity Since the 2016 CHNA ......7 Key Findings .......9 Population Demographics......9 Appendix A: County Level Data......27

# LIST OF TABLES, FIGURES, AND DATA SOURCES

Table	Title	Page	Data Source
1	Report Area Population by County	9	US Census Bureau, American Community Survey, 2014-2018
2	Report Area Population by Race and Ethnicity	11	US Census Bureau, American Community Survey, 2012-2016
3	Population to Healthcare Providers Ratio	15	Area Health Resource File/American Medical Association, 2015 Accessed via County Health Ranking
4	Diabetes Prevalence and Poor Physical Health in Report Area	16	Diabetes: Centers for Disease Control and Prevention, Diabetes Interactive Atlas, 2014; Physical Health: Behavioral Risk Factor Surveillance System, 2016 Accessed via County Health Ranking
5	Disability Prevalence in Report Area	19	US Census Bureau, American Community Survey, 2014-2018
6	Health Behavior Indicators	21	Behavioral Risk Factor Surveillance System, 2014 & 2016; Accessed via County Health Ranking
7	Top 15 ZIP Codes for Inpatient Admissions	23	CHRISTUS Trinity Mother Frances Rehabilitation Hospital, Inpatient Utilization FY2018-FY2019
8	Top ICD-10 Diagnostic Codes During Rehabilitation Visit	24	CHRISTUS Trinity Mother Frances Rehabilitation Hospital, Inpatient Utilization FY2018-FY2019
9	Payment Source for Inpatient Admissions	24	CHRISTUS Trinity Mother Frances Rehabilitation Hospital, Inpatient Utilization FY2018-FY2019

Figure	Title	Page	Data Source
1	Report Area Population Density (Persons per Square Mile)	10	US Census Bureau, American Community Survey, 2013-2017
2	Report Area Population by Age Groups	10	US Census Bureau, American Community Survey, 2013-2017
3	Report Area Population by Race and Ethnicity	11	US Census Bureau, American Community Survey, 2012-2016
4	Poverty Distribution by Language	12	US Census Bureau, American Community Survey, 2012-2016
5	Socioeconomic Characteristics of Report Area	13	Unemployment: US Department of Labor, Bureau of Labor Statistics, 2018 – November Educational Attainment: US Census Bureau, American Community Survey, 2012-2016 Food Insecurity: Feeding America, 2016 Poverty: US Census Bureau, American Community Survey, 2012-2016
6	Violent Crime Rate per 100,000 Residents	13	Federal Bureau of Investigation, FBI Uniform Crime Reports. Additional analysis by the National Archive of Criminal Justice Data, 2012-2014 Accessed via Community Commons

Figure	Title	Page	Data Source
7	Uninsured Rate in Report Area, Overall and by Age Group	14	US Census Bureau, American Community Survey, 2012-2016
8	Preventable Hospital Admissions (per 1,000 Medicare Enrollees)	15	Dartmouth College Institute for Health Policy & Clinical Practice, Dartmouth Atlas of Health Care, 2014 Accessed via Community Commons
9	Age-adjusted Cancer Incidence per 100,000 Population, by Type	17	State Cancer Profiles, 2011-2015 Accessed via Community Commons
10	Age-adjusted Mortality Rate for Selective Diseases per 100,000 Population	17	Centers for Disease Control and Prevention WONDER, 2012-2016 Accessed via Community Commons
11	Age-adjusted Mortality Rate per 100,000 Population, by External Cause	18	Centers for Disease Control and Prevention WONDER, 2012-2016 Accessed via Community Commons
12	Disability by Gender in Report Area	19	US Census Bureau, American Community Survey, 2014-2018
13	Disability Types Among Individuals 65+ Years Old	20	US Census Bureau, American Community Survey, 2014-2018
14	Age-adjusted Suicide Mortality Rate per 100,000 Population, Overall and by Gender	20	Centers for Disease Control and Prevention WONDER, 2012-2016 Accessed via Community Commons
15	Prevalence of Depression among Medicare Beneficiaries	21	Centers for Medicare and Medicaid Services, 2015 Accessed via Community Commons
16	Total Inpatient Admissions	22	CHRISTUS Trinity Mother Frances Rehabilitation Hospital, Inpatient Utilization FY2018-FY2019
17	Referral Sources (2018-2019)	25	CHRISTUS Trinity Mother Frances Rehabilitation Hospital, Inpatient Utilization FY2018-FY2019
18	Discharge Dispositions (2018-2019)	25	CHRISTUS Trinity Mother Frances Rehabilitation Hospital, Inpatient Utilization FY2018-FY2019

#### **EXECUTIVE SUMMARY**

CHRISTUS Trinity Mother Frances Health System is a non-profit, Catholic integrated health care delivery system that includes acute care hospitals in five counties in Upper East Texas. CHRISTUS Trinity Mother Frances Health System's dedicated staff provides specialty care tailored to the individual needs of every patient, aiming to deliver high-quality services with excellent clinical outcomes. CHRISTUS Trinity Mother Frances Health System works closely with the local community to ensure regional health needs are identified and incorporated into system-wide planning and strategy. To this end, CHRISTUS Trinity Mother Frances Health System commissioned Texas Health Institute to conduct and produce its 2020-2022 Community Health Needs Assessment (CHNA), as required by law to be performed once every three years as a condition of 501(c)(3) tax-exempt status.

In this community health needs assessment, THI staff and CHRISTUS Trinity Mother Frances Rehabilitation Hospital community stakeholders analyzed over 40 different indicators of health needs based on demographics and socioeconomic trends; measures of physical, behavioral, social, and emotional health; and risk factors and behaviors that promote health or produce sickness. The latter provided insight into social determinants of health operating in the report area, such as transportation and food insecurity. Report findings combine secondary analysis from publicly available data sources, hospital utilization data and input from those with close knowledge of the local public health and health care systems to present a comprehensive overview of unmet health needs in the region.

The voice of the community guided the needs assessment process throughout the life of the project, ensuring the data and analyses remained grounded in local context. Focus group and needs prioritization meetings ensured input from low income and minority communities and stakeholders representing those communities. Through an iterative process of community debriefing and refinement of findings, a final list of three prioritized health concerns were developed. These are summarized in the table below. This priority list of health needs and the data compiled in support of their selection lays the foundation for CHRISTUS Trinity Mother Frances Rehab Hospital to remain an active, informed partner in population health in the region for years to come.

Rank	Health Concern
1	Patient and primary care physician education
2	Chronic Illness
3	Opportunities for physical activity

CHRISTUS Trinity Mother Frances Rehabilitation Hospital Prioritized Health Needs, 2020-2022

#### INTRODUCTION

CHRISTUS Trinity Mother Frances Rehabilitation Hospital (CTMFRH) is a 94-bed facility that delivers inpatient rehabilitation care that helps patients achieve life-changing results. This facility is a partner with Encompass Health. Key services include stroke and cardiac rehabilitation and joint replacement recovery. Key leaders of care include not only providers but rehabilitation nurses, physical therapists, and occupational therapists. The hospital remains dedicated to guiding each patient through recovery and are committed to changing their life for the better, and is focused on the progress its patients make and the outcomes they achieve. This is evidenced by their industry-leading performance scores. For example, hospital ratings are a 4.7 out of 5 for patient satisfaction.

In addition to CHRISTUS Trinity Mother Frances Rehabilitation Hospital, the CHRISTUS Trinity Mother Frances Health System (CTMFHS) includes a 402-bed CHRISTUS Trinity Mother Frances Hospital and 51-bed CHRISTUS Louis and Peaches Owen Heart Hospital in Tyler, Texas, acute hospitals and inpatient facilities in Jacksonville, South Tyler, Sulphur Springs, and Winnsboro. In addition, CTMFHS includes a long-term acute care hospital in Tyler; clinics and outpatient centers spread across Tyler, Jacksonville, Canton, Lindale, and Flint; physician partnerships, PHOs, and MSOs; several collaborative ventures and affiliations; and the CHRISTUS Trinity Mother Frances Foundation.<sup>1</sup>

While CTMFRH serves a wide swath of Upper East Texas, CTMFRH defines the report area for this Community Health Needs Assessment (CHNA) to include the following seven Texas counties: Delta, Franklin, Hopkins, Rains, Wood, Smith, and Cherokee. The demography and socioeconomic conditions of these counties are broadly representative of the CTMFRH service area. As such, they offer insight into both the health needs of the patients and communities surrounding the seven hospitals for which this CHNA is conducted. <sup>2</sup>

CHRISTUS Health is a Catholic health system formed in 1999 to strengthen the faith-based health care ministries of the Congregations of the Sisters of the Incarnate Word of Houston and San Antonio that began in 1866. In 2016, the Sisters of the Holy Family of Nazareth became the third sponsoring congregation to CHRISTUS Health. Today, CHRISTUS Health operates 25 acute care hospitals and 92 clinics in Texas. CHRISTUS Health facilities are also located in Louisiana, Arkansas, and New Mexico. It also has 12 international hospitals in Colombia,

<sup>&</sup>lt;sup>1</sup> CHRISTUS Health. (2018). *System Profile 2018*. Available at: https://www.christushealth.org//media/files/Homepage/About/2018\_SysProfile.ashx.

<sup>&</sup>lt;sup>2</sup> The following seven facilities are included in the CHNA for CTMFHS: CHRISTUS Mother Frances Jacksonville, CHRISTUS Mother Frances South Tyler, CHRISTUS Mother Frances Tyler, CHRISTUS Louis and Peaches Owen Heart Hospital, CHRISTUS Trinity Mother Frances Rehab Hospital, CHRISTUS Mother Frances Winnsboro, and CHRISTUS Mother Frances Hospital Sulphur Springs. Note that Tyler Continue Care Hospital at Mother Frances Hospital is not including in this CHNA.

Mexico and Chile. As part of CHRISTUS Health's mission "to extend the healing ministry of Jesus Christ," CTMF strives to be, "a leader, a partner, and an advocate in the creation of innovative health and wellness solutions that improve the lives of individuals and communities so that all may experience God's healing presence and love."

Federal law requires all non-profit hospitals to conduct a CHNA every three years to maintain their tax-exempt status. CHRISTUS Health contracted with Texas Health Institute (THI) to develop the CHNA report for CTMFRH, a document that will fulfill the requirements set forth in IRS Notice 2011-52, 990 requirements for non-profit hospitals' community health needs assessments and will be made available to the public. To complete its CHNA, the THI team and CTMFRH leadership drew upon a wide range of primary and secondary data sources and engaged a group of community residents and stakeholders with special knowledge of vulnerable population groups and the local public health landscape. All together, these data and diverse perspectives provide insight into community health needs, priorities, challenges, resources, and potential solutions.

A CHNA ensures that CTMFRH has made efforts to identify the unmet health needs of residents in its service region, examine barriers residents face in achieving and maintaining good health status and inventory health opportunities and assets available within the report area that can be leveraged toward the improvement of population health. The CHNA lays the foundation for future planning, ensuring that CTMFRH is prepared to undertake efforts that will help residents of the local community attain the highest possible standard of health.

#### METHODOLOGY

#### REVIEW OF LITERATURE AND QUANTITATIVE DATA

THI staff conducted a literature review using previously published community health needs assessments and other reports focused on health in the report region. These included regional assessments such as the *Regional Needs Assessment* released in 2018 by the Prevention Resource Center 4 and the Health Assessment and *The Health Status of Northeast Texas* released by the University of Texas Health Science Center at Tyler.<sup>4,5</sup> Findings from the literature review, CTMFRH's prior CHNA, and CTMFRH progress on initiatives launched in response were incorporated into project design, interviews, focus group, and this report as applicable.

THI used a mixed-methods approach to data collection and analysis. Both qualitative and quantitative measures are drawn from primary and secondary data sources to ensure a comprehensive understanding of health needs and the potential for CTMFRH to address those

<sup>&</sup>lt;sup>3</sup> CHRISTUS Health. (2019). Our mission, values, and vision. Available at: http://www.christushealth.org/OurMission.

<sup>&</sup>lt;sup>4</sup> Regional Needs Assessment. (2018). Region 4 Prevention Resource Center. Available at: https://www.etcada.com/rna.

<sup>&</sup>lt;sup>5</sup> The Health of Northeast Texas 2016. UT Health Science Center at Tyler. Available at: https://utsystem.edu/sites/default/files/news/assets/northeasttx-health-status-report-2016.pdf

needs in collaboration with community partners. This mixed-methods approach is standard in all THI needs assessments and was used in concurrent needs assessments in five other CHRISTUS services areas in 2019.

CHNA development began with collection and examination of quantitative data from secondary sources. Unless otherwise specified, all data were accessed from Community Commons, a repository of community-level data compiled from archival sources including, but not limited to, the American Community Survey, U.S. Census Bureau, the CDC Behavioral Risk Factor Surveillance System, and the National Vital Statistics System. The most recent data available from this source were examined for the report area in aggregate and by county across several dimensions, including socio-demographic, health risk behaviors, access to care and clinical outcomes. THI subsequently obtained internal data from CTMFRH's hospital and conducted a descriptive analysis. Together, THI staff reviewed over 40 measures and categorized them for higher-level examination.

#### **KEY INFORMANT INTERVIEWS**

#### **Purpose**

The purpose of in-depth interviews was to gather a broad sample of perspectives on significant health needs in the community. Findings from interviews informed the design of the focus group and were incorporated into the results to lend context to quantitative patterns and trends. Semi-structured interviews followed a pre-designed questionnaire covering the identification of health needs, community resources, and possible opportunities for action. The interviewer asked about barriers and reasons for unmet health needs, existing capacity, needed resources, and potential solutions that could enhance well-being in the community, for specific subgroups treated by the rehabilitation hospital. The full-length Key Informant Interview Protocol can be found in Appendix B of this report.

#### Sample and Recruitment

Representatives from CTMFRH contributed contact information for 6 people who represent the broad interests of Tyler and who possess knowledge about the specific needs of the patients utilizing the rehabilitation hospital.

To recruit interviewees, the THI team contacted these 6 key informants by email and telephone, and 4 individuals responded to the request. THI conducted 4 interviews during January 2020, each lasting between 30 to 60 minutes.

#### **Transcription**

THI used the notes and recordings to guide the analysis. The identities of key informants and transcribed content of their statements will remain confidential.

#### **FOCUS GROUP**

#### Recruitment and Sample

Potential participants were identified by CTMFHS leadership. A total of 9 people participated in the 90-minute focus group. To assist with recruitment the local CHRISTUS liaison recruited these stakeholders who represented diverse population groups, occupations, and healthcare or related service providers (e.g., clinics, community organizations and social service agencies).

#### Phase 1: Initial Prioritization

The needs prioritization occurred in two phases. The first phase included a data-based prioritization from the THI team in advance of convening a needs prioritization committee comprised of local stakeholders. In this phase, THI identified the top six indicators of need based on both the qualitative and quantitative analysis. The top indicators based on the qualitative analysis included the most recurring themes for which there was the greatest evidence based on key informant interviews. Quantitative data utilized secondary data along with hospital data from August 2018- September 2019. These emerged in the process of triangulation described above.

For quantitative analysis, THI determined whether:

- Rates for the report area exceeded those for Texas or the U.S.
- Health measures were deemed to impact a large percentage of residents in the report area.
- Evidence of significant variation in rates across counties in the report area, indicating potential regional disparities.

This process enabled THI to sort quantitative indicators across three tiers—those with (I) clear, (II) middling, or (III) no evidence of health needs. All of Tier I and some of Tier II indicators were assembled for presentation at a needs prioritization workshop.

#### Phase 2: Workshop for Validation and Prioritization

The second phase involved facilitating a focus group to validate phase 1 findings and further refine and prioritize health needs. More specifically, the key objectives of this process were to determine the validity of THI's findings about community health needs (i.e., phase 1 results), identify a core set of community health issue areas for more focused discussion, and implement a fair process that enabled the group to prioritize needs through generative dialogue and group consensus.

To do this, THI designed a needs prioritization workshop that combined focused discussion with liberating structures. The workshop design (1) facilitated a fair and inclusive process so that all the stakeholders could review and comment on preliminary results on an equal footing, (2) enabled all stakeholders to feel free to present their views about the core health needs in the community, and (3) utilized a cumulative voting method to prioritize needs after uncovering the diverse perspectives of the group.

The needs prioritization workshop took place in January 2020. THI staff informed the CTMFRH liaison about the purpose of this meeting and appropriate logistics were arranged. The local liaison recruited individuals from the community to serve on the needs prioritization committee, and 9 people ultimately attended the meeting. A key component of recruitment was to ensure that the focused discussion included residents from or stakeholders representing the interests of low income, minority, vulnerable, or medically underserved communities.

4

<sup>&</sup>lt;sup>6</sup> Lipmanowicz, H., & McCandless, K. (2010). Liberating structures: innovating by including and unleashing everyone. *E&Y Performance*, *2*(4), 6-19.

THI staff facilitated the needs prioritization workshop and successfully identified a prioritized list of health needs. THI staff presented the initial analysis of all data, facilitated discussion about the validity of the results, and identified six issue areas for focused discussion based on the indicators presented. The facilitation ensured open discussion among all participants and used group consensus before moving to the next stage of the workshop. After discussion of the issue areas, participants voted on their top priorities based on a three-vote cumulative voting method. Facilitators from THI consolidated individual participants' scores to generate an overall ranking and a ranking based on community votes only to identify any differences in prioritization between community stakeholders and those from CHRISTUS. No differences were found, and the prioritization committee reached consensus on the composite ranking before finalizing the priority health needs list.

#### **ANALYSIS**

#### **Quantitative Analysis**

The first stage of the analysis involved comparing rates of mortality, morbidity, health utilization, and various measures of social determinants of health using publicly available secondary data sources. The THI team compared the rates in the report area with Texas and the US to determine evidence of "health needs." These comparisons represented quantitative indicators of need. For example, if the lung cancer rate in the report area were greater than the rate in Texas, that would be indicative of the need for more oncological services or primary prevention (e.g., reducing cigarette smoking). In addition to these comparisons, THI compared rates across counties within the report area to uncover potential regional disparities.

Primary data from CTMFRH provided additional information to supplement the analysis of health needs. THI calculated rates of hospital admissions. Indicators from these data were based on comparisons across diagnosis codes, payment type, referral/discharge and zip code.

#### Qualitative Analysis

Whereas quantitative data analysis provides evidence of the magnitude of various health needs in the report area population (relative to a standard), qualitative data analysis facilitates exploration of *why* those health needs were arising in the report area and *how* the community could potentially respond.

THI utilized a hybrid approach to qualitative analysis based on both thematic and content analysis as well as grounded theory-based methods.<sup>8,9,10</sup> Whereas thematic analysis identifies and *qualifies* narratives, content analysis identifies and *quantifies* recurring narratives.<sup>11</sup> These

<sup>8</sup> Smith, J., & Firth, J. (2011). Qualitative data analysis: the framework approach. *Nurse researcher*, *18*(2), 52-62.

<sup>&</sup>lt;sup>7</sup> Rates were age-adjusted for comparisons.

<sup>&</sup>lt;sup>9</sup> Joffe, H., & Yardley, L. (2004). Content and thematic analysis. *Research methods for clinical and health psychology*, *56*, 68.

<sup>&</sup>lt;sup>10</sup> Corbin, J. & Strauss, A. (1990). Grounded theory method: Procedures, canons, and evaluative criteria. *Qualitative Sociology*, 13, 3-21.

<sup>&</sup>lt;sup>11</sup> Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & health sciences*, *15*(3), 398-405.

two approaches are used to develop a comprehensive understanding of the report area while identifying priority health needs based on the weight of the evidence.

Grounded theory is an inductive approach to forming an understanding of a phenomenon that best fits *all* the data. The approach is an iterative process that involves collecting the data, coding similar concepts, forming concepts into categories, generating theory, and then going back to the data to verify the theory. THI used this iterative process to identify recurring themes that evidenced community health needs and health system needs—instead of generating theory per se. The iterative nature of collecting, analyzing, and reviewing data with stakeholders was built into THI's CHNA process from start to finish.

From listening to key informant and focus group audio, the THI team methodologically analyzed transcripts to understand interviewee narratives. The analysis focused on understanding stakeholders and focus group participant views with respect to (1) health needs (including physical, behavioral, and social/emotional) (2) the social determinants of health (3) barriers to care and (4) assets and solutions to address population health and health system needs.

The key informant interviews and focus group interviews varied in the themes that arose. In addition, some of the themes were supported by quantitative findings. The THI team therefore triangulated the results across all the data—key informant interviews, the focus group interview, and quantitative measures—to identify themes that emerged most frequently. These themes essentially offer a "theory" about the health needs in the community and the ways in which (health and non-health sector) systems could change to improve health outcomes in the report area. The last stage of the analysis involved verifying whether these themes were an accurate reflection of health and systems needs in the service area. This last step was incorporated as part of the needs prioritization.

#### SUMMARY OF ACTIVITY SINCE THE 2016 CHNA

In 2016 CTMFRH completed its most recent CHNA and developed a companion Implementation Plan for CTMFRH-led community health improvement for the 2017-2019 triennium. The CTMFRH pursued actions to address four of the seven health needs identified in the CHNA. The information below summarizes the expanded actions CTMFRH has pursued since that time for each of the targeted prioritized health needs. The information below summarizes the expanded actions CTMFRH has pursued since that time for each of the targeted prioritized health needs.

#### SIGNIFICANT NEEDS WITH HOSPITAL IMPLEMENTATION RESPONSIBILITY

#### Need for Increased Emphasis on a Collaborative Care Continuum

The 2016 CHNA identified the need for better coordination and collaboration to address the care transition of discharged patients. In response, CHRISTUS Trinity Mother Frances Rehabilitation Hospital works closely with CHRISTUS Mother Frances Hospital – Tyler and other health-related facilities to enhance care transition of discharged patients in line with the Triple Aim. Under the Triple Aim, all entities with the CHRISTUS Mother Frances Hospital Health System pledge to: (1) Improve the health of their population; (2) Enhance the individual patient experience of care and (3) Reduce the per capita cost of care. CHRISTUS Trinity Mother Frances Rehabilitation Hospital facilitates greater coordination and collaboration by staffing Care Navigators within the Care Management department to coordinate care transitions. Relevant Care Navigator tasks include: providing patient discharge instructions, conducting follow-up calls, coordinating necessary follow-up appointments, and providing discharge summaries to physicians.

# Prevention, Education and Services to Address High Mortality Rates, Chronic Diseases and Preventable Conditions and Unhealthy Lifestyles

The 2016 CHNA identified the need to provide more opportunities for prevention, education and services that aim to reduce mortality rates and the prevalence of chronic conditions and unhealthy lifestyles in the community. In response, CHRISTUS Trinity Mother Frances Rehabilitation Hospital engages in monthly outreach efforts targeting the senior population, physicians, referral resources and acute care facilities to educate community members about both preventative care for seniors as well as the benefits of inpatient rehabilitation. Such outreach efforts are conducted at Assisted Living Facilities, Nursing Homes, health fairs, expos and other community events.

<sup>&</sup>lt;sup>12</sup> CHRISTUS Health. *Community Health and Needs Assessment and Implementation Plan*. June 2016. Available at: https://www.christushealth.org/-/media/files/chip/christus-tmf-tyler-chna-chip2016.ashx?la=en

<sup>&</sup>lt;sup>13</sup> Note: Whereas the 2017-2019 Improvement Plan was based on results from a 3-county area composed of Cherokee, Smith, and Wood Counties, this 2020-2022 CHNA captures information from these three and four additional counties.

#### Access to Specialty Care Services

To address the need for improved access to specialty care, CHRISTUS Trinity Mother Frances Rehabilitation Hospital works to ensure that a directory of transportation resources, durable medical device retailers and rehabilitation care service resources is annually updated and available for patients.

#### Access to Affordable Care and Reducing Health Disparities Among Specific Populations

The 2016 CHNA identified the need to provide access to affordable health care services to vulnerable populations. CHRISTUS Trinity Mother Frances Rehabilitation Hospital continues to provide support for the Tyler Family Circle of Care Clinics and CHRISTUS Mother Frances Hospital - Tyler high need, Medicare, low income and/or uninsured patients. Therefore, patients' medical coverage and ability to pay is considered on a case-by-case basis, and charity care is provided when requirements are met. Furthermore, CHRISTUS Trinity Mother Frances Rehabilitation Hospital provides both onsite translation services and a language line for translation services as well as flat screen televisions with headphones or closed captioning for hearing impaired patients.

#### **KEY FINDINGS**

#### POPULATION DEMOGRAPHICS

To gauge the health needs of the very broad region CTMFRH serves, the report area includes the following seven counties: Cherokee, Delta, Franklin, Hopkins, Rains, Smith and Wood Counties. Consisting of a total population of 388,604 residents (Table 1), the report area (Figure 1) reflects the diverse communities in North East Texas from which CTMFRH patients could live while representing the bulk of individuals using CTMFRH services. Nearly 75% of the report area's population resides in Smith and Cherokee County. Fifty-nine percent of residents in the report area live in Smith County which is the only urban county, while the remaining 41% live in the remaining report area rural counties. This also mirrors the urban-rural breakdown of Texas population statewide. The population increased in all counties within the report area having a population change of 6.6% from years 2010 to 2017.

County Name	Population (%)
Cherokee County, TX	52,240 (13.4%)
Delta County, TX	5,298(1.4%)
Franklin County, TX	10,767 (2.8%)
Hopkins County, TX	36,496 (9.4%)
Rains County, TX	11,762 (3.0%)
Smith County, TX	227,727 (58.6%)
Wood County, TX	44,314 (11.4%)
Report Area	388,604

**Table 1. Report Area Population by County** 

<sup>14</sup> Health Services and Resources Administration. (2016). List of Rural Counties and Designated Eligible Census Tracks in Metropolitan Counties. Available at

https://www.hrsa.gov/sites/default/files/ruralhealth/resources/forhpeligibleareas.pdf

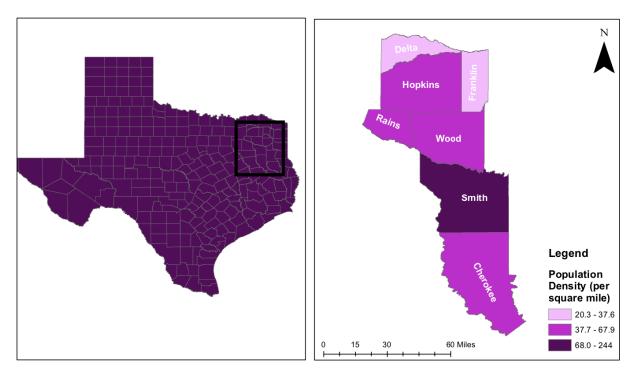


Figure 1. Report Area Population Density (Persons per Square Mile)

Individuals between ages 18 and 64 (working-aged adults) constitute 57% of total population. Of the remaining population, 22% are ages 65 and older, 22% are a combination of school age children, infancy or early childhood (Figure 2). Overall, the population ages 65 and older are slightly higher than that of the population of Texas (12.2%). Rains (26.5%) and Wood (29.3%) Counties have an even higher population 65 and older.

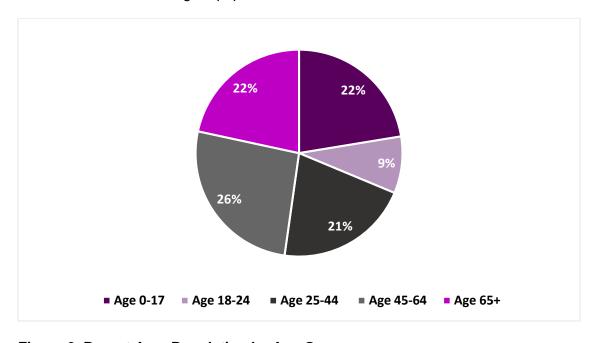


Figure 2. Report Area Population by Age Groups

Compared to Texas, the population in the report area have a lower proportion of Hispanic residents (Table 2). The Hispanic/Latino proportion in the report area more closely resembles that of the US than that of Texas — just over 17% of the report area is Hispanic/Latino, compared to 39% of Texans. The NH-Asian, NH-Native Hawaiian/Pacific Islander and NH-Native American/Alaska Native categories each comprise less than 4% of the report area population. The report area population is almost evenly distributed by gender (49% male, 51% female), mirroring the gender distribution of Texas and the US.

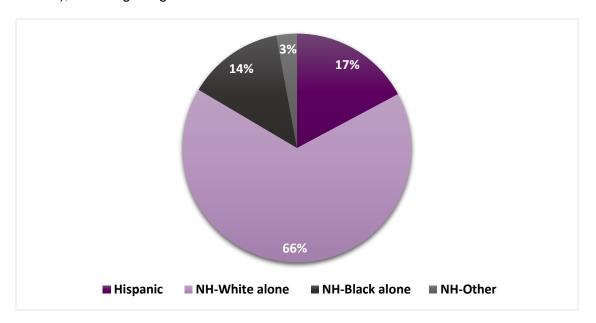


Figure 3. Report Area Population by Race and Ethnicity

Race and Ethnicity	Report Area	Texas	United States
Hispanic %	17.2	38.6	17.3
NH- White alone (%)	66.3	43.4	62.0
NH - Black alone (%)	13.6	11.6	12.3
NH- American Indian and Alaska Native alone (%)	0.4	0.2	0.7
NH - Asian alone (%)	1.1	4.3	5.2
NH - Native Hawaiian and Other Pacific Islander			
alone (%)	0.1	0.1	0.2
NH - Some other race alone (%)	0.1	0.1	0.2
NH - Two or more races (%)	1.3	1.6	2.3
NH -Other %	2.9	6.3	8.4

Table 2. Report Area Population by Race and Ethnicity

#### SOCIAL AND ECONOMIC ENVIRONMENT

Consolidated median income data for the report area is not available, but county-level data show that Smith County has a median annual family income just over \$11,000 higher than Cherokee County (\$60,719 compared to \$49,680). For all counties, the income level is lower than Texas' median family income (\$64,585).

Poverty is widespread in the report area, with 41% of report area residents earning annual incomes at or below 200% FPL. Cherokee County has even higher poverty at 49%. According to 2019 federal guidelines, 200% FPL corresponds to an income of \$51,500 per year for a family of four. <sup>16</sup> Spanish-speaking populations have higher poverty rates than English-speaking populations for each county (Figure 4; Appendix A). The poverty within both populations mirrors the Texas and US poverty levels.

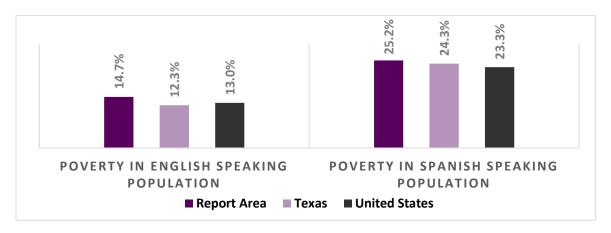


Figure 4. Poverty Distribution by Language

Figure 5 provides a comparative summary chart of socioeconomic indicators for the report area, Texas, and the US. High school graduation are on par with Texas. However, when broken down by county, Cherokee County has a higher percentage that have not completed high school (20%). Also, college graduation is slightly lower than Texas, 29% versus 35%, and varies widely by county with the lowest in Rains County at 17% and Smith County at 34%.

Compared to Texas, the report area's unemployment is similar while food insecurity is slightly higher (Figure 5). Nineteen percent of report area residents experience food insecurity (i.e., uncertainty about whether they will be able to get enough nutritious food at some point during the year) compared to about 15% of Texas residents. Overweight, obesity and chronic disease have remained consistent areas of need within the report area, and food insecurity can create barriers for individuals who need to manage their weight and nutrition.

\_

<sup>&</sup>lt;sup>16</sup> Office of the Assistant Secretary for Planning and Evaluation. (2019). US Poverty Guidelines Used to Determine Financial Eligibility for Certain Government Programs. Available at https://aspe.hhs.gov/poverty-guidelines

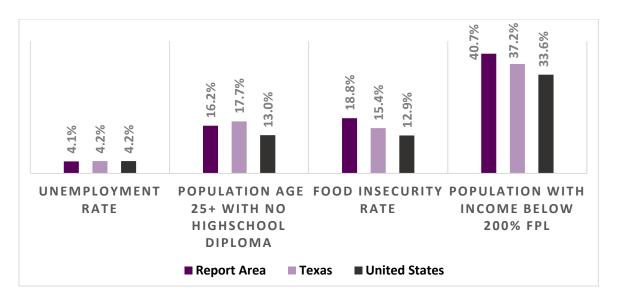


Figure 5. Socioeconomic Characteristics of Report Area

Community safety represents an environmental indicator with implications for population health, including behavioral health. Violent crime (defined as homicide, rape, robbery, and aggravated assault) occurred in the report area at a rate of 296.1 violent crimes per 100,000 population, which is substantially lower than the overall violent crime rates in Texas (406.2 per 100,000 population) (Figure 6). Within the report area, substantial disparities in violent crime appear by county. Violent crime ranges from 69 violent crimes per 100,000 in Delta to 426.2 violent crimes per 100,000 in Cherokee County.

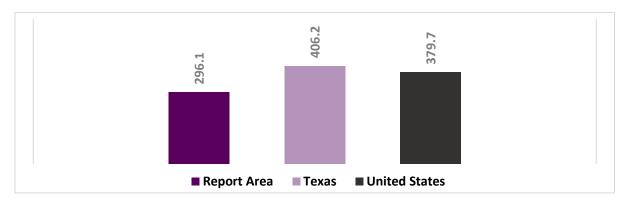


Figure 6. Violent Crime Rate per 100,000 Population

#### **ACCESS TO HEALTH CARE**

Access to health care is a key component of maintaining and improving overall health. The Institute of Medicine identifies three essential steps in attaining access to care: gaining entry into the health care system, finding access to appropriate sites and types of care, and developing relationships with providers who meet patients' needs and whom patients can

trust.<sup>18</sup> For many, health insurance represents not only a ticket into the health care system, but an assurance that the cost of most health services will remain affordable to them.

The rate of uninsured individuals in the report area (18%) is the same as Texas' rate of uninsured individuals. Less than 2% of elderly adults in the area are uninsured due to the availability of Medicare coverage for this age group (Figure 7). In contrast, 1 in 4 working-age adults in the report area are uninsured and approximately 1 in 10 children living in the report area are uninsured. At the time of this writing, Texas remains among the 14 states that have declined to expand Medicaid.<sup>19</sup>

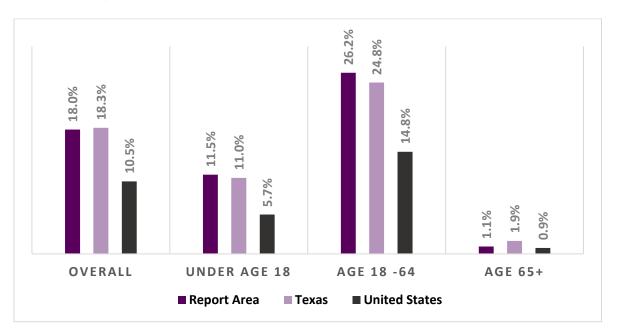


Figure 7. Uninsured Rate in Report Area, Overall and by Age Group

Health insurance is just one component of access to care and does not guarantee access even to those who have it. Without an adequate supply of local health care providers, the health system will not have the capacity to accommodate all patients who need care, regardless of insurance status. Higher numbers of residents per provider in an area, the population to provider ratio, is an indicator of fewer providers available for the population in a region.

Differences in access to providers can be seen when comparing population to provider ratios across report area rural and urban counties. The only urban county, Smith, has provider ratios

<sup>&</sup>lt;sup>18</sup> Institute of Medicine. (1993). Access to health care in America. Committee on Monitoring Access to Personal Health Care Services. Washington, DC: National Academy Press.

<sup>&</sup>lt;sup>19</sup> Kaiser Family Foundation. (2019). Stat of state action on the Medicaid expansion decision. Available at: https://www.kff.org/health-reform/state-indicator/state-activity-around-expanding-medicaid-under-the-affordable-care-

act/?currentTimeframe=0&sortModel=%7B%22colld%22:%22Location%22,%22sort%22:%22asc%22%7D

less than or close to those observed for Texas (Table 3). All the available county data from the rural counties show that most provider ratios are much higher than the report area and Texas. Note, however, that these ratios say nothing about the level of need for the services and many rural counties rely on nearby urban areas.

Geography	Primary Care Practitioners	Registered Nurse	General Dentists	Psychiatrist
Cherokee County, Texas	1,874:1	158:1	7,027:1	3,748:1
Delta County, Texas		237:1	5,677:1	
Franklin County, Texas	3,862:1	386:1	3,862:1	
Hopkins County, Texas	2,362:1	138:1	3,780:1	
Rains County, Texas		576:1	6,339:1	
Smith County, Texas	843:1	57:1	2,458:1	13,108:1
Wood County, Texas	1,820:1	248:1	5,257:1	
Report Area	1,147:1	81:1	3,157:1	12,339:1
Texas	1,350:1	121:1	2,753:1	13,145:1

Table 3. Population to Healthcare Provider Ratio

Primary care access barriers are concern due to the potential for minor, treatable health conditions to worsen in severity, leading to avoidable hospital visits and potential overuse of costly emergency department services. Preventable hospital stays are defined as hospital visits for conditions that could have been prevented if adequate primary care resources were available and accessed by those patients. These preventable visits numbered 57.9 per 1,000 Medicare enrollees in the report area, not so different from the 53.2 preventable hospital events per 1,000 Medicare enrollees in Texas (Figure 8).

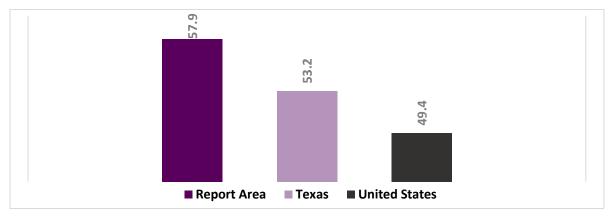


Figure 8. Preventable Hospital Admissions (per 1,000 Medicare Enrollees)

Key informant and focus group participants noted that the Tyler region has many services available for patients served by the hospital, but they may not be readily visible or well known. Participants stated a need to increase patient and primary care physician education to keep the community and health professionals up to date on available services. Examples given to increase visibility and education included the hospital participating in community events and trainings given to primary care physicians.

"This town touches about every service possible that a patient would need. Many times patients are not particularly sure what service line is going to fit their need."

--Key Informant Participant

#### **HEALTH OUTCOMES**

#### **Physical Health**

All counties in the report area appear less healthy than Texas (Table 4). The number of days reported in poor health over the past 30 days ranges from 3.4 to 4.0 across counties in the report area compared to only 3.5 for Texas as a whole. Similarly, the prevalence of diabetes is higher for all counties in the service area compared to Texas. Whereas only 10% of individuals in Texas have (type 2) diabetes, the rate is 3.6 percentage points higher in Rains County, though less than a percentage point higher in Smith County.

Geography	Diabetes Prevalence (%)	Poor Physical Health Days
Cherokee County, TX	11.7	4.0
Delta County, TX	12.7	3.9
Franklin County, TX	11.8	3.7
Hopkins County, TX	11.7	3.9
Rains County, TX	13.6	3.4
Smith County, TX	10.8	3.7
Wood County, TX	12.3	3.7
Texas	10.0	3.5

Table 4. Diabetes Prevalence and Poor Physical Health in Report Area

Among all types of cancer, breast cancer has the highest incidence in the report area at 111.7 per 100,000. The incidence of breast and prostate cancers in the report area are on par with Texas and lower than the US rates (Figure 9). The largest differences observed are in the incidence of lung cancer. The lung cancer incidence rate at 69.8 per 100,000 is higher than both the Texas and US rate at 53.1 per 100,000 and 60.2 per 100,000, respectively. Although, compared to Texas and the US, cancer mortality is lower among residents in the report area. There are 13 fewer cancer deaths per 100,000 population in the report area than in Texas

(Figure 10). Age-adjusted mortality from heart disease, lung disease and stroke causes are slightly elevated in the report area as well (Figure 10).

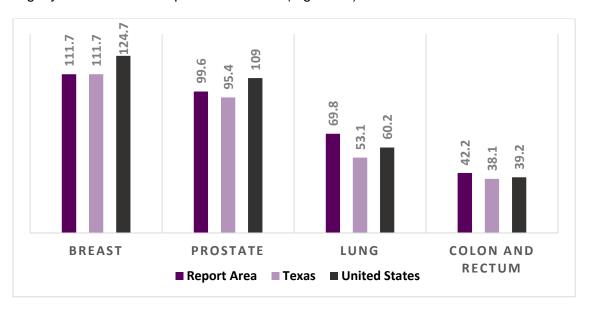


Figure 9. Age-adjusted Cancer Incidence per 100,000 Population by Type

Key informant and focus group participants noted many patients served by the hospital are often elderly and tend to have one or more chronic illnesses. These included things like heart disease, stroke and diabetes. Participants stated a need to inform residents on the signs of chronic illness in order to reduce the severity of the illness and educate residents.

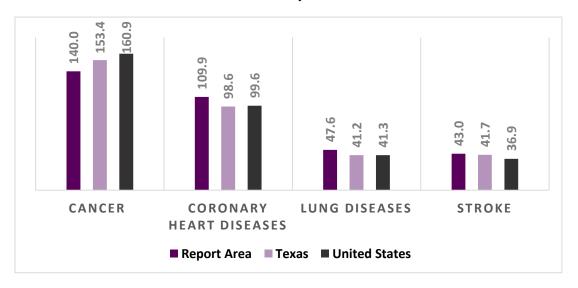


Figure 10. Age-adjusted Mortality Rate for Selective Diseases per 100,000 Population

"In East Texas, poor diet, alcohol use and smoking are the most common health behaviors that have contributed to chronic diseases and have increased disability risk factors"

#### --Key Informant

Several mortality differences by external cause are notable. Motor vehicle crashes are significantly higher in the report area compared to Texas and the US. (Figure 11). The report area has a motor vehicle mortality rate of 21.9 per 100,000 compared to 13.9 for Texas and 11.3 for the US. This is even higher when broken down by county for Cherokee County at 28.6 per 100,000 and Wood County at 31.6 per 100,000.

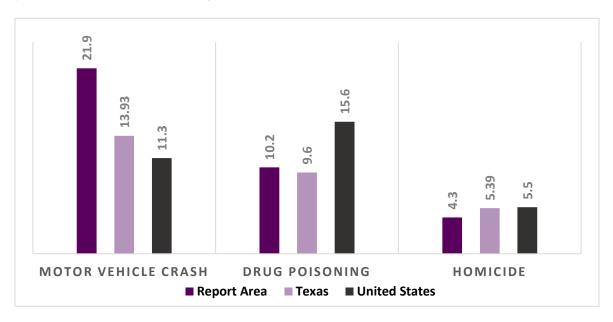


Figure 11. Age-adjusted Mortality Rate per 100,000 Population by External Cause

In comparison to the US and the state of Texas, all counties within the report area have a higher rate of disability within the overall population (Table 5). Wood County is leading with 21.2%. Disability among both males and females in the report area exceed the national and state rate (Figure 12).

Geography	Number Population with a disability	Percent Population with a disability
USA	40,071,666	12.6
Texas	3,152,865	11.5
Cherokee	6,363	12.9
Delta	971	18.9
Franklin	1,912	18.1
Hopkins	6,100	17
Rains	2,095	18.4
Smith	29,973	13.5
Wood	9,090	21.2

Table 5. Disability Prevalence in Report Area

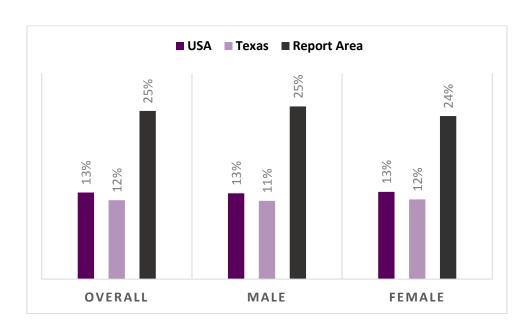


Figure 12: Disability by Gender in Report Area

All counties in the report area have higher rates of disabilities among adults aged 65 and older (Figure 13). Ambulatory difficulty is defined as having "serious difficulty walking or climbing stairs." Self- care difficulty is defined as having "difficulty dressing or bathing." Furthermore, an Independent-living difficulty is defined as having "difficulty doing errands alone such as visiting a doctor's office or shopping due to a physical, mental, or emotional condition."

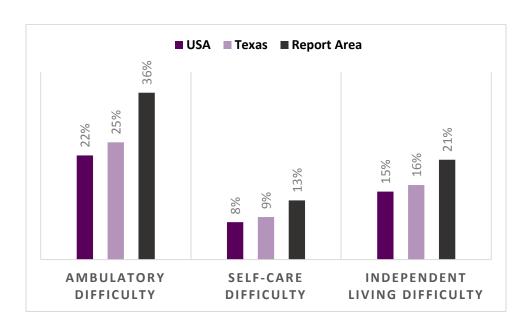


Figure 13: Disability Types Among Individuals 65+ Years Old

#### Behavioral Health

The burden of morbidity and mortality resulting from mental illness represents a significant and growing concern in the report area. After age adjustment, approximately 16.1 people per 100,000 population in the report area die of suicide, compared to 12.2 deaths by suicide per 100,000 population in Texas and 13.0 in the US (Figure 14). The suicide rate among report-area males (25.3 per 100,000) is significantly higher than the suicide rate overall, suggesting strong variation by gender. In the report area, males die by suicide at a rate approximately three times higher than that of females. Suicide risk is particularly elevated among older adults, which comprise a large and growing proportion of the report area population.

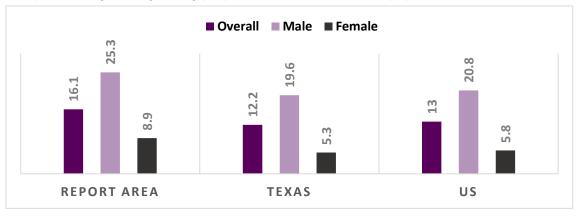


Figure 14. Age-adjusted Suicide Mortality Rate per 100,000 Population, Overall and by Gender

Depression, a major risk factor for suicide, affects 18.5% of Medicare beneficiaries in the report area, which is slightly higher than the rates of depression among Medicare beneficiaries in Texas and the US (Figure 15).

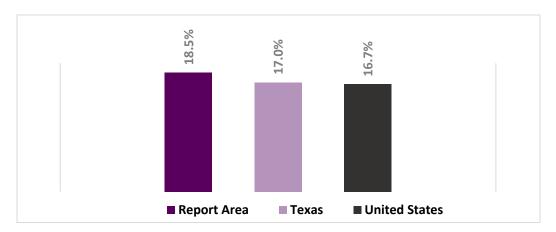


Figure 15. Prevalence of Depression among Medicare Beneficiaries

#### **HEALTH BEHAVIORS**

Residents in the report area describe a wide variety of unhealthy behaviors as highly prevalent. Table 6 displays comparative prevalence rates of select health behaviors within the report area and Texas. Rates of obesity, physical inactivity, and tobacco use in the report area all slightly exceed those of Texas. The proportion of residents reporting heavy alcohol consumption (more than two drinks per day on average for men and more than one drink per day on average for women) or insufficient sleep was on par with Texas. Of note, many of the counties in the report area have significantly higher prevalence of physical inactivity than Texas. For example, Cherokee County's prevalence of physical inactivity is 34% compared to Texas at 24%.

Geography	Adult Obesity	Physical Inactivity	Excessive Drinking	Adult Smoking	Insufficient Sleep
Cherokee County, TX	30.8%	33.5%	16.3%	17.5%	34.3%
Delta County, TX	29.1%	29.7%	17.0%	16.7%	30.8%
Franklin County, TX	28.6%	32.6%	17.4%	16.0%	30.5%
Hopkins County, TX	32.4%	30.8%	17.9%	16.8%	32.0%
Rains County, TX	30.9%	27.4%	18.6%	14.4%	29.2%
Smith County, TX	29.4%	29.7%	17.7%	16.5%	33.4%
Wood County, TX	29.4%	28.6%	17.6%	14.9%	29.3%
Texas	28.0%	24.0%	19.0%	14.0%	33.0%

**Table 6. Health Behavior Indicators** 

Focus group and key informant participants noted that opportunities for physical activity with the patient population require different needs than the community at large. For example, gyms should include classes that help make accommodations for those with disabilities (e.g. amputations or Parkinson's disease). Also, current classes geared towards the elderly should be promoted to increase visibility such as silver sneaker programs. Not only would this help patients maintain compliance post-discharge, but increasing these programs would provide community support and encouragement for patients.

#### **HOSPITAL DATA**

The CHRISTUS Trinity Mother Frances Rehabilitation Hospital supplied internal data from its hospital to offer additional insight about community needs.<sup>21</sup> This included one year of hospital admission data (2018- 2019) disaggregated by diagnosis code, ZIP code, discharge/referral source and source of payment. For ZIP code, diagnosis code, and payment type, selected options reported at the greatest frequency and/or determined to be of interest are displayed to supplement understandings based on the primary and secondary community data.

Overall, the hospital data reveal that the majority of patients, 61%, are coming from the service area while 35% are coming outside of the service area but inside the DSHS 4/5 region (Figure 16).

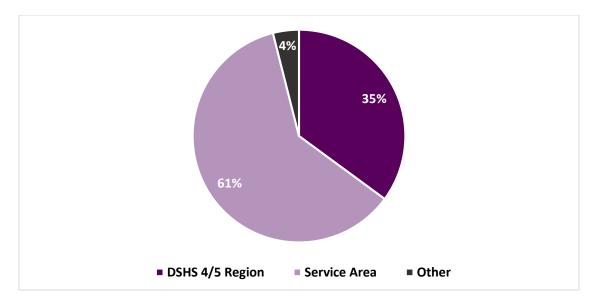


Figure 16. Total Inpatient Admissions (2018-2019)

<sup>21</sup> CHRISTUS Trinity Mother Frances Rehabilitation Hospital. Inpatient Utilization FY2018-FY2019.

Table 7 highlights the top 15 zip codes utilizing the rehabilitation hospital. Of note, Henderson, Anderson and Van Zandt zip codes are within the top 15 and are counties that are contiguous counties with the service area, in particular west of Smith and Cherokee County. Smith County has the highest number of admissions which we would expect to see since it is the most populous county in the service region.

Zip Code	# of Admissions	County
75703	194	Smith
75701	165	Smith
75771	110	Smith
75707	94	Smith
75766	77	Cherokee
75702	64	Smith
75758	64	Henderson
75765	61	Wood
75773	58	Wood
75762	56	Smith
75803	53	Anderson
75791	51	Smith
75801	51	Anderson
75757	49	Smith
75103	46	Van Zandt

**Table 7. Top 15 ZIP Codes for Inpatient Admissions** 

Table 8 details the most common ICD-10 code diagnoses. Common illnesses that appear for nervous system diagnoses include encephalopathy, nerve damage and Parkinson's disease. Top circulatory system diagnoses included paralysis, congestive heart failure and stroke. External causes included trauma and car crashes. Lastly, Z00-Z99, included aftercare for circulatory issues, joint and amputation. These top diagnoses coincide with the quantitative and qualitative data that suggest a high patient population is affected by a chronic illness.

ICD-10 Disease Category	Patient Count
Disease of the nervous system (G00-G99)	334 (15.3%)
Diseases of the circulatory system (I00-I99)	555 (25.5%)
Injury, poisoning and certain other consequences of external causes (S00-T88)	391 (18.0%)
Factors influencing health status and contact with health services (Z00-Z99)	479 (22.0%)
Total	N=2,178

#### **Table 8. Top ICD-10 Diagnostic Codes During Rehabilitation Visit**

Table 9 presents the proportion of patients paying with select payment types, including Private, Medicare, and Other. This payment type mix denotes that a majority of the patients are 65+. Of note, other includes things like life insurance related to motor vehicle crashes.

Insurance Type	Inpatient Admissions
Private	10%
Medicare	87%
Other	3%

**Table 9. Payment Source for Inpatient Admissions** 

"Our goal is to get 90% of our patients discharged from us back into their home environment or any environment that is not inpatient."

--Key Informant

Figure 17 highlights the trend that most patients are referred to the hospital through a hospital setting at 83% and 12% are referred through a home setting. Discharge disposition data shows that 83% of patients are discharged into a home setting and 15% are discharged into another type of medical facility that includes nursing home, hospice and acute care. Figure 18 highlights the trend that most patients are discharged to home with home care.

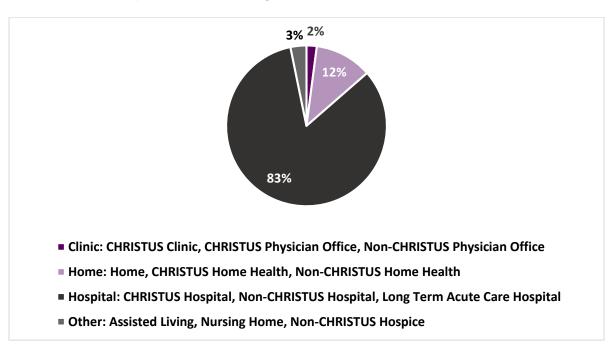


Figure 17. Referral Sources (2018-2019)

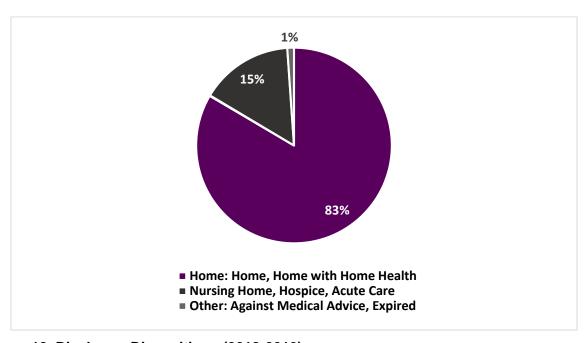


Figure 18. Discharge Dispositions (2018-2019)

#### **MOVING FORWARD**

Findings from the qualitative and quantitative data and the final prioritization of needs highlight numerous gaps, issues, and threats to population health and quality of life in the communities comprising the report area. This CHNA report has also emphasized key resources, assets, capacity, and potential opportunities that exist in the region to address the identified problems. In particular, the voice of stakeholders in the community has been core and central to the needs assessment process, contextualizing data in community realities while shaping the process and product.

The content of this report is intended to inform planning and strategy for the CHRISTUS Trinity Mother Frances Rehabilitation Hospital in coming years. The findings from this CHNA report lay the groundwork for a companion Community Health Improvement Plan (CHIP) to aid the CHRISTUS Trinity Mother Frances Rehabilitation Hospital in improving the health of the community it serves. The forthcoming CHIP will follow the release of this CHNA report and will describe opportunities, solutions, and innovations with the potential to address critical areas of unmet need in the region.

# APPENDIX A: COUNTY LEVEL DATA

Indicator	Cherokee	Delta	Franklin	Hopkins	Rains	Smith	Wood
Age (%)							
Ages 0-17	25.4	20.3	23.7	25.2	18.6	24.8	18.9
Ages 18-24	9.8	8.5	8.8	9.4	8.6	9.5	7.5
Ages 25-44	22.7	20.7	19.7	22.4	17.5	26.5	17.2
Ages 45-64	24.9	27.4	25.7	25.5	28.9	23.5	27.1
Ages 65+	17.2	23.0	22.0	17.6	26.5	15.7	29.3
		Race a	and Ethnic	ity (%)			
Hispanic	22.1	6.7	13.7	16.0	8.4	18.6	9.4
NH- White alone	61.5	81.4	79.8	74.4	86.0	60.8	83.5
NH - Black alone	13.7	8.2	4.3	6.7	2.4	17.6	5.0
NH - Other	2.8	3.7	2.2	2.9	3.2	3.1	2.1
NH- American Indian and Alaska Native alone	0.1	0.2	0.7	0.3	0.9	0.3	0.7
NH - Asian alone	0.6	0.7	0.0	0.7	0.3	1.5	0.6
NH - Native Hawaiian and Other Pacific Islander alone	0.0	0.0	0.1	0.0	0.0	0.1	0.0
NH - Some other race alone	0.0	0.0	0.0	0.1	0.1	0.1	0.0
NH - Two or more races	2.0	2.7	1.4	1.7	1.9	1.0	0.8
Poverty (%)							
English Speaking Population	18.5	19.1	13.3	16.9	9.6	14.3	12.7
Spanish Speaking Population	29.2	20.8	30.5	30.8	20.1	24	15.3
Socioeconomic Characteristics (%)							
Unemployment Rate	4.5	3.4	4.3	3.7	3.7	3.9	4.6
Population Age 25+ with no High School Diploma	20.4	13.7	14.5	17.6	18.1	15.3	14.9
Food Insecurity Rate	19.2	20.4	18.0	18.2	16.0	19.2	17.3

Indicator	Cherokee	Delta	Franklin	Hopkins	Rains	Smith	Wood
Population with							
Income below							
200% FPL	48.6	43.6	39.6	42.5	32.1	39.6	37.7
20070112	1010		nt Crimes		02	00.0	0111
			00 Populat	•			
	426.2	69.0	155.5	148.8	164.7	337.6	150.4
		Uninsur	ed Popula	tion (%)			
Overall	19.7	15.4	20.4	20.0	21.5	17.6	15.4
Under Ages 18	10.7	5.8	14.6	13.9	13.6	11.3	10.5
Ages 18-64	30.2	24.4	30.5	28.8	33.2	24.8	24.7
Ages 65 +	1.3	0.0	0.0	0.3	1.5	1.2	1.1
	Pre	ventable	Hospital A	Admissions			
	(F	er 1,000	Medicare I	Enrollees)			
	85.3	42.2	58.8	49.9	60.5	52.7	64.4
		Cancer	Incidence	Rate			
(	Age Adjuste	ed Incide	nces per 1	00,000 Popul	ation pe	r Year)	
Breast	117.6	138.3	88.1	100.4	96.7	115	108.1
Prostate	35.8	-	52.7	45.4	41.5	42.4	42.8
Lung	86.8	60.7	58.7	70.6	80.7	64.8	72.7
Colon and Rectum	100.5	103.2	81	109.4	89.5	101.9	91.9
Mortality rates							
(Age Adjusted Deaths per 100,000 Population per Year)							
Cancer	144	205.9	168.8	176.2	183.3	127.2	143.8
Coronary Heart		404.0			400.4		
Disease	113.6	181.6	147.3	151.7	108.4	96.8	119.8
Lung Disease	60.2	44.1	41.4	42.6	49.6	45.1	50.9
Stroke	54.6	51.4	40.3	53.1	67.8	37.5	42.2
Motor Vehicle	0.0					0.7	40.5
Crash Drug Poisoning	9.3	-	-	-	-	9.7 4.3	13.5
Homicide	28.6	-	-	24.7	-	18.1	31.6
Suicide	16.7	<u>-</u>		10.8		17	15.1
Depression in Medicare Population (%)							
Depression	19.7	17.3	16	16.7	18.1	18.9	18.3

Indicator	Anderson	Henderson	Rusk	Van Zandt			
Age (%)							
Ages 0-17	19.0	22.4	22.4	22.1			
Ages 18-24	7.9	8.3	8.4	8.8			
Ages 25-44	29.2	21.0	26.0	19.9			
Ages 45-64	28.6	26.5	27.0	27.8			
Ages 65+	15.3	21.9	16.1	21.4			
		Race and Ethnicity	y (%)				
African American	20.8	6.4	16.8	2.7			
American Indian							
and Alaskan Native	0.7	0.9	1.0	1.0			
Asian	0.9	0.7	0.5	0.4			
Native							
Hawaiian/Other Pacific Islander	0.1	0.1	0.1	0.1			
Hispanic							
	17.5	12.2	16.7	10.6			
Non-Hispanic White Other	59.4	78.8	64.2	84.1			
Other	0.6	0.9	0.7	1.1			
		Poverty (%)					
Population below							
poverty level	17.1	18.8	16.5	15.8			
	Socioec	onomic Characteris	stics (%)				
Unemployment							
Rate	3.1	3.7	4.1	3.5			
Population Age							
25+, 9-12th grade							
with no High School							
diploma	13.5	10.2	13.2	12.3			
Food Insecurity	19.0	19.0	18.0	17.0			
Rate							
	Violent Crin	nes (Per 100,000 Po	opulation)				
	320	336	358	186			
Uninsured Population (%)							
Civilian non-	15.7	20	20.8	20.2			
institutionalized							
population							
Civilian non-	10.8	11	13.6	14			
institutionalized							
population under							
age18							

Indicator	Anderson	Henderson	Rusk	Van Zandt			
Preventable Hospital Admissions (Per 1,000 Medicare Enrollees)							
	57	75	80	59			
	85.3	75	58.8	49.9			
Breast	110.6	108.7	114.2	103.6			
Prostate	80.9	87.5	95.1	88.6			
Lung & Bronchus	81.8	85.8	67	75.3			
Colon and Rectum	41.6	49	41.9	41.3			
Mortality rates (Age Adjusted Deaths per 100,000 Population per Year)							
Cancer	232.4	181.9	151.5	158.3			
Major Heart Disease	349.9	308.4	290	270.1			
Chronic Respiratory							
Disease	61.5	71.2	60.6	67.1			
Stroke	48.2	52.6	36.8	35.5			
Motor Vehicle							
Accidents	20.9		28.7	28.7			
Drug-Induced Death	12.5	17.7	8.0	17.5			
Homicide	-	-	-	-			
Suicide	40.6	47.7	44.9	46.7			
Depression	20.6	19.5	18.2	19.9			

#### APPENDIX B: KEY INFORMANT INTERVIEW PROTOCOL

[Notes to interviewer: All instructions to the interviewer are in square brackets. Do not read the statements aloud. Suggested script for interviewer appears in italics. The main questions are numbered. Interviewer should read and understand questions prior to starting the interview. Interviewer should cover all questions in protocol.

Questions phrasing is *suggested*. This is a discussion. Interviewer should phrase questions in a way that s/he is comfortable speaking.

Follow-up questions may be employed to more fully explore the topic area when applicable. If interviewer believes the concept has been covered s/he may skip follow-up questions. Probes are optional. If interviewer believes the participant has not fully engaged or answered the main or follow-up question s/he may use one or more of the "probes" to further investigate and engage the participant. These optional questions are listed below the main question stem.]

Hello, may I please speak with [NAME]?

My name is [INTERVIEWER'S NAME] and I am calling from the [Louisiana Public Health Institute/Texas Health Institute]. [INSERT CHRISTUS HEALTH CONTACT PERSON'S NAME] from CHRISTUS Health gave me your information in order to participate in CHRISTUS Health's Community Health Needs Assessment. Thank you so much for offering to speak with me.

As you may know, all non-profit hospitals are required to conduct a community health needs assessment every three years. The purpose of this assessment is for the hospital to gain an understanding of the current health status of their target area, learn about the top health needs and priorities, and to develop an action plan to address some of those health needs when possible. Part of the assessment is gathering quantitative data on health indicators from secondary analysis and the other part of the assessment process includes getting input from community residents and key stakeholders, which is why I am conducting this interview with you. Your input will be used to inform the health needs assessment and potential future action by CHRISTUS Health in your community. The interview will take a maximum of one hour.

In order to capture all of the information we talk about, I will be taking notes throughout the conversation. I will not record your name on the call; I will only start taking notes with the beginning of the questions. After the interview is completed, we will transcribe and code the interviews so that we can see if any themes arise across the multiple interviews conducted. All transcripts will be destroyed at the end of the project, and your responses will not be tied back to you in any way; the results of the interviews will only be reported in aggregate. Are you comfortable with having the conversation recorded in this way?

[IF YES]: Great, thank you. I will call you at [DATE AND TIME]. I look forward to speaking with you then.

[IF NO, THANK THE PARTICIPANT FOR THEIR TIME AND END CALL]

This is key informant interview [#] on [day, date, time]

**CHNA Key Informant Questions** 

#### **CHRISTUS Trinity Mother Frances Rehabilitation Hospital**

# **PRELIMINARY LOGISTICS**

1. Can you please tell me a little bit about your background and how you are connected to CHRISTUS Trinity Mother Frances Rehabilitation Hospital if at all?

**Probe:** Are you a public health expert, local/county/state official; community resident; representative of CBO, faith-based organization, schools, other health setting, etc.?

#### [CIRCLE ALL THAT APPLY]

- 1. Persons with special knowledge of or expertise in public health
- 2. Federal, tribal, regional, State, or local health or other departments or agencies, with current data or other information relevant to the health needs of the community served by the hospital facility
- 3. Leaders, representatives, or members of medically underserved, low-income, and minority populations, and populations with chronic disease needs, in the community served by the hospital facility.

#### **KEY CONCERNS & NEEDS**

The following questions relate to the population in the service area who receive services from the rehabilitation hospital or similar facility.

#### [HAVE THE LIST FROM THE ENCOMPASS WEBPAGE AT THE READY WHEN PROBING]

1. What kind of conditions are most frequently treated at the rehabilitation hospital?

**Probe:** stroke, amputation, joint replacement, diabetes, etc.

2. What is the socioeconomic and demographic profile of patients in the rehabilitation hospital? How do patients differ in these characteristics from the community at large?

Probe: Race, ethnicity, age, socioeconomic status, rural vs. urban, Medicaid/Medicare, etc.

3. Which populations are most impacted by these disabilities?

**Probe:** Race, ethnicity, age, socioeconomic status, rural vs. urban, Medicaid/Medicare, etc.

4. Are there behaviors that increase risk of disability in your community?

**Probe:** Smoking, drinking, drug use, poor diet/nutrition, lack of physical activity, lack of screening (breast cancer, diabetes, etc.), etc.

**Follow up:** Who engages in these risk factors and who is impacted (e.g. age groups, racial/ethnic groups, socioeconomic groups, geographic subsets, etc.)?

#### REHABILITATIVE SERVICE UTILIZATION

- 5. What are some of your community's assets and strengths as related to the health and well-being of community residents that are disabled?
- 6. Where do members of your community go to access existing rehabilitative services?

**Probe**: Can you identify the facilities and what types they are (Hospitals, short-term care facilities, nursing homes, etc.)?

**Follow up:** Who accesses these services (demographics)?

**Follow up**: What types of conditions do they have upon admission (stroke, amputation, short-term/ long- term disabilities, etc.)?

- 7. What does the admitting process entail?
- 8. Can you describe key steps involved in the discharge planning process prior to a patient's discharge?

**Probe:** Coordinated health care plan, patient navigator, etc.

9. Where do patients typically go after discharge?

**Probe:** Own home, relative's home, long-term rehabilitation, nursing home, assisted living, etc.

10. What types of resources, services, and supports do patients have access to after discharge?

**Probe:** Support groups, continued therapy, case management, home modification, etc.

# **CHALLENGES & BARRIERS**

- 11. What challenges do patients face upon discharge from a rehabilitation facility?
- 12. Despite the availability of rehabilitative services, what obstacles prevent community residents from accessing necessary services in your community?

**Probe:** inadequate transportation, long wait times, don't know where to go, lack of insurance, etc.

13. Which populations are most impacted by these barriers? (Ex. Uninsured, socioeconomic status, rural vs. urban, etc.)

#### **GAPS IN SERVICES**

14. Are current rehabilitative services previously discussed successful at treating disabilities?

Follow up: Why or why not?

15. What types of rehabilitative services are missing within the community?

16. Who else needs to be involved in developing solutions to treat disabilities within the community?

**Probe:** Is there anyone not at the table who needs to be?

### **SOLUTIONS**

- 17. What recommendations would you make to increase or enhance rehabilitative services within the community?
- 18. What are some things CHRISTUS Trinity Mother Frances Rehabilitation Hospital, its partners, or other organizations in the community could do to try to address these barriers?

# APPENDIX C: COMMUNITY RESOURCES

An inventory of community resources was compiled based on key informant interviews, focus group discussions, and an internet-based review of health services in Tyler. The list below is not meant to be exhaustive but represents a broad sampling of feedback received from the stakeholder engagement process. The list of community resources is restricted to only those that are physically located within the report area. Several additional organizations located outside the report area may provide services to report area residents but fall outside the scope of inclusion in this needs assessment. Similarly, many of the organizations identified in this resource compilation serve a population broader than the report area but are included here in the context of the services they offer to report area residents.

Name	Description
	Tyler
2-1-1 East Texas	2-1-1 East Texas is a free, anonymous, information and referral service that is available to anyone, 7 days per week, 24 hours each day. The service helps to connect people with critical social services and charitable programs that are available in the local community. Simply dial 2-1-1 from any phone. Trained and certified Call Specialists assist every caller in assessing his/her need and providing referrals to available local charitable, nonprofit, and governmental agencies.
American Heart Association (Tyler, Jacksonville, Sulphur Springs)	We're building healthier lives where you live and work and making your community healthier by advocating for key health issues. We train millions of Americans each year in CPR and first aid, and educate healthcare providers every day. Find out more through our online tools, including Go Red For Women, Power to End Stroke, the Start! Program, our Youth Programs, and the Heart Hub, our online patient portal for information, tools and resources.
American Cancer Society (Tyler, Jacksonville, Sulphur Springs)	Your local American Cancer Society office is your source for the most relevant information to help guide you. Appointments are needed for all services to ensure we have the right people available to meet your needs. Hours and services vary by location. You can always call our Cancer Information Specialists at 1- 800- 227- 2345, 24 hours a day, every day of the year to connect with our valuable services and resources.

Name	Description
	The Andrew Center offers services for the following conditions, specialties and population groups: mental health, intellectual and developmental disabilities, medical management, consumer benefits, counseling, autism, children, at risk youth, adults, veterans, residential, jail diversion, transportation and vocational training. This location serves as the central point of contact for all Andrews Center business and administrative operations in addition to being an
Andrews Center	outpatient clinic.
	The Samaritan Counseling Center of Tyler adheres to the belief that there is a close relationship of mind, body, and spirit, and that optimal health care involves consideration of all three. The Clinical Staff are certified and/or state licensed in their professional disciplines. In addition to maintaining these clinical standards, the counselors will also be trained and supervised to help clients build upon their faith resources when appropriate. Clinical services are available to people of all faith traditions and to those who do not claim a religious identity. The Center is a non- profit and as such will be able to provide services to many in the community who
Samaritan Counseling Center of Tyler	would otherwise not be able to afford counseling.
	Bethesda Health Clinic is a Christ - centered ministry with a bold mission: To provide affordable, high-quality care for the working uninsured and others we are able to serve. The clinic offers primary and specialty care, helps patients obtain long-term medications, ancillary services, dental services, and a healthy living program created to meet a need for monitored and ongoing diabetes care for uninsured
Bethesda Clinic	diabetics.
Council Foundation for Life	Cancer Foundation for Life® (CFFL) is a 501(c)(3) non-profit organization founded in Tyler, Texas, in 2001, by retired oncologist Gary T. Kimmel, M.D. Soon after founding CFFL, Dr. Kimmel assembled a board of directors comprising well-established leaders from the medical and business community. He chose individuals who shared his vision of enhancing cancer treatment through the incorporation of a structured, long-term exercise program for all cancer patients, regardless of their level of disability. Oncologists, researchers, exercise

Name	Description
	Lifeline is a personal emergency response
	system installed in your home so that you can
	enjoy your freedom and still feel secure that
Lifeline	someone is there for you when you need them.
	The mission of Literacy Council of Tyler is to
	improve the lives of individuals and their families
	by eliminating illiteracy through educational services. By providing these services to any adult
	in need, LCOT contributes to the quality of life in
	Tyler. Some of the accomplishments made by
	LCOT students are: learning to speak, read, and
	write English; completing a GED, participating in
	higher education or vocational training,
	influencing their children regarding the value of
	an education; obtaining or retaining a job,
	increasing the net income for their family, and
Literacy Council of Tyler	many more.
	Senior Citizens or disabled individuals may
	qualify to have five nutritionally balanced lunches
	delivered to their homes. All meals meet RDA
	requirements, are diabetic-friendly, and are
	prepared fresh daily. The daily meal delivery also allows the volunteer to perform a daily safety
	check on the well-being of the individual. When
	necessary, an emergency system is in place
Meals on Wheels, Inc.	whereby help is summoned.
·	The Northeast Texas Public Health District
	serves a vital function for the citizens of Smith
	County. The organization serves as the provider
	of health services, the protector of health, and
	the promoter of health care issues. We
	accomplish this function in several ways:
	laboratory services, public health preparedness, immunizations and tuberculosis elimination,
	community outreach and assistance and animal
North East Texas Public Health District	control.
THORIT East Toxas Fabric Floatin Blothot	Fit City Challenge is a community-wide campaign
	to promote fitter lifestyles. The Tyler Morning
	Telegraph is spearheading the program with the
	help of community leaders. Dave Berry, editor of
	the Tyler Paper, describes the Fit City Challenge:
	"Through our reporting, we want to educate the
	community, providing information that highlights
	programs, tips and tools with which to fight.
	Through the Fit City Council, a group
	representing almost 40 medical, educational,
Fit City Challenge	governmental, business and charitable groups,
Fit City Challenge	we hope to inspire and challenge individuals,

Name	Description
	families, businesses and communities to take the
	first of many steps toward healthier lifestyles. If
	our reporting is good, if the council is able to
	expand fitness and health-related opportunities,
	and if more than a few people accept the
	·
	challenge and adopt healthier lifestyles, then
	Tyler can truly be a healthier community — a 'Fit
	City."
	PATH is a faith- based social services agency
	addressing poverty in Smith County, Texas. The
	agency distributes fresh fruits and vegetables,
	assists in filing tax returns, hosts and education
	program and provides affordable housing for low
PATH (People Attempting to Help)	income families in need.
	St. Paul Children's Foundation provides quality
	pediatric medical and dental care, operates a
	food pantry to provide assistance to children and
	their families in need, operates a clothes closet
	that provides new and gently used clothing and
	household goods at no cost, hosts a faith- based
	after school program, and provides a safe
	sanctuary for children to play at the Andrews
St. Paul Children's Foundation	Park.
	We provide research-based information in
	agriculture, horticulture, family and consumer
	science, 4- H and youth development and
	community resource development through
	educational programs. The Smith County
	Extension program is administered by a
	professional staff of Extension agents working
	with the Smith County Leadership Advisory
	Board. Educational programs are implemented
	through specific program area committees. Board
	and committee members are community
Toyon ASM Agrille (All)	volunteers interested in helping the people of
Texas A&M Agrilife (All)	Smith County.
	Through dedicated team members we will
	provide access to compassionate care for the
	whole family with unsurpassed quality. As a
	premier medical home of choice, we enhance the
	lives we serve and inspire hope, through
Tyler Family Circle of Care	comprehensive healthcare for years to come.
	The Alzheimer's Alliance of Smith County is
	a local, independent nonprofit
	organization committed to walking beside all
	those in Smith County on their journeys with
	Alzheimer's disease and dementia-related
Alzheimer's Alliance of Smith County	illnesses.

Name	Description
Tyler Type One	The Tyler Type One Diabetes Foundation was formed by family and friends of the Type 1 community in Tyler, TX in order to support one another in the daily challenges associated in living with Type 1 diabetes. Our mission is to provide vibrant local support for the Type 1 community whether they are children or adults.  The Tyler HBA provides many outstanding services, programs, and resources to the community. From business programs, training, consultations, student scholarships, to business and community signature events that allow our members to grow and develop within their
Tyler Hispanic Business Alliance	professional and personal networks.  Your Philanthropy is an independent firm focused on you and how you give. Individual, family, business or family foundation – you are the focus.  Listens and helps you create a customized philanthropic plan to suit your specific needs. Joins your advisory team when invited – and works with you to achieve the highest comfort level and giving excellence. Believes in family and wants to help each person understand and appreciate their role in the family's giving plan. Comes alongside donors at any stage of giving, from formalizing a giving strategy and expanding a multi-generational giving plan to educating children about generosity or creating corporate giving programs for entrepreneurs and business
Your Philanthropy  East Texas Health Needs Network (All)	owners.  Diverse organizations and individuals working together for strengthened programs, connection and improved awareness of services that meet essential human needs.
East Texas Pealti Needs Network (All)  East Texas Crisis Center	The East Texas Crisis Center is dedicated to providing safety, shelter, and education for victims of family violence, sexual assault, and other violent crime. Commitment to restoring dignity and purpose in the lives of victims and promoting public compassion and awareness in order to reduce violence in our community.

Name	Description
Home Health (All)	Adult and Pediatric Home Care that provides services that are designed to facilitate patient comfort and well-being. We treat all our patients like family, helping them maintain their health in the familiar setting of their own home.
Jacksonville  The mission of the H.O.P.E. organization is to	
HOPE (Helping Others Pursue Enrichment)	provide emergency assistance to the indigent and to give them the tools and resources that promote self-sufficiency by pooling resources that provide assistance through a networking system designed to prevent duplication of services.
United Fund in Cherokee County	Started in 1975, the United Fund of Cherokee County has provided assistance to 19 different agencies in the Cherokee County area. Any donation you can give would be greatly appreciated. Please feel free to contact us if you have any questions about our organization.
Office Faria in Officionee Obarny	Providing exceptional care and service to the
ACCESS MHMR	members of the Anderson and Cherokee County communities.
	<ul> <li>The aims and purposes of the Crisis Center of Anderson and Cherokee Counties are summarized as follows: <ul> <li>to provide a safe, temporary place in a homelike, supportive environment to enable the battering victim or non-offending family members of child victims to examine available choices for her/himself and any children the victim may have;</li> <li>to educate the community, its agencies and citizens on the needs and experiences of battered and abused women, men and children and the problem of family violence in general;</li> <li>to pursue long range goals to strengthen the family unit and to prevent and reduce the occurrence of violence within the family;</li> <li>to provide counseling and other non-resident services for any victim of family violence, sexual assault or other victim of violent crime.</li> </ul> </li> </ul>
Crisis Center of Anderson & Cherokee County	to coordinate services with all governmental and non-governmental

Name	Description
	providers in our service area to insure the
	provision of the best services to victims of
	domestic violence, sexual assault, and
	child abuse.
	Cherokee County Public Health exists to prevent
	disease, promote health, and protect all citizens,
Cherokee County Public Health	utilizing every available resource.
Sulp	hur Springs
_	Non-profit food pantry serving the residents of
Cumby Food Pantry	Sulphur Springs.
	Glen Oaks Hospital is a 54-bed private mental
	health hospital in a relaxed setting in Greenville,
	Texas. Our comfortable, homelike atmosphere is
	conducive to healing for the adults and seniors
Glen Oaks	we treat.
	Lakes Regional Community Center will ensure
	access to services and support that enriches the
	lives of the individuals and families we serve, and
	we will be the first choice of citizens for mental
	health and Intellectual and Developmental
Lakes Regional MHMR	Disability services.
	Northeast Texas Heart of Hope (Heart of Hope),
	a Pregnancy Resource Center is a 501(c)3 non-
	profit organization located here in Sulphur
	Springs serving Hopkins County and the
	surrounding area. We are a FREE pregnancy
	resource center offering support to the mother
Heart of Hope	and father.
	The local program provides a day of respite care
	for persons over age 50 with forms of memory
	loss. Terrific Tuesdays is held each Tuesday from 9am until 2pm at First United Methodist
Terrific Tuesday's	Church, downtown Sulphur Springs.
Torrino Tuesday s	The mission of the Dinner Bell is to end hunger in
	Hopkins County. Fresh, hot, nutritious meals are
	prepared by volunteers each Wednesday and
	served to our guests in the Fellowship
	Hall. Through the generous support of church
	and community members and corporate
	sponsors we have been able to serve over
	20,000 meals to those in need since opening our
The Dinner Bell	kitchen in 2012.
	What started out as a resource guide of available
	services in 2000 within Hopkins County, Hopkins
	County Community Action Network as we were
	originally known, has transformed into CANHelp
CAN Help	— a non-profit organization, based in faith,

Name	Description
	whose mission is to provide assistance to
	individuals in the communities of Sulphur Springs
	and Hopkins County. CANHelp offers programs
	and training to those who want to become
	financially self-sufficient, various food and health
	items, and other basic needs to those
	experiencing crises, as well as information and
	referral services to those who call 2-1-1 Texas.
	Alliance with board members from CHRISTUS
CHRISTUS Hopkins Health Alliance	and Hopkins County Hospital District.
	Hopkins Place, our senior living community,
	provides warm, homelike common areas just
	perfect for our residents to chat with each other
	in comfort and two beautiful courtyards for
	invigorating outdoor activities and gardening. We
	develop individual care plans to meet the needs
	of each resident, and a full-time registered nurse
	is available 24 hours a day to provide clinical
Hopkins Place Assisted Living	oversight and coordination of care.

Note: Some services may be available in multiple counties.

CHRISTUS Trinity Mother Frances Rehabilitation
Hospital would like to thank residents and stakeholders
from the community who contributed to this community
health needs assessment.



A partner of Encompass Health