# CHRISTUS St. Michael Health System


# Community Health Needs Assessment

# 2017-2019

***About Texas Health Institute:***

Texas Health Institute (THI) is a nonpartisan, nonprofit organization whose mission is to improve the health of Texans and their communities. Based in Austin, Texas, THI has operated at the forefront of public health and health policy in the state for over 50 years, serving as a trusted, leading voice on issues of health care access, health equity, workforce development, planning, and evaluation. Core and central to THI's approach is engaging communities in participatory, collaborative approaches to improving population health, bringing together the wisdom embedded within communities with insights, innovations, and guidance from leaders across the state and nation.


Developed by:
Texas Health Institute
8501 North Mopac Expressway, Suite 170
Austin, Texas 78759
(512) 279-3910

## TABLE OF CONTENTS

## LIST OF TABLES, FIGURES, AND DATA SOURCES

| | | | |
|---|---|---|---|
| **8** | Uninsured Rate in Report Area, Texas, and Arkansas, Overall and by Age Group | 19 | US Census Bureau, American Community Survey. 2010-2014. |
| **9** | Number of Health Care Providers per 100,000 population, by Type | 20 | **Primary Care and Dental:** US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File. 2012.<br>**Mental Health:** University of Wisconsin Population Health Institute, County Health Rankings. 2016. |
| **10** | Number of Preventable Hospital Stays per 1,000 Medicare Enrollees | 21 | Dartmouth College Institute for Health Policy & Clinical Practice, Dartmouth Atlas of Health Care. 2012. |
| **11** | Lifetime Prevalence of Select Health Conditions Among Adults | 22 | **Diabetes:** Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012.<br>**Heart Disease:** Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2011.<br>**Hypertension:** Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2006-2012.<br>**Asthma:** Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2012.<br>**Self-reported Health Status:** Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2006-2012. |
| **12** | Age-adjusted Cancer Incidence per 100,000 Population Annually, by Type | 23 | National Institutes of Health, National Cancer Institute. 2008-2012. |
| **13** | Age-adjusted Mortality Rate per 100,000 Population, by Cause | 24 | Centers for Disease Control and Prevention, National Vital Statistics System. 2009-2013. |
| **14** | Age-adjusted Suicide Mortality Rate per 100,000 Population, Overall and by Gender | 25 | Centers for Disease Control and Prevention, National Vital Statistics System. 2009-2013. |
| **15** | Prevalence of Depression among Medicare Beneficiaries | 26 | Centers for Medicare and Medicaid Services. 2012. |
| **16** | Percent of Residents Reporting a Lack of Social or Emotional Support | 26 | Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2006-2012. |
| **17** | Teen Births per 1,000 Population | 27 | Centers for Disease Control and Prevention, National Vital Statistics System. 2006-2012. |
| **18** | Infant Mortality Rate per 1,000 Births | 28 | Centers for Disease Control and Prevention, National Vital Statistics System. 2006-2010. |
| **19** | Percent of Infants Born with Low Birth Weight | 28 | US Department of Health & Human Services, Health Indicators Warehouse, Centers for Disease Control and Prevention, National Vital Statistics System. 2006-2010. |
| **20** | Prevalence of Select Health Risk Behaviors among Adults | 29 | **Obesity & Physical Inactivity:** Centers for Disease Control & Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012.<br>**Tobacco Use:** Centers for Disease Control & Prevention, Behavioral Risk Factor Surveillance System. 2006-2012. |

| | | | |
|---|---|---|---|
| **21** | Prevalence of Obesity in Adults, 2004-2012 | 29 | Centers for Disease Control & Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012. |
| **22** | Hospital Admissions and Emergency Department Utilization by Facility, 2013-2014 | 30 | CHRISTUS St. Michael Health System |

## EXECUTIVE SUMMARY

CHRISTUS St. Michael Health System is a non-profit, Catholic integrated health care delivery system that includes two acute care hospitals in Texarkana, Texas and Atlanta, Texas. CHRISTUS St. Michael Health System's dedicated staff provide specialty care tailored to the individual needs of every patient, aiming to deliver high-quality services with excellent clinical outcomes. CHRISTUS St. Michael Health System works closely with the local community to ensure that regional health needs are identified and incorporated into system-wide planning and strategy. To this end, CHRISTUS St. Michael Health System commissioned the Texas Health Institute to conduct and produce its 2017-2019 Community Health Needs Assessment, 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 St. Michael Health System community stakeholders analyzed over 40 different indicators, spanning demographics, socioeconomic factors, health behaviors, clinical care, and health outcomes. Report findings combine data from publicly available sources, internal hospital 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. Through an iterative process of community debriefing and refinement of findings, a final list of six prioritized health concerns was developed, and is 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 St. Michael Health System to remain an active, informed partner in population health in the region for years to come.

| Rank | Health Concern |
|---|---|
| **1** | Access to healthy living resources |
| **2** | Unhealthy behaviors |
| **3** | Access to care |
| **4** | Social/emotional supports |
| **5** | Chronic disease |
| **6** | Prenatal care |

## INTRODUCTION

CHRISTUS St. Michael Health System (CSMHS) is a non-profit hospital system serving the greater Texarkana, Texas region. Two acute care hospitals anchor the system — a 311-bed facility in Texarkana, and a 43-bed acute care hospital in Atlanta, Texas, 25 miles south of Texarkana — along with one rehabilitation hospital, two outpatient rehabilitation facilities, two health and fitness centers, an imaging center, a cancer center, and two retail pharmacies.[1] While the CSMHS family of facilities serves a multi-state region encompassing northeast Texas, southwest Arkansas, southeast Oklahoma, and northwest Louisiana,[2] CSMHS defines its primary service area as Bowie County, Texas, Cass County, Texas, Little River County, Arkansas, and Miller County, Arkansas.

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. Today, CHRISTUS Health operates 25 acute care hospitals and 92 clinics across Texas, Louisiana, and New Mexico, and 12 international hospitals in Colombia, Mexico and Chile. In addition, the CHRISTUS Dubuis Health System owns or manages eight long term acute care hospitals across the southern and midwestern United States. As part of CHRISTUS Health's mission "to extend the healing ministry of Jesus Christ," CSMHS 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."[3]

Federal law requires all non-profit hospitals to conduct a Community Health Needs Assessment (CHNA) every three years to maintain their tax exempt status. CHRISTUS Health contracted with Texas Health Institute (THI) to develop the CHNA report for CSMHS, 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 CSMHS have drawn upon a wide range of primary and secondary data sources, and have engaged a group of community residents and stakeholders with special knowledge of the local public health landscape and/or vulnerable population groups to provide insight into community health needs and priorities, challenges, resources, and potential solutions.

A CHNA ensures that CSMHS 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

[1] CHRISTUS Health. (2016). Locations. Available at: http://christusstmichael.org/OurFacilities.

[2] CHRISTUS Health. (2016). About CHRISTUS St. Michael. Available at: http://christusstmichael.org/AboutChristusStMichael.

[3] CHRISTUS Health. (2016). Our mission, values, and vision. Available at: http://www.christushealth.org/OurMission.

inventory health opportunities and assets available within the service area that can be leveraged toward the improvement of population health. The CHNA lays the foundation for future planning, ensuring that CSMHS 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 the Texarkana region. Findings from previous CHNAs and progress reporting on initiatives launched in response were incorporated into project design, interviews and focus groups, and this report as applicable. In an effort to standardize the CHNA process across all CHRISTUS facilities, THI staff collaborated with the Louisiana Public Health Institute (LPHI) to design and conduct the needs assessments. THI and LPHI followed a mixed-methods approach of data collection from both primary and secondary data sources, including both qualitative and quantitative measures.

CHNA construction 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 sociodemographics, health risk behaviors, access to care, and clinical outcomes. The THI team subsequently obtained internal data from the two CSMHS acute care hospitals 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, either for specific subgroups or the population at-large. The full length Key Informant Interview Protocol can be found in Appendix B of this report.

### *Sample and Recruitment*

Representatives from CSMHS contributed contact information for 41 people who represent the broad interests of Texarkana and who possess knowledge about the region's health-related challenges. These key stakeholders included nonprofit leaders, health department authorities, public school leaders, healthcare providers or leaders, elected officials, local and state agencies, law enforcement agencies, people representing distinct geographic areas, and people representing diverse racial/ethnic groups. To recruit interviewees, THI staff shortlisted 16 potential interviewees from the 41 individuals suggested based on their professional background, organization, and geographical area they represent. The THI team contacted these 16 key informants by email and telephone, and eight individuals responded to the request. THI conducted eight interviews between February and May 2016, each lasting between 45 and 60 minutes.

### *Transcription*

The identities of key informants and transcribed content of their statements will remain confidential.

## FOCUS GROUP

### *Purpose and Questions to Address*

The purpose of the focus group was to obtain clarity around needs and concepts proposed for inclusion in the CHNA report, and to approximate a group response to the collection of ideas put forth. The group followed a semi-structured protocol intended to elicit responses aligned with the following objectives:

1. Identify significant health needs
2. Identify community resources to meet its health needs
3. Identify barriers and reasons for unmet health needs
4. Identify supports, programs, and services that would help to improve the needs or issues

THI staff finalized the design of the focus group guide after discussions with CSMHS staff, a review of quantitative data, and analysis of interview data collected prior to the focus group.

### *Recruitment and Sample*

Potential participants were identified by CSMHS leadership. Most participants were recruited through organizations that provide health care or related services to community residents (e.g., clinics, community organizations, social service agencies). Elected officials and government leaders were also invited to participate. To assist with recruitment, the local CHRISTUS liaison recruited 21 stakeholders

who represented specific groups, occupations, or perspectives important to the project. Thirteen people participated in the focus group.

### *Administering Focus Group and Collecting Data*

The focus group lasted two hours. The facilitator opened with a general assessment of the participants' views of the community's overall health profile, inviting general comments using open-ended questions about health needs. Next, the facilitator followed with probes regarding any health needs that arose in the quantitative and qualitative analyses but did not appear in the group members' initial responses. An assistant moderator took notes and recorded the group responses. THI coded all transcripts, identifying and consolidating the main themes. From successive readings of transcripts, the THI team methodically analyzed transcript content to produce a progressively refined coding scheme. From this coding scheme, several predominant themes emerged that were used to construct the final summaries.

## NEEDS PRIORITIZATION

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. The second step was to facilitate a community-driven refinement of the data-based priorities, using Nominal Group Technique to generate a prioritized needs list.

THI staff facilitated a needs prioritization meeting that took place in May 2016. THI staff informed the CSMHS liaison about the purpose of this meeting and appropriate logistics were arranged. The local liaison recruited 16 participants to serve on the needs prioritization committee, and eleven people ultimately attended the meeting. THI staff presented the initial analysis of all data, a list of data-based priorities, and led the group in the Nominal Group Technique exercise to distill a final list of top priorities. Participants identified and scored their top priorities. Facilitators from THI consolidated individual participants' scores to generate an overall ranking, which was relayed back to the group for further discussion. The prioritization committee reached consensus on the composite ranking before finalizing the priority health needs list.

# SUMMARY OF ACTIVITY SINCE 2014-2016 CHNA

In 2013, CSMHS completed its most recent CHNA and companion Community Health Improvement Plan (CHIP), informing system-wide planning and strategy for the 2014-2016 triennium. The information below summarizes the expanded actions CSMHS has pursued since that time.

## SIGNIFICANT NEEDS WITH HOSPITAL IMPLEMENTATION RESPONSIBILITY

### *Mental Health & Suicide*

CHRISTUS St. Michael organized an effort to establish a Crisis Intervention Center as a resource for people in an immediate mental health crisis. CHRISTUS St. Michael created an ad hoc community group with representatives from law enforcement, social service agencies, the courts, and mental health providers to develop a plan for providing an alternative to the emergency room as a place of care for persons in crisis. Working with the Texas local community health provider, Community Healthcore, and using funding provided through the Delivery System Reform Incentive Payment (DSRIP) program, and the Arkansas Integrated Health Care Network (AICHN), CHRISTUS St. Michael was able to establish a 24-bed crisis center located in space provided at CHRISTUS St. Michael - Atlanta, Texas Hospital. The program has been in operation since the beginning of 2015 and over 1,026 individuals have been seen at the facility. Through its Case Management Department, CSMHS also hosts a monthly Community Mental Health Providers meeting to discuss coordination of service delivery to individuals in need of care. Twenty representatives of various provider groups regularly attend these monthly meetings.

### *Obesity & Overweight*

In addition to the continuation of existing programs, CSMHS sought to address obesity and overweight in the early school age population with an eye toward the long term potential benefits. CSMHS identified a partner organization, Go Noodle, to deliver interactive health education curricula to schools that integrates a strong physical activity component into the learning modules. The program has been adopted by 73 elementary schools in the service area representing every school district. October 2015 was the month with the highest activity, with 574 active teachers and 14,320 active children participating. On average each month, over 500 Texarkana area teachers play Go Noodle games and videos, engaging over 12,000 kids. Texarkana-area children played over 92,000 Go Noodle games and videos during the 2015-16 school year and accumulated over 5.2 million minutes of activity.

### *Compliance Behavior*

CSMHS created a Transitional Care program that utilizes both direct involvement with care transition nurses and monitoring, supported by a specifically designed iPad application for clients to use in their own homes. The program assists patients with congestive heart failure, chronic obstructive pulmonary disease, pneumonia, coronary artery bypass grafting, hip and knee problems, and myocardial infarction. The program is designed to assist persons with these diagnoses to better manage their conditions, as well as to avoid hospitalization. The results demonstrate patients enrolled in the program have far fewer readmissions than patients with similar diagnoses that do not enroll in the program. 2,941 patients have enrolled since this program began in 2011.

### *Education*

CSMHS created a simulation laboratory for the purpose of providing caregivers with continuing education using the state of the art and best practice equipment and techniques. Since the Simulation

Lab opened, over 4,000 caregivers have received training. CSMHS' Senior Center provides regular monthly health-related workshops specifically addressing the needs of older adults. CSMHS also sponsors workshops for mental health professionals that provide training to help identify and care for patients who are victims of trauma.

### *Diabetes*

The Case Management Department offers support for patients with a diabetes diagnosis. The Community Service workers support patients as they introduce lifestyle changes intended to promote better diabetes control and self-management.. This program complements the Transitional Care program. Because diabetes is a frequent comorbidity among patients with life-limiting chronic conditions, the expanded Palliative Care Medicine program also provides support and care planning services to patients with diabetes.

### *Affordability*

CSMHS has taken a lead role in assisting local residents in enrolling in health coverage through the health insurance marketplaces created by the Affordable Care Act. During the last two years, 4,718 uninsured or underinsured residents of Texarkana and surrounding areas enrolled in the marketplace, a portion of whom received enrollment assistance from CSMHS. As a designated organization for Certified Application Counselor (CAC) training, CSMHS supplied 90% of the CAC's in the community. CSMHS was also able to help Arkansas residents enroll in that state's expanded Medicaid program. Over 3,200 Arkansas residents of the service area were able to enroll in the State's Private Option Plan, in addition to those enrolled through the health insurance marketplace.

CSMHS also worked with a local not-for-profit organization, the Ark-Tex Council of Governments, to provide a premium support program for Texas residents earning incomes between 100% and 150% of Federal Poverty Level (FPL). The successful field test began in 2015 and was fully implemented in 2016. People at this income level were identified as particularly vulnerable in the absence of an expanded Medicaid program in Texas, as they were most often unable to pay the out-of-pocket premium for health insurance marketplace plans. In 2016, CSMHS was able to assist 226 people who would not have been able to afford health insurance.

### *Coronary Heart Disease*

CSMHS entered into an affiliation agreement with the Cleveland Clinic, the nation's number one cardiovascular provider, for the purpose of sharing in their expertise and best practices delivery. The program has helped improve outcomes and has transmitted best practice procedures throughout CSMHS. The system also began the process of being certified as a Chest Pain Center of Excellence. CSMHS services were expanded to add a Board Certified Cardiac Electrophysiologist and build a state-

of-the-art electrophysiology lab to permit the delivery of services that were previously only available in destinations over two hours from the service area.

## FINDINGS

### POPULATION DEMOGRAPHICS

CHRISTUS St. Michael Health System primarily serves Bowie and Cass Counties in Texas, and Miller and Little River counties in Arkansas (henceforth referred to as "report area" or "service area"), consisting of a total population of 179,807 residents (Table 1). More than two-thirds of the region's population resides in Bowie County and Miller County, and the remaining third reside in Cass County and Little River County. 55% residents of the report area live in an urban environment, while the remaining 45% are rural, which mirrors the urban-rural breakdown of Arkansas' population statewide.

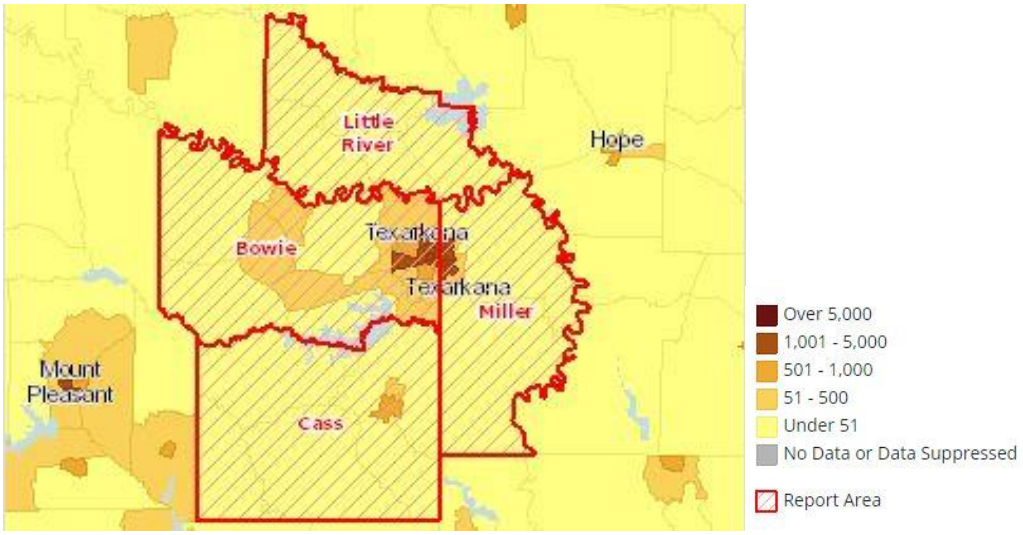


*Figure 1. Report Area Population Density (Persons per Square Mile)*

| County | Population |
|---|---|
| Bowie County, TX | 93,068 |
| Cass County, TX | 30,350 |
| Miller County, AR | 43,537 |
| Little River County, AR | 12,852 |
| **Total** | **179,807** |

*Figure 1 Report Area Population, by County*

About sixty percent of persons living in the report area are working-age adults. Of the remaining population, 6% are in infancy or early childhood, 16% are school-age children, and 17% are over the age of 65 (Figure 2). Overall, the population residing in the report area is slightly older than the population of Texas but similar to Arkansas (15%). Just 11% of Texas' population is comprised of adults over age 65.

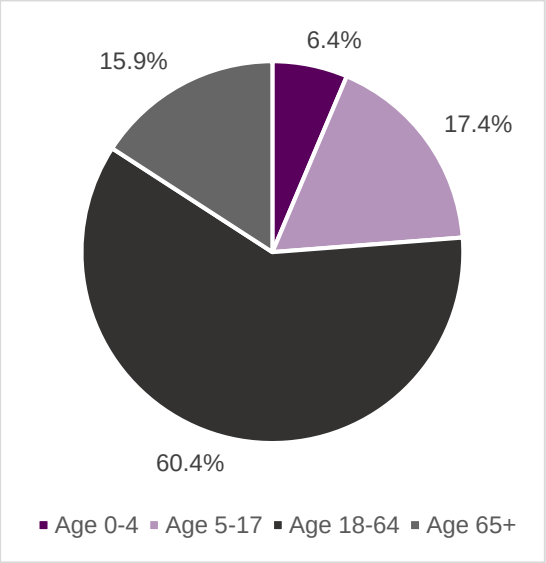


*Figure 2. Report Area Population, by Age*

The report area is home to a racially and ethnically diverse population that differs slightly in composition from the racial/ethnic demographics of Texas and Arkansas (Table 2). The Hispanic/Latino population in the report area more closely resembles that of Arkansas than that of Texas — just over 5% of the report area is Hispanic/Latino, compared to 7% of Arkansans and 38% of Texans. Among the non-Hispanic/Latino population, 72% are White and 23% are Black. The proportion of Black residents in the report area — nearly a quarter — substantially exceeds the proportion of Black residents in the states of Texas and Arkansas. Persons belonging to the Asian, Native Hawaiian/Pacific Islander and Native American/Alaska Native race categories each comprise less than 1% of the report area population. The report area population is virtually evenly distributed by gender (49.8% male, 50.2% female), mirroring the gender distribution of Texas and Arkansas.

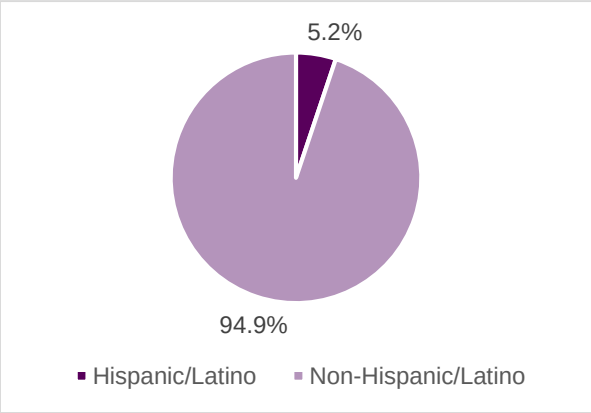


*Figure 3. Report Area Population, by Ethnicity*

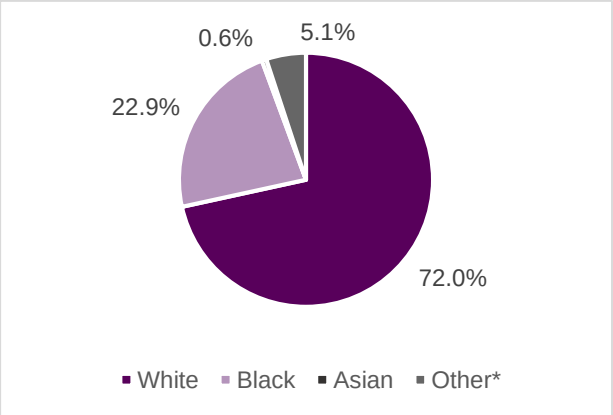


*Figure 4. Report Area Population, by Race*

**Other includes the following race classifications: Native Hawaiian/Pacific Islander, Native American/Alaska Native, Multiple races, and other race.*

| | Report Area | Texas | Arkansas |
|---|---|---|---|
| **Ethnicity** | | | |
| • Hispanic/Latino | 5.2% | 38.2% | 6.7% |
| • Non-Hispanic/Latino | 94.9% | 61.8% | 93.2% |
| **Race** | | | |
| • White | 72.0% | 74.7% | 78.3% |
| • Black | 22.9% | 11.9% | 15.6% |
| • Asian | 0.6% | 1.3% | 4.1% |
| • Native Hawaiian/Pacific Islander | <0.1% | <0.1% | 0.2% |
| • American Indian/Alaska Native | 0.7% | 0.5% | 0.6% |
| • Other race | 1.6% | 6.4% | 2.1% |
| • Multiple races | 2.1% | 2.4% | 2.0% |

*Table 2. Race/ethnic Distribution of Report Area, Texas, and Arkansas*

## SOCIAL AND ECONOMIC ENVIRONMENT

Educational attainment in the CSMHS service area is slightly higher than in Texas and Arkansas as a whole — just 14.1% of report area residents over age 25 lack a high school diploma, compared to 18.4% of Texans and 15.7% of Arkansans. The 2013-14 high school graduation rate in the report area (92.1%) exceeds that of both Texas (89.6%) and Arkansas (87.2%). Consolidated median income data for the report area is not available, but county-level data show that Bowie County has a median annual family income nearly $3,000 higher than Miller County ($53,776 compared to $50,799), which in turn is higher than Little River County ($48,955) and Cass County (46,875). This income level is on par with the statewide median income of Arkansans ($51,464), but substantially lower than Texas' median family income ($61,958). Poverty is fairly widespread in the service area, with 42% of report area residents earning annual incomes at or below 200% FPL. According to 2016 federal guidelines, 200% FPL corresponds to an income of $48,600 per year for a family of four.[4]

[4] U.S. Department of Health and Human Services. (2016). 2016 Poverty Guidelines. Office of the Assistant Secretary for Planning and Evaluation. Available at: http://aspe.hhs.gov/poverty-guidelines

Compared to both states overall, the report area's food insecurity and unemployment rates are substantially higher. Twenty-three percent of report area residents experience food insecurity, or uncertainty whether they will be able to get enough nutritious food at some point during the year, compared to about 18% of Texas residents and 20% of Arkansas residents. Unemployment is marginally higher in the report area (4.3%) than Texas' overall unemployment rate (4.1%), and Arkansas' (3.4%). Figure 5 provides a comparative summary chart of socioeconomic indicators for the report area and the states of Texas and Arkansas.

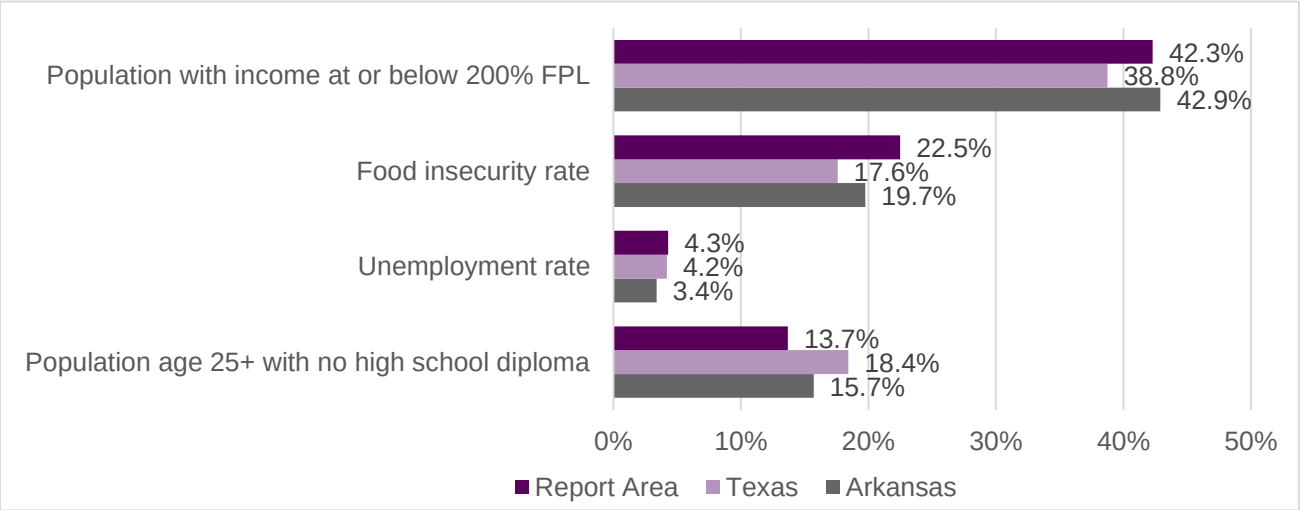


*Figure 5. Socioeconomic Characteristics of Report Area, Texas, and Arkansas*

Community safety represents an environmental indicator with implications for population health. Violent crime (defined as homicide, rape, robbery, and aggravated assault) occurred in the report area at a rate of 594.2 violent crimes per 100,000 population, substantially in excess of the overall violent crime rates

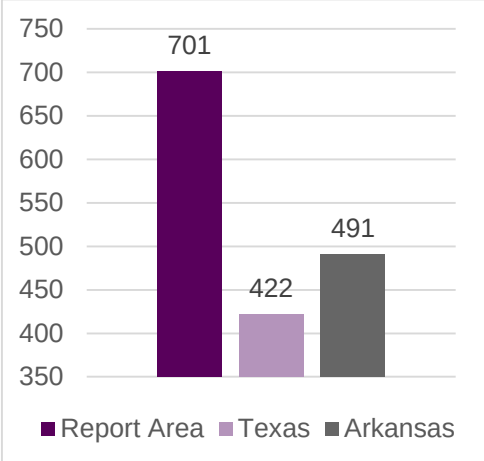


*Figure 6. Violent Crime Rate per 100,000 Residents*

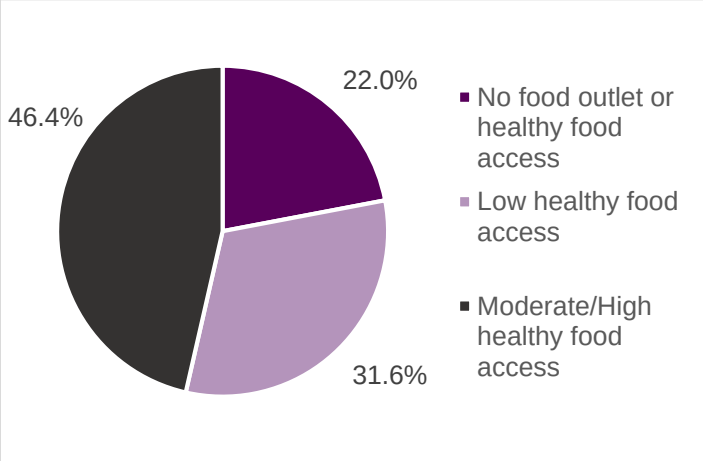


*Figure 7. Report Area Population living in Census Tracts with Access to Healthy Food Outlets*

in Texas (422 per 100,000 population) and Arkansas (491 per 100,000 population) (Figure 6). Within the report area, substantial disparities in violent crime appear by county. Miller and Bowie Counties have much higher than average crime rates (750.9 and 677.7 per 100,000 population, respectively), while Little River and Cass Counties have much lower than average crime rates (205.1 and 283.9 per 100,000 population, respectively).

Overweight, obesity, and chronic disease have remained consistent areas of need within the CSMHS service area, and a scarcity of healthy food outlets can create barriers for individuals who need to manage their weight and nutrition. The Centers for Disease Control and Prevention (CDC) Modified Retail Food Environment Index measures the availability of healthy food retail outlets at the census tract level. According to this measure, nearly 6 in 10 report area residents live in a census tract with either low access to healthy food outlets, no healthy food outlets, or no food outlets at all. Most of the remaining 4 in 10 have moderate access to healthy food outlets, while just 2% have high access to healthy food retail (Figure 7). In general, state and national data show that Black and Hispanic populations experience worse overall access to healthy foods than White populations, a pattern not observed in the report area: 50% of Black and Hispanic/Latino residents have low/no access to healthy foods, compared to 54% of Whites and 71% of Asians in the report area.

At least nine key informant interview responses noted concerns about the implications of crime on community health in Texarkana, including specific mentions of neighborhood safety, sex trafficking, gun violence, and physical violence. A common thread running through many interview responses related to social determinants of health was the prevalence of widespread, chronic poverty. One stakeholder referred to Texas Workforce Commission data indicating that a high percentage of local residents receive public assistance, and referenced a need for job creation and opportunities for residents to attain higher-wage employment that will enhance their ability to securely provide for themselves and their families. Stakeholders encouraged a pursuit of cross-sector collaborations to address social determinants of health from multiple angles.

## 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.[5] For many, health insurance

[5] Institute of Medicine. (1993). Access to health care in America. *Committee on Monitoring Access to Personal Health Care Services.* Washington, DC: National Academy Press.

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.

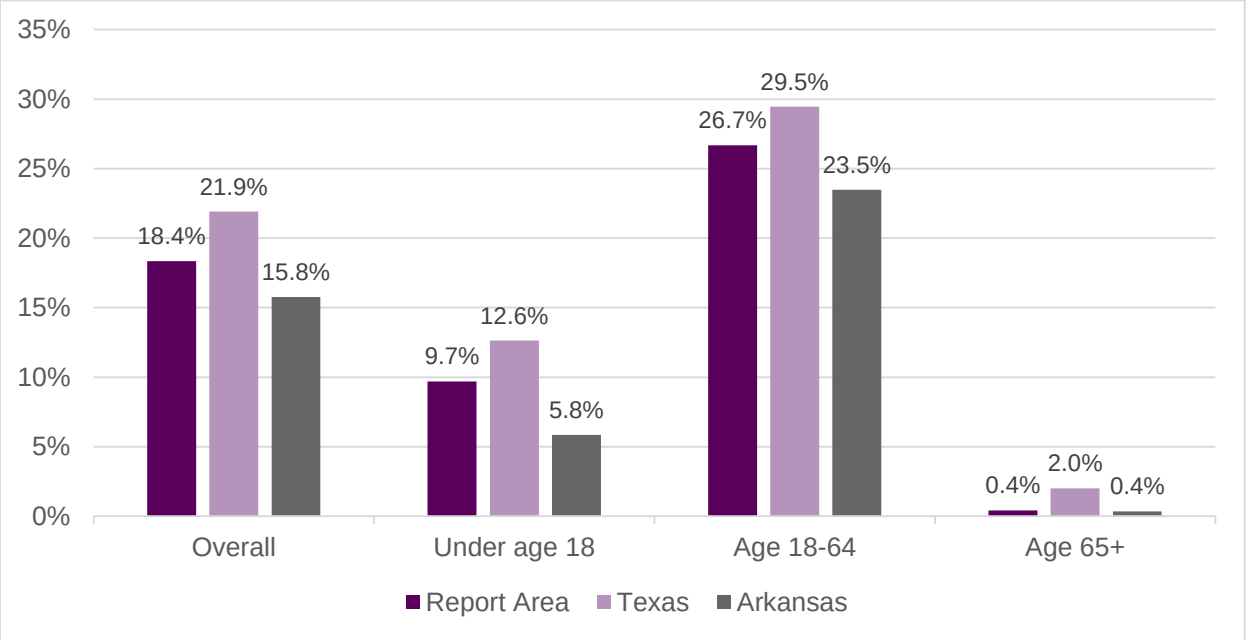


*Figure 8. Uninsured Rate in Report Area, Texas and Arkansas, Overall and by Age Group*

In the CSMHS service area, the overall uninsured rate of 18.4% falls roughly halfway between Texas' uninsured rate (21.9%) and Arkansas' uninsured rate (15.8%). Less than 1% of older adults in the area are uninsured, likely due to the availability of Medicare coverage for this age group. In contrast, nearly 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.

Arkansas is one of the only southern states to adopt the Affordable Care Act's Medicaid expansion, using its innovative "Private Option" plan to extend coverage to all non-elderly adults with incomes below <138% FPL. At the time of this writing, Texas remains among the 19 states that have declined to expand Medicaid.[6] Figure 8 shows Arkansas' non-elderly adult uninsured rate is 6% lower than Texas' a difference at least partially attributable to the difference in the two states' Medicaid expansion status. Report area residents who live in Arkansas can obtain Medicaid at a range of low incomes, while Texas' restrictive Medicaid eligibility criteria mean that lower-income Texas residents in the report area have few or no affordable coverage options available to them.

[6] Kaiser Family Foundation. (2016). Status of state action on the Medicaid expansion decision. Available at: http://kff.org/health-reform/state-indicator/state-activity-around-expanding-medicaid-under-the-affordable-care-act/

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. Availability of health care providers, especially dental and mental health providers, stands out as an area of concern in the service region. The number of primary care, dental, and mental health providers per 100,000 population practicing in the report area is uniformly lower than national rates, and the primary care provider-to-population ratio in the report area falls slightly below state averages (Figure 9). Dental providers number 40.6 per 100,000 population, slightly under than the Arkansas state average but

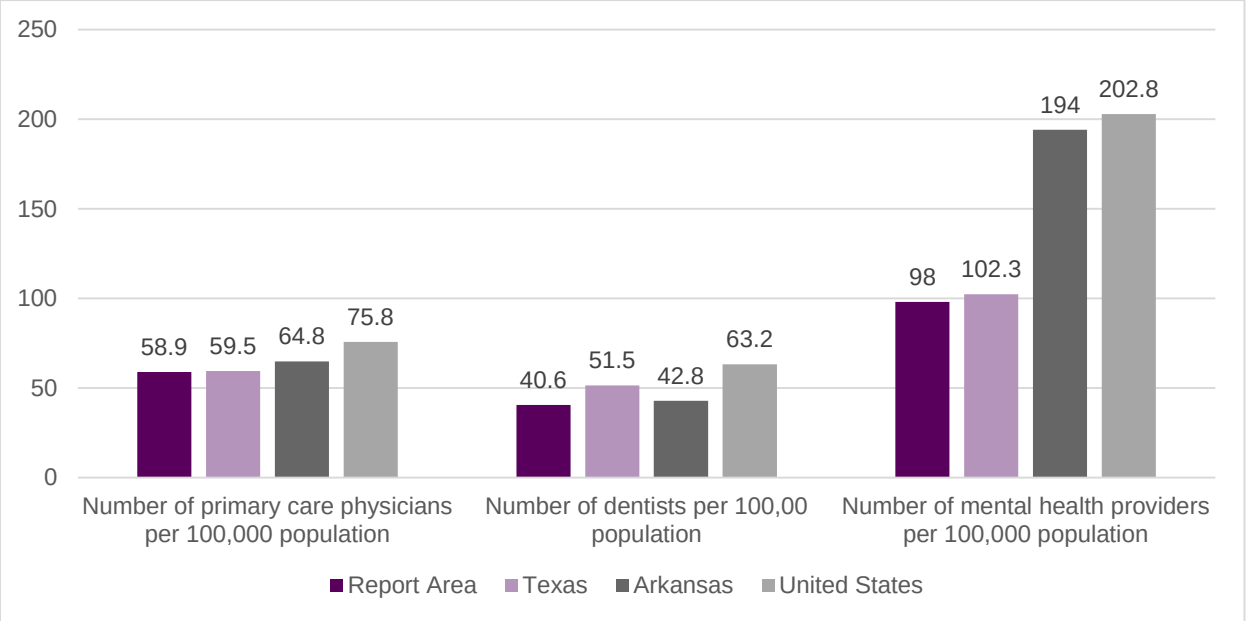


*Figure 9. Number of Health Care Providers per 100,000 Population, by Type*

substantially lower than the Texas average. The sharpest differences between the report area and reference locations can be observed in relative numbers of mental health providers. While the national average number of mental health providers is 202.8 per 100,000 population, the report area averages less than the half this number of providers (98 per 100,000). Mental health provider prevalence in the report area also falls substantially below the Arkansas average, and slightly below the Texas state average.

When access to care is limited, people may forego routine preventive care or diagnostic services commonly provided by a primary care physician. Among residents of the report area, nearly one in five (19%) self-reported not having a consistent source of primary care, or someone they consider their personal doctor. This figure is substantially lower than the 32.4% of people in Texas who lack a source of primary care. Community stakeholders pointed out that many nurses are increasingly treating large

numbers of patients on behalf of physicians, which may contribute to some patients' sense that they do not have a single, consistent source of primary care.

Primary care access barriers are a 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 72.2 per 1,000 Medicare enrollees in the report area, similar to the 71.6 preventable hospital events per 1,000 Medicare enrollees in Arkansas and substantially higher than the 62.9 preventable events per 1,000 Medicare enrollees in Texas (Figure 10).

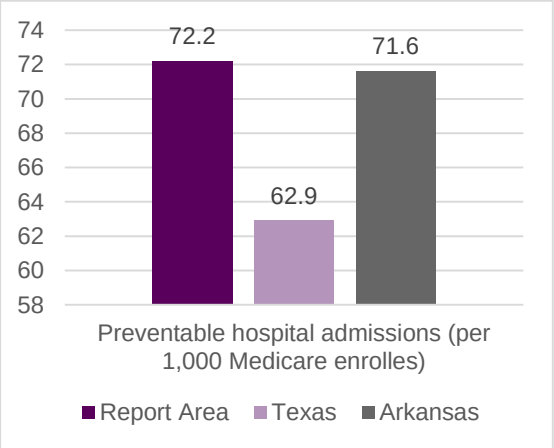


*Figure 10. Number of Preventable Hospital Stays per 1,000 Medicare Enrollees*

Stakeholders identified access to care issues as some of the community's most urgent needs. Focus group participants reacted to the high numbers of uninsured adults in the community by noting the potential for the Affordable Care Act's health insurance marketplaces and other coverage opportunities to drive reductions in the uninsured rate. Generally, the focus group viewed provider shortages as a less urgent dimension of access. Instead, many articulated their sense that consumers may not have the awareness, knowledge, or skill to navigate the system and use the available resources to their maximum benefit. In addition, stakeholders noted the unique challenges associated with ensuring adequate access for residents who live in rural areas. For those living significant distances from health care facilities, visiting a provider can be time- and resource-intensive, and transportation limitations can significantly compound this difficulty. Three separate key informant interviewees identified transportation as a key health care access barrier in the community.

## HEALTH OUTCOMES

### *Physical Health*

Preventable chronic diseases, such as diabetes, heart disease, hypertension, and asthma, occur at rates similar to Texas and Arkansas averages (Figure 11). Hypertension is one of the most common preventable conditions observed in the report area, with 28.7% of residents reporting they have been told they have high blood pressure by a doctor. The lifetime prevalence of hypertension is much higher

in the report area's Arkansas counties (combined prevalence of 35.5% in Miller and Little River Counties) than the Texas counties (combined prevalence of 26.5% in Bowie and Cass Counties).

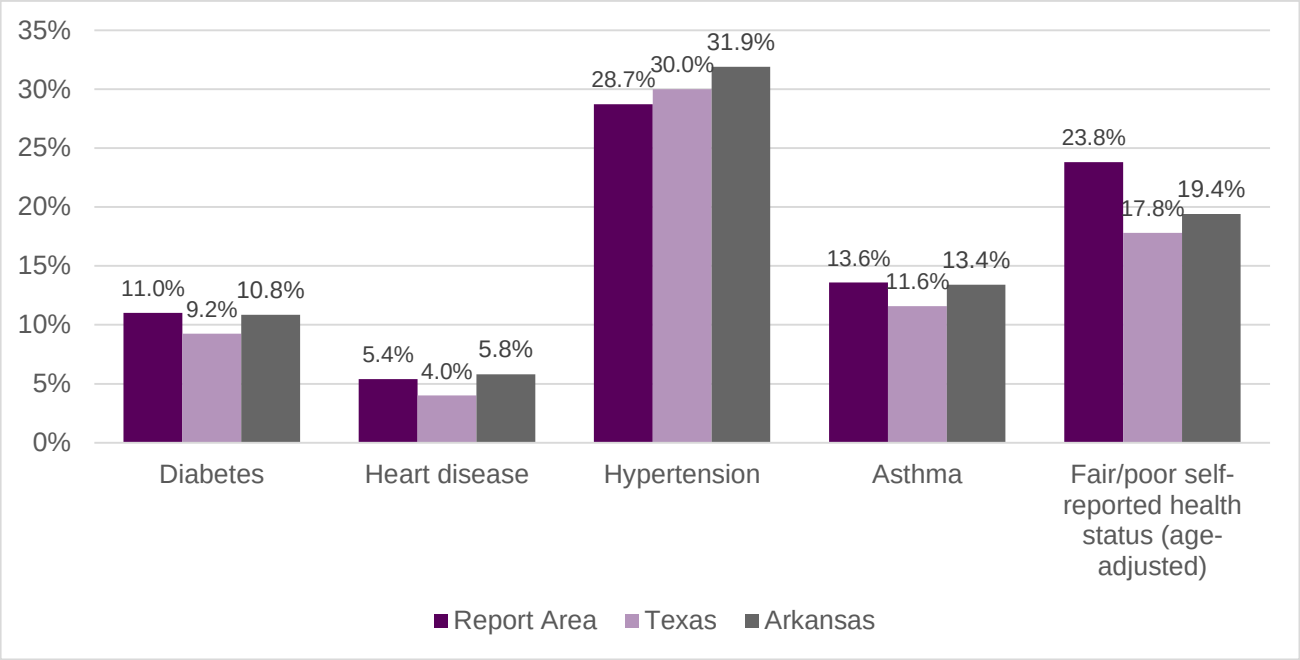


*Figure 11. Lifetime Prevalence of Select Health Conditions among Adults*

Diabetes prevalence among adults in the report area is 11%, an increase of approximately 3% over the past decade. About 5% of report area residents have been diagnosed with heart disease, and about 14% percent of residents have been diagnosed with asthma. Asthma prevalence is particularly important to monitor by geography because asthma can worsen in areas with poor air quality or other environmental triggers, and differences in asthma prevalence by county are noticeable: 20.4% of Miller County residents have been diagnosed with asthma, compared to just 12% of people living in Bowie and Cass Counties, and just 5.3% of people living in Little River County. At least five key informant interviewees described air quality concerns such as airborne chemical irritants, vehicle pollution, allergens, and secondhand smoke as prevalent concerns in the Texarkana area with implications for respiratory health. Overall, almost a quarter (23.8%) of the report area population perceives their health status as fair or poor, a greater percentage than Texas or Arkansas residents as a whole.

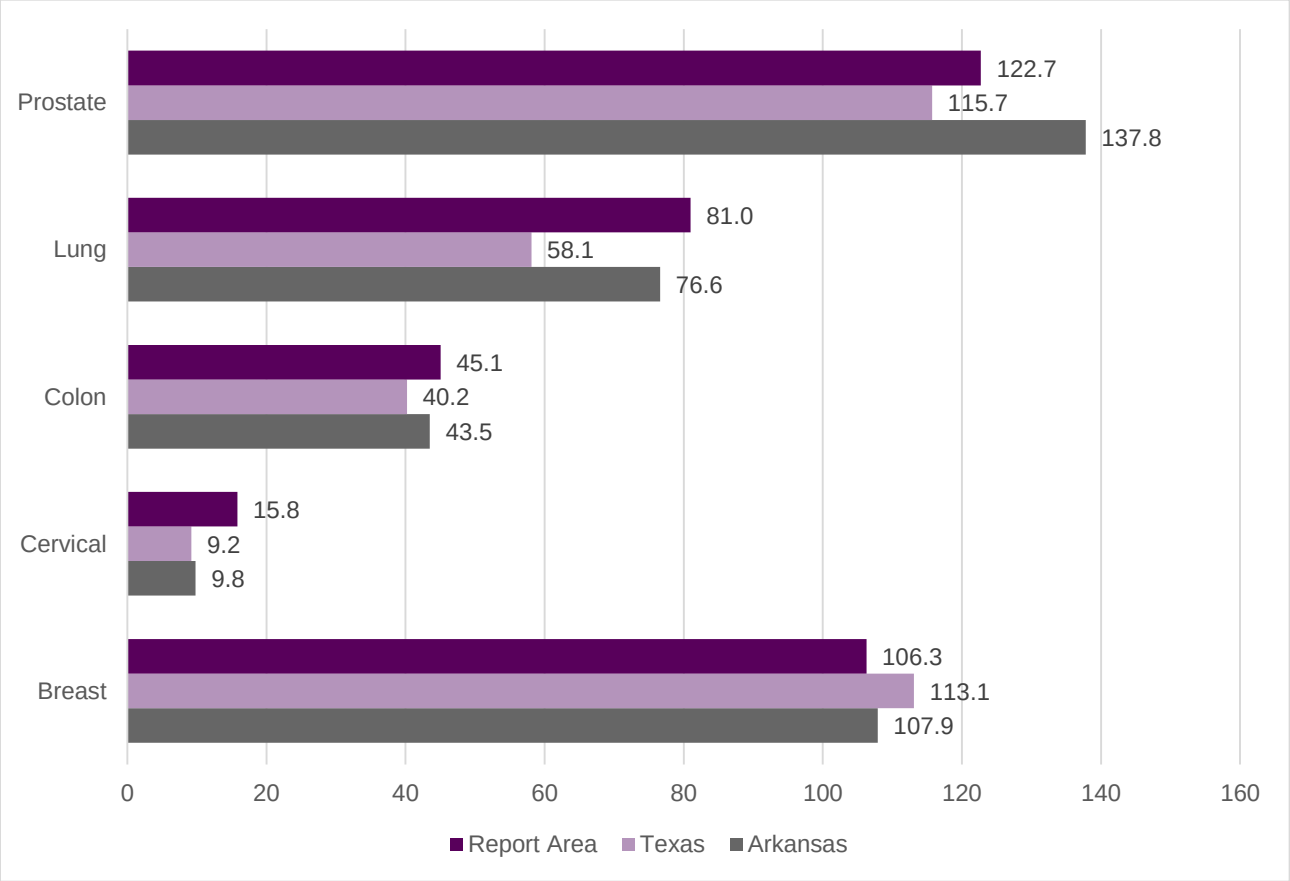


*Figure 12. Age-adjusted Cancer Incidence per 100,000 Population Annually, by Type*

Cancer is a leading cause of morbidity and mortality among the service area population. Age-adjusted measures of annual cancer incidence per 100,000 population show that cancer diagnoses are at least as frequent among all types of cancer in the report area compared to Texas or Arkansas, with the exception of prostate and breast cancers (Figure 12). The largest differences observed are in lung cancer incidence and cervical cancer incidence. The report area exceeds Texas in lung cancer incidence by 23 new cases of cancer per 100,000 population annually, and exceeds Arkansas by 4.4 new cases of lung cancer per 100,000 population annually. Incidence of cervical cancer in the report area, although small in magnitude relative to the other cancers, is nearly double the incidence in both Texas and Arkansas. Furthermore, incidence of cervical cancer in Miller County is 23.2 per 100,000, compared to just 12.0 per 100,000 in Bowie County. Cancer mortality is also substantially elevated among residents of the report area as compared to Texas, with over 30 more deaths per 100,000 population occurring from cancer in the report area than in the state of Texas as a whole. Cancer mortality in the report area is, however, comparable to Arkansas (Figure 13).

Age-adjusted mortality from numerous other causes is elevated in the CSMHS service area (Figure 13). Though the prevalence of heart disease in the report area is comparable to both reference states, mortality from heart disease is much higher in the report area — 258.3 deaths versus 175.7 deaths per 100,000 population in Texas, and 218.9 deaths per 100,000 population in Arkansas. Along with cancer and heart disease, stroke and respiratory diseases are also leading causes of mortality. Unintentional injuries and homicides also contribute to high overall mortality in the report area.

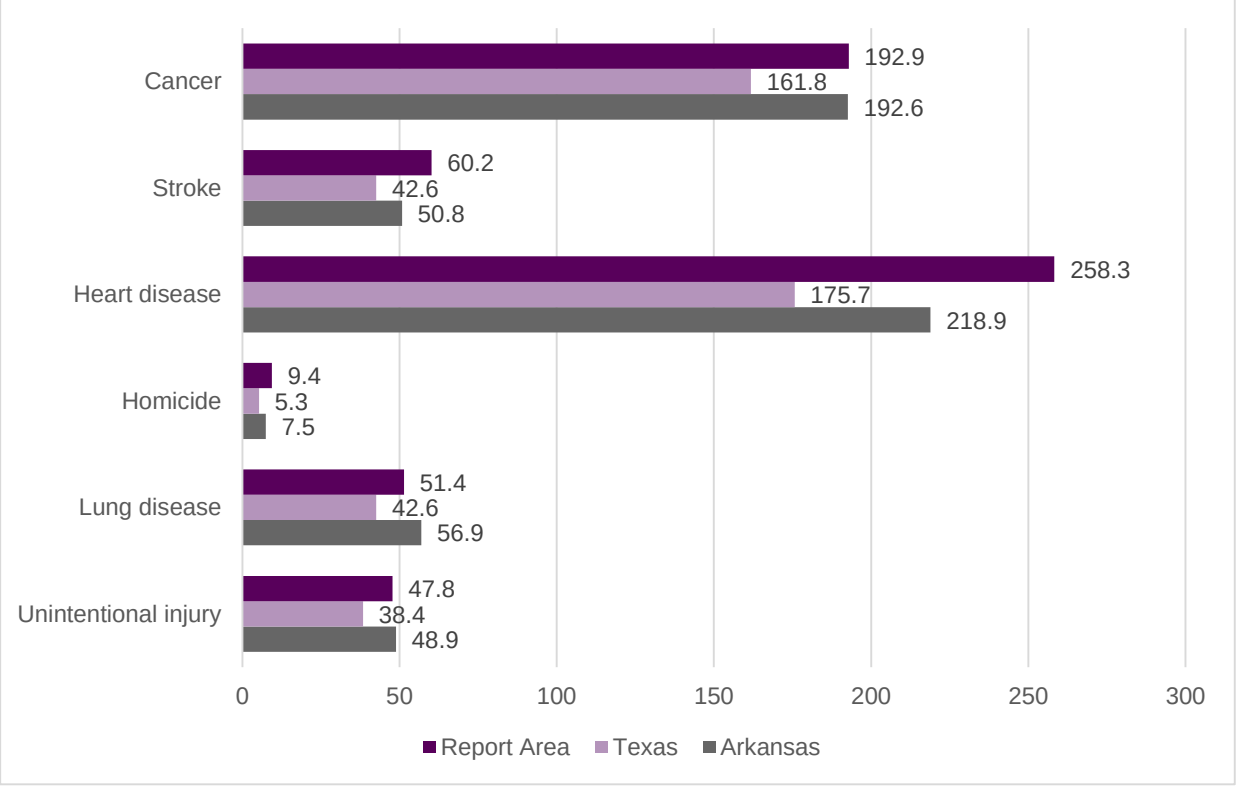


*Figure 13. Age-adjusted Mortality Rate per 100,000 Population, by Cause*

Perhaps more than any other issue, stakeholders remarked on the health needs and challenges associated with chronic disease prevalence. Diabetes, heart disease, and cancer were raised 20 separate times throughout the key informant interview process, by far the most attention paid to any collection of issues. Community members stressed the importance of coordinated prevention efforts in curtailing incidence, severity, and mortality from chronic disease. As opposed to clinical care, stakeholders emphasized the need for community-wide movements to change unhealthy behaviors, potentially delivering sustainable and less costly improvements in health outcomes at a population level.

### *Mental and Behavioral Health*

The burden of morbidity and mortality resulting from mental illness represents a significant and growing concern among the report area. After age adjustment, approximately 18 people per 100,000 population in the report area die by suicide, compared to 12 deaths by suicide per 100,000 population in Texas

and 16 in Arkansas (Figure 14). Evidence shows that 90% of people who die by suicide have a mental illness.[7] The suicide rate among report-area males (27 per 100,000) is nearly 50% higher than the suicide rate overall, suggesting strong variation by gender (a comparison point for report-area females is not available). Males die by suicide at a rate approximately four times higher than that of females in Arkansas, Texas, and the nation. Suicide risk is particularly elevated among older adults, which comprise a large and growing proportion of the report area population.

Depression, a major risk factor for suicide, affects 15.2% of Medicare beneficiaries in the report area, nearly identical to rates of depression among Medicare beneficiaries across the states of Texas and Arkansas (Figure 15). Over a quarter of report area residents feel they do not receive the social or emotional support they need all or most of the time, a slightly higher rate than Texas and Arkansas residents overall (Figure 16). Social and emotional support equips people to manage life stressors, navigate daily challenges, and demonstrate resilience if they experience crisis or trauma. Psychological distress can be precipitated or exacerbated by a perceived lack of social or emotional support.

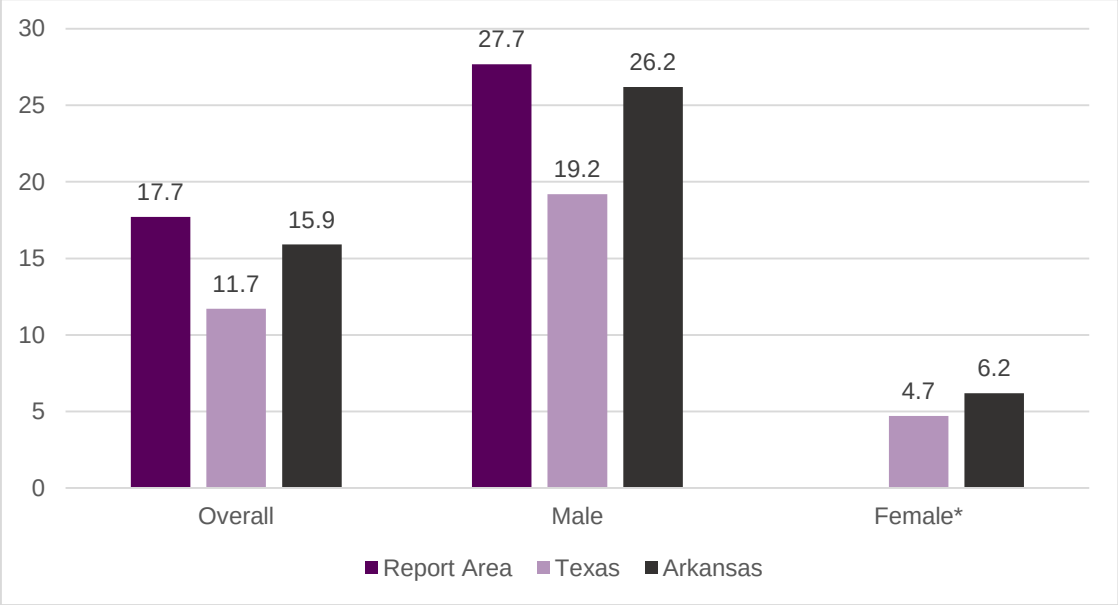


*Figure 14. Age-adjusted Suicide Mortality Rate per 100,000 Population, Overall and by Gender*
**Female suicide mortality data for report area not available.*

[7] National Alliance on Mental Illness. (2016). Risk of suicide. Available at: http://www.nami.org/learn-more/mental-health-conditions/related-conditions/suicide

Mental and behavioral health appeared to be at the forefront of several stakeholders' minds, but overall was not considered as pressing a priority as physical disease. Stakeholders did discuss the growing toll that substance use disorders and addiction appear to have taken on the community, noting that prescription drug use seems to be trending upward, and methamphetamine or "crystal meth" has emerged as a prevalent drug of choice in racial/ethnic minority communities. Many focus group participants remarked on the potential for improvements in mental and behavioral health outcomes to have cross-cutting impacts in other areas like unemployment, housing, and economic stability. Enhancing networks for social and emotional support was seen as a key opportunity for improvement in the mental health domain, and many stakeholders pointed to faith communities as institutions that could partner with the health sector in future interventions of this type.

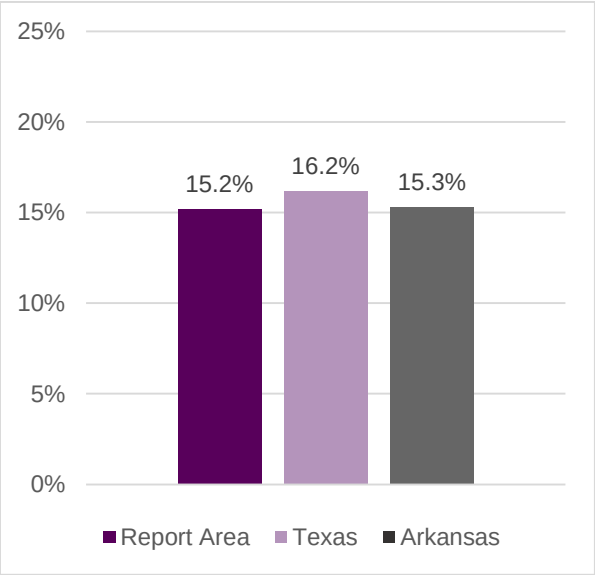


*Figure 15. Prevalence of Depression among Medicare Beneficiaries*

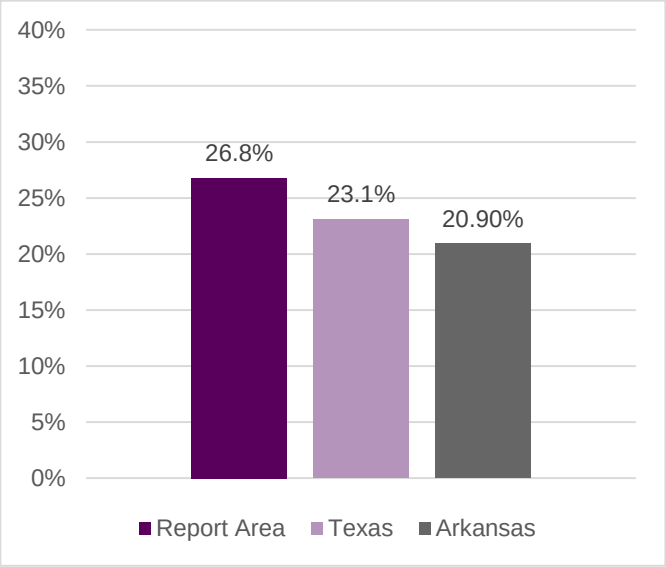


*Figure 16. Percent of Residents Reporting a Lack of Social or Emotional Support*

## MATERNAL AND CHILD HEALTH

Healthy People 2020 stresses the role of maternal, infant, and child health as a key driver of overall population health and wellness. Delaying childbearing into adulthood decreases the likelihood of perinatal and postnatal complications, including low birth weight, disability, and infant mortality.[8] Over the long term, children born to teen parents are less likely to be prepared for kindergarten, have lower educational attainment and high school completion rates, and exhibit higher rates of social, emotional,

[8] Healthy People 2020. (2014). Maternal, infant, and child health. Available at: http://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health

and behavioral problems.[9] Teen births in the report area, defined as births to mothers age 15-19, occur at a rate of 64.8 per 1,000 population (Figure 17). In contrast, Texas' and Arkansas' teen birth rates are approximately 55 per 1,000, and the national average teen birth rate (36.6 per 1,000) is nearly half the rate observed in the report area.

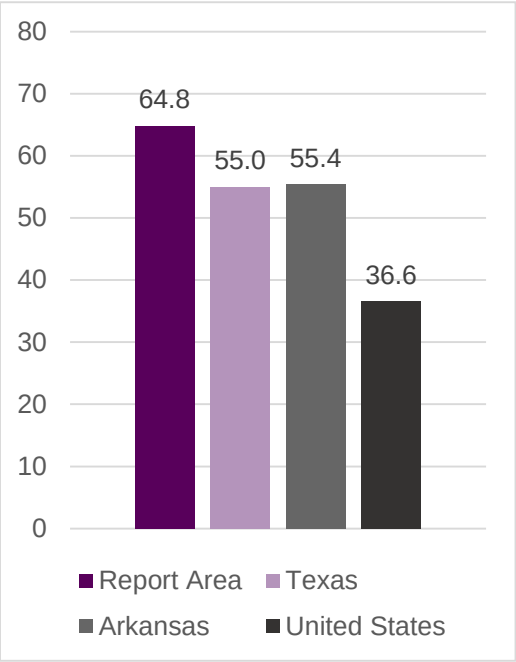


*Figure 17. Teen Births per 1,000 Population*

The infant mortality rate in the report area is slightly lower than in Texas and Arkansas overall, while the percentage of infants born with low birth weight in the report area slightly exceeds rates observed across the reference states. In the report area, infant mortality (defined as death before an infant's first birthday) occurs at a rate of 6 infant deaths per 1,000 births, compared to 6.2 infant deaths per 1,000 births in Texas and 7.7 infant deaths per 1,000 births in Arkansas (Figure 18). Infant mortality rate reflects not only the status of maternal and child health at the population level, but is frequently indicative of broader health system issues such as access to care and high prevalence of behavioral and socioeconomic health risks in the population.

About 9.9% of infants in the report area are born with low birth weight (weighing under 2500 grams at birth), compared to 8% of infants in Texas and 9% of infants in Arkansas (Figure 19). Preterm birth is a contributing factor to low-birth-weight infants, and is associated with elevated risk for health problems and developmental disabilities. Birth weight data by race/ethnicity show that Black infants in the report area are almost twice as likely to be born with low birth weight as White infants (15.01% versus 8.25%), mirroring state and national patterns of racial/ethnic disparities in low birth weight.

[9] Youth.gov. (2016). Adverse effects of teen pregnancy. Available at: http://youth.gov/youth-topics/teen-pregnancy-prevention/adverse-effects-teen-pregnancy

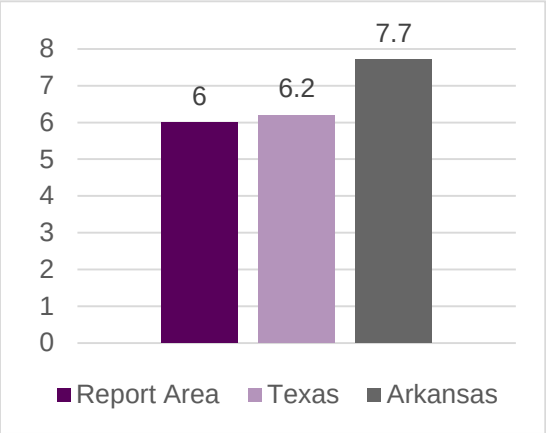


*Figure 18. Infant Mortality Rate per 1,000 Births*

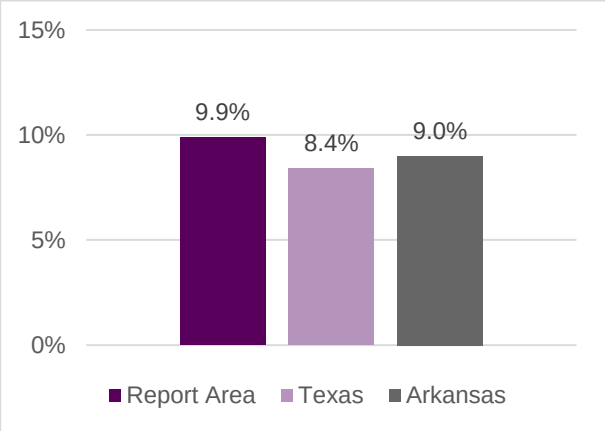


*Figure 19. Percent of Infants Born with Low Birth Weight*

## HEALTH BEHAVIORS

Residents of the service area self-report numerous health risk behaviors at high rates. Figure 19 displays comparative prevalence rates of select health behaviors within the report area, in Texas, and Arkansas. Rates of obesity, physical inactivity, and tobacco use in the service area all exceed the rest of the Texas by between 4-6%, and tend to match or fall or slightly below rates observed in Arkansas overall. 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) was lower in the report area (12.5%) than both Texas (15.8%) and Arkansas (12.6%).

In the report area, 31,003 adults (22.8%) currently use tobacco some days or every day, with substantial variation by state. Tobacco use in Miller County, AR occurs at a rate of 32.8%, nearly double the rate observed in Bowie County, TX (17%). Tobacco use, including smoking, is associated with elevated risk for numerous cancers, cardiovascular disease, respiratory disease, and premature death. Regular tobacco use in the report area exceeds Texas by 5%, and falls below Arkansas by 1%.

Physical inactivity contributes to poor health outcomes such as diabetes and cardiovascular disease. The CDC recommends adults participate in a minimum of 150 minutes of moderate intensity physical activity per week,[10] but approximately 30% of report area residents reported no physical activity all during the past month. In contrast, about 24% of Texans reported the same degree of physical inactivity. A physically inactive lifestyle elevates risk for overweight and obesity, which is also observed at high

[10] Centers for Disease Control and Prevention. (2008). 2008 Physical activity guidelines for Americans. U.S. Department of Health and Human Services. Available at: http://health.gov/paguidelines/pdf/paguide.pdf

rates among the adult population of the service area. Thirty-three percent of report area residents are classified as obese, defined as a body mass index greater than 30.0 kg/m$^2$. Obesity rates are fairly consistent across all report area counties and vary little by gender, While the growth of obesity rates has slowed since 2008 across Texas and the nation, some fluctuations in the report area obesity rate have occurred in recent years, including two consecutive biannual intervals during which the obesity rate increased, then subsequently decreased about two percentage points. (Figure 21).

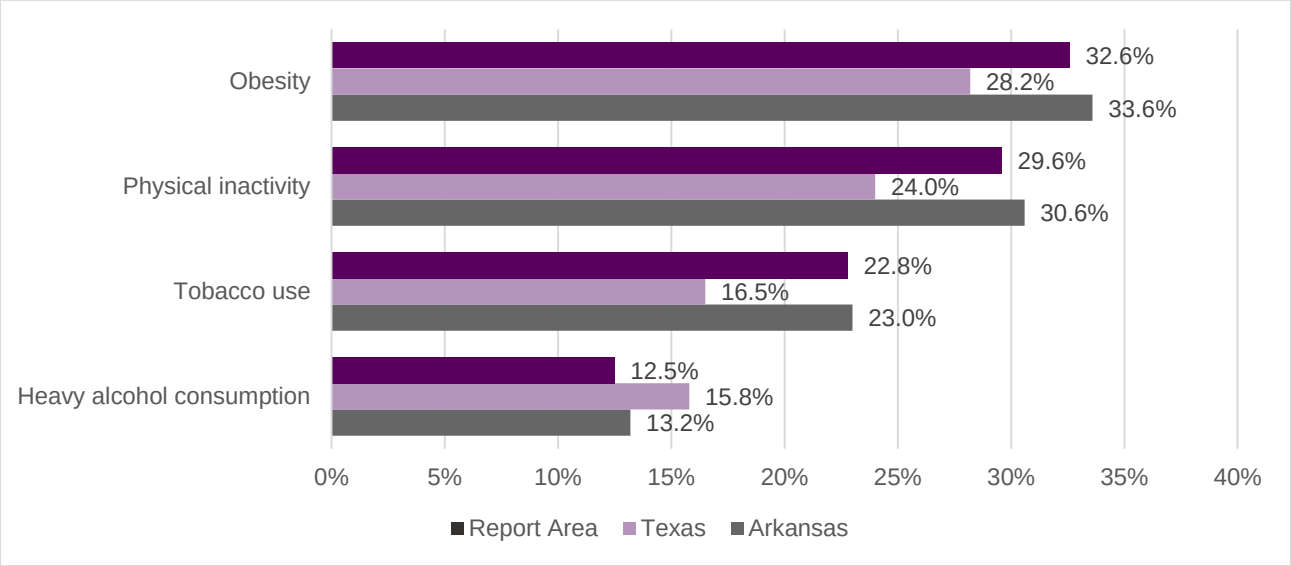


*Figure 20. Prevalence of Select Health Risk Behaviors among Adults*

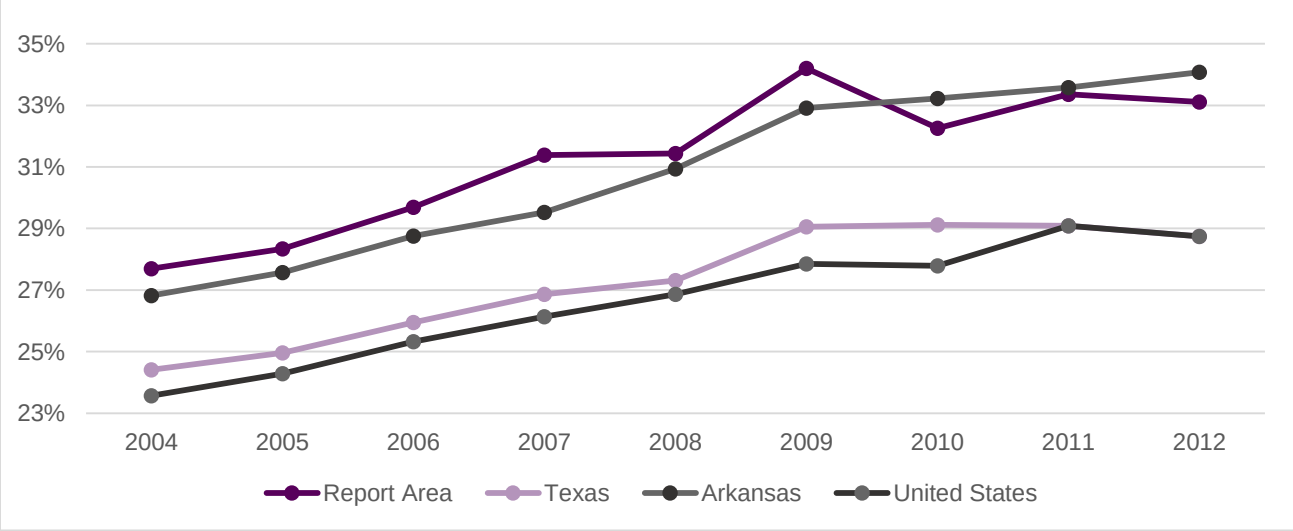


*Figure 21. Prevalence of Obesity in Adults, 2004-2012*

## HOSPITAL DATA

The CHRISTUS St. Michael Health System supplied internal data from its acute care hospitals for presentation and descriptive analysis in this section. Two years of hospital admission and emergency department utilization data are provided (2013 and 2014), disaggregated by facility, ZIP code, service line, and source of payment. For ZIP code, service line, and payment type, selected options reported at the greatest frequency and/or determined to be of interest are displayed in this report, as opposed to the full tabulation.

Overall, the hospital data reveal a clear disproportionality in emergency department use compared to hospital admissions (Table 3; Figure 22). While some inherent difference may be expected, the frequency of emergency department visits overwhelmingly exceeded the frequency of hospital admissions over the data collection period. Emergency department visits exceeded hospital admissions by a ratio of 4.3 to 1.

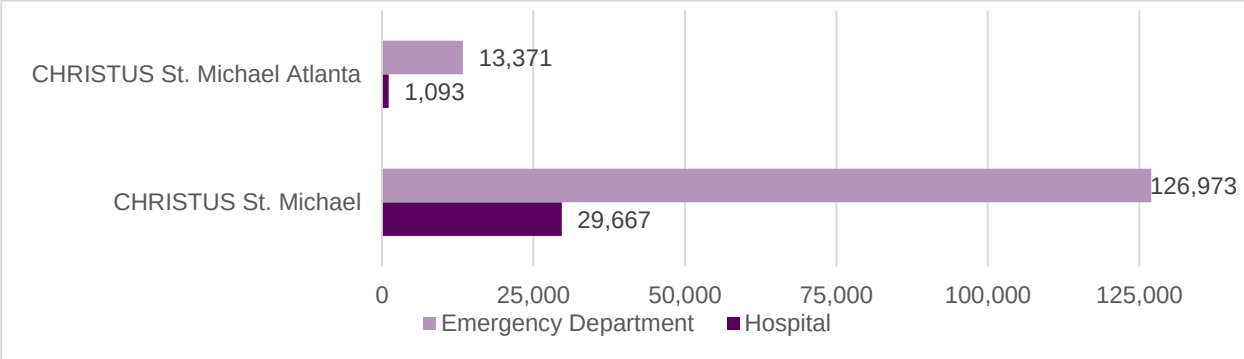


*Figure 22. Hospital Admissions and Emergency Department Utilization by Facility, 2013-2014*

| Facility | Hospital Admissions | | | Emergency Department Visits | | |
|---|---|---|---|---|---|---|
| | 2013 | 2014 | Total | 2013 | 2014 | Total |
| CHRISTUS St. Michael | 15,470 | 14,197 | **29,667** | 64,601 | 62,372 | **126,973** |
| CHRISTUS St. Michael Atlanta | 419 | 674 | **1,093** | 4,367 | 9,004 | **13,371** |
| Total | 15,889 | 14,871 | **30,760** | 68,968 | 71,376 | **140,344** |

*Table 3: Hospital and Emergency Department Utilization by Facility, 2013-2014*

While further analysis is needed to determine what may be driving utilization trends in the report area, disproportionate emergency department use can indicate a high number of patients cycling in and out of the emergency department. Such patterns may highlight concerns regarding overuse and/or misuse

of emergency services within the report area. Data presented in Figure 10 show a relatively high rate of avoidable hospital events in the report area, further supporting the notion that use of the emergency department for non-emergent or preventable needs may be a system-wide concern. Individuals who make frequent visits to the emergency department are likely to have lower incomes, be managing multiple chronic conditions, and report poorer health status — all important factors to consider when planning interventions for populations who may need assistance managing their health in settings other than the emergency department.[11]

| Emergency Department Visits | | | |
|---|---|---|---|
| ZIP Code | 2013 | 2014 | Total |
| 75501 | 4,247 | 5,833 | **10,080** |
| 71854 | 3,040 | 4,095 | **7,135** |
| 75503 | 1,906 | 2,710 | **4,616** |
| 75570 | 577 | 933 | **1,510** |
| 75551 | 423 | 578 | **1,422** |

*Table 4. ZIP Codes with Highest Frequency of Emergency Department Utilization, 2013-2014*

Table 4 highlights some variation in hospital admission and emergency department utilization by ZIP code. Nearly 20% of visits to the CHRISTUS St. Michael emergency department originate from three service area ZIP codes, all clustered around the city center of Texarkana: 75501 (southwest Texarkana, Texas), 71854 (east Texarkana, Arkansas), and 75503 (northwest Texarkana, Texas). 75551 constitutes approximately 10% of ER visits to the CHRISTUS St. Michael Atlanta emergency department.

| Hospital Admissions | | | Emergency Department Visits | |
|---|---|---|---|---|
| Rank | Service Line | Proportion | Service Line | Proportion |
| 1 | General medicine | 22% | General Medicine | 38% |
| 2 | Obstetrics | 11% | Orthopedics | 12% |
| 3 | Cardiovascular disease | 10% | Neurosciences | 11% |
| 4 | Orthopedics | 9% | Ear, Nose, and Throat | 10% |
| 5 | -- | -- | Cardiovascular Disease | 8% |

*Table 5. Most Frequent Services Provided During Hospital Admissions and Emergency Department Visits, 2013-2014*

[11] Peppe, E. M., Mays, J. W., and Chang, H. C. (2007). Characteristics of frequent emergency department users. *Kaiser Family Foundation.* Available at: https://kaiserfamilyfoundation.files.wordpress.com/2013/01/7696.pdf

General medicine represents the most frequent type of clinical service delivered both for patients admitted to the hospital and for those seeking care in the emergency department, though the proportion — nearly 40% — is substantially higher in the emergency department (Table 5). Orthopedic services are frequently delivered in both settings. Obstetrics is a service line unique to hospital inpatients/outpatients in these data, while emergency department visitors are more often receiving neurological and ear, nose, and throat care. Cardiovascular disease ranks as the third most common type of clinical service for admitted patients and the fifth most common for emergency department visits, an observation that may be closely linked to the relatively high rates of obesity, physical inactivity, and smoking identified in the report area and presented in Figure 19.

| Hospital Admissions | | Emergency Department Visits | |
|---|---|---|---|
| **Payment Type** | **Proportion** | **Payment Type** | **Proportion** |
| Medicare | 41% | Uninsured | 23% |
| Medicaid | 12% | Medicare | 22% |
| Uninsured | 7% | Medicaid | 12% |
| Self-pay | <1% | -- | -- |

*Table 6. Select Admitted Patient and Emergency Department Patient Payment Sources, 2014-2014*

Table 6 presents the proportion of patients paying with select payment types, includes Medicare, Medicaid, Self-pay, and Uninsured. Not presented are data on commercially insured patients and patients enrolled in certain types of public insurance (e.g., CHIP, TRICARE). Differences in the payer mix between the admitted patient population and users of emergency care are clearly evident. Medicare pays for 41% of hospital admissions at CHRISTUS St. Michael, but only 22% of emergency department visits. Conversely, the payer mix in the emergency department is comprised of far more uninsured patients, who comprise 23% of the emergency department mix but just 7% of the admitted patient mix. The proportion of patients covered under Medicaid is 12% in both care settings. It is useful to consider the CSMHS Medicaid payer data in light of Texas' and Arkansas' distinct Medicaid eligibility criteria described previously: roughly one-third of the service area population are Arkansas residents, who have increased access to Medicaid, while the remaining two-thirds of the service area population who are Texas residents experience more limited access to Medicaid.

Stakeholders reacted to the hospital data by re-emphasizing the need to educate people on the diversity of provider facilities and resources that are available to them other than the emergency department, such as community clinics. Some focus group participants sensed that care seeking behaviors observed in the data reflected a particular mindset toward health and health care that may

need to be addressed through messaging and patient engagement. As one stakeholder remarked, "the consumer paradigm has to change from 'fix me' to 'help me maintain or improve my quality of life.'"

### OTHER QUALITATIVE FINDINGS

A common theme among key informant interview responses was CSMHS' positive reputation in the community with regard to outreach, education, quality, and consumer satisfaction. On the whole, stakeholders felt that the system uses media opportunities effectively to reach people who could benefit from health promotion messages. CSMHS was described as "user friendly" and an "important asset" to the community in moving the community toward health and wellness.

Some stakeholders did express a sense that community engagement on the part of CSMHS and other groups has not resonated with the hardest-to-reach individuals and families. One interviewee remarked that people who respond to health promotion messages, seek assistance and resources, or attend health fairs are at least moderately engaged already, resulting in CSMHS and other health organizations "preaching to the choir." In order to reach families, neighborhoods, or communities who need the most support, stakeholders believe strategies and mindsets may need to change. As one stakeholder remarked, "it's not only leading [people] to water or making them drink, but educating them to realize they are thirsty."

Another pervasive theme that emerged from stakeholder conversations was the need for efforts and resources that are currently deployed in silos to be collaboratively leveraged toward comprehensive change efforts. Community institutions may be operating in silos to avoid spreading their resources too thin; however, stakeholders seemed to agree that any sustainable path forward must bring community assets together, embracing new models of health service delivery, prevention, engagement, and health promotion.

## 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 Texarkana. 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.

| Community Resources | |
|---|---|
| **Name** | **Description** |
| CHRISTUS St. Michael Health System | Two acute care hospitals in Texarkana and Atlanta, Texas, a rehabilitation hospital, home health services, imaging center, health and fitness centers, and cancer center. Level III Trauma Center and Level III Neonatal Intensive Care Unit. In Texarkana, Level IV Trauma center in Atlanta. |
| Wadley Regional Medical Center | Hospital system operating an emergency department, intensive care unit, surgical center, women and children's services, behavioral health unit, imaging and diagnostic services, and others. Level II Primary Stroke Center and Level III Trauma Center. |
| CHRISTUS Health Care Center Pharmacy and Glenwood Pharmacy | Both open to the public. Health Care Center Pharmacy is located within the CHRISTUS St. Michael office building for patient convenience. Glenwood Pharmacy offers free delivery for Texarkana city residents. |
| Texarkana Bowie County Health Unit | Provides free or low-cost screenings and immunization services for young children and adults. Diabetes self-management education resources. Reproductive health services offered for women and men on select days of the week, including STI testing, breast examinations, nutritional counseling, pregnancy testing, and contraceptives. Administers WIC program for nutrition education and supplemental assistance. |
| University of Arkansas for Medical Sciences Southwest | UAMS Southwest in Texarkana is one of eight regional centers across the state. Serving as an Area Health Education Center, the campus is home to three UAMS colleges, two primary care clinics, a pediatric clinic, a family medicine residency program, a regional cancer registry, community education programs, and a comprehensive medical library. The UAMS Southwest mission: Teaching, Healing, Searching and Serving. |
| Harvest Regional Food Bank Texarkana | Collects food donations and distributes food throughout the community to those in need, including food insecure individuals, shelters, residential and senior/child care organizations, and group homes. |

| | |
|---|---|
| Community Health Core | Local Mental Health Authority for greater Texarkana. Manages the Regional Crisis Response Center (RCRC) to provide crisis support, interventions, admissions, and referrals 24 hours per day, 7 days per week. |
| Genesis Prime Care | Federally qualified health center providing primary care, pediatrics, obstetrics, behavioral health services, and dentistry. Specializing in Medicare and Medicaid patients. |
| Grace Clinic | Free clinic providing services to those in need on a first-come, first-serve basis. |
| Salvation Army - Texarkana | The local branch of the Salvation Army, an international movement, is an evangelical Christian social service provider. The Salvation Army operates a thrift store, offers disaster relief services, emergency housing and financial assistance, and more. |
| Randy Sam's Outreach Shelter | Provides safe, temporary shelter for people experiencing homelessness, averaging between 80 and 85 guests per night. Collaborates with other local agencies to provide medical assistance, substance use counseling, employment training and assistance, and more. |
| Miller County Health Unit | Delivers pregnancy testing, HIV/STI counseling, testing, and treatment, immunizations, select in-home services including personal care, home health, and hospice, maternity services, tuberculosis testing and treatment, breast health services, and health insurance enrollment information. |
| Southwest Arkansas Counselling and Mental Health Services, Inc. | Their mission is to prevent, treat and cure mental illnesses and related disorders regardless of an individual's ability to pay. Currently they serve individuals in Hempstead, Howard, Lafayette, Little River, Miller and Sevier Counties. |
| St. Edward Outreach Center | The Outreach Center is a part of the St. Edwards Catholic Church, striving to meet the needs of the less fortunate in the community. Daily lunches are distributed Monday through Friday. The Outreach Center contributes emergency financial assistance when funds are available. |

*Table 7. Select Community Health Resources Serving the Texarkana Area*

In addition to the specific organizations and resources listed in the table above, community stakeholders frequently highlighted the robust network of faith communities in the Texarkana area. Focus group participants and key informant interviewees commented on the potential of faith-based outreach initiatives to reach diverse groups of congregants and worshippers with resources, messages, and programs to promote health.

## PRIORITIZED COMMUNITY NEEDS

Based on the THI staff review of data, twelve priority need areas emerged. Table 8 lists these ten priority areas in no particular order. This list was presented to the local needs prioritization committee consisting of stakeholders assembled from throughout CHRISTUS' St. Michael Health System service area. The committee was asked to (a) validate the data-based priorities and (b) distill and rank the list of ten priorities into a targeted, actionable group of six (Table 9).

| Data-based Priorities | | | |
|---|---|---|---|
| **Number** | **Issue** | **Number** | **Issue** |
| 1 | Heart disease | 7 | Unemployment |
| 2 | Diabetes | 8 | Access to healthy living resources |
| 3 | Cancer | 9 | Prenatal care |
| 4 | Suicide/Mental health | 10 | Unhealthy behaviors |
| 5 | Obesity | 11 | Access to care |
| 6 | Social/emotional support | 12 | Growing needs |

*Table 8. Top Twelve Data-based Priorities Generated from Review of Quantitative Data, Unranked*

Participants in the needs prioritization process were encouraged to consider the following criteria when selecting what needs to elevate in importance over others:

- Magnitude of the problem (number of people affected)
- Severity of the problem (burden of morbidity and mortality due to the problem)
- Organizational capacity to address the problem
- Impact of the problem on vulnerable populations
- Existing resources already addressing the problem
- Risk associated with delaying targeted intervention on the problem.
- Influence one problem may have on addressing other related problems

| Final Prioritization and Comments | | |
|---|---|---|
| **Rank** | **Issue** | **Comments** |
| **1** | Access to healthy living resources | • Screening<br>• Consider food insecurity and housing<br>• Need a coordinated effort |
| **2** | Unhealthy behaviors | • Community support and/or accountability needed for behavior change |
| **3** | Access to care | • Health insurance enrollment<br>• Provide patients assistance with navigating the system<br>• Awareness, coordination, and education is key |
| **4** | Social/emotional supports | • Consider places of worship as a resource<br>• Coordination among agencies to lead people to supports |
| **5** | Chronic disease | • Continuum of care & follow-up<br>• Encourage preventive measures<br>• Collaborative care partnerships |
| **6** | Prenatal care | • Outreach and education to mothers and community on importance of prenatal care |

*Table 9. Final Prioritized List of Community Health Needs with Comments*

Members of the needs prioritization committee reported their preferred ranking scheme for the twelve data-based priorities and discussed the rationale behind their rankings within the group. The list was organized in order of highest importance to lowest importance according to a composite tally of each member's ranks. Consensus was reached among the committee on the final order of priority.

In distilling the list of twelve data-based into a final list of six, needs prioritization committee members strongly favored prioritizing needs that were prevention-focused (e.g. healthy living resources, curtailing unhealthy behaviors). Chronic disease outcomes were consolidated and also received high priority, but did not ultimately rank as highly as the prevention-related priorities. When asked to justify the prioritization choices they made, many remarked that the influence of healthy behaviors and lifestyle changes on downstream health outcomes motivated their rankings. In the words of one participant: "If we fix the root cause, other issues will be fixed." In addition, access to care emerged as a top priority amidst a strong agreement that many "road blocks" to care continue

to exist in the greater Texarkana area. There seemed to be a sense that with a focused, coordinated effort, CSMHS and other local organizations are in strong position to improve the access to care landscape in the service area.

## 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 Texarkana. This report has also emphasized key resources, assets, capacity, and potential opportunities that exist in the region to address the identified problems. 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 St. Michael Health System in coming years. The findings from this CHNA report lay the groundwork for a companion Community Health Improvement Plan (CHIP) to aid the CHRISTUS St. Michael Health System in taking action to improve the health of the community it serves. A forthcoming report presenting the CHIP in detail will closely 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 | Texas | Arkansas | Bowie County, TX | Cass County, Tx | Miller County, AR | Little River, AR |
|---|---|---|---|---|---|---|
| **i) Social and Economic Demographics** | | | | | | |
| **Uninsured population** | 21.91% | 15.76% | 18.16% | 19.70% | 18.03% | 17.51% |
| **Uninsured adults** | 28.81% | 17.41% | 22.11% | 22.26% | 16.21% | 16.34% |
| **Uninsured children** | 11.62% | 5.18% | 9.94% | 10.88% | 4.43% | 4.91% |
| **Unemployment rate** | 4.2 | 3.4 | 4.1 | 7.2 | 3.2 | 3.7 |
| **High School Graduation Rate** | 89.60% | 87.20% | 93.40% | 93.50% | 88.80% | 90.10% |
| **ii) Access to Care** | | | | | | |
| **Primary Care Physician Rate*** | 59.50 | 64.8 | 77 | 29.7 | 41.5 | 55 |
| **Mental Health Provider Rate*** | 102.3 | 194 | 102.9 | 19.8 | 168 | 7.9 |
| **Dentists rate per 100,000 population** | 51.5 | 42.8 | 48.1 | 29.7 | 34.6 | 31.4 |
| **Preventable Hospital Stays**** | 62.9 | 71.6 | 59.5 | 97.9 | 72.2 | 81.8 |
| **Lack of consistent source of primary care** | 32.36% | 22.89% | 17.93% | 19.80% | 22.24% | 11.06% |
| **Populations living in HPSA** | 16.79% | 45.47% | 0% | 0% | 100% | 100% |
| **iii) Health Outcomes** | | | | | | |
| **Diabetes (Adult)** | 9.24% | 10.84% | 11.40% | 10.30% | 10.90% | 10.80% |
| **Heart disease (Adult)** | 4% | 5.80% | 5.40% | 7.40% | 3.90% | 6.40% |
| **Asthma** | 11.60% | 13.40% | 12.00% | 11.90% | 20.40% | 5.30% |
| **Hypertension** | 30.00% | 31.90% | 24.00% | 29.00% | 36.90% | 34.20% |
| **Poor General Health (age-adjusted)** | 17.80% | 19.40% | 20.40% | 35.50% | 24.80% | 17.10% |
| **Cancer Incidence - Breast*** | 113.1 | 107.9 | 119.5 | 80.6 | 99.4 | 109.5 |
| **Cancer Incidence - Cervical*** | 9.2 | 9.8 | 12 | no data | 23.2 | no data |
| **Cancer Incidence - Colon*** | 40.2 | 43.5 | 44.2 | 44.7 | 46.1 | 48.4 |
| **Cancer Incidence - Lung*** | 58.1 | 76.6 | 85 | 69 | 84.3 | 79 |
| **Cancer Incidence - Prostate*** | 115.7 | 137.8 | 125.4 | 124.3 | 122.3 | 104.2 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Depression** | 16.20% | 15.30% | 16.60% | 13.80% | 13.90% | 14% |
| **iv) Maternal and Child Health** | | | | | | |
| **Low birth weights** | 8.40% | 9% | 9.90% | 9% | 10.60% | 9% |
| **Infant mortality (rate per 1,000 births)** | 6.2 | 7.7 | 5.1 | 4.4 | 9.1 | 3.7 |
| **v) Health Behaviors** | | | | | | |
| **Adult obesity** | 28.20% | 33.60% | 32.60% | 30.80% | 33.60% | 33.60% |
| **Tobacco use** | 16.50% | 23% | 16.80% | 26.60% | 33.10% | 22.20% |
| **Excessive drinking** | 15.80% | 13.20% | 12.20% | suppressed | 13.10% | suppressed |
| **vi) Physical and Social Environment** | | | | | | |
| **Violent crime rate** | 422.1 | 491.3 | 677.7 | 283.9 | 750.9 | 205.1 |
| **Food Insecurity rate** | 17.59% | 19.74% | 23.45% | 24.16% | 20.48% | 18.32% |
| **Lack of Social & Emotional Support** | 23.10% | 20.90% | 26.20% | 29.30% | 22.70% | 38.30% |

- * Rate per 100,000 population
- ** per 1,000 Medicare enrolees

## 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]**

**[START HERE FOR ACTUAL INTERVIEW]**

*Hello, may I please speak with* ***[NAME]?***
*Thank you so much for taking this time to speak with me. Do you have any questions about the assessment that we discussed during our last call?* **[ALLOW TIME FOR QUESTIONS]**

**[IF PREVIOUSLY AGREED TO RECORDING]:** *In order to capture all of the information we talk about, I am going to take detailed notes throughout our conversation. After the interview is completed, we will review and code the interviews so that we can see if any themes arise across the multiple interviews conducted. All of your responses will not be tied back to you in any way; the results of the interviews will only be reported in aggregate. Do you agree to participate in this way?*

**[IF YES, PROCEED WITH INTERVIEW]**
**[IF NO, THANK THE PARTICIPANT FOR THEIR TIME AND END CALL]**

**[BEGIN INTERVIEW]:** *Thank you! I appreciate your time. Again, please remember that your responses will not be tied back to you directly so feel free to be as honest as possible. We are truly interested in hearing your opinions and ideas. You may refuse to answer any question or topic during the interview. Do you have any questions? Let's get started. I am going to begin the recording now.* **[BEGIN RECORDING]**

*This is key informant interview* ***[#]*** *on* ***[day, date, time]***
*As we go through these questions, please answer based on your perception for the following geographies:* ***[Texarkana interviewee]—****Bowie, Miller, Cass, and Little River Counties*

*1. Can you please tell me a little bit about your background and how you are connected to CHRISTUS Health, 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.?

**Follow-up:** Do you meet any of these criteria? **[Note: Participant does not necessarily have to meet any of these to participate]**

**[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.

COMMUNITY HEALTH AND WELLNESS

*2. What are some of your community's assets and strengths as related to the health and well-being of community residents?*

**Probe:** primary and preventive health care; mental/behavioral health; social environment; any other community assets

*3. What do you think are the physical health needs or concerns of your community? [free list]*

**Probe:** heart disease, diabetes, cancer, asthma, STIs, HIV, etc.

**Follow up:** Who do these health needs or concerns affect the most (e.g. age groups, racial/ethnic groups, socioeconomic groups, geographic subsets, etc.)?

**Follow up:** Are there organizations already addressing these needs? [free list] If so, which ones? How could CHRISTUS possibly partner with or enhance the efforts of these organizations?

**Follow up:** These are the top 3 health needs we have identified: **[Refer to data sheet and read the corresponding top 3 health needs for the region from which the interviewee is representing].** Do you think these are primary concerns for your community?

**Follow up:** Are there any other needs that should be addressed?

**Follow up:** Are there organizations already addressing these needs? [free list] If so, which ones?

*4. What do you think are the behavioral/mental health needs or concerns of your community? [free list]*

**Probe:** suicide, depression, anxiety, ADHD, etc.

**Follow up:** Who do these health needs or concerns affect the most (e.g. age groups, racial/ethnic groups, socioeconomic groups, geographic subsets, etc.)?

**Follow up:** Are there organizations already addressing these needs? [free list] If so, which ones? How could CHRISTUS possibly partner with or enhance the efforts of these organizations?

*5. What do you think are the environmental, including built environment, concerns facing your community? Not just limited to factors like air quality, these concerns can include things like access to green space, safe sidewalks or playgrounds, and reliable transportation. [free list]*

**Probe**: Air quality, water quality, workplace related dangers, toxin/chemical exposures, transportation, green space, etc.

**Follow up:** Who do these health needs or concerns affect the most (e.g. age groups, racial/ethnic groups, socioeconomic groups, geographic subsets, etc.)?

**Follow up:** Are there organizations, assets or infrastructure (i.e. green space, parks, bike lanes, etc.) already addressing these needs? [free list] If so, which ones? How could CHRISTUS possibly partner with or enhance the efforts of these organizations?

*6. Now I want you to think a little about a broader range of factors that could affect health. What do you think are the economic concerns facing your community? [free list]*

**Probe**: Housing, employment, access to quality daycare, chronic poverty, etc.

**Follow up:** Who do these health needs or concerns affect the most (e.g. age groups, racial/ethnic groups, socioeconomic groups, geographic subsets, etc.)?

**Follow up:** Are there organizations already addressing these needs? [free list] If so, which ones? How could CHRISTUS possibly partner with or enhance the efforts of these organizations?

*7. Again, thinking about other issues that could impact a person's health and well-being, what do you think are the social concerns facing your community? These could be concerns that impact a person's ability to interact with others and thrive or concerns that influence how the members of that society are treated and behave toward each other.*

**Probe:** Neighborhood safety, violence, dropout rates, teen and unplanned pregnancy etc.

**Follow up:** Who do these health needs or concerns affect the most (e.g. age groups, racial/ethnic groups, socioeconomic groups, geographic subsets, etc.)?

**Follow up:** Are there organizations, assets or initiatives in place already addressing these needs? [free list] If so, which ones? How could CHRISTUS possibly partner with or enhance the efforts of these organizations?

BEHAVIORAL RISK FACTORS

*8. What are behaviors that promote health and wellness in your community?*

**Probe:** Exercise, healthy nutrition, etc.

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

**Follow up:** Based on your experience/ knowledge/ expertise, what could be done to facilitate that more individuals can engage in these behaviors?

*9. What are behaviors that cause sickness and death 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.)?

HEALTH CARE UTILIZATION

*10. Where do members of your community go to access existing primary health care?*

**Probe**: Can you identify the facilities and what types they are (free clinic, private doctors office)?

**Follow up:** Who accesses these services?

**Follow up**: How often do they go to these facilities?

**Follow up**: What are the reasons they go (preventive, chronic care, etc.)?

*11. Where do members of your community go to access existing specialty care?*

**Probe**: Can you identify the facilities and what types they are (free clinic, private doctors office)?

**Probe**: What types of specialty care are people in your community seeking (ie gynecology, heart specialist, dialysis, etc?

**Follow up:** Who accesses these services?

**Follow up**: How often do they go to these facilities?

**Follow up**: What are the reasons they go (preventive, chronic care, etc.)?

*12. Where do members of your community go to access emergency rooms or urgent care centers?*

**Probe**: Please identify these facilities:

**Follow up:** Who accesses these services?

**Follow up**: How often do they go to these facilities?

**Follow up**: What are the reasons they go (emergencies, preventive, chronic care, etc.)?

**Follow up**: Why do they go to emergency care facilities rather than primary care?

*13. Where do members of your community go to access existing mental and behavioral health care?*

**Probe**: Can you identify the facilities and what types they are (free clinic, private doctors office)?

**Follow up**: How often do they go to these facilities?

**Follow up**: What are the reasons they go (preventive, chronic care, etc.)?

ACCESS TO CARE

*14. Are you satisfied with the current capacity of the health care system in your community?*

**Probe**: Access, cost, availability, quality, options in health care, etc.

**Follow up**: Why or why not?

*15. What are some barriers to accessing primary health care in your community? [free list]*

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

*16. What are some barriers to accessing mental and behavioral care in your community [free list]*

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

*17. Who are impacted by these barriers?*

*18. Reflecting on these barriers, what are one or two things CHRISTUS, its partners, or other organizations in the community could do to try to address these?*

*Those are all of the questions I have for you today. Is there anything else you would like to add before I turn of the recorder?* **[ALLOW TIME FOR COMMENTS]**

*Thank you very much for your time today; we really appreciate you sharing your thoughts on the current status and health needs of your community. If you have any questions about the interviews we are conducting, you can contact* **[INSERT CONTACT NAME AND INFORMATION]**