CHRISTUS®
GOOD SHEPHERD
Health System

Community Health Needs Assessment
2023-2025

Table of Contents

Executive Summary

CHRISTUS Good Shepherd Health System (CHRISTUS Good Shepherd), which includes CHRISTUS Good Shepherd Medical Center—*Longview* and CHRISTUS Good Shepherd Medical Center—*Marshall*, conducted a Community Health Needs Assessment (CHNA) to assess the greatest community health needs. The CHNA guides the hospital in selecting priority health areas and where to commit resources that can most effectively improve community members' health and wellness. To complete the 2023-2025 CHNA, CHRISTUS Good Shepherd partnered with Metopio, health departments, and regional and community-based organizations. The CHNA process involved engagement with multiple stakeholders to prioritize health needs. Stakeholders also worked to collect, curate, and interpret the data. Stakeholder groups provided insight and expertise on the indicators to be assessed, types of focus group questions to be asked to the community, interpretation of results, and prioritization of areas of highest need. Primary data for the CHNA was collected via community input surveys, resident focus groups, key informant interviews. The process also included an analysis of secondary data from federal sources, local and state health departments, and community-based organizations and from hospital-utilization data.

IRS Form 990, Schedule H Compliance

For non-profit hospitals, a CHNA serves to satisfy certain requirements of tax reporting, pursuant to provisions of the Patient Protection & Affordable Care Act of 2010. To understand which elements of this report relate to those requested as part of hospitals' reporting on IRS Form 990 Schedule H, the following table cross-references related sections.

SECTION	DESCRIPTION	BEGINS ON PAGE
Part V Section B Line 3a	A definition of the community served by the hospital facility	5
Part V Section B Line 3b	Demographics of the community	14
Part V Section B Line 3c	Existing health care facilities and resources within the community that are available to respond to the health needs of the community	29
Part V Section B Line 3d	How data was obtained	8
Part V Section B Line 3e	The significant health needs of the community addressed	3
Part V Section B Line 3f	Primary and chronic disease needs and other health issues of uninsured persons, low-income persons, and minority groups	37
Part V Section B Line 3g	The process for identifying and prioritizing community health needs and services to meet the community health needs	7
Part V Section B Line 3h	The process for consulting with persons representing the community's interests	10
Part V Section B Line 3i	The impact of any actions taken to address the significant health needs identified in the hospital facilities prior CHNA(s)	59

Health Need Priorities

Based on community input and analysis of a myriad of data, the health and social needs priorities for the communities served by CHRISTUS Good Shepherd for Fiscal Years 2023-2025 fall into two domains underneath an overarching goal of achieving health equity (Figure 1). The two domains and corresponding health needs are:

1. Advance Health and Wellbeing by addressing
   - Specialty Care Access and Chronic Disease Management (including Diabetes, Obesity, Heart Disease)
   - Behavioral Health (including Mental Health and Substance Abuse)
   - Primary Care Access
   - Education

2. Build Resilient Communities and Improve Social Determinants by
   - Improving Food Access
   - Reducing Smoking and Vaping

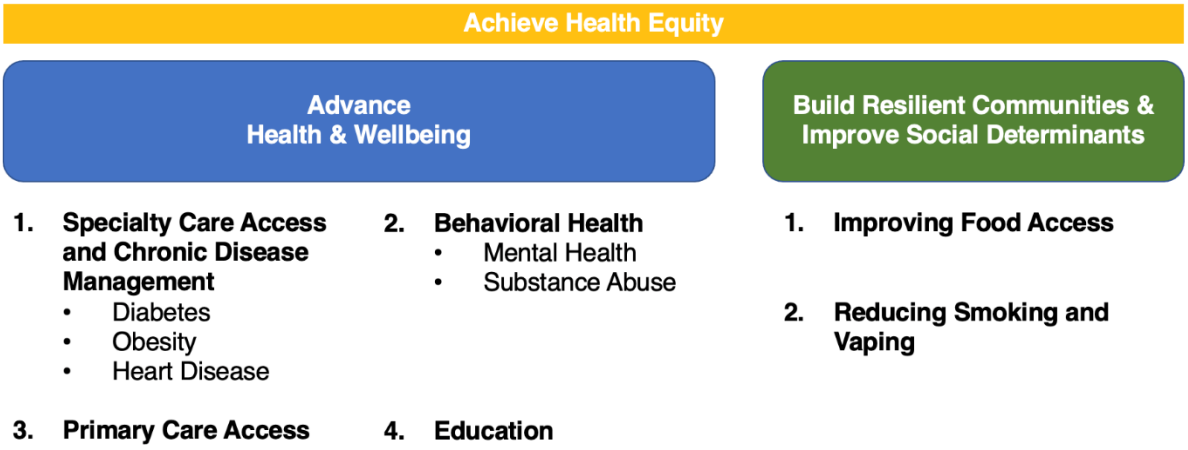


Figure 1. CHRISTUS Good Shepherd Health System Priority Areas

This report provides an overview of the CHRISTUS Good Shepherd process involved in the CHNA, including data collection methods, sources and CHRISTUS Good Shepherd primary service area (PSA). The body of the report contains results by service area zip codes, or counties when zip code granularity is not possible, where health needs for the entire service area are assessed.

Introduction: What is a Community Health Needs Assessment?

The Community Health Needs Assessment (CHNA) is a systematic, data-driven approach to determine the health needs in the service area of the CHRISTUS Good Shepherd Health System hospitals. In this process, CHRISTUS Good Shepherd directly engages community members and stakeholders to identify the issues of greatest need as well as the largest impediments to health. With this information, CHRISTUS Good Shepherd can better allocate resources toward efforts to improve community health and wellness.

Directing resources toward the greatest needs in the community is critical to CHRISTUS Good Shepherd's work as a nonprofit hospital. The important impact of CHNAs was codified in the Patient Protection and Affordable Care Act which added Section 501(r) to the Internal Revenue Service Code, requiring nonprofit hospitals, including CHRISTUS Good Shepherd, to conduct a CHNA every three years. CHRISTUS Good Shepherd completed similar needs assessments in 2013, 2016 and 2019.

The process CHRISTUS Good Shepherd used was designed to meet federal requirements and guidelines in Section 501(r), including:

- clearly defining the community served by the hospital, and ensuring that the defined community does not exclude low-income, medically underserved or minority populations in proximity to the hospital;
- providing a clear description of the CHNA process and methods; community health needs; collaboration, including with public health experts; and a description of existing facilities and resources in the community;
- receiving input from persons representing the broad needs of the community;
- documenting community comments on the CHNA and health needs in the community; and
- documenting the CHNA in a written report and making it widely available to the public.

The following report provides an overview of the process used for this CHNA, including data collection methods and sources, results for CHRISTUS Good Shepherd's service area, historical inequities faced by the residents in the service area and considerations of how COVID-19 has impacted community needs. A subsequent strategic implementation plan, the Community Health Improvement Plan (CHIP), will detail the strategies that will be employed to address the health needs identified in this CHNA.

When assessing the health needs for the entire CHRISTUS Good Shepherd service area, the CHNA data is presented by zip code and county depending on the available data. Providing localized data brings to light the differences and similarities within the communities in the CHRISTUS Good Shepherd service area.

Included in Appendix 1 is an evaluation of CHRISTUS Good Shepherd's efforts to address the community needs identified in the 2020-2022 CHNA.

CHRISTUS Good Shepherd Health System Overview

CHRISTUS Good Shepherd Health System (CHRISTUS Good Shepherd) is a non-profit hospital system serving the upper East Texas region and includes two medical centers along with a number of outpatient centers and medical clinics. Good Shepherd Medical Center—*Longview* is a Level III Trauma Center and has 425 licensed beds serving medical/surgical patients, nursing units and inpatient rehabilitation. The Medical Center in Longview also operates one of the first NICUs in the region. CHRISTUS Good Shepherd also hosts Level III Maternal Care which includes a dedicated Obstetric Emergency Department. CHRISTUS Good Shepherd Medical Center—*Marshall* is a 149-bed facility with Endoscopy, Surgical Services, an intermediate care unit, a 24-hour Level IV Trauma Center, and a medical unit utilized for overflow. The nursing units serve medical/surgical patients. It is the only hospital located in Harrison and Marion counties. This CHNA covers the service areas for both medical centers in the CHRISTUS Good Shepherd Health System.

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, Mexico, and Chile. As part of CHRISTUS Health's mission "to extend the healing ministry of Jesus Christ," CHRISTUS Good Shepherd Health System 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."

Community Benefit

CHRISTUS Good Shepherd Health System implements strategies to promote health in the community and provide equitable care in the hospital. CHRISTUS Good Shepherd builds on the assets that are already found in the community and mobilizes individuals and organizations to come together to work toward health equity.

CHRISTUS Good Shepherd Health System Service Area

Following IRS guidelines, 501(r) rules as required by the Affordable Care Act, CHRISTUS Good Shepherd's CHNA primary service area includes 15 zip codes covering over 240,000 individuals (Table 1). The primary service area (PSA) is the geographic region with 80% of hospital utilization. The primary service area zip codes are located in the following counties: Gregg, Harrison, Marion, Panola and Upshur (Figure 2).

While the hospital is dedicated to providing exceptional care to all of the residents in East Texas, CHRISTUS Good Shepherd will use the information in this assessment to strategically establish priorities and commit resources to address the key health issues for the zip codes, counties and municipalities that comprise the region.

CHRISTUS Good Shepherd Health System PSA				
Gregg County	**Harrison County**	**Marion County**	**Panola County**	**Upshur County**
75601	75650	75657	75633	75644
75602	75670			75645
75603	75672			
75604				
75605				
75647				
75662				
75693				

Table 1. Primary Service Area (PSA) of CHRISTUS Good Shepherd

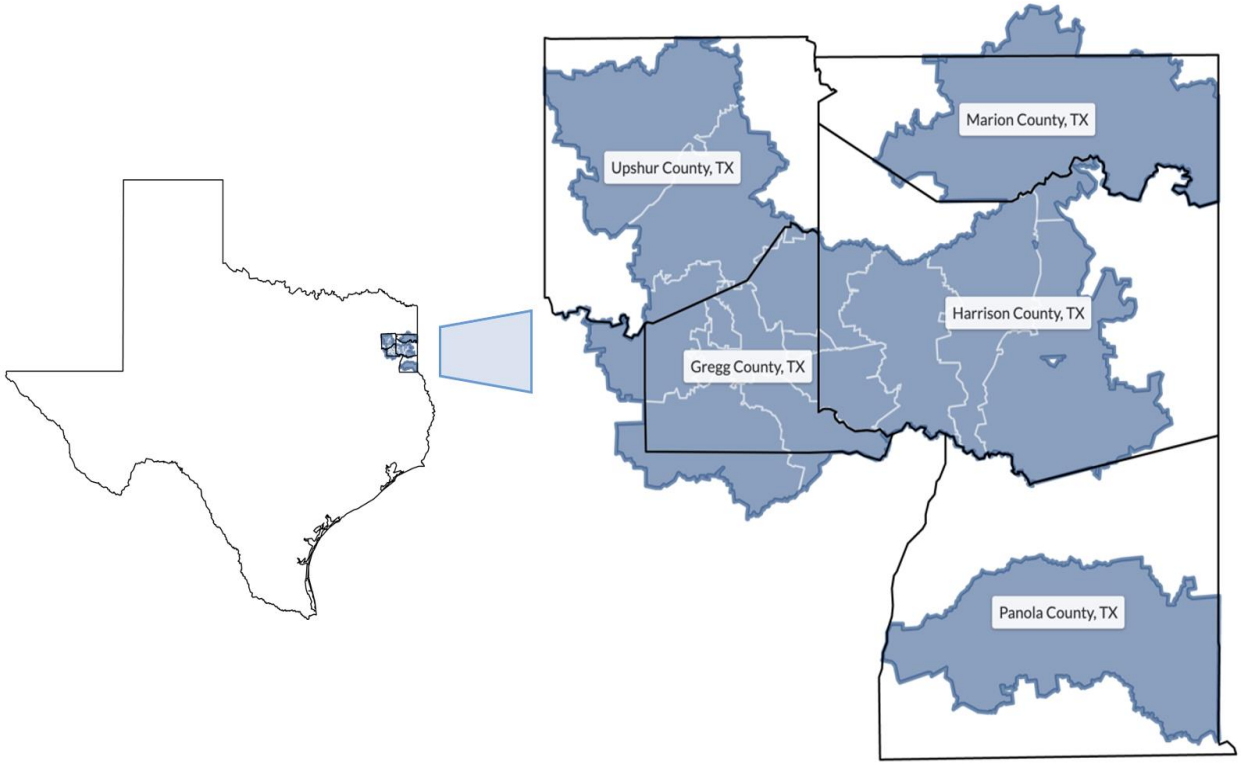


Figure 2. Primary Service Area (PSA) Map of CHRISTUS Good Shepherd

CHNA Process

Stakeholder Engagement

The CHNA process involved engagement with several internal and external stakeholders to collect, curate and interpret primary and secondary data. That data was then used to prioritize the health needs of the community. For this component, CHRISTUS Good Shepherd worked with Metopio, a software and services company that is grounded in the philosophy that communities are connected through places and people. Metopio's tools and visualizations use data to reveal valuable, interconnected factors that influence outcomes in different locations.

Leaders from CHRISTUS Good Shepherd guided the strategic direction of Metopio through roles on various committees and workgroups.

CHRISTUS Good Shepherd and Metopio relied on the expertise of community stakeholders throughout the CHNA process. The health system's partners and stakeholder groups provided insight and expertise around the indicators to be assessed, types of focus group questions to be asked, interpretation of results and prioritization of areas of highest need.

The Community Benefit Team is composed of key staff with expertise in areas necessary to capture and report CHRISTUS Good Shepherd community benefit activities. This group discusses and validates identified community benefit programs and activities. Additionally, the team monitors key CHNA policies, provides input on the CHNA implementation strategies and strategic implementation plan, reviews and approves grant funding requests and provides feedback on community engagement activities.

Input from community stakeholders was also gathered from CHRISTUS Good Shepherd's community partners. These partners played a key role in providing input to the survey questions, identifying community organizations for focus groups, survey dissemination and ensuring diverse community voices were heard throughout the process.

The CHRISTUS Good Shepherd leadership team developed parameters for the 2023-2025 CHNA process that help drive the work. These parameters ensure that:

- the CHNA builds on the prior CHNA from 2020-2022 as well as other local assessments and plans;
- the CHNA will provide greater insight into community health needs and strategies for ongoing community health priorities;
- the CHNA leverages expertise of community residents and includes a broad range of sectors and voices that are disproportionately affected by health inequities;
- the CHNA provides an overview of community health status and highlights data related to health inequities;
- the CHNA informs strategies related to connections between community and clinical sectors, anchor institution efforts, policy change and community partnerships; and

- health inequities and their underlying root causes are highlighted and discussed throughout the assessment.

Data Collection

CHRISTUS Good Shepherd Health System conducted its CHNA process between September 2021 and March 2022 using an adapted process from the Mobilizing for Action through Planning and Partnerships (MAPP) framework. This planning framework is one of the most widely used for CHNAs. It focuses on community engagement, partnership development and seeking channels to engage people who have often not been part of decision-making processes. The MAPP framework was developed in 2001 by the National Association for County and City Health Officials (NACCHO) and the Centers for Disease Control and Prevention (CDC).

Primary data for the CHNA was collected through four channels:

- Community resident surveys
- Community resident focus groups
- Health care and social service provider focus groups
- Key informant interviews

Secondary data for the CHNA were aggregated on Metopio's data platform and included:

- Hospital utilization data
- Secondary sources including, but not limited to, the American Community Survey, the Decennial Census, the Centers for Disease Control, the Environmental Protection Agency, Housing and Urban Development and the Texas Department of State Health Services

Community Resident Surveys

Between October and December of 2021, 683 residents in the CHRISTUS Good Shepherd primary service area (PSA) provided input to the CHNA process by completing a community resident survey. The survey was available online and in paper form in English and Spanish. Survey dissemination happened through multiple channels led by CHRISTUS Good Shepherd and its community partners. The survey sought input from priority populations in the CHRISTUS Good Shepherd PSA that are typically underrepresented in assessment processes, including communities of color, immigrants, persons with disabilities and low-income residents. The survey was designed to collect information regarding:

- Demographics of respondents
- Health needs of the community for different age groups
- Perception of community strengths
- Utilization and perception of local health services

The survey was based on a design used extensively for CHNAs and by public health agencies across the country. The final survey included 26 questions. The full community resident survey is included in Appendix 2. Table 2 summarizes the demographics of survey respondents in the CHRISTUS Good Shepherd PSA.

Demographic	%
Age (N=477)	
18-24	1.1
25-44	25.2
45-64	53.3
65 and older	20.4
Gender (N=475)	
Male	30.1
Female	68.7
Choose not to answer	1.2
Orientation (N=452)	
Straight or heterosexual	90.7
Bisexual	1.8
Lesbian or gay or homosexual	1.3
Choose not to disclose	4.9
Other	1.3
Race (N=524 (multiple answers allowed))	
American Indian or Alaska Native	2.5
Asian	0.7
Black or African American	11.8
White	80.3
Hispanic/Latino(a)	6.3
Native Hawaiian or Pacific Islander	0.2
Choose to not disclose	7.0
Education (N=450)	
Less than high school	0.4
Some high school	0.9
High school graduate or GED	6.7
Vocational or technical school	19.1
Some college, no degree	5.3
College graduate	43.1
Advanced degree	24.4
Current Living Arrangements (N=450)	
Own my home	79.9
Rent my home	14.7
Living with a friend or family	4.1
Living in emergency shelter	0.2
Living outside	0.2
Other	0.9
Disability in Household (N=443)	30.5
Income (N=409)	
Less than $10,000	2.4
$10,000 to $19,999	4.2

$20,000 to $39,999	13.0
$40,000 to $59,999	15.4
$60,000 to $79,999	16.9
$80,000 to $99,999	16.4
Over $100,000	31.8
Average Number of Children in Home (#) (N=462)	0.6

Table 2. Demographics of Community Resident Survey Respondents in CHRISTUS Good Shepherd Communities

Community Focus Groups and Key Informant Interviews

A critical part of robust, primary data collection for the CHNA involved speaking directly to community members, partners and leaders that live in and/or work in the CHRISTUS Good Shepherd PSA. This was done through focus groups and key informant interviews.

During this CHNA, CHRISTUS Good Shepherd held two local focus groups, one covering Adult Health and the other Maternal and Child Health, and joined two systemwide focus groups. All focus groups were coordinated by CHRISTUS Good Shepherd and the CHRISTUS Health system office and facilitated by Metopio. CHRISTUS Good Shepherd sought to ensure groups included a broad range of individuals from underrepresented, priority populations in the CHRISTUS Good Shepherd service area. Focus group health topic areas are listed below:

- Adult health
- Maternal and child health
- Health care and social service providers
- Behavioral health

CHRISTUS Good Shepherd conducted its focus groups in person. Focus groups lasted 90 minutes and had up to 15 community members participate in each group. The following community members participated in the focus groups:

Organization	Role
Pine Tree Independent School District	Administrator
Pine Tree Independent School District	Parents
CHRISTUS Good Shepherd Health System	Sexual Assault Nurse Examiner (SANE) Nurse
Community Health Core	Administrator
Community Health Core	Clients
Longview Community Ministries	Administrator
Longview Community Ministries	Clients
Women's Center of East Texas	Outreach Workers
Buckner Children and Family Services	Resident

Table 3. Focus Group Participants

In addition to the focus groups, 10 key informants were identified by CHRISTUS Good Shepherd Management team for one-on-one interviews. Key informants were chosen based on areas of expertise to further validate themes that emerged in the surveys and focus groups. Each interview was conducted virtually and lasted 30 minutes.

Secondary Data

CHRISTUS Good Shepherd used a common set of health indicators to understand the prevalence of morbidity and mortality in the CHRISTUS Good Shepherd PSA and compared them to benchmark regions in the state and the full CHRISTUS Health service area. Building on previous CHNA work, these measures have been adapted from the County Health Rankings MAPP framework (Figure 3). Where possible, CHRISTUS Good Shepherd used data with stratifications so that health inequities could be explored and better articulated. Given the community input on economic conditions and community safety, CHRISTUS Good Shepherd sought more granular datasets to illustrate hardship. A full list of data sources can be found in Appendix 3.

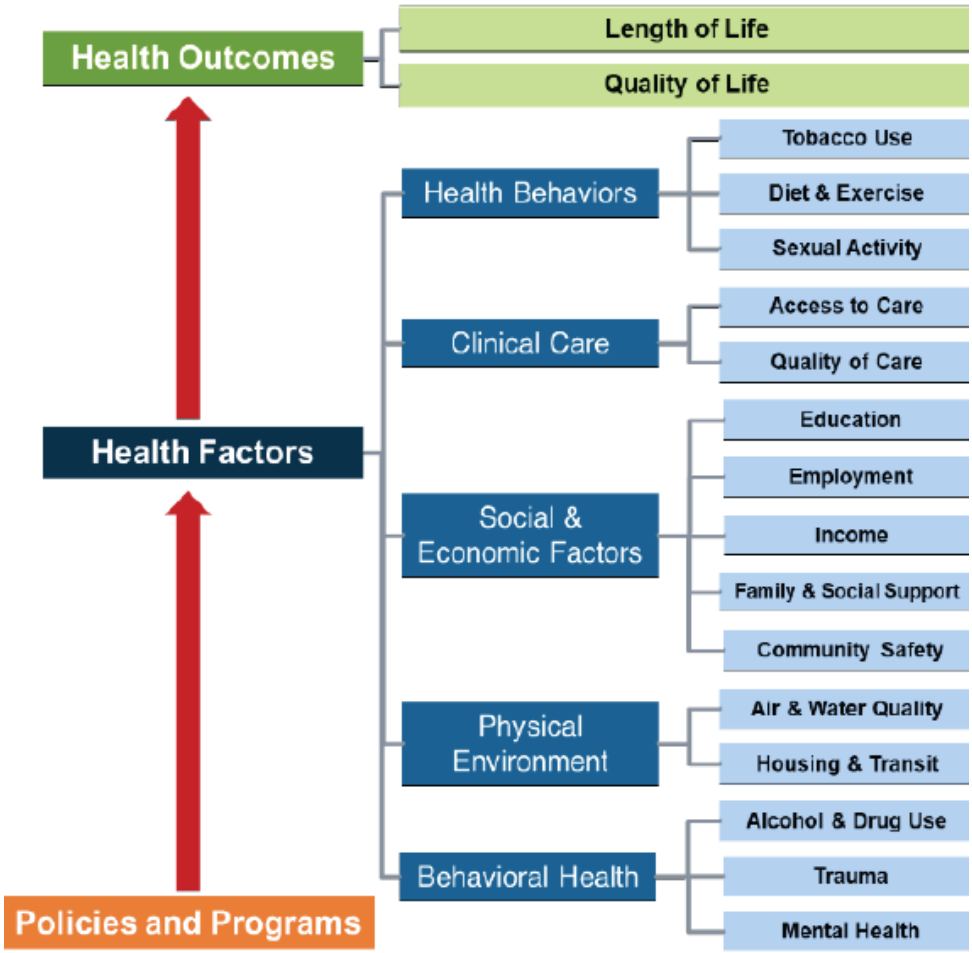


Figure 3. Illustration of County Health Rankings MAPP Framework

Data Needs and Limitations

CHRISTUS Good Shepherd Health System and Metopio made substantial efforts to comprehensively collect, review and analyze primary and secondary data. However, there are limitations to consider when reviewing CHNA findings:

- Population health and demographic data are often delayed in their release, so data are presented for the most recent years available for any given data source.
- Variability in the geographic level at which data sets are available (ranging from census tract to statewide or national geographies) presents an issue, particularly when comparing similar indicators and collected at disparate geographic levels. Whenever possible, the most relevant localized data are reported.
- Due to variations in geographic boundaries, population sizes and data collection techniques for suburban and city communities, some datasets are not available for the same time spans or at the same level of localization throughout the county.
- Gaps and limitations persist in data systems for certain community health issues such as mental health and substance use disorders (youth and adults), crime reporting, environmental health and education outcomes. Additionally, these data are often collected and reported from a deficit-based framework that focuses on needs and problems in a community, rather than assets and strengths. A deficit-based framework contributes to systemic bias that presents a limited view on a community's potential.

With this in mind, CHRISTUS Good Shepherd, Metopio and all stakeholders were deliberate in discussing these limitations throughout the development of the CHNA and selection of the 2023-2025 health priority areas.

Consideration of COVID-19

The COVID-19 pandemic touched all aspects of life for two of the last three years, which begs the question—should COVID-19 be considered its own health issue, or did it merely expose existing health inequities in the community?

The CHRISTUS Good Shepherd Health System PSA has experienced fluctuations in case rates and case fatality rates but was especially hard hit during the Delta surge in 2021. While causal factors are hard to pinpoint, several important determinants of health are more pronounced in the CHRISTUS Good Shepherd PSA including a lack of access to care, higher rates of chronic disease and a lack of transportation options. These vulnerabilities seem to have exacerbated the spread and impact of COVID-19.

> "Staying home because of COVID-19 was hard on most people and it feels like the isolation impacted everyone's mental health."
>
> -Focus Group Participant

As demonstrated in the survey results in Table 4, a majority of respondents saw the pandemic as the biggest issue their community faced over the last two years. And while many community members did not delay care, nearly half did experience challenges with feelings of hopelessness and depression. The community's major emphasis in focus groups and key informant interviews was on addressing the barriers to health equity, not necessarily the pandemic itself. Because of this, the CHNA will focus more on COVID-19's impact on existing health disparities.

During the pandemic (March 2020-present) have you had any of the following (please check all that apply):	**% of respondents**
Visited a doctor for a routine checkup or physical	87.9
Dental exam	63.7
Mammogram	36.0
Pap test/Pap smear	27.7
Sigmoidoscopy or colonoscopy to test for colorectal cancer	13.5
Flu shot	64.9
Prostate screening	9.5
COVID-19 vaccine	75.3
Because of the pandemic, did you delay or avoid medical care?	
Yes	35.3
No	64.7
During this time period, how often have you been bothered by feeling down, depressed, or hopeless?	
Not at all	51.5
Several days every month	35.8
More than half the days every month	8.3
Nearly every day	4.4
What is the most difficult issue your community has faced during this time period?	
COVID-19	72.6
Natural disasters (for example, hurricanes, flooding, tornadoes, fires)	0.9
Extreme temperatures (for example, snowstorm of 2021)	13.4
Other:	13.0
	N=442

Table 4. Community Resident Survey Responses to COVID-19 Questions

CHNA Results

Demographic Characteristics

Over the past decade, the CHRISTUS Good Shepherd PSA has experienced a slight change in population (Figure 4). Changes between the 2010 and 2020 Census show that the population in the CHRISTUS Good Shepherd PSA grew by 3.5% over this period. The CHRISTUS Health service area had a somewhat larger growth rate of 12%, and Texas had a growth rate of 15.9%. In this report, the CHRISTUS Health service area refers to the geographic area that encompasses all primary service areas of CHRISTUS Health hospital systems in New Mexico, Texas, Louisiana and Arkansas. Currently, 240,582 people live in the CHRISTUS Good Shepherd PSA.

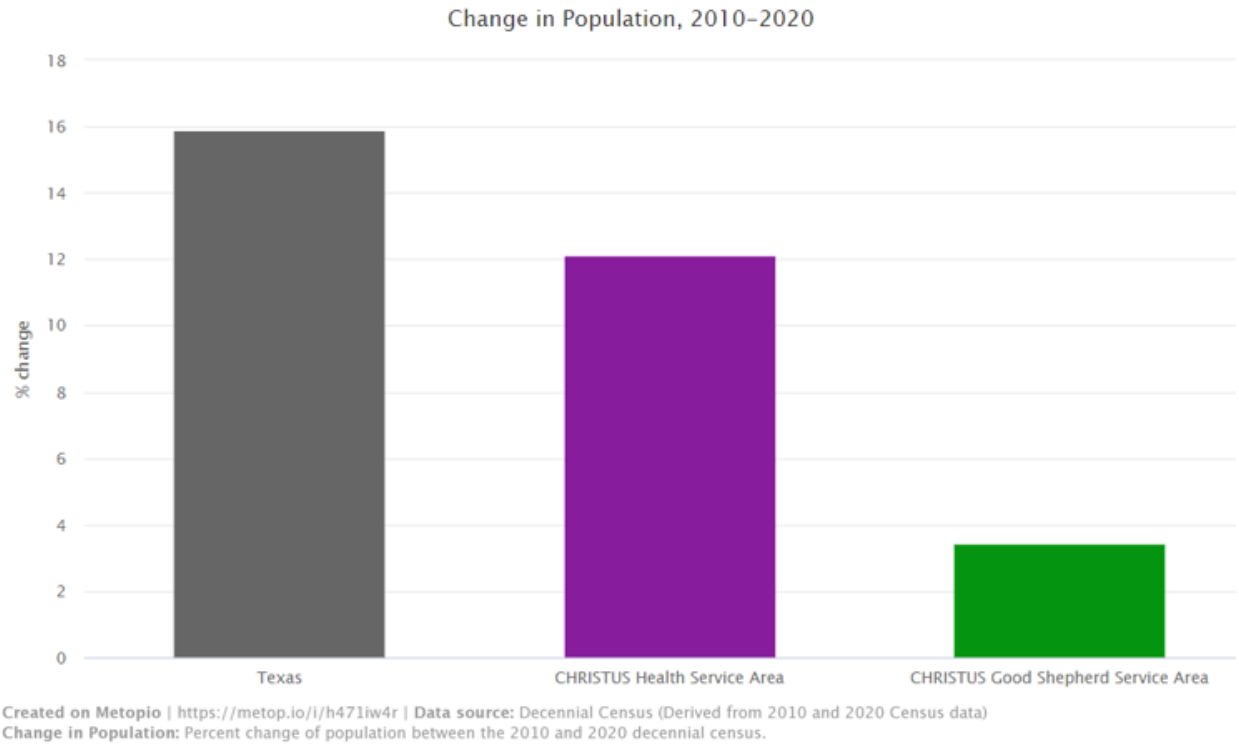


Figure 4. Change in Population in the CHRISTUS Good Shepherd PSA

Non-Hispanic Whites make up the majority of the CHRISTUS Good Shepherd PSA population at 61.9%. Non-Hispanic Blacks represent the second most populous racial/ethnic group in the PSA, comprising 18.4% of the population. Hispanics or Latinos make up 15.8% of the PSA population. 2.6% of the population identifies as two or more races. Asian or Pacific Islanders account for 1.0% of the population. Native Americans make up 0.2% of the population in the CHRISTUS Good Shepherd PSA (Figure 5). (Table 5 shows the PSA demographics by county.)

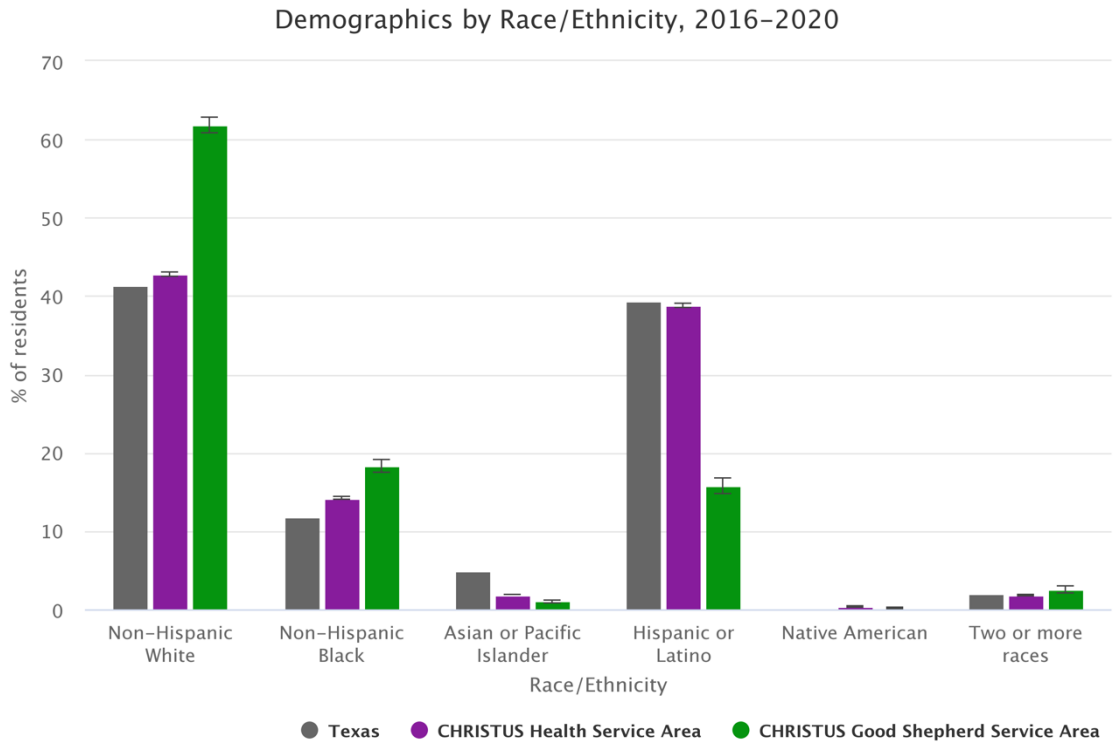


Figure 5. Demographics by Race/Ethnicity in the CHRISTUS Good Shepherd PSA

Topic	Gregg County, TX	Harrison County, TX	Marion County, TX	Panola County, TX	Upshur County, TX
Population *residents, 2020*	124,239	68,839	9,725	22,491	40,892
Demographics *Non-Hispanic White* *% of residents, 2020*	54.77	61.07	70.63	71.58	76.51
Demographics *Non-Hispanic Black* *% of residents, 2020*	20.10	19.54	18.98	14.42	7.11
Demographics *Hispanic or Latino* *% of residents, 2020*	19.35	14.29	4.00	9.74	9.75
Demographics *Native American* *% of residents, 2020*	0.34	0.43	0.71	0.43	0.64
Demographics *Two or more races* *% of residents, 2020*	3.86	3.55	4.72	3.25	5.17

Table 5. Demographics by County in the CHRISTUS Good Shepherd PSA

Females represent 51.3% of the CHRISTUS Good Shepherd PSA population and males represent 48.7%. The PSA has a slightly higher percentage of females than the broader population with 50.6% female and 49.4% male residents in the whole CHRISTUS Health service area and 50.3% female and 49.7% male residents in Texas overall (Figure 6). The median age in the CHRISTUS Good Shepherd PSA is 37.6 years old, which is slightly higher than the CHRISTUS Health service area (36.4 years old) and Texas overall (34.8 years old) (Figure 7).

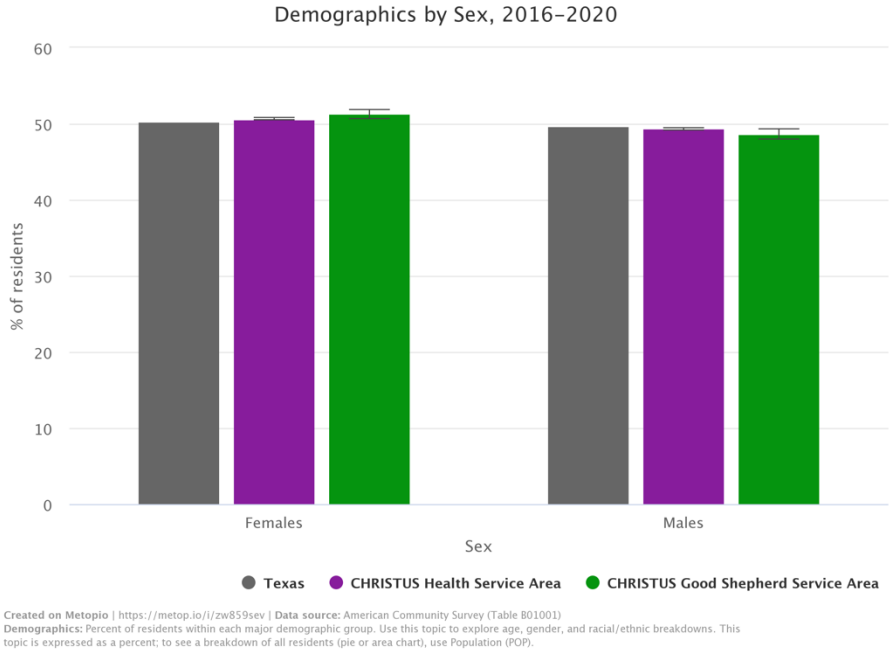


Figure 6. Demographics by Sex in the CHRISTUS Good Shepherd PSA

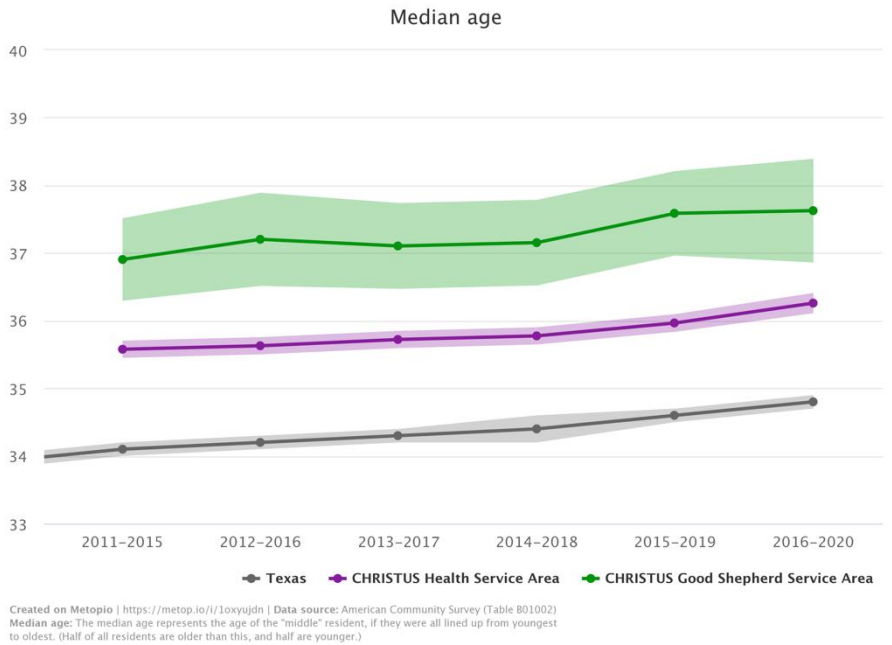


Figure 7. Median Age in the CHRISTUS Good Shepherd PSA

In the CHRISTUS Good Shepherd PSA, only 2.8% of residents have limited English proficiency (Figure 8). This is much lower than the rest of the full CHRISTUS Health service area (4.5%) and Texas overall (7.3%). The residents with limited English proficiency are primarily concentrated in two zip codes: 75602 (7.5%) and 75662 (6.3%) (Figure 9).

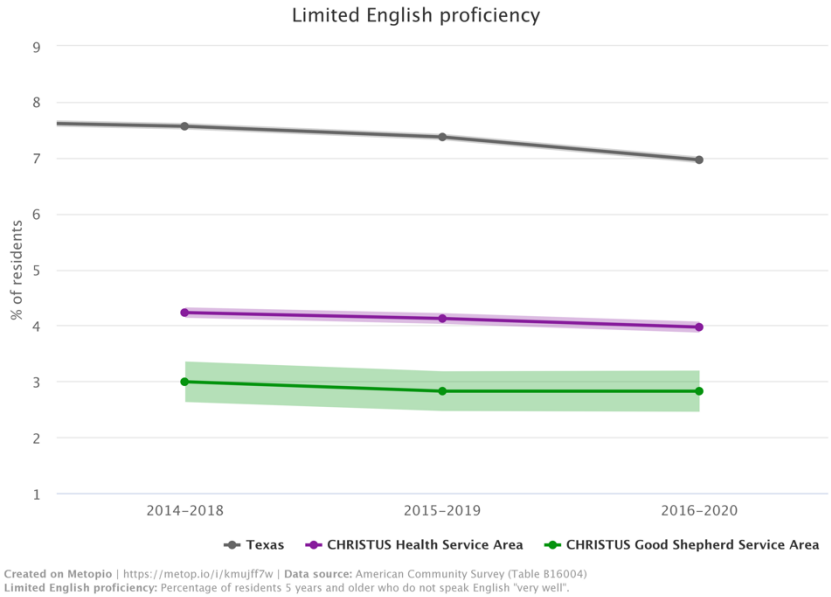


Figure 8. Limited English Proficiency in the CHRISTUS Good Shepherd PSA

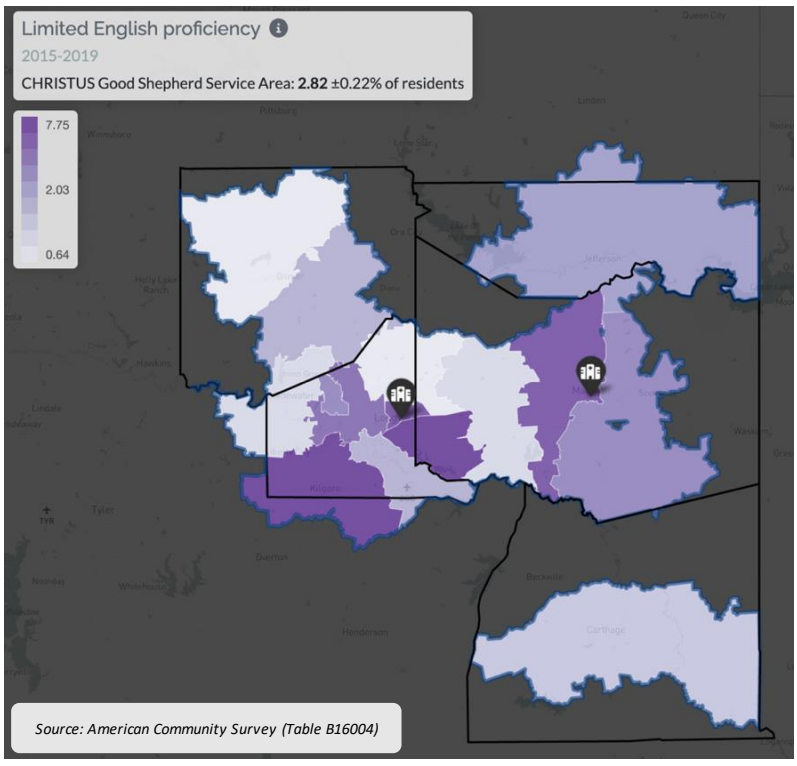


Figure 9. Map of Limited English Proficiency in the CHRISTUS Good Shepherd PSA

The percentage of residents with a disability in the CHRISTUS Good Shepherd PSA (15.0%) is slightly higher than the whole CHRISTUS Health service area (14.8%) and over three points above the state of Texas (11.5%) (Figure 10). Disability here is defined as one or more sensory disabilities or difficulties with everyday tasks. In the PSA, the Non-Hispanic Black population faces the greatest rate of disability where 1 in 5 Blacks live with a disability. The rate of disability for Hispanics/Latinos is significantly lower than the benchmarks.

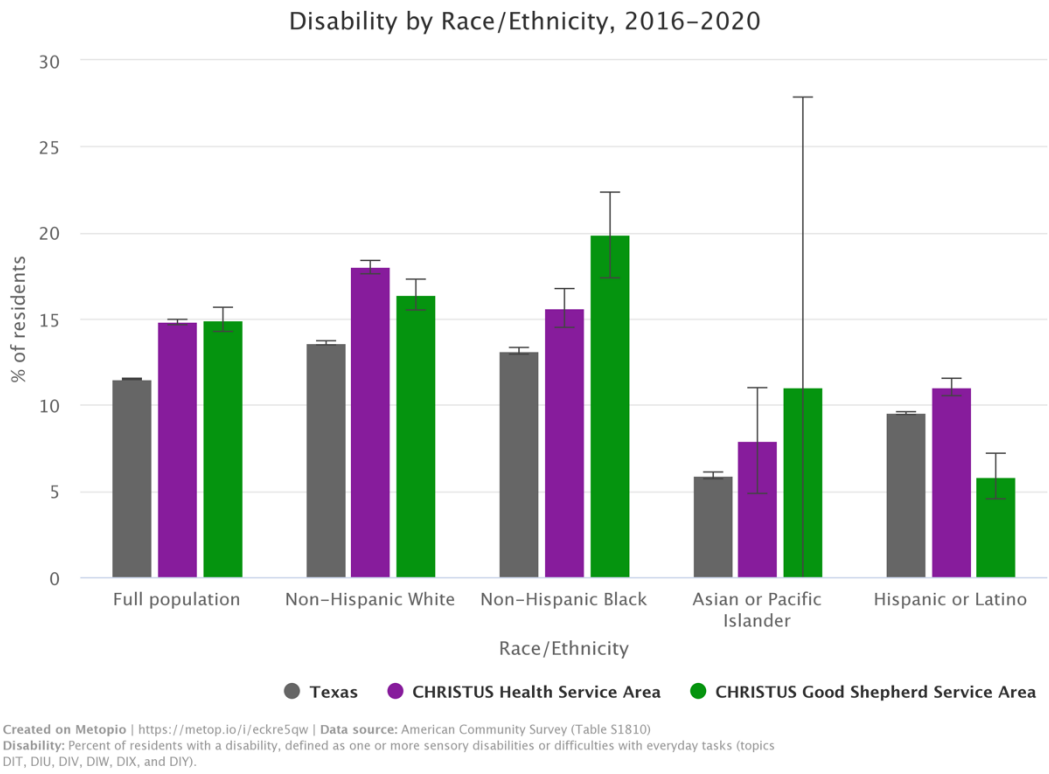


Figure 10. Disability with Stratifications in the CHRISTUS Good Shepherd PSA

Overall Community Input

Community residents who participated in focus groups, key informant interviews and the survey provided in-depth input about how specific health conditions impact community and individual health. Cross-cutting themes that emerged included:

- Access to care was a major issue that came up across the focus groups. Specific access needs included availability of specialists that accept Medicaid, transportation to health services and coordinated behavioral health care for all ages.

- Focus group participants shared that there is a need for mental health care in the PSA. Current mental health services only address mental health emergencies and do not treat chronic patients. Participants shared that COVID-19 and economic challenges have impacted everyone's mental health, but it has harmed elderly neighbors and young people the most.

- Economic opportunity and poverty came up as an area of need. Participants shared that there are not a lot of good jobs locally available. Economic challenges start in schools, where participants shared there are limited early childhood educational options and that the region has a below average public school performance.

- Elements of the built environment make it difficult to be healthy. Racial and political division in the community create a hostile environment that keeps people from working together. Structurally, limited transportation, internet and affordable housing options make it difficult for community members to build healthy foundations for their lives.

Survey respondents were asked to rank a number of health issues on a scale of 1 to 5, with 1 being "not significant" and 5 being "very significant." Table 6 shows the top 10 issues from the survey in descending order.

Health Issue	% of Respondents Who Ranked Either 4 or 5
Obesity	57.40%
Diabetes	51.10%
Mental health	50.80%
Heart disease	48.50%
Chronic pain	46.90%
Cancer(s)	44.10%
Smoking and vaping	43.90%
Drug, alcohol, and substance abuse	42.50%
Exercise and physical activity	42.00%
Healthy eating	31.80%

Table 6. Ranking of Health Issues by Community Resident Survey Respondents

The primary data covered many health issues that community members see in the CHRISTUS Good Shepherd PSA, but data collection also included strengths that residents see in the community. Focus group participants and key informants shared that there is a willingness between agencies to work together, so greater collaboration between services is possible.

Additionally, survey respondents were asked to select all things which they thought contributed to health and were available in the community. Top responses can be found in Figure 11. These represent the assets that community members take advantage of to maintain their health.

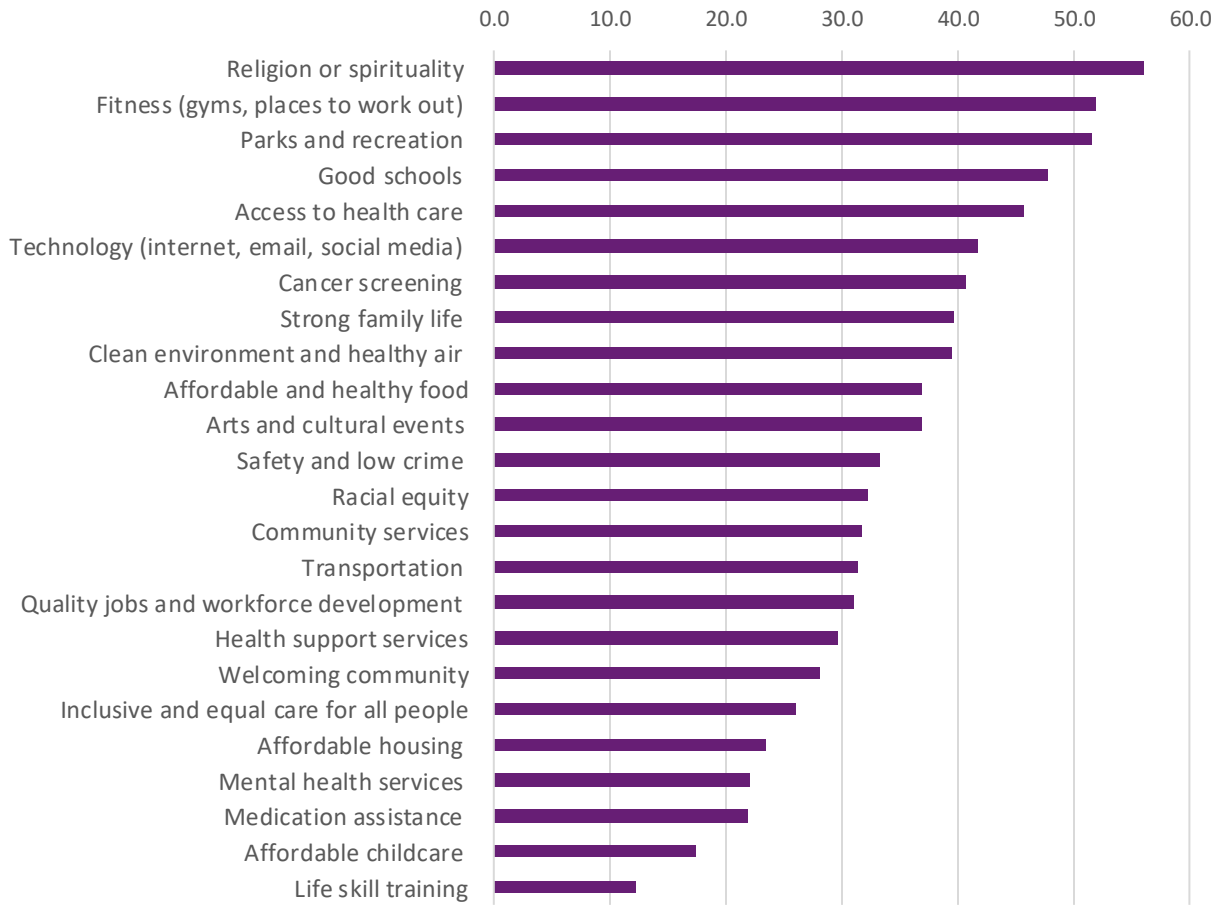


Figure 11. Survey Responses of Community Strengths that Support Health

Social and Structural Determinants of Health

Community residents who participated in focus groups and the community resident surveys also provided in-depth input about how social and structural determinants of health—such as education, economic inequities, housing, food access, access to community services and resources and community safety and violence—impact community and individual health. The following sections review secondary data insights that measure the social and structural determinants of health.

Hardship

One way to measure overall economic distress in a place is with the Hardship Index. This is a composite score reflecting hardship in the community, where the higher values indicate greater hardship. It incorporates unemployment, age dependency, education, per capita income, crowded housing and poverty into a single score. The Hardship Index score for the CHRISTUS Good Shepherd PSA is 62.0 (Figure 12), which is slightly higher than the measure of the full CHRISTUS Health service area (60.6) but significantly higher than the state (55.8). Within the PSA, hardship indicators are concentrated in zip codes 75670 (77.0), 75602 (76.0), 75657 (71.1), and 75644 (69.8).

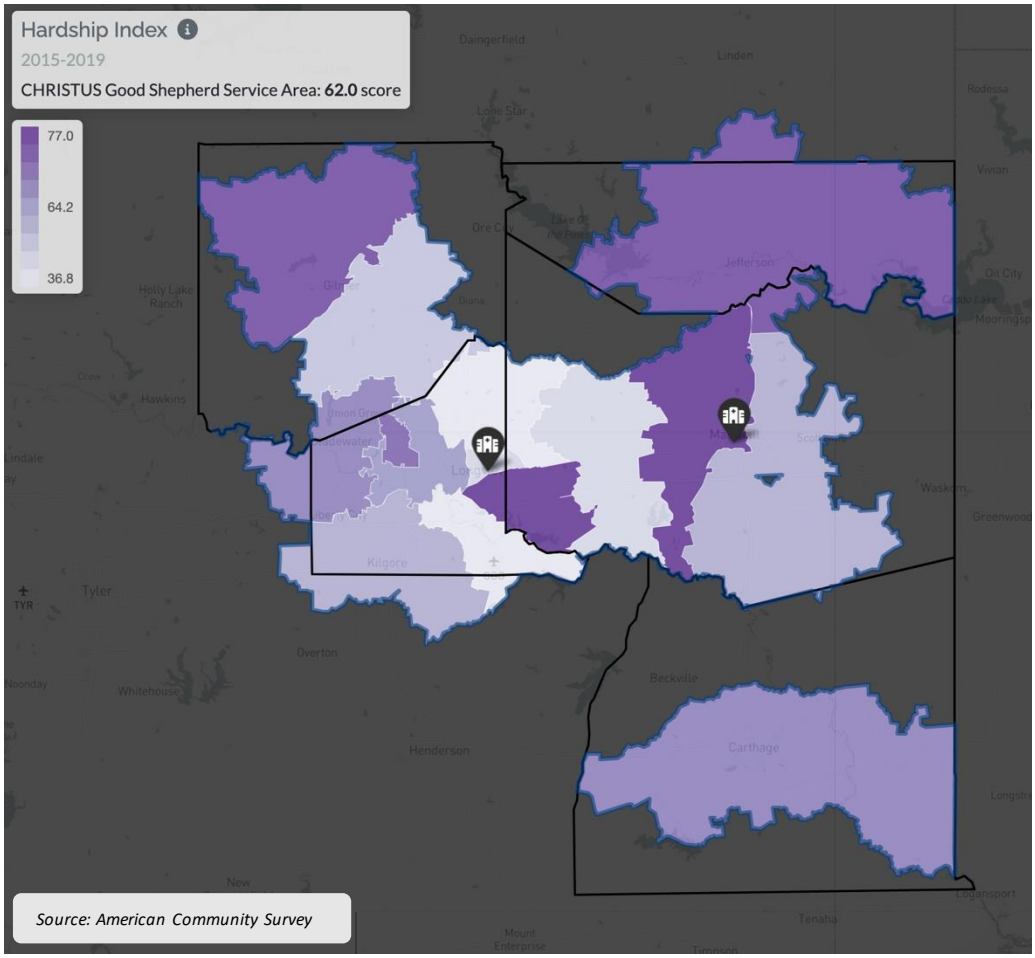


Figure 12.Map of Hardship Index in the CHRISTUS Good Shepherd PSA

Poverty

Poverty and its corollary effects are present throughout the CHRISTUS Good Shepherd PSA. The poverty rate is 16.77% (Figure 13). In comparison, the CHRISTUS Health service area has 16.80% of residents living in poverty, and 14.22% in Texas, respectively.

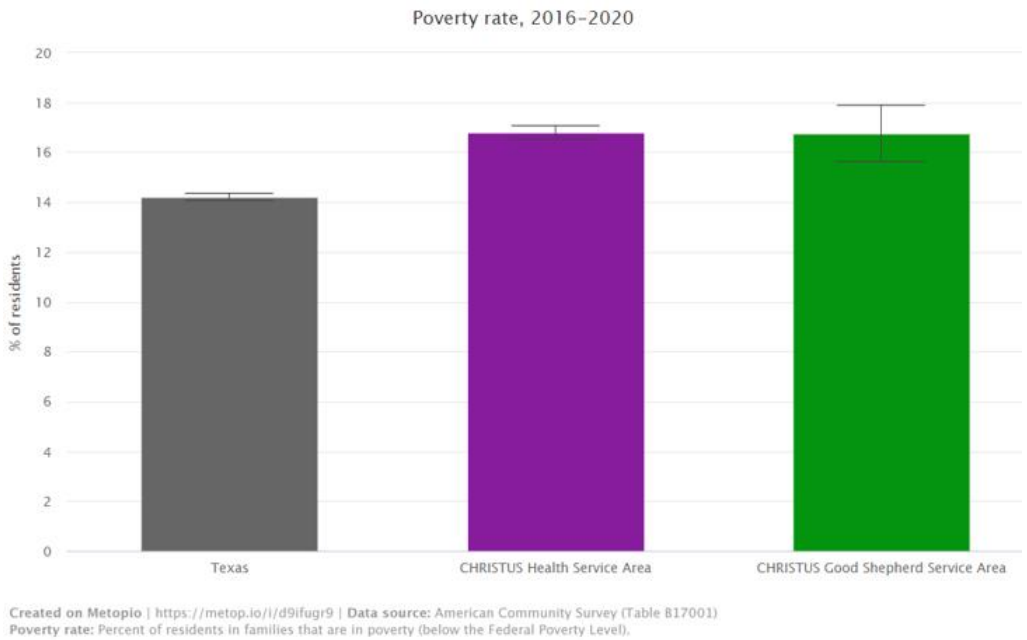


Figure 13. Poverty Rate in the CHRISTUS Good Shepherd PSA

The median household income is $55,870 in the CHRISTUS Good Shepherd PSA, compared to $59,184 across the CHRISTUS Health service area and $67,267 in Texas (Figure 14). Within the PSA, Non-Hispanic Blacks have a disproportionately lower median household income of $40,301, compared to all other racial/ethnic groups.

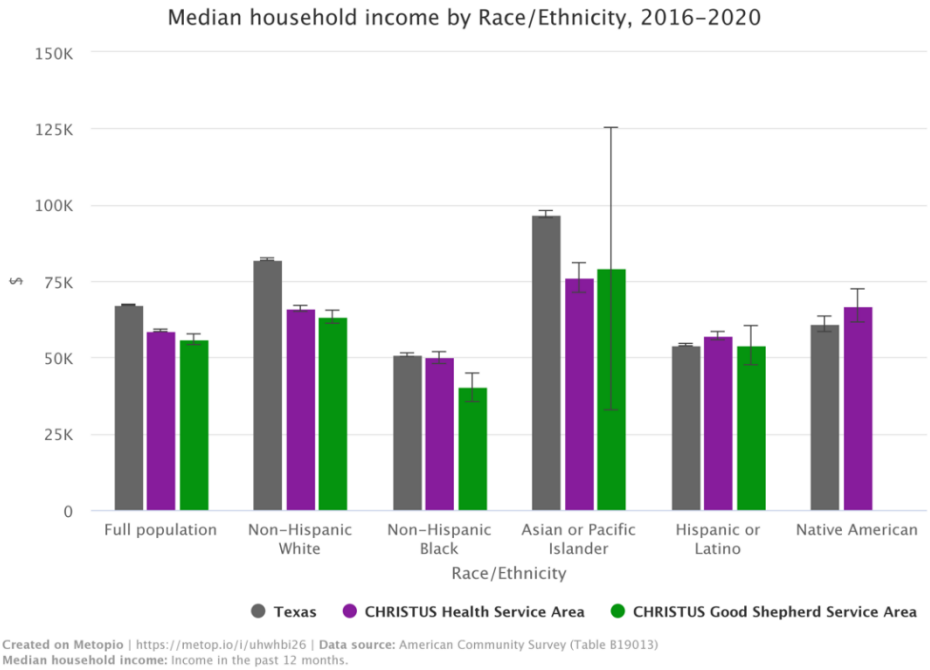


Figure 14. Median Household Income in the CHRISTUS Good Shepherd PSA

The effects of poverty can be felt by high housing costs, as represented below as the percentage of households spending more than 50% of their income on rent. The highest rent burden is seen in zip codes 75647 (39.6%) and 75602 (37.9%), compared to 20.9% in the overall PSA (Figure 15).

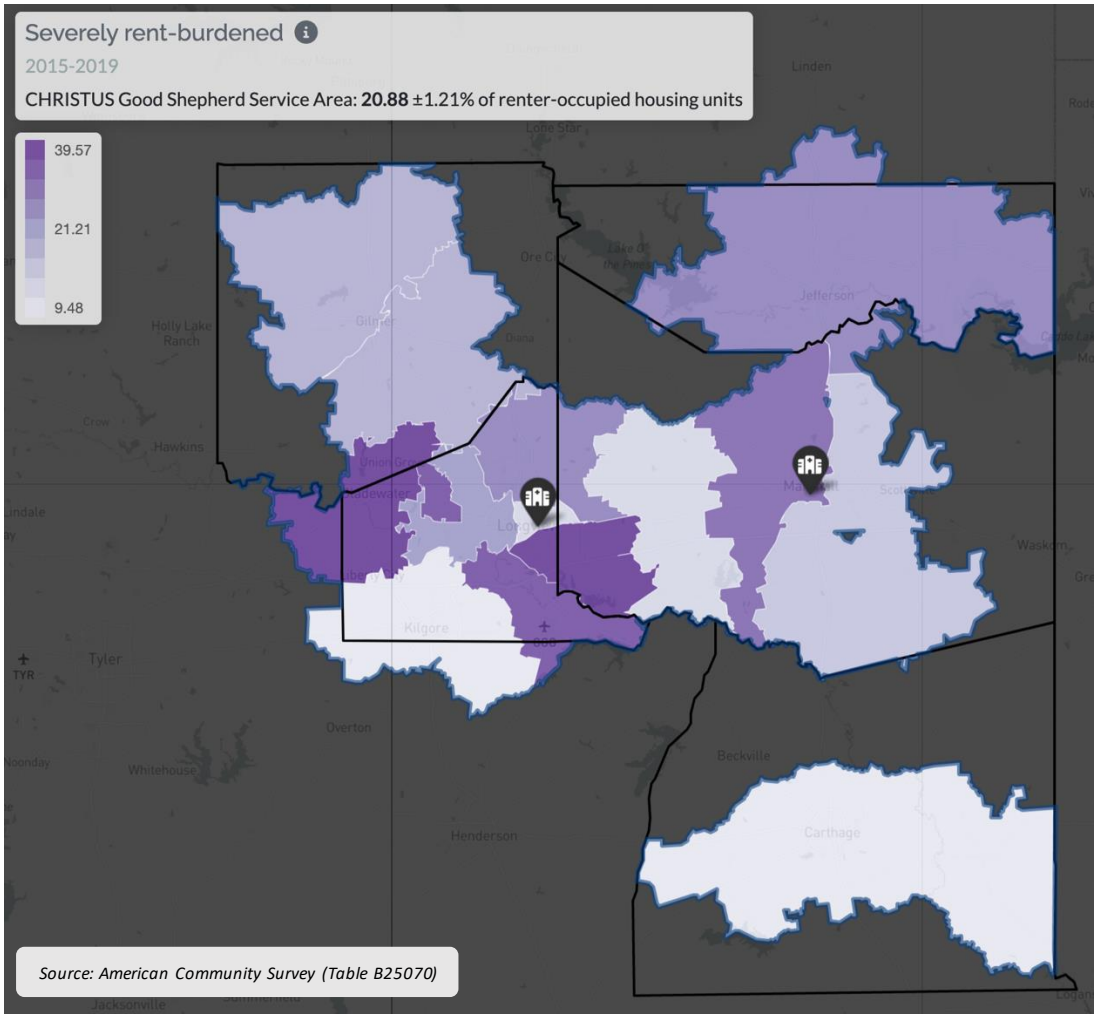
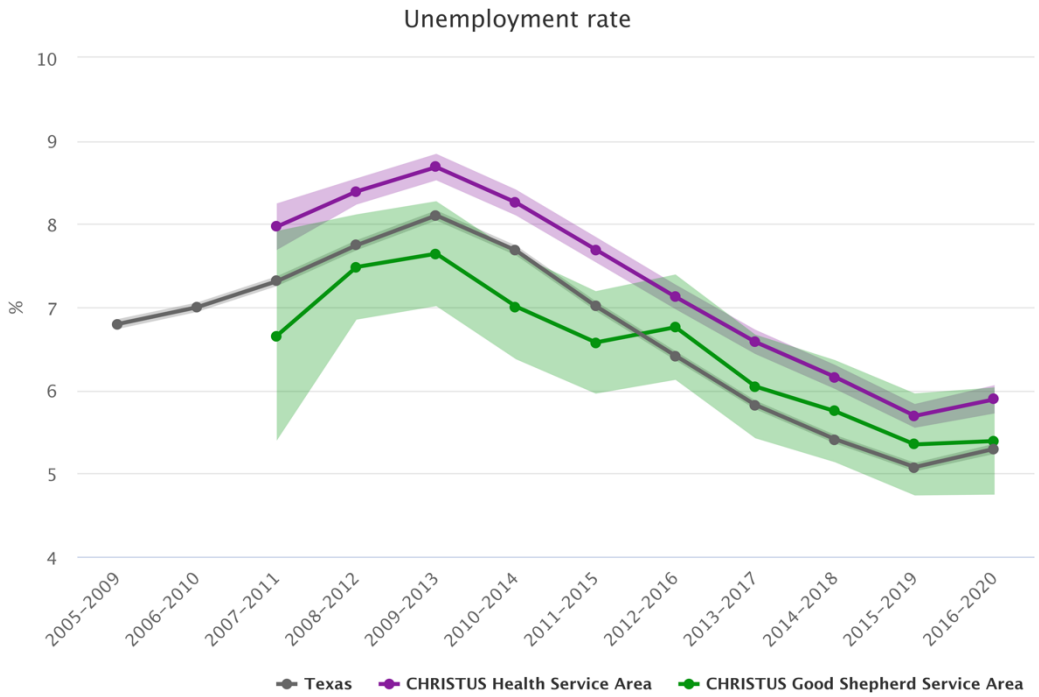


Figure 15. Housing Cost Burden in the CHRISTUS Good Shepherd PSA

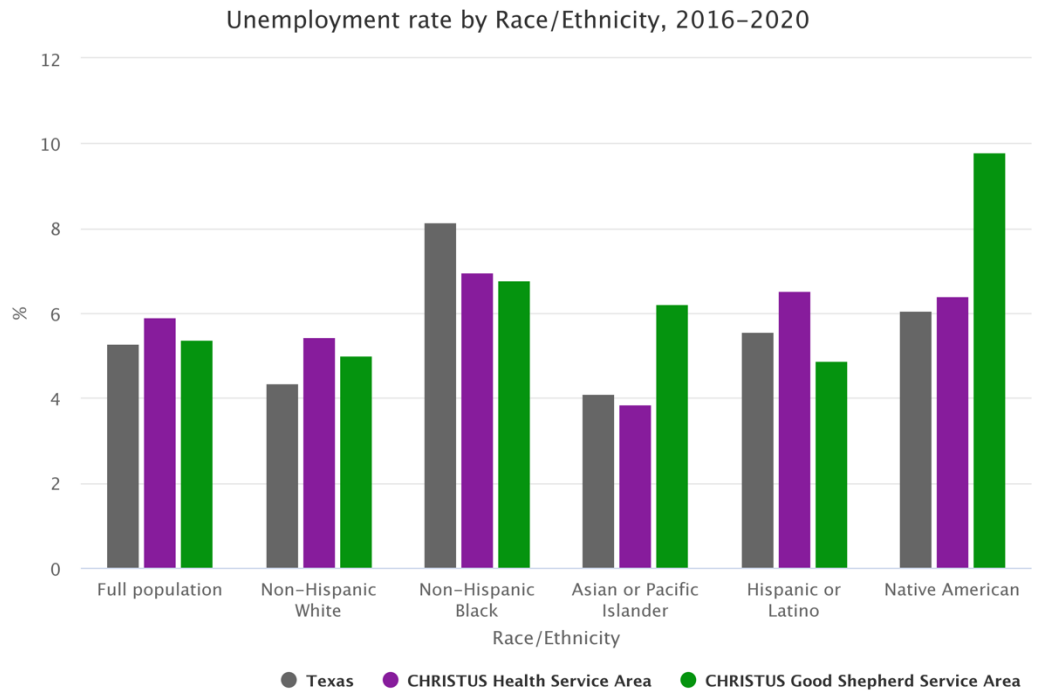
Unemployment

The overall unemployment rate in the CHRISTUS Good Shepherd PSA (5.4%) is slightly lower than the rate of the CHRISTUS Health service area (5.9%), and comparable to Texas (5.3%) (Figure 16). However, when this data is stratified by race/ethnicity (Figure 17), there are some disparities in unemployment rates. In particular, Non-Hispanic Blacks (6.8%) have higher rates of unemployment than the overall population. The chart below displays high unemployment rates for Native Americans (9.8%) and Asian or Pacific Islanders (6.2%), but there is significant margin of error for these two populations, due to their small size in the PSA. Over the past decade, the region has generally seen a decline in the unemployment rate until the 2016-2020 data period, which is likely due to the pandemic.



Created on Metopio | https://metop.io/i/4hovwyaj | **Data source:** American Community Survey (Tables B23025, B23001, and C23002)
Unemployment rate: Percent of residents 16 and older in the civilian labor force who are actively seeking employment.

Figure 16. Unemployment Rate in the CHRISTUS Good Shepherd PSA



Created on Metopio | https://metop.io/i/buav9rga | **Data source:** American Community Survey (Tables B23025, B23001, and C23002)
Unemployment rate: Percent of residents 16 and older in the civilian labor force who are actively seeking employment.

Figure 17. Unemployment Rate with Stratifications in the CHRISTUS Good Shepherd PSA

Another measure of potential economic stress is disconnected youth, defined as residents aged 16-19 who are neither in school nor employed (Figure 18). This measure in the CHRISTUS Good Shepherd PSA (7.0%) is slightly lower than the whole CHRISTUS Health service area (10.3%) and the state (7.9%). There is a significant margin of error with this dataset. Table 7 explores each of the preceding socioeconomic indicators for the counties comprising the CHRISTUS Good Shepherd PSA.

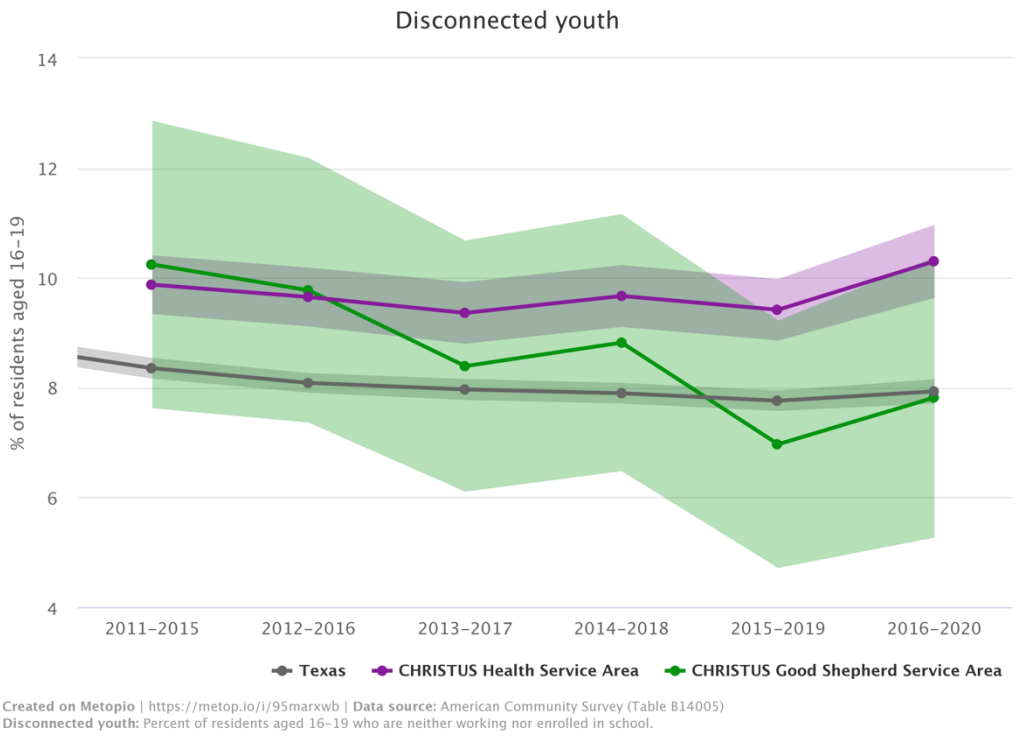


Figure 18. Disconnected Youth in the CHRISTUS Good Shepherd PSA

Topic	Gregg County, TX	Harrison County, TX	Marion County, TX	Panola County, TX	Upshur County, TX
Poverty rate *% of residents, 2016-2020*	17.55	16.80	18.49	14.13	14.90
Median household income *2016-2020*	$54,832	$57,158	$41,201	$54,063	$57,259
Severely rent-burdened *% of renter-occupied housing units, 2016-2020*	22.82	17.30	28.10	10.84	16.55
Unemployment rate *%, 2016-2020*	4.08	6.06	10.91	2.88	5.95
Disconnected youth *% of residents aged 16-19, 2016-2020*	7.80	3.87	12.02	12.62	13.15

Table 7. Socioeconomic Indicators by County in the CHRISTUS Good Shepherd PSA

Education

Education is an important social determinant of health. Even enrollment in preschool influences future health and social outcomes. Preschool enrollment has been on the rise in the CHRISTUS Good Shepherd PSA (41.1% of toddlers) since at least 2014 (Figure 19), but it remains below the rate of the rest of the CHRISTUS Health service area (42.9%) and Texas (42.7%). The high school graduation rate in the CHRISTUS Good Shepherd PSA is 85.3% (Figure 20), which is in line with the full CHRISTUS Health service area and state averages (84.8% and 84.4%, respectively). Within the PSA, there is some inequity in high school graduate rates for Hispanic and Latinos (58.2%) when compared to the overall population and other racial/ethnic groups. Post-secondary education in the PSA is slightly lower than that of the region overall. For residents 25 or older with any post-secondary education, the higher degree graduation rate in the CHRISTUS Good Shepherd PSA is 28.4% compared to 31.8% in the CHRISTUS Health service area and 38.1% in the state (Figure 21). (Table 8 explores these and other education indicators at the county level in the PSA.)

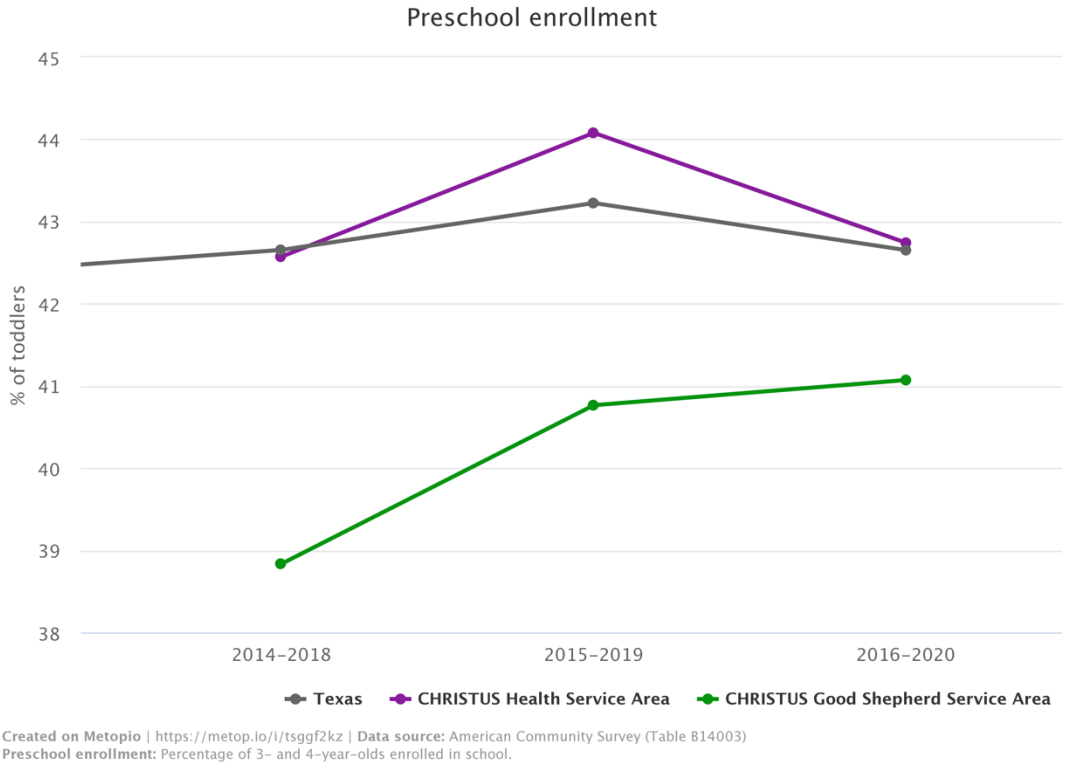


Figure 19. Preschool Enrollment in the CHRISTUS Good Shepherd PSA

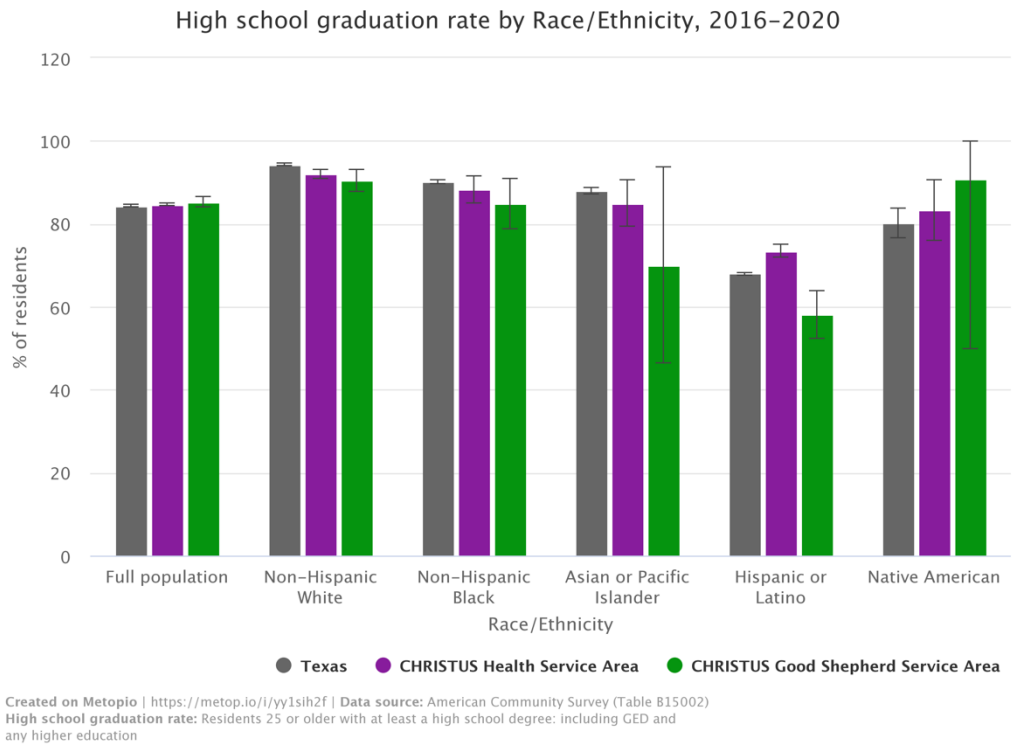


Figure 20. High School Graduation Rate in the CHRISTUS Good Shepherd PSA

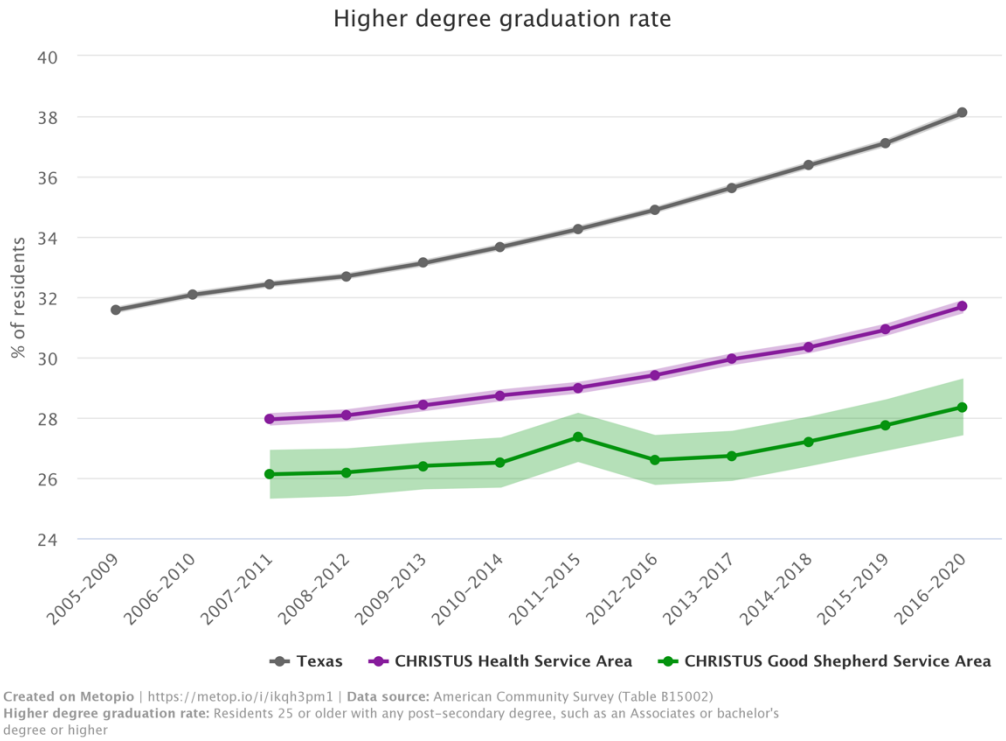


Figure 21. Higher Degree Graduation Rate in the CHRISTUS Good Shepherd PSA

Topic	Gregg County, TX	Harrison County, TX	Marion County, TX	Panola County, TX	Upshur County, TX
Preschool enrollment *Infants (0-4 years)* *% of toddlers, 2016-2020*	39.06	36.95	20.39	35.77	49.39
Private school *Juveniles (5-17 years)* *% of grade school students, 2016-2020*	6.57	6.23	6.48	9.45	8.28
9th grade education rate *% of residents, 2016-2020*	94.21	95.54	97.02	96.33	95.51
High school graduation rate *% of residents, 2016-2020*	84.60	86.40	86.11	84.04	86.76
Any higher education rate *% of residents, 2016-2020*	56.63	54.65	46.33	52.87	51.83
Graduate education rate *% of residents, 2016-2020*	6.31	6.36	3.48	4.00	5.61

Table 8. Education Indicators by County in the CHRISTUS Good Shepherd PSA

Access to Care

Being able to reliably access the health system, whether for primary care, mental health, or specialists, is often dependent on one's insurance. The uninsured rate in the CHRISTUS Good Shepherd PSA (17.0%) is similar to the rest of the CHRISTUS Health service area (15.1%) and the state (17.3%). However, it is much higher in the Hispanic or Latino population (31.1%) (Figure 22).

> "I feel like we have a lot of the services we need but for some reason the populations that need it most still have issues accessing it whether that be a cultural barrier, a barrier from feeling unwelcome, a financial barrier or whatever it may be."
>
> - Survey Participant

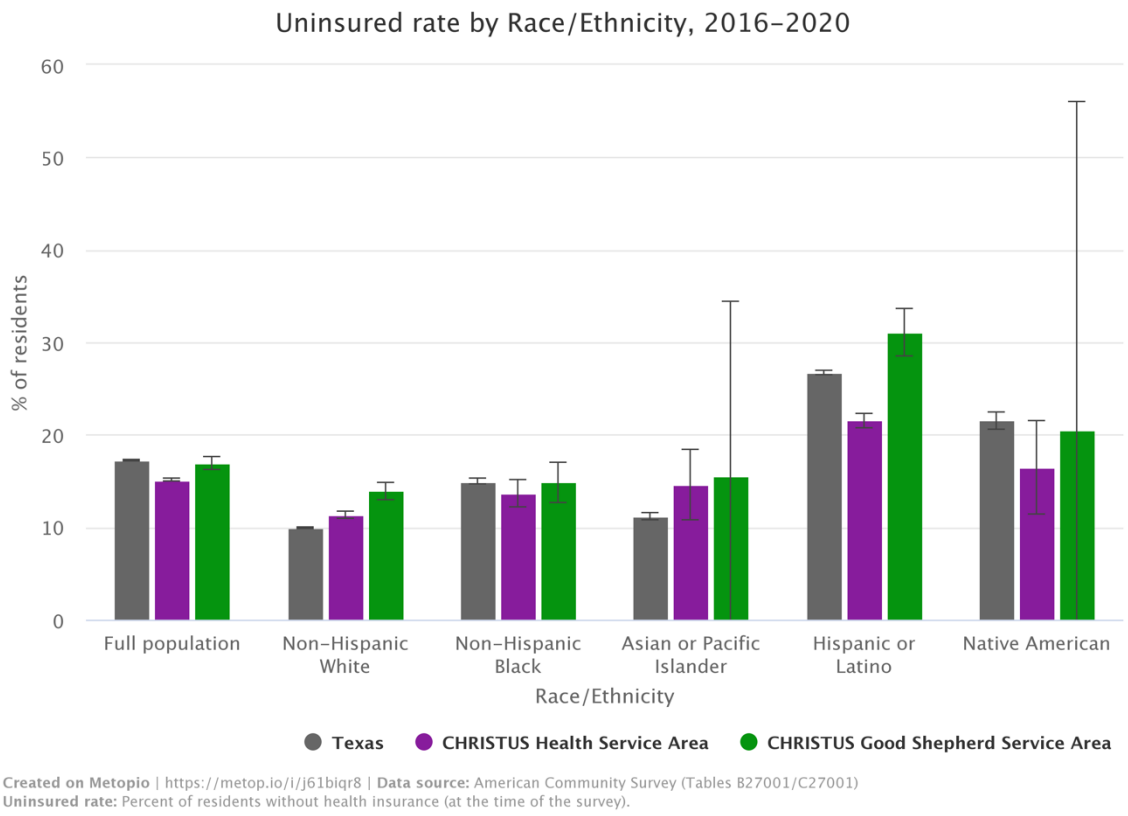


Figure 22. Uninsured Rate with Stratifications in the CHRISTUS Good Shepherd PSA

The percentage of residents covered by Medicaid in the CHRISTUS Good Shepherd PSA (18.8%) falls in between that of Texas (16.5%) and the full CHRISTUS Health service area (21.1%) (Figure 23). When combined with the uninsured rate, over 35% of residents in the service area either have no coverage or limited coverage through Medicaid.

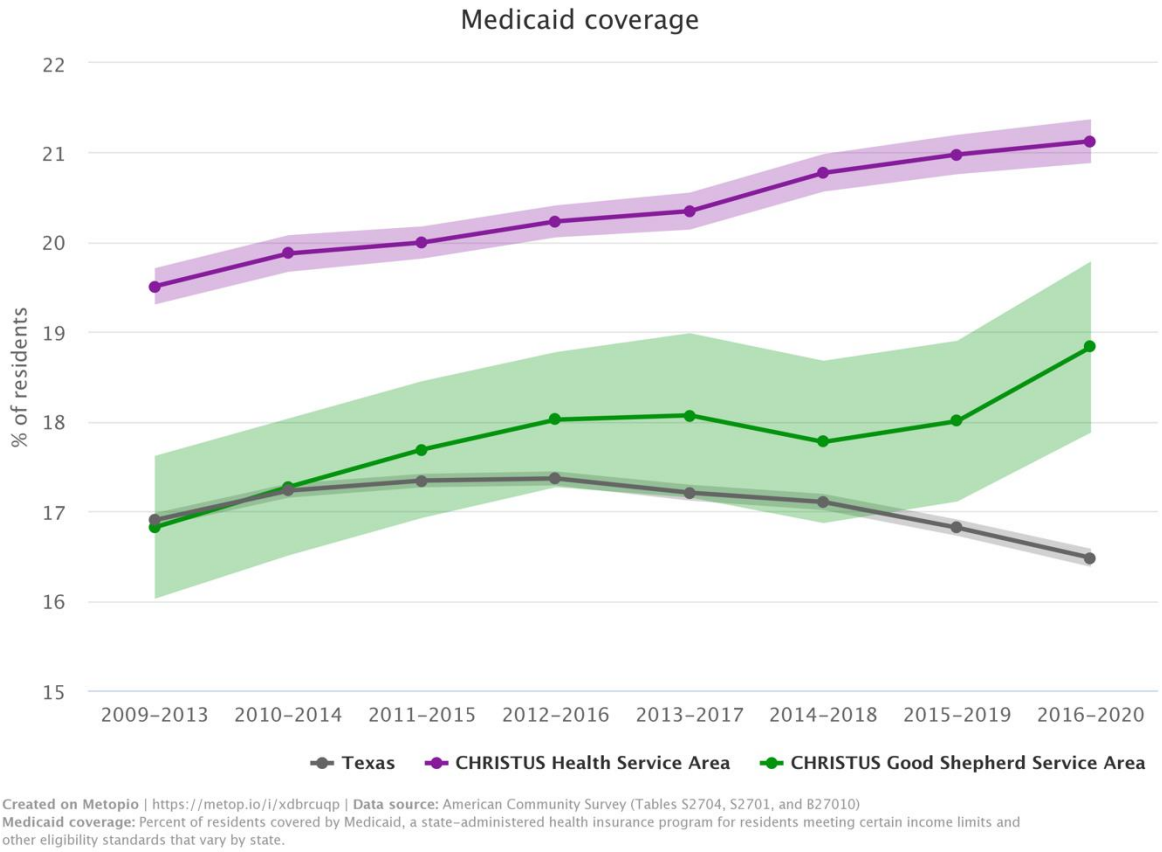


Figure 23. Medicaid Coverage in the CHRISTUS Good Shepherd PSA

Mental health was raised as an issue through all channels of primary data collection. Many residents noted a lack of access to providers, regardless of a person's insurance. Table 9 shows the per capita rate for types of mental health providers compared to the full CHRISTUS Health service area and Texas. The PSA has a much smaller number of mental health providers per capita for all three provider categories compared to the other benchmark regions.

Topic	Texas	CHRISTUS Health Service Area	CHRISTUS Good Shepherd Service Area
Mental health providers per capita *providers per 100,000 residents, 2021*	171.0	266.7	126.7
Clinical social workers per capita *physicians per 100,000 residents, 2021*	29.76	37.48	17.99
Psychiatry physicians per capita *physicians per 100,000 residents, 2021*	16	16	9

Table 9. Access to Mental Health Providers in the CHRISTUS Good Shepherd PSA

Many low-income residents in the CHRISTUS Good Shepherd PSA rely on Federally Qualified Health Centers (FQHCs) for their care in addition to hospitals, outpatient centers and primary care offices. Within the PSA, FQHCs are concentrated in zip codes 75601 (8 FQHCs) and 75670 (7 FQHCs) (Figure 24). FQHCs are defined based on the number of centers, community-based organizations recognized by the Centers for Medicare and Medicaid Services that provide comprehensive primary and preventive care to medically underserved areas and populations, regardless of ability to pay.

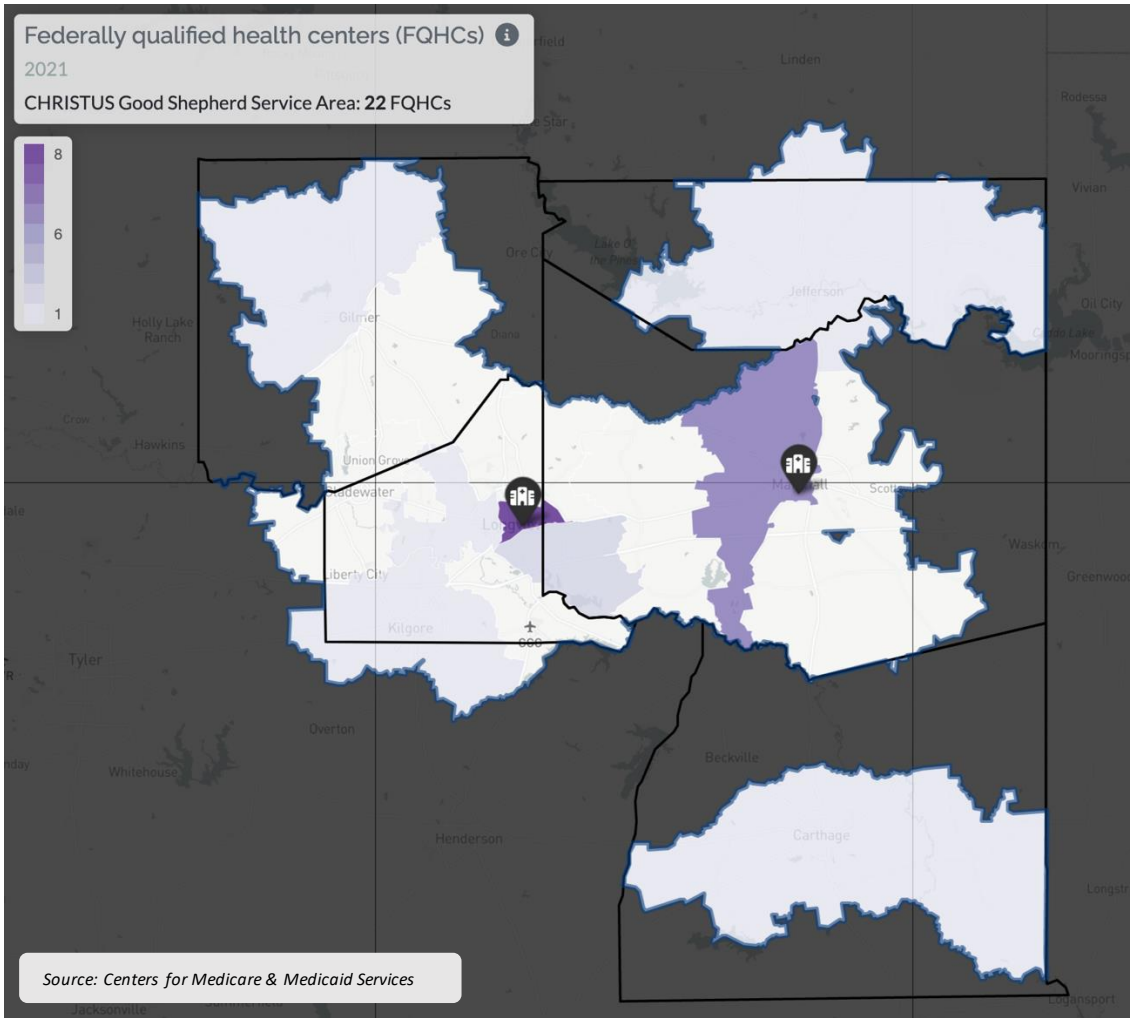


Figure 24. Map of FQHC locations in the CHRISTUS Good Shepherd PSA

Despite the specific access issues listed above, residents in the PSA are still able to receive regular primary care. In 2019, 74.9% of adults in the CHRISTUS Good Shepherd PSA, aged 18 and older, report having been to a doctor for a routine checkup (e.g., a general physical exam, not an exam for a specific injury, illness, condition) in the previous year (Figure 25). This is in line with the rates for the rest of the CHRISTUS Health service area (74.3%) and the state (72.6%). (Table 10 shows these indicators at the county level for the PSA.)

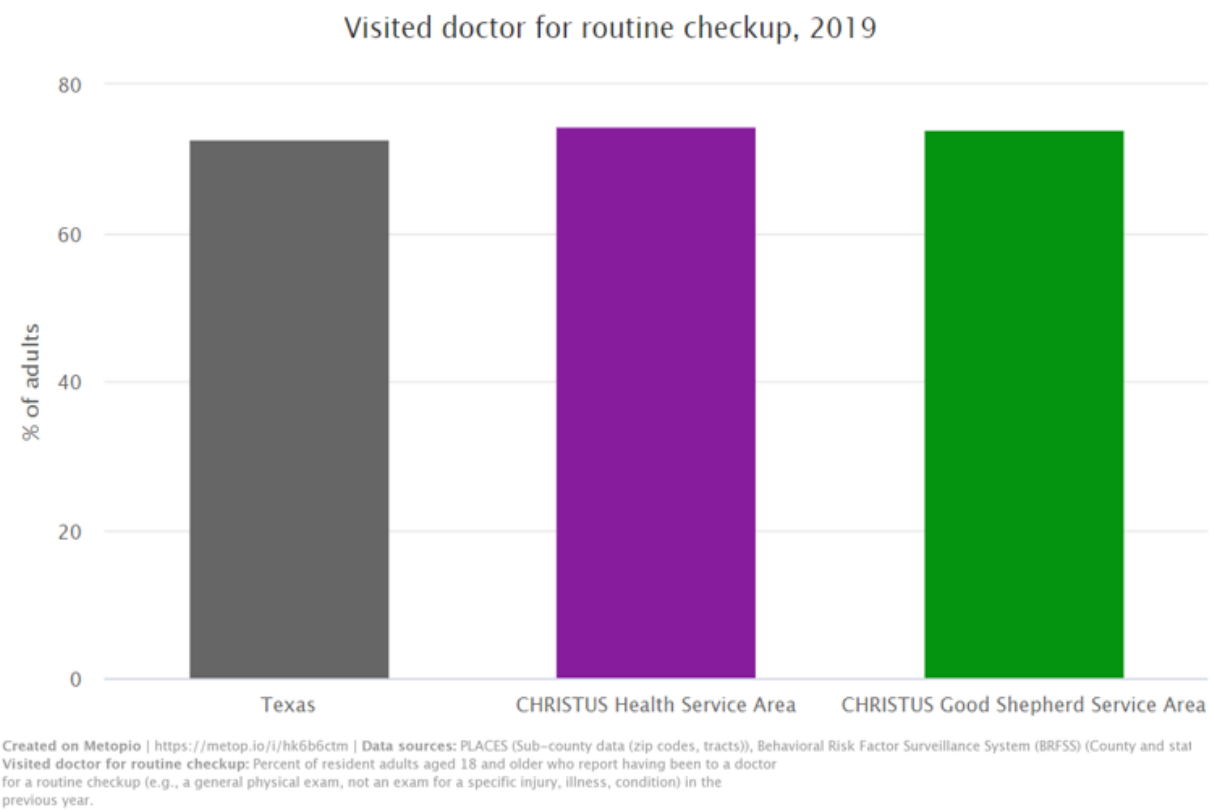


Figure 25. Regular Doctors' Visits in the CHRISTUS Good Shepherd PSA

Topic	Gregg County, TX	Harrison County, TX	Marion County, TX	Panola County, TX	Upshur County, TX
Federally qualified health centers (FQHCs) *FQHCs, 2021*	12	7	1	1	1
Visited doctor for routine checkup *% of adults, 2019*	72.60	72.80	73.00	72.10	72.00
Primary care providers (PCP) per capita *physicians per 100,000 residents, 2018*	94.2	30.1	0.0	33.5	29.9
Nurse practitioners per capita *nurses per 100,000 residents, 2019*	129.08	46.67	19.52	16.74	9.98

Table 10. Primary Care Access Indicators by County in the CHRISTUS Good Shepherd PSA

Food Access

Both obesity and healthy eating were raised as top health issues by survey respondents. Often obesity is correlated with poor food access and about 6.8% of residents in the CHRISTUS Good Shepherd PSA live in a food desert (Figure 26), meaning there isn't a grocery store within one mile for urban residents and five miles for rural residents. Without easy access to fresh, healthy foods, people sometimes rely on fast food and other unhealthy options. The map below shows that food desert areas are spread across the PSA, but highest concentrations are found in zip codes 75693 (25.5%) and 75604 (17.5%). In addition to food deserts, 1-in-5 residents are considered food insecure (Figure 27), which is an indicator that incorporates both economic and social barriers to food access. (Table 11 explores each indicator for the counties in the service area.)

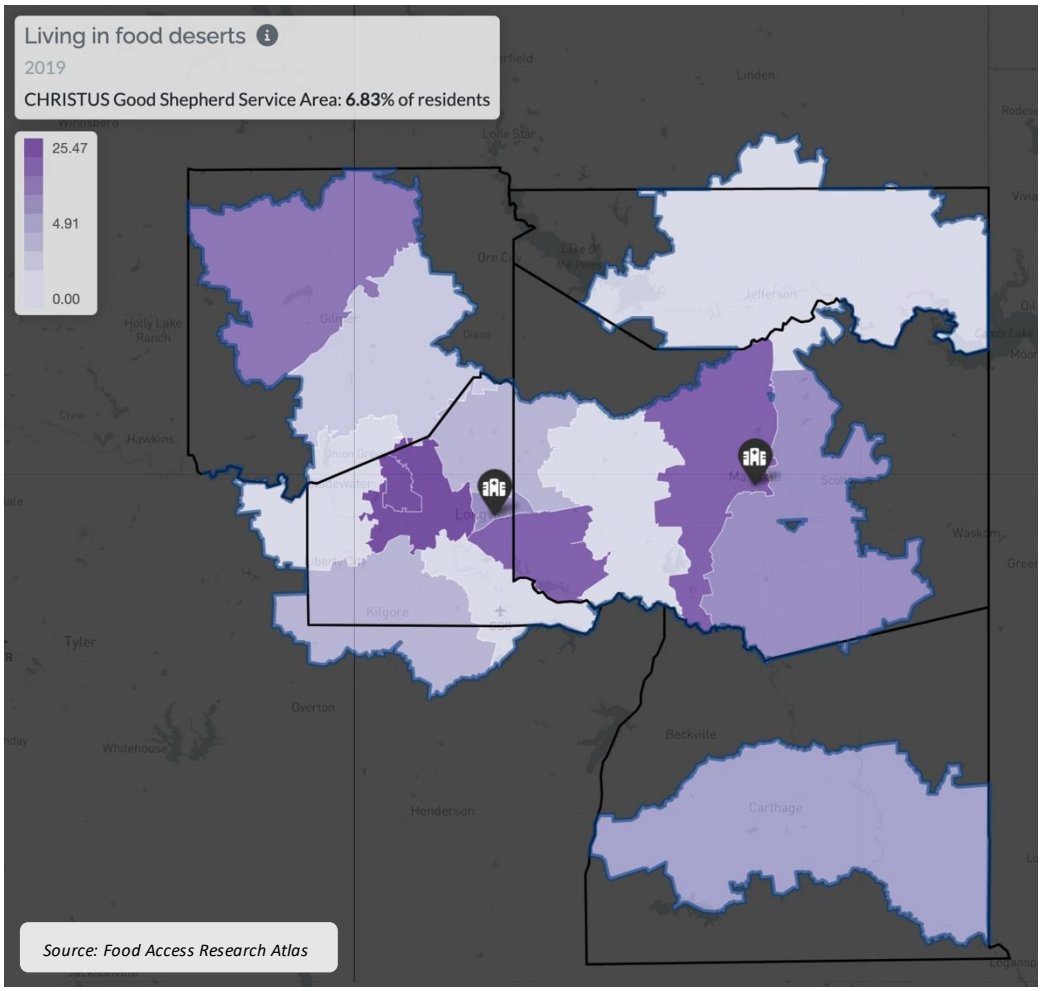


Figure 26. Map of Residents Living in Food Deserts in the CHRISTUS Good Shepherd PSA

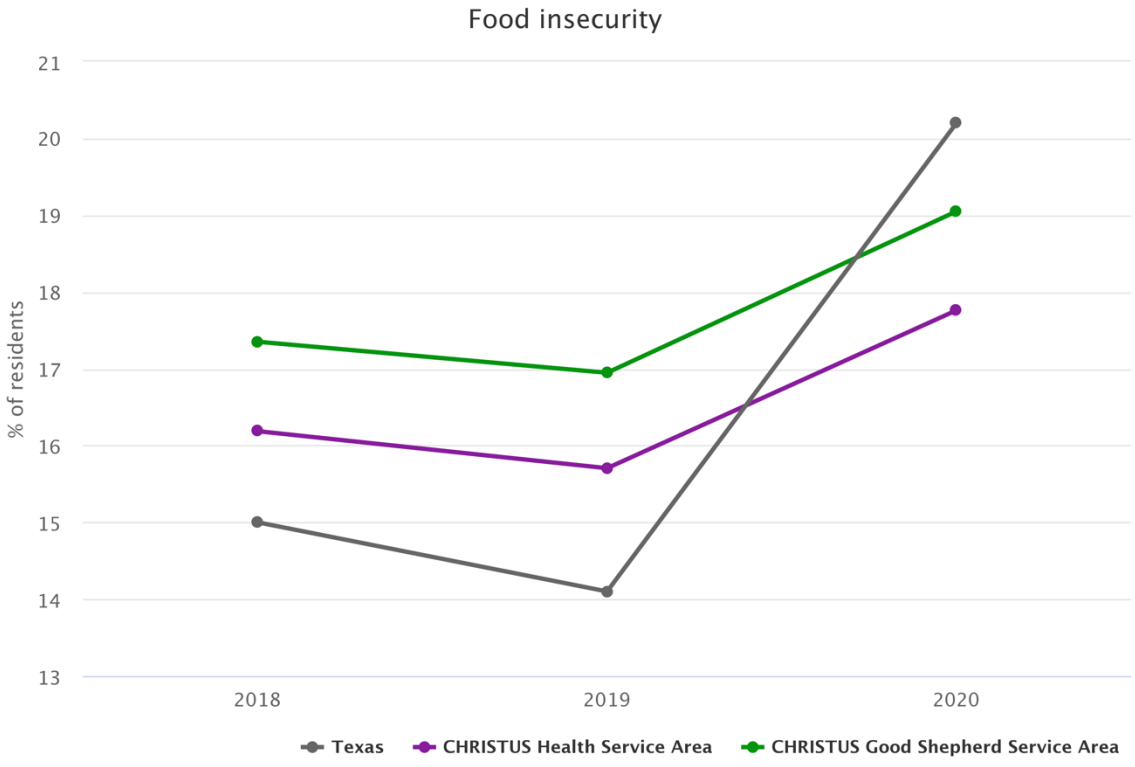


Figure 27. Percent of Residents who are Food Insecure in the CHRISTUS Good Shepherd PSA

Topic	Gregg County, TX	Harrison County, TX	Marion County, TX	Panola County, TX	Upshur County, TX
Food insecurity *% of residents, 2020*	22.7	20.9	24.9	22.3	21.1
Low food access *% of residents, 2019*	59.14	25.81	7.48	35.95	12.94
Very low food access *% of residents, 2019*	25.17	8.14	0.00	5.76	3.95
Living in food deserts *% of residents, 2019*	10.21	3.63	0.00	2.95	2.13
Average cost per meal *2019*	$2.99	$3.00	$3.12	$2.98	$3.09

Table 11. Food Access Indicators by County in the CHRISTUS Good Shepherd PSA

Violence and Community Safety

The rate of property crimes (2334.8 crimes per 100,000 residents), which includes burglary, larceny, motor vehicle theft and arson crimes, is like that of Texas (2468.4) and the United States (2222.6) (Figure 28). The violent crime rate in the PSA (365.5 crimes per 1,000 residents) is slightly lower than that of Texas (430.5) and the United States (391.0) (Figure 29). Violent crime includes homicide, criminal sexual assault, robbery, aggravated assault and aggravated battery. (Table 12 displays specific crimes at the county level.)

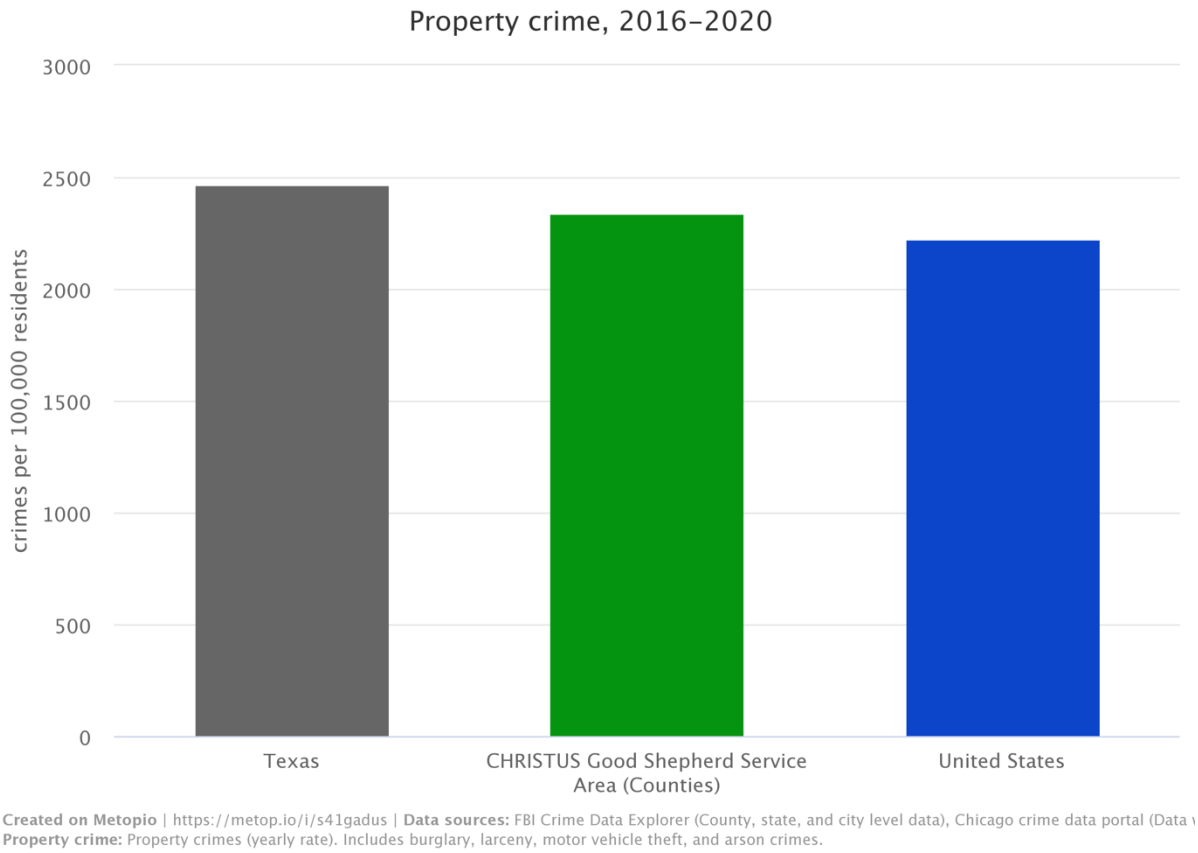


Figure 28. Property Crime Rate in the CHRISTUS Good Shepherd PSA

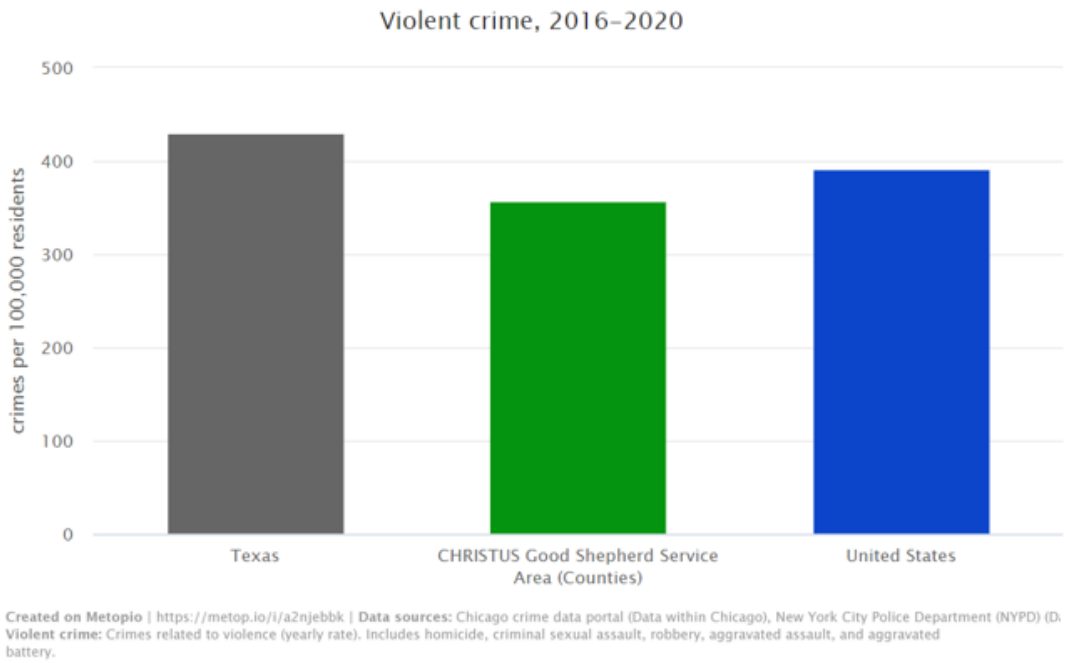


Figure 29. Violent Crime Rate in the CHRISTUS Good Shepherd PSA

Topic	Gregg County, TX	Harrison County, TX	Marion County, TX	Panola County, TX	Upshur County, TX
Property crime *crimes per 100,000 residents, 2020*	2,715.6	1,472.5	1,092.9	1,803.3	1,209.6
Arson *crimes per 100,000 residents, 2020*	4.1	6.0	0.0	8.4	15.0
Burglary *crimes per 100,000 residents, 2020*	517.9	376.4	400.1	380.8	334.2
Motor vehicle theft *crimes per 100,000 residents, 2020*	254.1	170.1	117.1	100.4	119.7
Violent crime *crimes per 100,000 residents, 2020*	359.6	317.7	204.9	276.2	224.5
Aggravated assault/battery *crimes per 100,000 residents, 2020*	223.3	269.5	175.6	230.1	154.6
Criminal sexual assault *crimes per 100,000 residents, 2020*	74.7	13.6	19.5	37.7	44.9
Homicide *crimes per 100,000 residents, 2020*	11.4	7.5	0.0	0.0	7.5

Table 12. Types of Crime by County in the CHRISTUS Good Shepherd PSA

Health Data Analysis

Health Outcomes: Morbidity and Mortality

Chronic Disease

Community members noted that chronic conditions, especially heart disease and diabetes, had an outsized impact on the community. The rate of high blood pressure in the PSA (38.5%) is somewhat higher than the full CHRISTUS Health service area (35.5%) and Texas (32.2%) as illustrated below in Figure 30. Additionally, more than 1 in 10 adults has diabetes in the CHRISTUS Good Shepherd service area (Figure 31). The rate of diabetes in the PSA (12.9%) is similar to the rate in Texas (12.7%) and the roll up of the full CHRISTUS Health service area (13.1%). Chronic kidney disease affects just under 3.4% of the population in the service area, which is slightly above both benchmarks (Figure 32). Lastly, about 9.8% of the population lives with asthma, a rate slightly higher than the full CHRISTUS Health service area (9.1%) and Texas average (8.1%) (Figure 33). The following charts and line graphs illustrate these disease conditions. (Table 13 shows each indicator at the county level for the PSA.)

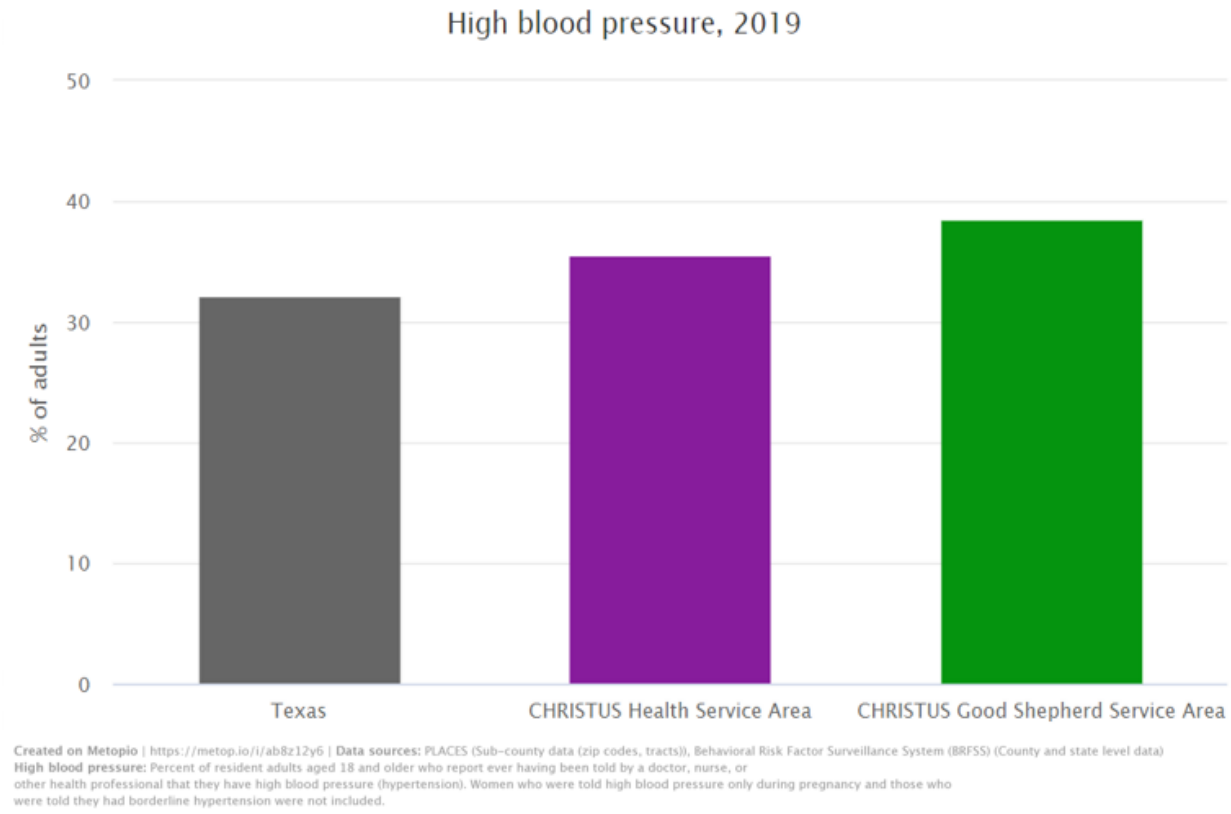


Figure 30. High Blood Pressure in the CHRISTUS Good Shepherd PSA

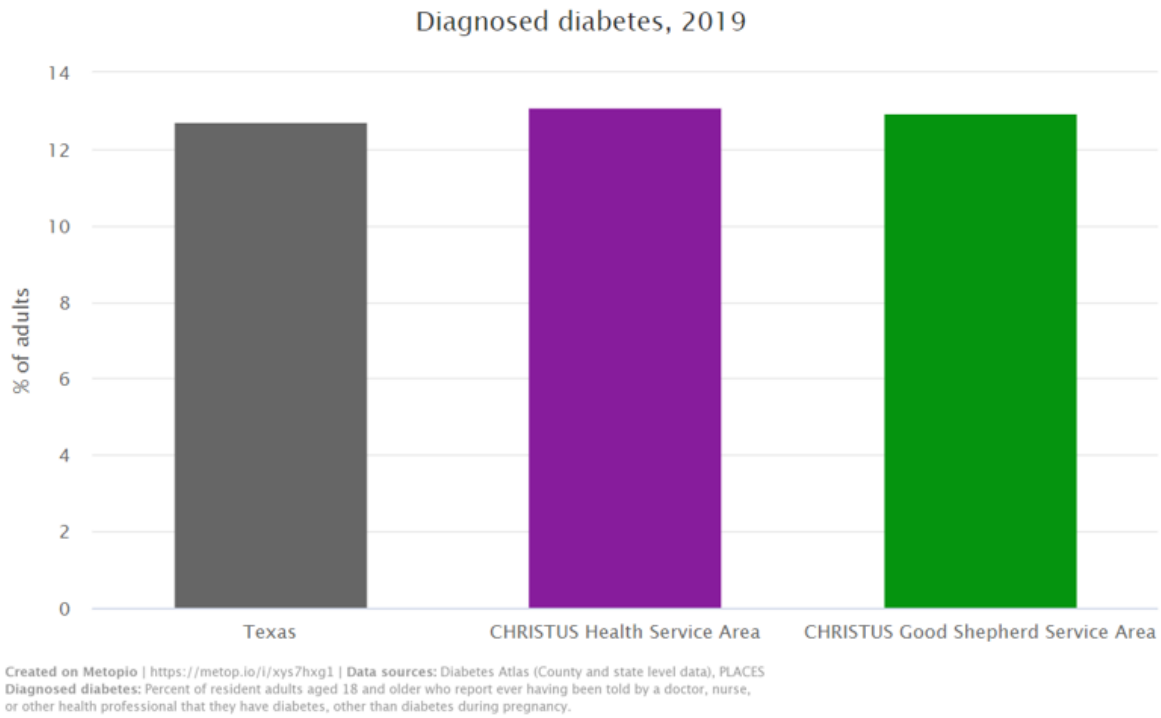


Figure 31. Diagnosed Diabetes in the CHRISTUS Good Shepherd PSA

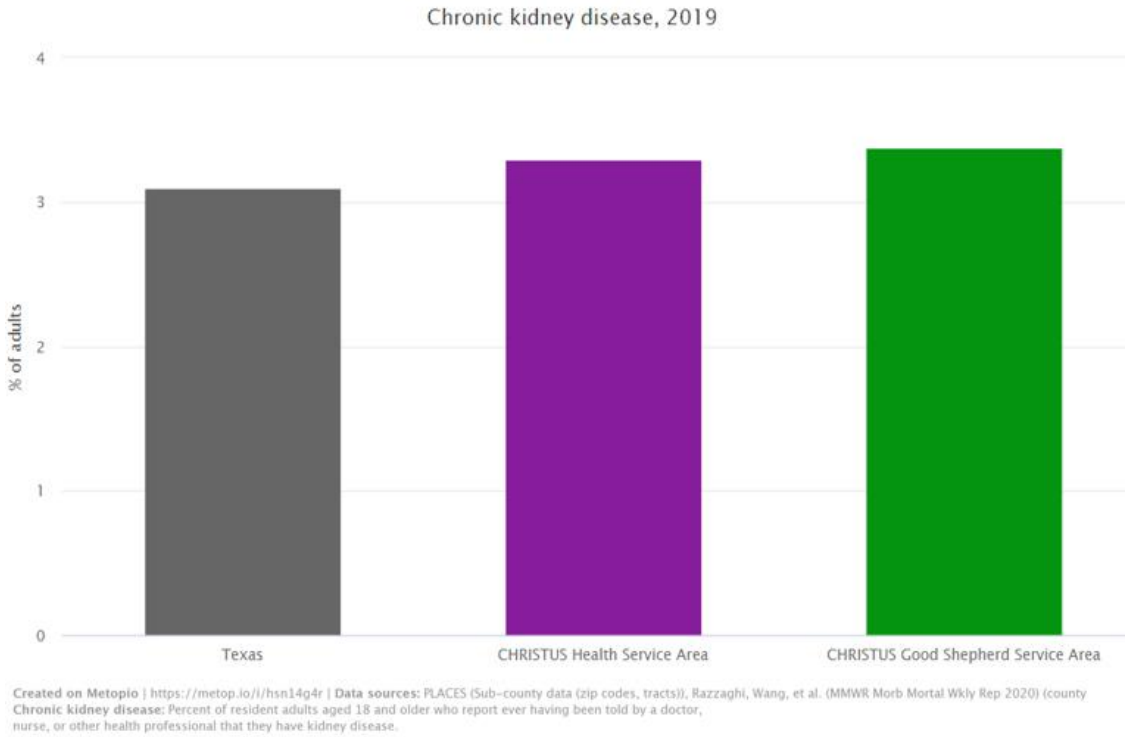


Figure 32. Chronic Kidney Disease in the CHRISTUS Good Shepherd PSA

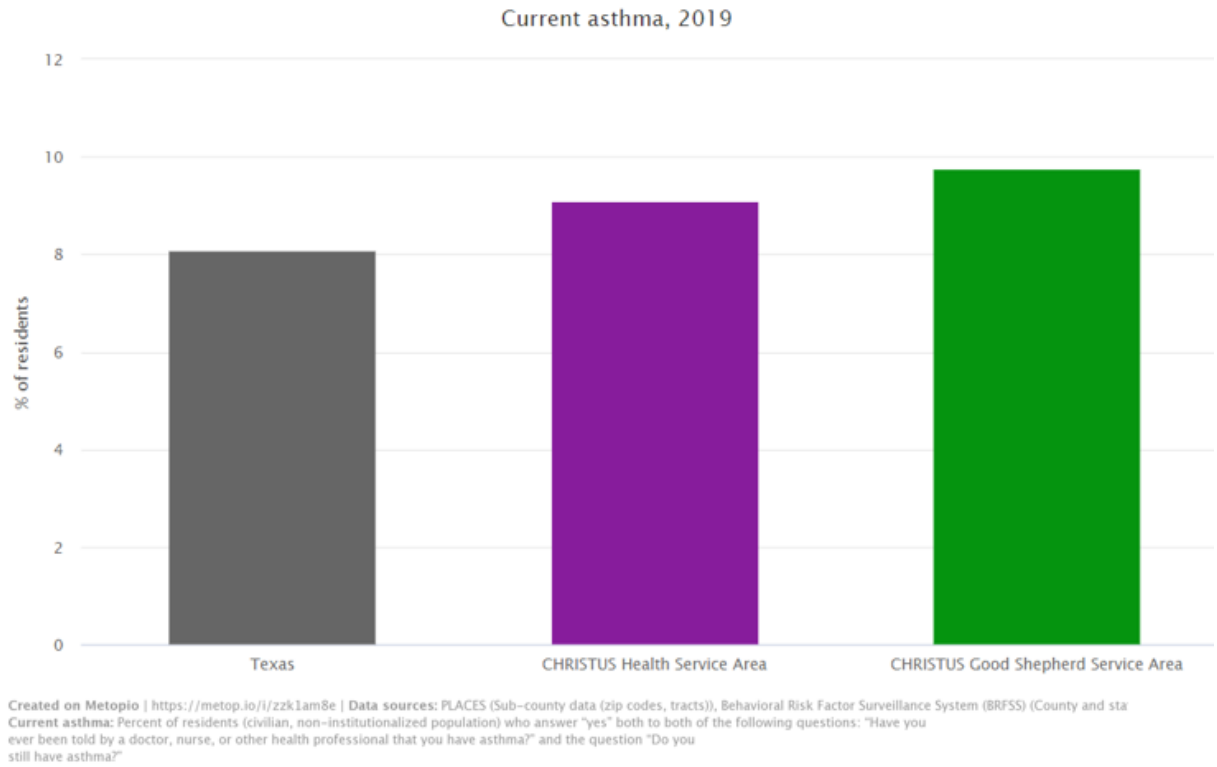


Figure 33. Residents with Asthma in the CHRISTUS Good Shepherd PSA

Topic	Gregg County, TX	Harrison County, TX	Marion County, TX	Panola County, TX	Upshur County, TX
High blood pressure *% of adults, 2019*	36.40	36.40	37.30	35.90	34.40
Coronary heart disease *% of adults, 2019*	6.40	6.30	6.70	6.40	6.20
Diagnosed diabetes *% of adults, 2019*	12.8	12.3	12.5	12.1	11.1
Chronic kidney disease *% of adults, 2019*	3.3	3.2	3.3	3.1	3.0
Obesity *% of adults, 2019*	39.2	36.5	38.8	37.5	37.0
Current asthma *% of residents, 2019*	9.40	9.40	9.80	9.40	9.30

Table 13. Chronic Disease Indicators by County in the CHRISTUS Good Shepherd PSA

Maternal Health

The CHRISTUS Good Shepherd PSA experiences more preterm births (13.8% of live births) than either the state (12.8%) or the country (11.7%) (Figure 34). The rate is significantly higher for all racial and ethnic groups for whom there is data in the services area. Blacks experience preterm births in 19.1% of live births, which is much higher than any other racial/ethnic group. The teen birth rate in the service area (16.5 births per 1,000 women) is less than that of the CHRISTUS Health service area (22.9) and about the same as the state (17.1) (Figure 35). The rate has significantly decreased in the PSA over the past two decades. It should be noted that there is quite a bit of error in this data set.

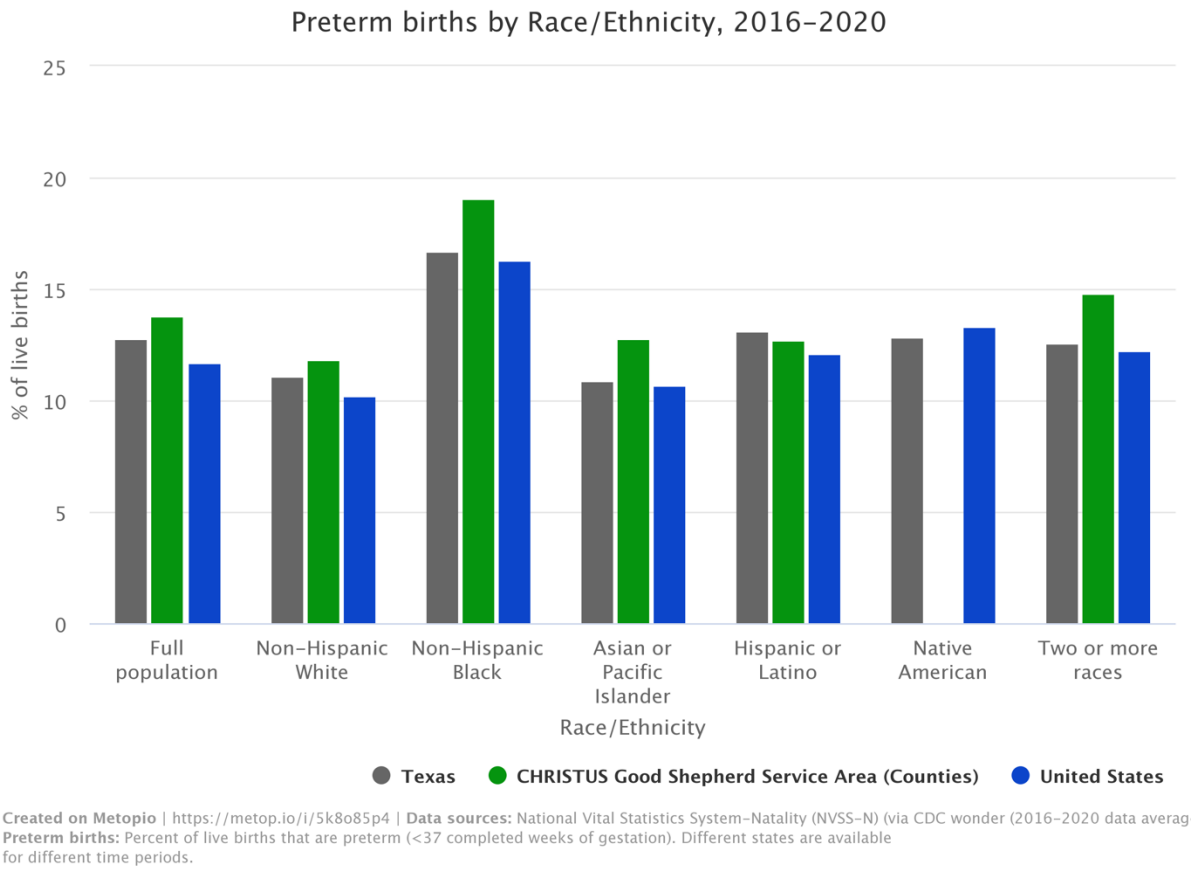


Figure 34. Percent of Births that are Preterm in the CHRISTUS Good Shepherd PSA

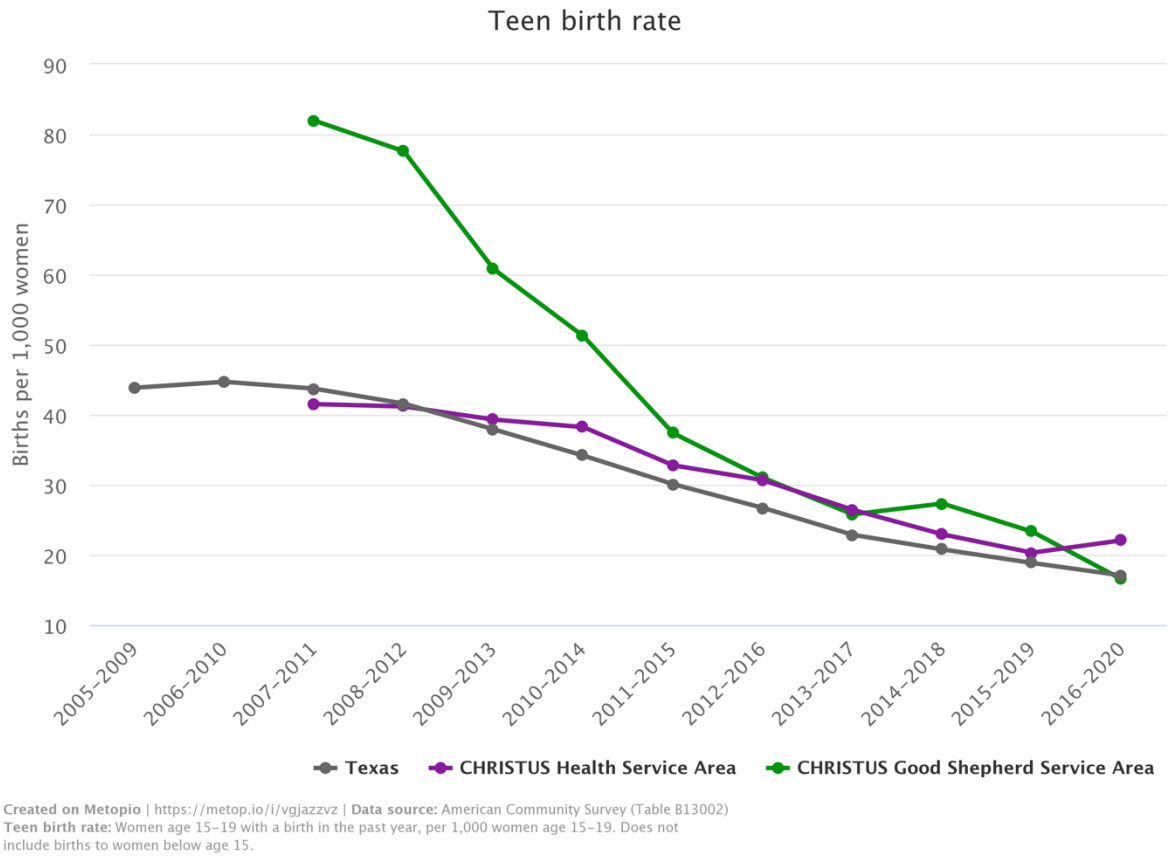


Figure 35. Teen Birth Rate in the CHRISTUS Good Shepherd PSA

> "Online schooling has affected the community. Kids are well behind in school. More kids are dealing with anxiety, behavioral problems and emotional issues."
>
> - Focus Group Participant

Mental Health

More than 22% of adults in the CHRISTUS Good Shepherd PSA report being depressed (Figure 36), but the available data was collected before the pandemic. Based on the community survey as well as pulse surveys conducted by the American Community Survey, it is likely the percentage has increased over the last two years. Table 14 displays several behavioral health indicators for the counties in the CHRISTUS Good Shepherd PSA.

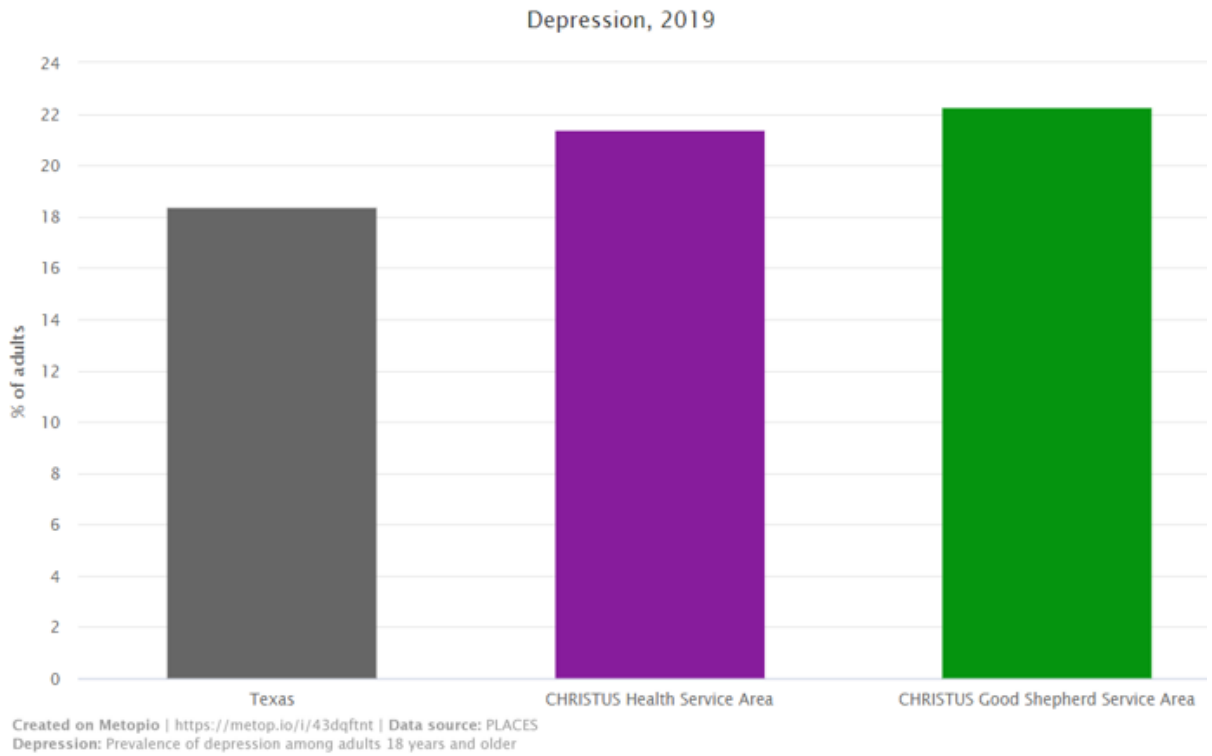


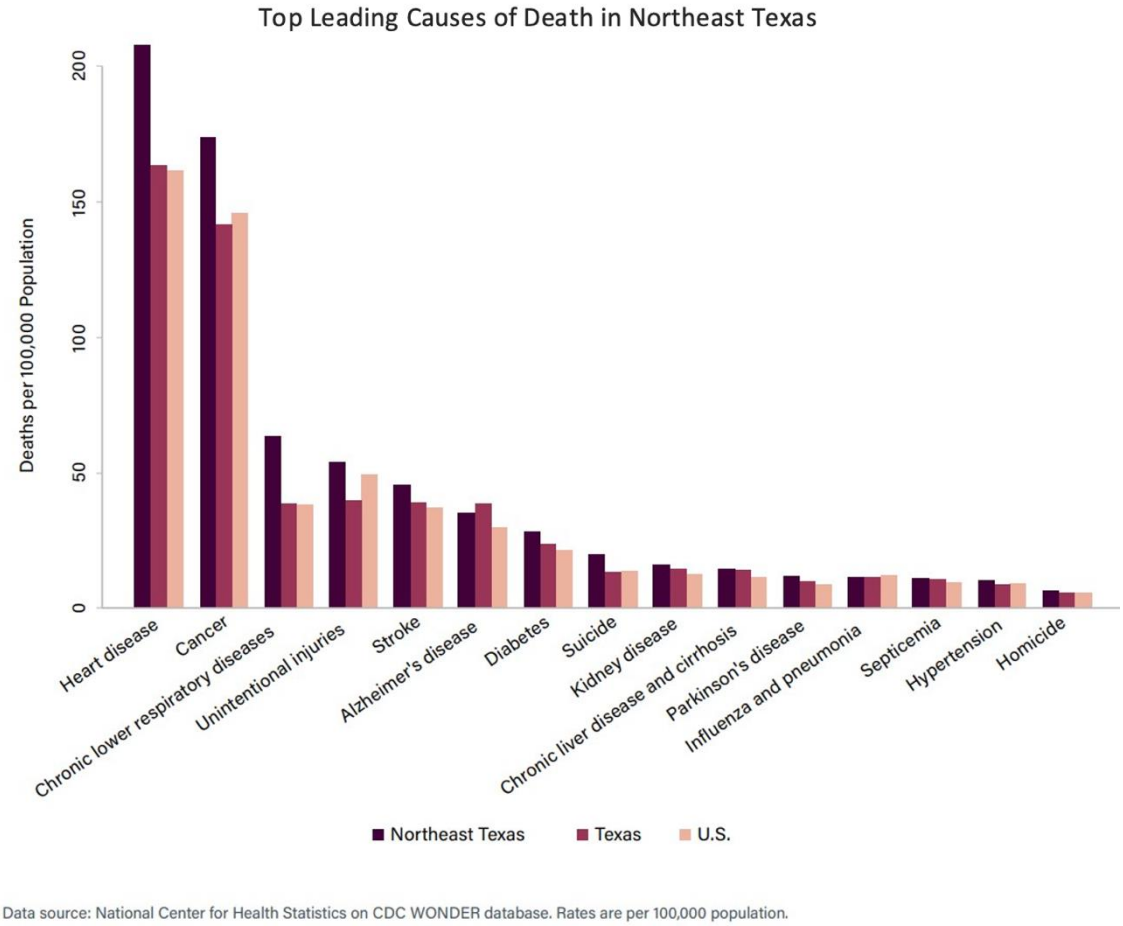
Figure 36. Percent of Adults with Depression in the CHRISTUS Good Shepherd PSA

Topic	Gregg County, TX	Harrison County, TX	Marion County, TX	Panola County, TX	Upshur County, TX
Poor self-reported mental health *% of adults, 2019*	15.90	16.10	17.40	16.60	16.30
Poor mental health days *days per month, 2018*	4.7	4.7	5.0	4.8	4.7
Psychiatry physicians per capita *physicians per 100,000 residents, 2021*	15	2	1	0	5
Mental health providers per capita *providers per 100,000 residents, 2021*	191.4	77.7	33.0	20.1	48.9
Depression *% of adults, 2019*	20.90	21.70	22.50	22.30	22.70
Drug overdose mortality *deaths per 100,000, 2016-2020*	9.52	9.19	—	—	9.16

Table 14. Behavioral Health Indicators by County in the CHRISTUS Good Shepherd PSA

Leading Causes of Death

The top ten causes of death in Northeast Texas, also known as the Texas Health Service Region 4/5N by the Texas Department of State Health Services, can be found in Figure 37. The leading causes of death will be further explored in the sections below. A report by University of Texas at Tyler found that the Northeast Texas region experiences higher mortality rates than the rest of the state or the country in each of the top five causes of death in the United States—heart disease, cancer, chronic lower respiratory diseases, unintentional injury and stroke. As seen in the chart below, disproportionate mortality rates in the CHRISTUS Good Shepherd PSA reflect those of the Northeast Texas region. (Table 16 at the end of this section, explores each cause of death at the county level in the PSA.)



Data source: National Center for Health Statistics on CDC WONDER database. Rates are per 100,000 population.

Figure 37. Leading Causes of Death in Northeast Texas

Heart Disease

Coronary heart disease makes up the largest contributor to the heart disease mortality rate, accounting for 121.5 deaths per 100,000 out of the total 219.6 per 100,000 deaths for heart disease overall. Heart disease mortality has a disparate impact on the Black community in the CHRISTUS Good Shepherd PSA (Figure 38). The mortality rate for non-Hispanic Black people is 262.9 deaths per 100,000 deaths compared to 219.0 deaths for non-Hispanic White people. Hispanic or Latinos experience lower heart disease mortality rates at 121.3 deaths per 100,000 deaths, respectively. These disparities contribute to the disproportionate heart disease mortality rates in the region.

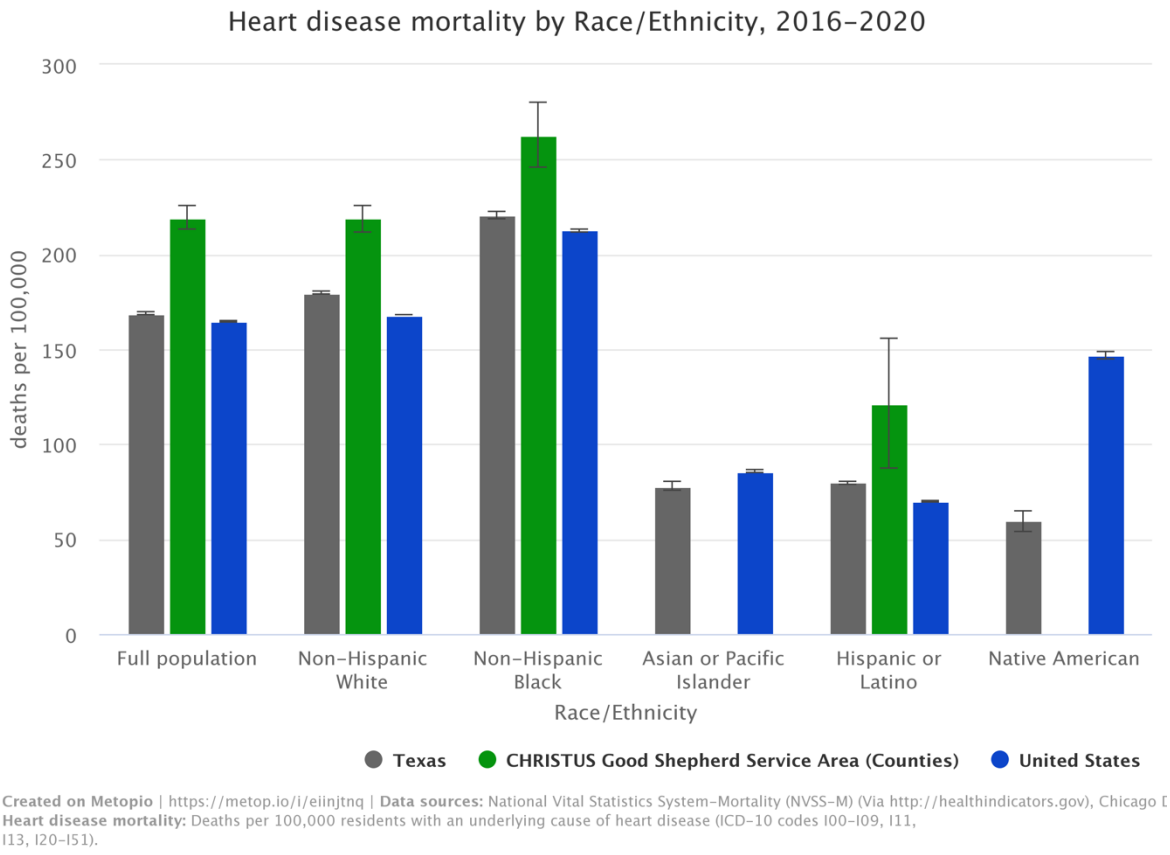


Figure 38. Heart Disease Mortality with Stratifications in the CHRISTUS Good Shepherd PSA

Cancer

Cancer represents the second leading cause of death in the CHRISTUS Good Shepherd PSA. Lung, trachea, and bronchus cancers make up the largest portion of cancer deaths, causing 43.0 out of 100,000 deaths. The second largest cause of cancer mortality in the PSA comes from colorectal cancer, causing 18.0 out of 100,000 deaths.

Leading types of cancer found in the CHRISTUS Good Shepherd PSA can be found in Table 15. With the exception of both invasive and non-invasive breast cancers, cancer diagnosis rates are higher in the PSA than they are in Texas and the United States as a whole. In particular, lung cancer diagnosis rates in the PSA are higher than the rates in Texas—67.33 per 100,000 residents in the PSA compared to 49.5 in Texas.

Topic	Texas	Gregg County, TX	Harrison County, TX	Marion County, TX	Panola County, TX	Upshur County, TX
Cancer diagnosis rate per 100,000 residents, 2014-2018	411.20	502.40	436.10	448.70	439.70	467.10
Cancer mortality deaths per 100,000, 2016-2020	143.7	170.7	153.2	151.4	185.9	175.1
Breast cancer mortality deaths per 100,000, 2016-2020	10.7	15.3	12.7	18.1 (2000-2004 data)	12.6	13.7
Colorectal cancer mortality deaths per 100,000, 2016-2020	13.9	16.8	17.3	32.0	16.4	19.3
Lung, trachea, and bronchus cancer mortality deaths per 100,000, 2016-2020	31.1	41.1	42.0	38.7	55.9	44.4

Table 15. Cancer Indicators by County in the CHRISTUS Good Shepherd PSA

Environmental factors may contribute to the lung cancer burden in the CHRISTUS Good Shepherd PSA. The Lifetime Inhalation Cancer Risk of the Environmental Protection Agency's Environmental Justice Index is a weighted index of vulnerability to lifetime inhalation cancer risk. It measures estimated lifetime risk of developing cancer as a result of inhaling carcinogenic compounds in the environment, per million people. The Lifetime Inhalation Cancer Risk is much higher in the PSA, measuring 52.9 lifetime risk per million, compared to the full CHRISTUS Health service area, 35.0 lifetime risk, and Texas, 27.6 lifetime risk (Figure 39).

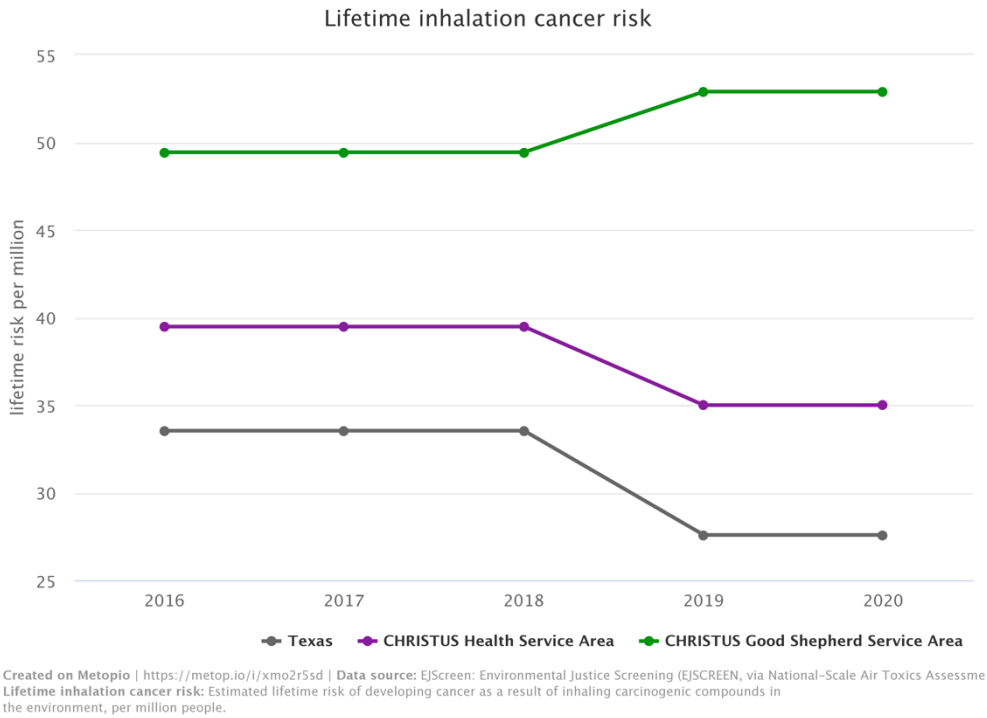


Figure 39. Lifetime Inhalation Cancer Risk in the CHRISTUS Good Shepherd PSA

Injury

Injuries account for the third highest cause of death in the CHRISTUS Good Shepard PSA. This is, in part, because this category includes many kinds of injury including unintentional injury mortality and motor vehicle traffic mortality and workplace mortality. This topic does not include homicide or suicide mortality. The rates for the full population in the CHRISTUS Good Shepherd PSA (75.0 deaths per 100,000) is higher than both in Texas (60.4) and the United States (72.6) (Figure 40).

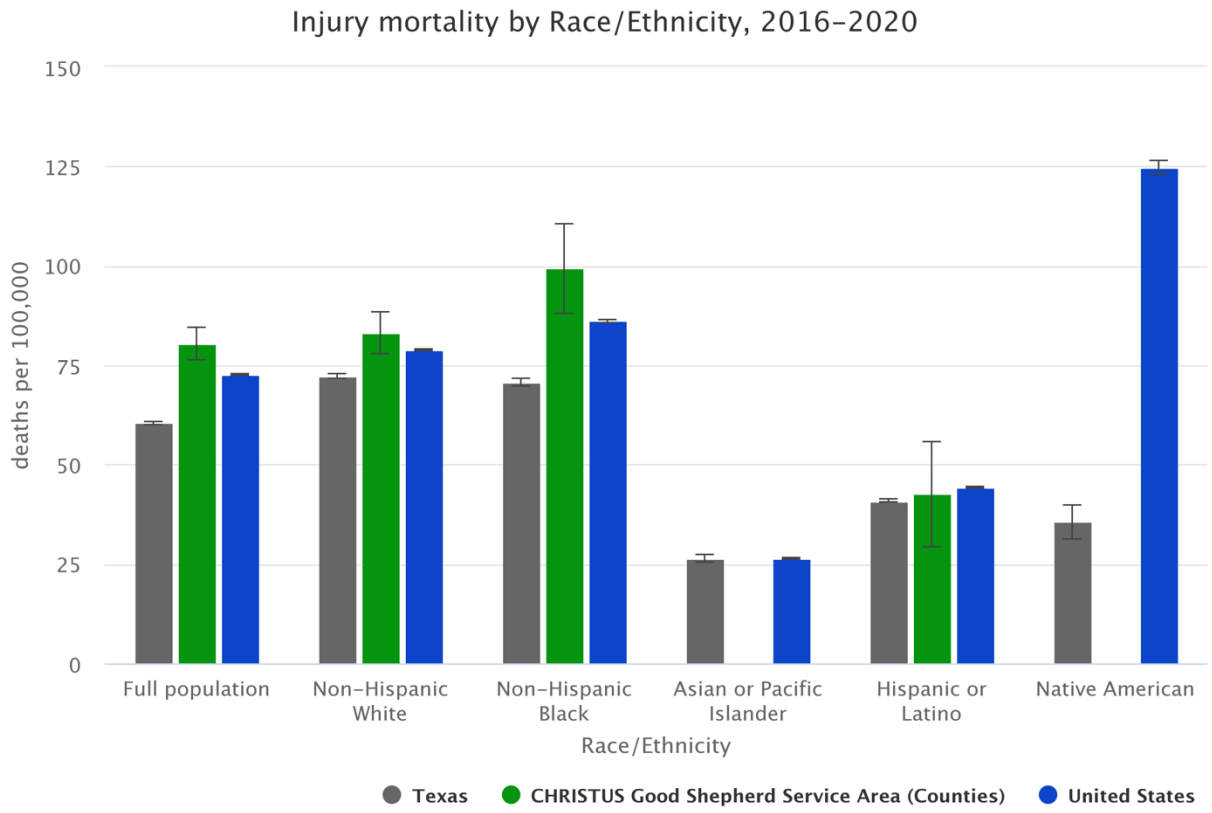


Figure 40. Injury Mortality Rate with Stratifications in the CHRISTUS Good Shepherd PSA

Chronic Lower Respiratory Disease

This is a roll up of four major respiratory diseases—chronic obstructive pulmonary disease (COPD), chronic bronchitis, emphysema and asthma. There appears to be a significant disparity with this cause of mortality when comparing the service area to the state and the U.S (56.7 deaths per 100,000 compared to 39.9 in Texas and 40.2 in the United States) (Figure 41). The rate is not only higher for the full population, but significantly higher when analyzed through racial and ethnic stratifications, mostly notably with the non-Hispanic White population. The mortality rate for non-Hispanic Whites is 74.9 deaths per 100,000 compared to 50.0 in Texas and 44.4 in the United States (Figure 41). Significant risk factors for respiratory illnesses include smoking and exposure to second-hand smoke, occupational exposure and asthma.

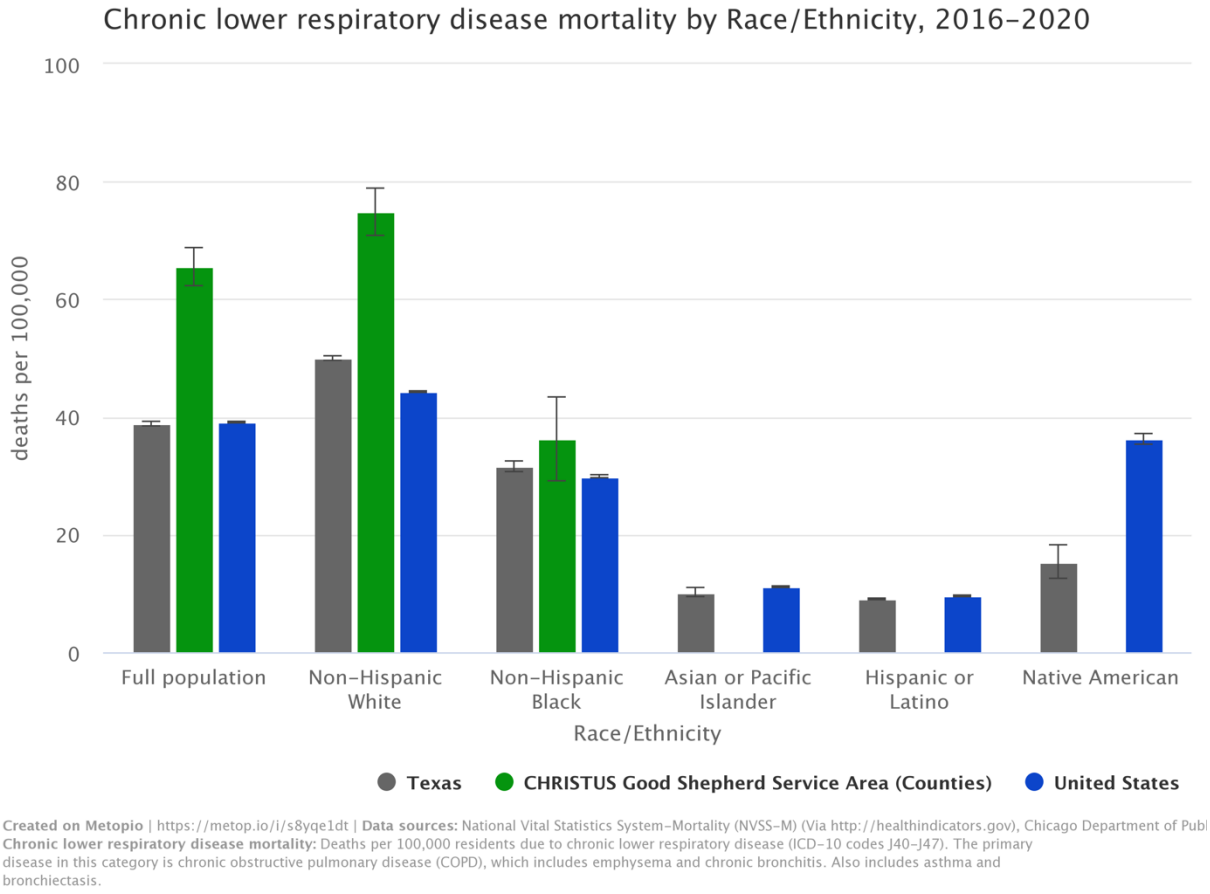


Figure 41. Chronic Lower Respiratory Disease Mortality Rate with Stratifications in the CHRISTUS Good Shepherd PSA

Stroke

The mortality rate for stroke is higher in the service area than either benchmark (Figure 42). When looking at race/ethnicity stratifications, death by strokes is much more common in the Non-Hispanic Black population (69.5 deaths per 100,000 in the PSA), compared to the Non-Hispanic White population (43.0 deaths per 100,000). The Hispanic or Latino population was not included here because of a large margin of error.

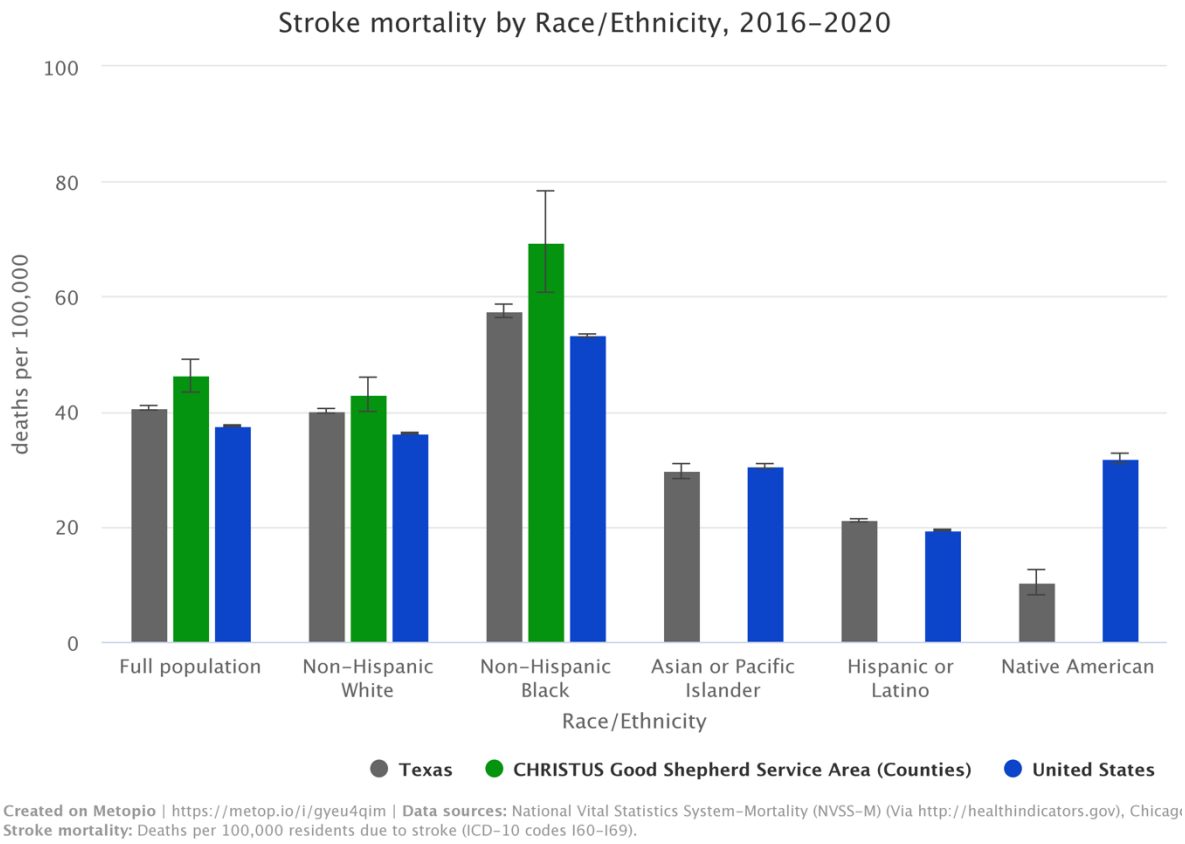


Figure 42. Stroke Mortality Rate with Stratifications in the CHRISTUS Good Shepherd PSA

Alzheimer's Disease

The mortality rate for Alzheimer's has been steadily increasing over the last 20 years in the service area (Figure 43). It is similar to the rate in Texas (41.5 deaths per 100,000 in the PSA versus 39.7 deaths in the state), but both rates are much higher than the national average (30.8 deaths per 100,000).

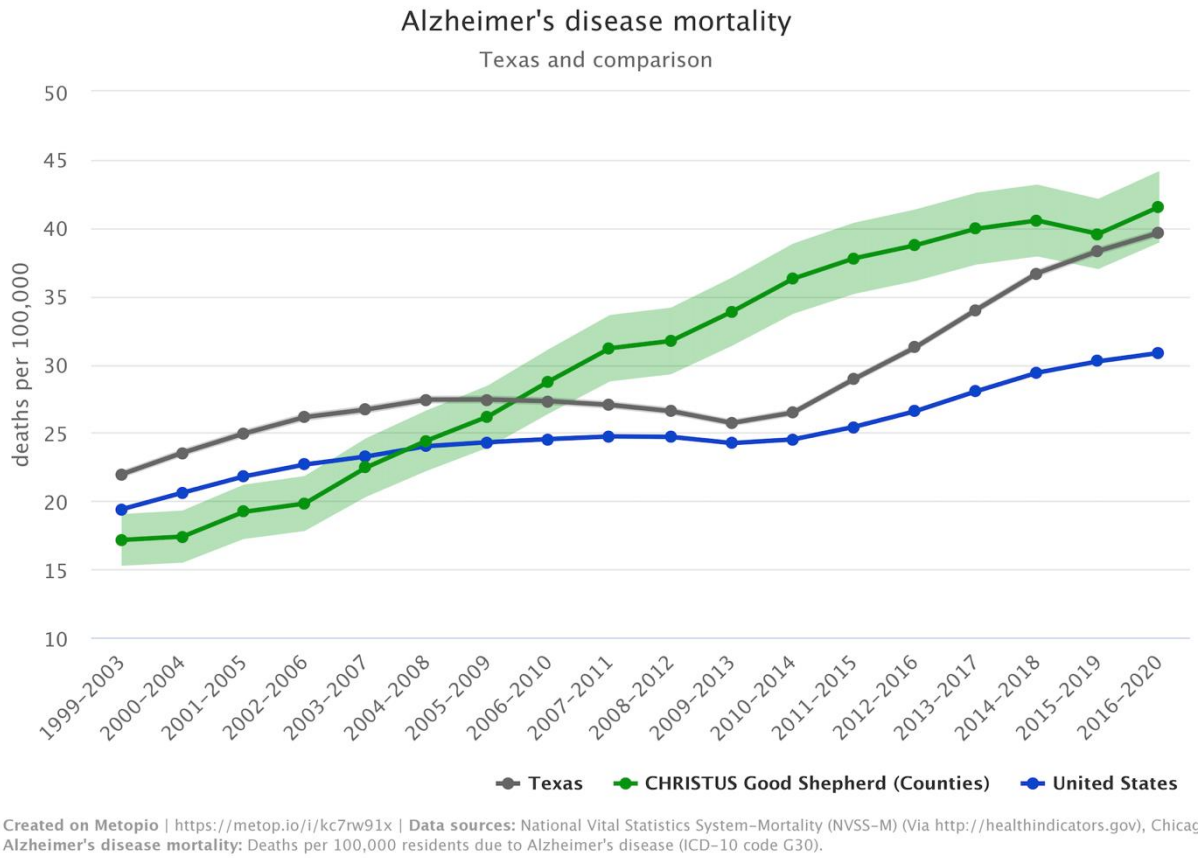


Figure 43. Alzheimer's Disease Mortality Rate in the CHRISTUS Good Shepherd PSA

Diabetes

The diabetes mortality rate has been declining overall since the early aughts but has slightly increased in the last two years (Figure 44). The rate of mortality for diabetes in the PSA (25.4 deaths per 100,000) is higher than that of the state (21.0 deaths) and the country (21.2 deaths).

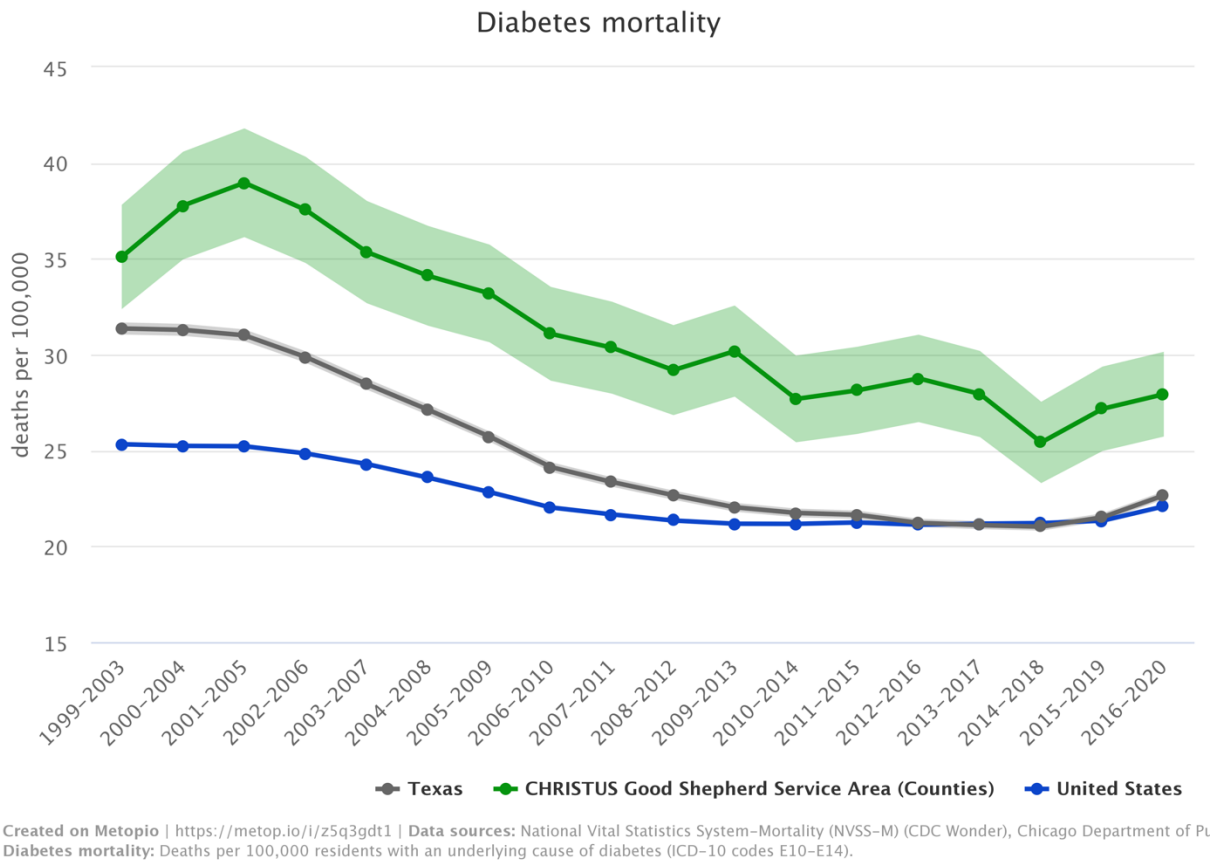


Figure 44. Diabetes Mortality Rate in the CHRISTUS Good Shepherd PSA

Kidney Disease

Death from kidney disease in the CHRISTUS Good Shepard PSA is higher than both benchmarks (Figure 45). It is currently on a downward trend, but rates in the CHRISTUS Good Shepherd PSA have not been below 16.0 deaths per 100,000 since 2006. As is highlighted in the next section on hospital utilization data, kidney disease and corresponding conditions are a major reason for inpatient admissions.

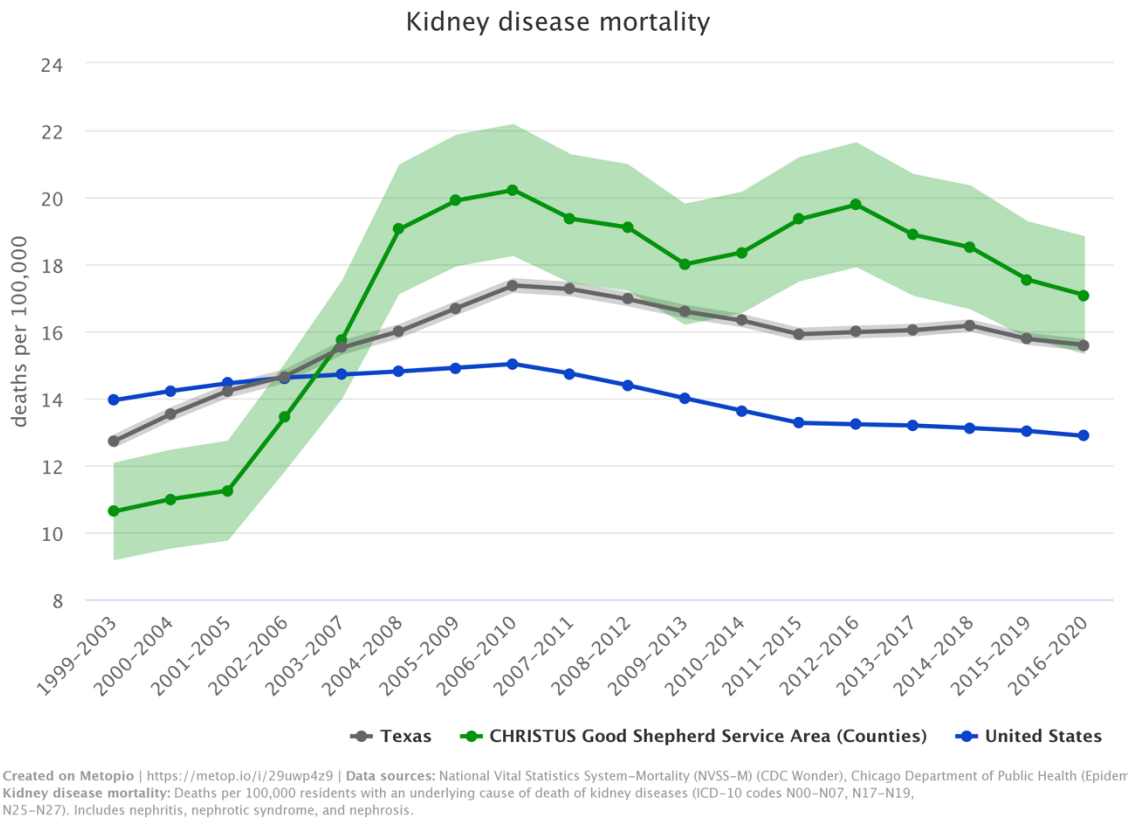


Figure 45. Kidney Disease Mortality rate in the CHRISTUS Good Shepherd PSA

Influenza and Pneumonia

Death from influenza and pneumonia had been on a steady decline across all benchmark regions over time (Figure 46). However, since 2016, the mortality rate for this category has been on the rise in the PSA. In the most recent data collection period, influenza and pneumonia mortality rates in the PSA (15.2 deaths per 100,000) surpassed the average rate in Texas (12.0 deaths) and the rate of the country overall (13.9 deaths).

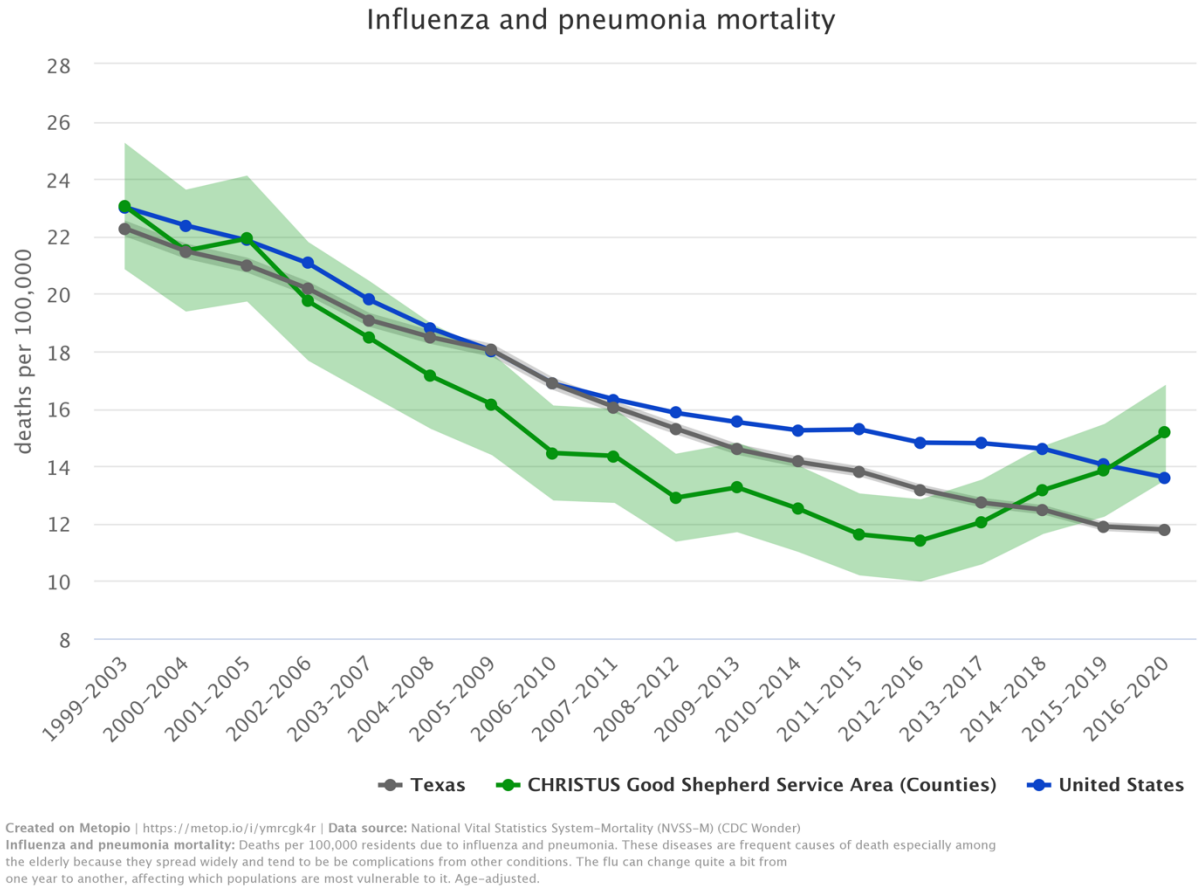


Figure 46. Influenza and Pneumonia Mortality Rate in the CHRISTUS Good Shepherd PSA

Topic	Gregg County, TX	Harrison County, TX	Marion County, TX	Panola County, TX	Upshur County, TX
Heart disease mortality deaths per 100,000 , 2016-2020	228.7	195.6	249.2	202.2	234.7
Cancer mortality deaths per 100,000 , 2016-2020	170.7	153.2	151.4	185.9	175.1
Injury mortality deaths per 100,000 , 2016-2020	73.2	85.3	117.1	95.3	77.4
Chronic lower respiratory disease mortality deaths per 100,000 , 2016-2020	61.4	63.3	103.7	73.5	68.7
Stroke mortality deaths per 100,000 , 2016-2020	48.5	43.3	34.7	41.6	49.9
Alzheimer's disease mortality deaths per 100,000 , 2016-2020	43.8	39.8	32.1	59.4	30.0
Diabetes mortality deaths per 100,000 , 2016-2020	22.8	33.4	29.7	39.3	27.7
Kidney disease mortality deaths per 100,000 , 2016-2020	18.6	15.4	19.9 (2015-2019 data)	17.8	14.9
Influenza and pneumonia mortality deaths per 100,000 , 2016-2020	15.1	14.2	20.0	15.0	16.1
Septicemia (sepsis) mortality deaths per 100,000 , 2016-2020	19.7	19.5	38.0	16.1	13.5

Table 16. Mortality Rates by Counties in CHRISTUS Good Shepherd PSA

Hospital Utilization

For this CHNA, CHRISTUS Good Shepherd Health System looked at three years of utilization data (2019-2021). During the course of the COVID-19 pandemic, the health system saw Emergency Department utilization remain virtually unchanged between 2019 and 2020 (Figure 47). But ED visits decreased by 35% in Longview and 44% in Marshall between 2020 and 2021.

Similarly, inpatient cases had only a small change between 2019 and 2020 but dropped again by 30% in Longview and 45% in Marshall between 2020 and 2021 (Figure 48).

This drop in utilization follows national patterns. Many residents delayed care or sought services via telehealth during the height of COVID-19. What remains to be seen, and is not apparent yet in the data, is if issues following the height of COVID-19 will be more severe due to delayed care as more people return to the system for care.

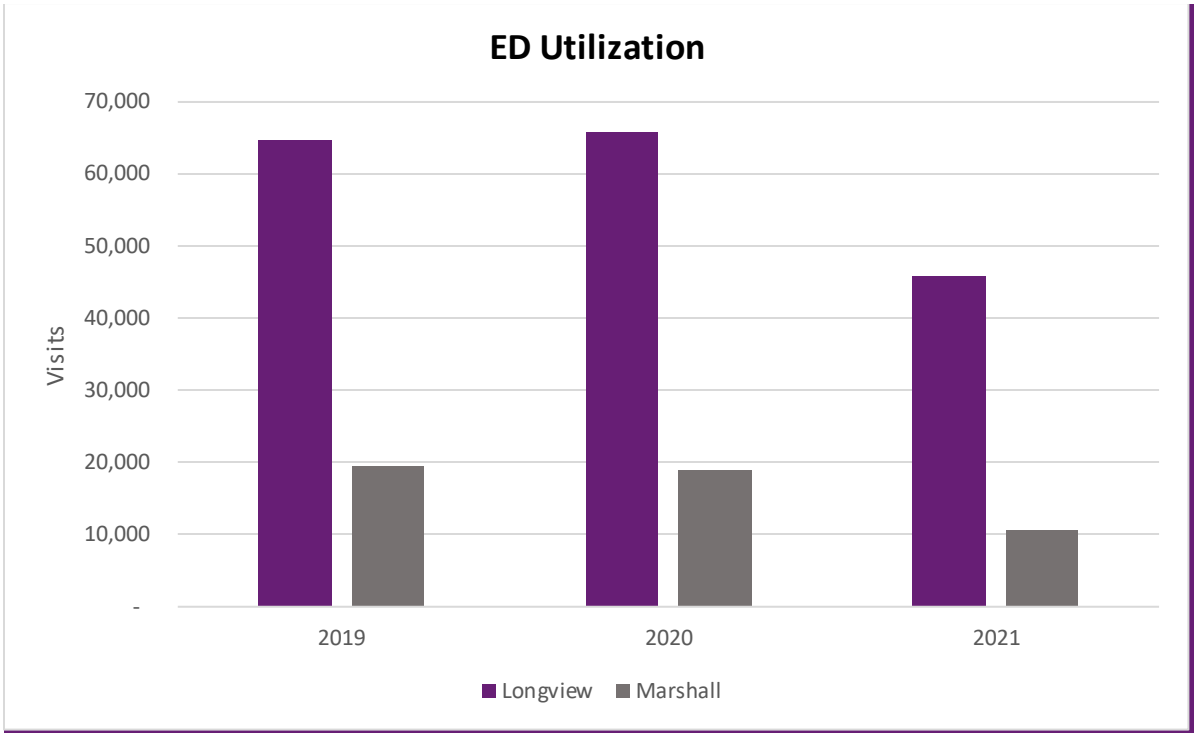


Figure 47. Emergency Department Utilization at CHRISTUS Good Shepherd

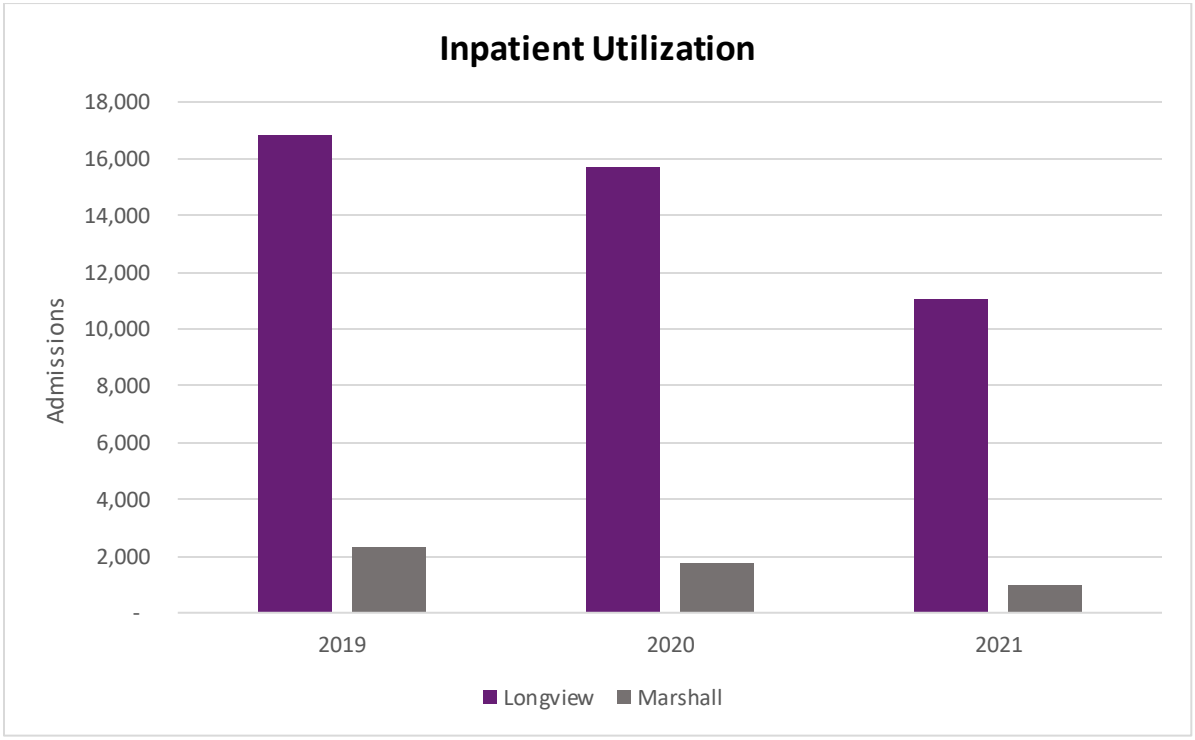


Figure 48. Inpatient Admissions at CHRISTUS Good Shepherd

Regarding inpatient utilization, COVID-19 became the number three reason for admission in 2020 and 2021 in Longview and number five in Marshall (Table 17; Table 18). (The top cause for inpatient admissions was labor and delivery in Longview and Sepsis in Marshall.) Following COVID-19, the majority of the remaining top 10 reasons for admission are related to heart conditions, kidney disease or respiratory issues.

Top Inpatient Primary Diagnoses—CHRISTUS Good Shepherd Longview
1. Single liveborn infant delivered
2. Sepsis
3. COVID-19
4. Pneumonia
5. Hypertensive heart disease with heart failure
6. Non-ST elevation (NSTEMI) myocardial infarction
7. Hypertensive heart and chronic kidney disease with heart failure
8. Acute kidney failure
9. Chronic obstructive pulmonary disease
10. Other malaise

Table 17. Top Inpatient Primary Diagnoses at CHRISTUS Good Shepherd—Longview

Top Inpatient Primary Diagnoses—CHRISTUS Good Shepherd Marshall
1. Sepsis
2. Pneumonia
3. Hypertensive heart disease with heart failure
4. Chronic obstructive pulmonary disease
5. COVID-19
6. Hypertensive heart and chronic kidney disease with heart failure
7. Urinary tract infection
8. Acute kidney failure
9. Cerebral infarction
10. Noninfective gastroenteritis and colitis

Table 18. Top Inpatient Primary Diagnoses at CHRISTUS Good Shepherd—Marshall

Conclusion

The Community Benefit team worked with the hospital leadership and community partners to prioritize the health issues of community benefit programming for fiscal years 2023—2025. These groups of internal and external stakeholders were selected for their knowledge and expertise of community needs. Using a prioritization framework guided by the MAPP framework, the process included a multi-pronged approach to determine health issue prioritization.

1. The team reviewed health issue data selected by the community survey respondents.
2. The team scored the most severe indicators by considering existing programs and resources.
3. The team assigned scores to the health issue based on the Prioritization Framework (Table 19). The highest-scoring health issues were reconciled with previous cycles' selected priorities for a final determination of priority health issues.
4. The team discussed the rankings and community conditions that led to the health issues.

Size	How many people are affected?	Secondary Data
Seriousness	Deaths, hospitalizations, disability	Secondary Data
Equity	Are some groups affected more?	Secondary Data
Trends	Is it getting better or worse?	Secondary Data
Intervention	Is there a proven strategy?	Community Benefit team
Influence	How much can CHRISTUS Good Shepherd Health System affect change?	Community Benefit team
Values	Does the community care about it?	Survey, Focus Groups, Key Informant Interviews
Root Causes	What are the community conditions?	Community Benefit team

Table 19. Prioritization Framework

CHRISTUS Good Shepherd Health System Selected FY 2023—2025 Health Priority Areas

For this cycle, CHRISTUS Good Shepherd Health System is using a new structure for its identified needs, categorizing them under two domains with the overarching goal of achieving health equity. While the prioritization structure is new, CHRISTUS Good Shepherd retained primary care access and mental health (as part of Behavioral Health) as priority issues from the 2020-2022 CHNA. In this cycle, CHRISTUS Good Shepherd groups diabetes, obesity, and heart disease under Specialty Care Access and Chronic Disease Management. Newly identified issues include Improving Food Access and Reducing Smoking and Vaping (Figure 49).

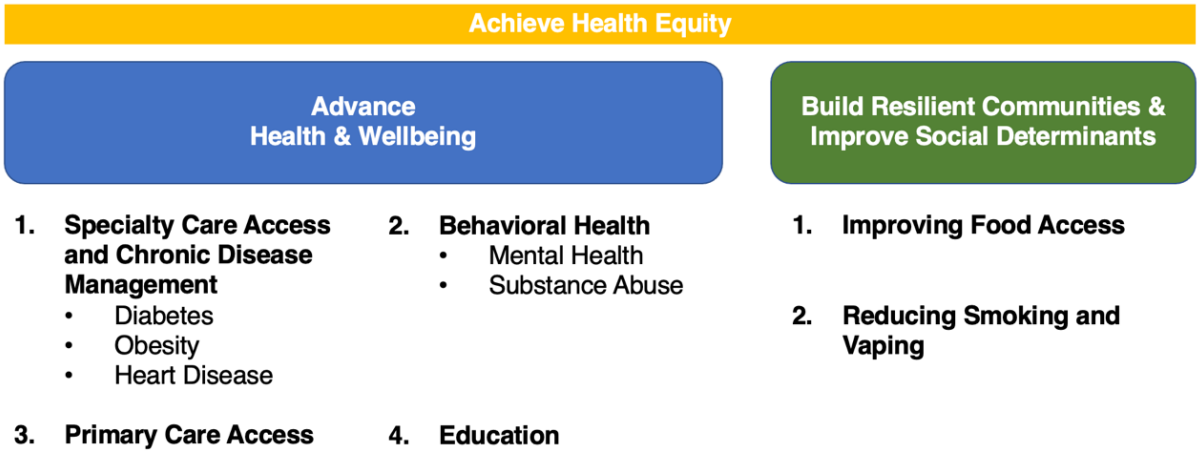


Figure 49. CHRISTUS Good Shepherd Health System Priority Areas

These domains and corresponding issues will serve as the designated issue areas for official reporting and are the principal health concerns that CHRISTUS Good Shepherd community efforts will target.

ADOPTION BY THE BOARD

The Board of Directors received the 2023-2025 CHNA report for review and formally approved the documents on June 9, 2022.

Appendix 1: Evaluation of Community Health Improvement Plan (CHIP) Activities

This evaluation is meant to capture the programmatic efforts undertaken by CHRISTUS Good Shepherd Health System to meet priority health area goals and intended outcomes as outlined in the 2020-2022 Community Health Improvement Plan (CHIP).

Identified programs and services will share specific process and outcome metrics that demonstrate impact on the priority health areas and goals outlined in the table below.

CHRISTUS Good Shepherd Community Benefit Priority Health Area Goals (2020-2022)

PRIORITY	Mental Health
PRIORITY	Primary Care Access
PRIORITY	Health System Performance
PRIORITY	Homelessness
PRIORITY	Employment

Because of the varied program structures and approaches, it is recommended that the community benefits team use three overarching areas to organize data sources and reporting mechanisms. These include:

Community Based Program Data

- Data includes process and outcome level measures, often captured through activity logs, standard or customized designed reporting templates, surveys, and qualitative reports.

CHRISTUS Captured Data

- CHRISTUS staff utilize databases and internal tracking templates to document and report programs and services. These include CBISA, EMRs and other a program dashboards.

Engagement Data

- Engagement data are largely qualitative including Board presentations, community reports, participant interviews and program manager feedback sessions.

1. Mental Health

GOAL	Support the "Addicted to Hope Program" sponsored by Wiseman Ministries and Transform Care.
OBJECTIVES	Improve access to mental health and substance use treatment care for the indigent and underserved population in the Longview area and a 30% reduction in dual-diagnosis hospital admissions.
IMPACT	CGS supported Wiseman Ministries in applying for CHRISTUS Fund Grant. The "Addicted to Hope" program did not materialize. CGS funds transports of patients lacking funding to appropriate in-patient behavioral health facilities to a cost of $280,000 to $300,000 per year.

GOAL	Partner with CHRISTUS Trinity Mother Frances to sponsor a combined meeting of the Smith and Gregg County Wellness Collaborative, encompassing the service areas for each ministry. Work with members of the collaborative to expand education in the community (schools, businesses, and Churches) on Mental Health, addiction, etc.
OBJECTIVES	1. Establish collaboration between the two Wellness Collaborations in order to share resources and improve the health of the people in the Northeast Texas region. 2. Increased awareness of early signs and symptoms of mental illness in the population served.
IMPACT	Smith and Gregg County Wellness Collaborative met once in FY20, but halted due to COVID pandemic. Youth Suicide Prevention Coalition PSA—Members of the local area including CEO, school leaders, did a public service announcement video as part of the Youth Suicide Prevention); the Covid pandemic limited most community health education.

GOAL	On-going support of the mental health services provided by the CHRISTUS Trinity Clinic Internal Medicine (CTC IM) Resident Clinic in Longview.
OBJECTIVES	Improved access to behavioral health services as evidenced by 75% of patients seen within 30 days.
IMPACT	CTC IM Resident Clinic continued to provide access to BH resources; 100% of patients seen within 30 days (surpassing projected goal of 75%).

2. Primary Care Access

GOAL	Provide on-going financial support for the Genesis PrimeCare and Wellness Pointe, on-going operation of CHRISTUS Trinity Clinic Urgent Care and the CHRISTUS Trinity Internal Medicine Resident Clinic to provide primary and psychiatric care.
OBJECTIVES	Continued collaboration with Genesis PrimeCare and Wellness Point and operation of CHRISTUS Urgent Care and CTC Internal Resident Clinic will result in a 10% increase in the number of patients receiving primary care services by the end of FY 2020.
IMPACT	Financial support of Wellness Point FQHCs continued through Dec. 2020 totaling $193,750; Genesis PrimeCare received over $41K. CTC Urgent Care operates on NW Loop in Longview; Urgent Care has also served as a COVID testing site throughout the pandemic. Thirty-six IM residents provide primary care access through the CTC IM clinic.

GOAL	Implement Equity of Care initiative aimed at improving care coordination for targeted at-risk patient populations.
OBJECTIVES	Decrease in patients presenting to ED without a primary care provider.
IMPACT	Equity of Care initiative was suspended due to the COVID-19 pandemic. CGS provides $300,000 to $350,000 per year in Athletic Training to ISDs and other schools in our service areas; all of which include students at risk of poor health outcomes due to limited access to health care.

3. Health System Performance

GOAL	Provide financial support and work collaboratively with local non-profits on chronic disease prevention, management, and education. Fund need-based scholarships for medically appropriate patients at Institute for Healthy Living (IHL), the CHRISTUS Good Shepherd fitness facility in Longview.
OBJECTIVES	Overall reduction in blood pressure, weight, and hemoglobin A1c for scholarship recipients.
IMPACT	IHL scholarships provided for local at-risk population needing physical fitness. Public health education was offered on heart health and at health fairs in FY20; greatly reduced during the COVID-19 pandemic when primarily offered in virtual format focused on pandemic information and best practices; some general public health education was conducted during pandemic. In second half of FY22, in-person public health education resumed with heart health and "stop the bleed" programs.

GOAL	Implementation of a Sexual Assault Nurse Examiner (SANE) program to support adult and pediatric populations.
OBJECTIVES	Local access for SANE examinations resulting in improved patient care and services to adult and pediatric victims of sexual assault.
IMPACT	The Sexual Assault Nurse Examiner program was implemented; patients no longer need to travel to Tyler, over 45 minutes away, for this important service.

GOAL	CHRISTUS Good Shepherd Health System will collaborate with Catholic Charities of East Texas to expand the Parish Nursing Ministry program within the CGSHS Service area.
OBJECTIVES	Collaboration with the Parish Nurse program will increase the number of local faith communities participating in the program by the end of FY 2020.
IMPACT	The number of parish nurses in our region doubled from 2 to 4 after start of CHIP; at conclusion of FY22 total dropped to 2; tight labor market due to COVID impact is contributing factor. They increased service contacts from 2,171 from *all* of calendar year 2019 to 1,481 for just *first half* of 2021; client contacts for FY22 were 1252. Nurses' activities include: • *COVID-related:* COVID education and responses in Catholic parishes and schools, implemented telemedicine, hotline, and Covid safety protocols; • *Non-COVID-related:* healthy eating, providing car seats and cribbettes, flu shots, infant and adult diapers, health screenings, transition care, spiritual care, referrals, student health, support groups, grief counseling. Greatest activity in Health System Performance is Nursing Education ($334K to $354K per year) followed by Other Health Professionals Education ($63k to $164k per year).

4. Homelessness and 5. Employment

As primarily a system of acute care hospitals, emergency departments and provider clinics, CHRISTUS Good Shepherd is not resourced to address these social needs. CGS clinical personnel participated in the City of Longview Homeless Resource Day when offered. CGS is the largest employer in Gregg County and participates in local job fairs. Additionally, through our Allied Health program, CGS has deepened partnerships with area ISDs and the Catholic school system to promote health care among middle and high school students.

Appendix 2: Primary Data Tools

Primary data was collected through the main channels—community surveys, focus groups and key informant interviews. The instruments used for each are included in this appendix.

Community Resident Survey

Community Health Needs Assessment Survey	
Welcome to the CHRISTUS Health Community Health Needs Assessment Survey. This survey will only take about 10 minutes. We will ask you questions about the health needs of your community. The information we get from the survey will help us: • Identify health problems that affect the people in your community. • Understand the needs of your community. • Work together to find a solution. The survey is voluntary and you do not have to participate. You can also skip any questions you do not want to answer or end the survey at any time. The answers you give are very important to us. Your answers will be private (we will not know who gave the answers) and we will protect the information you are giving. We will not share your personal information or survey answers to anyone outside of CHRISTUS Health. **We thank you for your help.**	
Your Information	
Your home zip code:_____	How many years have you lived here? _____

Community Health Needs Assessment Survey	
Community Health Questions	
Thinking about where you live (zip code, neighborhood, town), on a scale of 1 - 5 (with 1 - being not at all and 5- being serious), how much of a problem are each of the following health concerns? **Please consider how any of these issues affect you or a family member personally, impact others you know, or deal with in your profession. If you don't know, please leave blank/skip.**	
HEALTH CONCERN	**RATING (1-5)**
Abuse (child, emotional or physical abuse; neglect, sexual assault, domestic violence)	
Access to healthy food items	
Access to prenatal care (including insurance, medical provider, transportation)	
Alzheimer's and Dementia	
Arthritis	
Cancer (s)	
Chronic pain	
Dental disease (Dental Problems)	
Diabetes (high blood sugar)	
Drug, Alcohol and Substance Abuse (Prescription, Illegal Drugs)	
Healthy Eating (including preparing meals and cooking)	
Exercise and physical activity	
Hearing and vision loss	
Heart disease (hypertension, high blood pressure, heart attack, stroke)	
Infectious diseases (hepatitis, tuberculosis or TB, flu, COVID-19)	
Lung disease (asthma, chronic obstructive pulmonary disease or COPD)	
Maternal and child health (preterm birth, gestational diabetes, maternal hypertension, preeclampsia, maternal death, infant mortality)	
Mental health (ADHD, depression, anxiety, post-traumatic stress disorder or	
Motor vehicle crash injuries	
Obesity (Overweight)	
Property crime (theft, burglary and robbery, motor vehicle theft)	
Sexually Transmitted Infections (STIs and STDs), including Human Immunodeficiency virus (HIV), acquired immunodeficiency syndrome (AIDS)	
Smoking and vaping	
Teen Pregnancy	

Other than those included in the previous question, are there any additional concerns that you feel affect the health of our community? **If you, family members or others who you are in frequent contact with are impacted by any of these health concerns, please share the age group and the impact. (e.g., I am the primary caregiver for my aging parent who has Alzheimer's)**

Community Health Needs Assessment Survey
Community Resources Questions
What strengths and/or resources do you believe are available in your community? Check all that apply.

- ☐ Community services, such as resources for housing
- ☐ Access to health care
- ☐ Medication Assistance
- ☐ Health support services (diabetes, cancer, diet, nutrition, weight management, quit smoking, end of life care)
- ☐ Affordable and healthy food (fresh fruits and vegetables)
- ☐ Mental health services
- ☐ Technology (internet, email, social media)
- ☐ Transportation
- ☐ Affordable childcare
- ☐ Affordable housing
- ☐ Arts and cultural events
- ☐ Clean environment and healthy air
- ☐ Fitness (gyms place to work out)
- ☐ Good schools
- ☐ Inclusive and equal care for all people whatever race, gender identity or sexual orientation (LGBTQ)
- ☐ Life skill training (cooking, how to budget)
- ☐ Parks and recreation
- ☐ Cancer Screening (mammograms, colon cancer, HPV vaccine/Pap smear, prostate cancer)
- ☐ Quality Job Opportunities and Workforce Development
- ☐ Racial Equity (The elimination of policies, practices, attitudes, and cultural messages that reinforce differential outcomes by race)
- ☐ Religion or spirituality
- ☐ Safety and low crime
- ☐ Strong community cohesion and social network opportunities (reword – Welcoming community and opportunities to join support groups)
- ☐ Strong family life
- ☐ Other, please specify: _____

Are there any additional services or resources that you would like to see in our community that would help residents maintain or improve their health?

Community Health Needs Assessment Survey

Questions About You

These questions are used to provide context to your previous answers and will not be used to identify individual survey takers.

As a Catholic-sponsored health care ministry, we are committed to providing for the health care needs of our community, particularly of the vulnerable or underserved. The questions below are intended solely to seek information that will help us compassionately accompany and appropriately treat and care for all of God's people on their journey toward healing and wholeness.

What is your age?

- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65-74
- ☐ 75-84
- ☐ 85 and older

What is your gender?

- ☐ Female
- ☐ Male
- ☐ Choose not to disclose
- ☐ Comments: _____

Do you think of yourself as?

- ☐ Straight or heterosexual
- ☐ Bisexual
- ☐ Lesbian or gay or homosexual
- ☐ Choose not to disclose
- ☐ Other, please specify: _____

Do you consider yourself Hispanic or Latino?

- ☐ Hispanic or Latino: A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.
- ☐ Not Hispanic or Latino: A person is not of Hispanic or Latino ethnicity.
- ☐ Decline to answer: A person who is unwilling to choose/provide from the categories available

Which category best describes your race? (check all that apply)

- ☐ American Indian or Alaska Native: *A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.*
- ☐ Asian: *A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.*
- ☐ Black or African American: *A person having origins in any of the black racial groups of Africa.*
- ☐ Native Hawaiian or Other Pacific Islander: *A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.*
- ☐ White: *A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.*
- ☐ Decline to answer

Is a language other than English spoken in your home?

☐ Yes ☐ No

If Yes: What language(s) other than English are spoken in your home?

☐ Spanish ☐ Vietnamese ☐ Mandarin ☐ Other, please specify: _____

What is the highest level of education you have completed?

- ☐ Less than high school
- ☐ Some high school
- ☐ High school graduate or graduate equivalency degree (GED)
- ☐ Some college, no degree
- ☐ Vocational or technical school
- ☐ College graduate (such as AA, AS, BA, BS, etc.)
- ☐ Advanced degree (such as MS, MA, MBA, MD, PhD, JD, etc.)

Community Health Needs Assessment Survey

Household Questions

What are your current living arrangements?

- ☐ Own my home
- ☐ Rent my home
- ☐ Living in emergency or transitional shelter
- ☐ Living with a friend or family
- ☐ Living outside (e.g., unsheltered, car, tent, abandoned building)
- ☐ Other: _____

How many people live in your household? _____

How many children (less than 18 years old) live with you in your home? _____

How often do you have access to a computer or other digital device with the internet?

☐ Always ☐ Often ☐ Sometimes ☐ Very Rare ☐ Never

Do you or anyone in your household have a disability?

☐ Yes ☐ No

What is the yearly household income? (The total income before taxes are deducted, of every person in the home who financially helps)

- ☐ Less than $10,000
- ☐ $10,000 - $19,999
- ☐ $20,000 to $39,999
- ☐ $40,000 to $59,999
- ☐ $60,000 to $79,999
- ☐ $80,000 to $99,999
- ☐ Over $100,000

Community Health Needs Assessment Survey
Questions about Your Health
Are you currently covered by health insurance? ☐ Yes ☐ No
Do you have a medical or healthcare professional that you see regularly (primary care provider/doctor/pediatrician/cardiologist, etc.)? ☐ Yes ☐ No
The following questions concern the time since the start of the pandemic (March 2020):
During this time period have you had any of the following (please check all that apply): ☐ Visited a doctor for a routine checkup or physical? (not an exam for a specific injury, illness or condition)? ☐ Dental exam ☐ Mammogram ☐ Pap test/pap smear ☐ Sigmoidoscopy or colonoscopy to test for colorectal cancer ☐ Flu shot ☐ Prostate screening ☐ COVID-19 vaccine
Because of the pandemic did you delay or avoid medical care? ☐ Yes ☐ No
During this time period, how often have you been bothered by feeling down, depressed, or hopeless? (Check only one answer). ☐ Not at all ☐ Several days every month ☐ More than half the days every month ☐ Nearly every day

What is the most difficult issue your community has faced during this time period?

- □ COVID-19
- □ Natural disasters (for example, hurricanes, flooding, tornadoes, fires)
- □ Extreme temperatures (for example, snowstorm of 2021)
- □ Other: _____

Other than those concerns included in the previous question, are there additional concerns that affected your community during this time period?

Focus Group Protocols

CHNA Focus Group Guide

Population:

Date and Time:

Location:

RSVPs:

FACILITATION PROTOCOLS

1. Establishing ground rules

- Establish purpose of the focus group.
  - We are meeting today to learn about your community. Specifically, we want to understand what you like about where you live and what you would like to see changed. We also want to understand the biggest health challenges your friends and families face.
  - You were selected to participate in this focus group because of the valuable insight you can provide.
  - We would like to understand how the hospital can partner to make improvements in your neighborhood.
- Establish confidentiality of participants' responses.
  - Our team will be taking notes about what is discussed, but individual names or identifying information will not be used.
- Establish guidelines for the conversation.
  - Keep personal stories "in the room".
  - Everyone's ideas will be respected.
  - One person talks at a time.
  - It's okay to take a break if needed or help yourself to food or drink (if provided).
  - Everyone has the right to talk.
  - Everyone has the right to pass a question.
  - There are no right or wrong answers.
- Explain to participants how their input will be used.
  - Your input will be part of the Community Health Needs Assessment process.
- Give participants estimated timeline of when results will be shared.
  - We expect to make the report available in 2022.
- Establish realistic expectations for what the hospitals and partners can do to address community needs.

2. Introductions

- When we speak about community, it can have different meanings. For example, it can mean your family, the people you live or go to school with, the neighborhood you live in, a group of people you belong to. We are interested in hearing about your community, no matter how you define it.
- The facilitator will go around the room and ask each participant:
    - Name?
    - How long have you lived in the community?
    - What one word would you use to describe your community?

3. Community Descriptions

- Can you describe your community?
    - What are things like?
    - What are things you would like to see changed?
        - Probe: Do you have ideas for how those things can be changed?

4. Health Questions

- What do you think are the biggest health challenges in your community?
    - Follow up on specifics – diabetes, heart disease, asthma/COPD, cancer, sickle cell, substance abuse
    - With chronic diseases answers prove on what are the specific challenges (i.e., managing diabetes, accessing medicine, getting screened, etc.)
    - If substance abuse comes up, follow up on types – alcohol, marijuana, opioids, other?
- What do you think could prevent these issues from being so challenging?
    - Follow up on specific ideas – access to preventative care? Education?
- How has COVID-19 impacted you and your community?
    - Follow up on specifics – job loss, homeschooling, severe illness, mental health, ability to access the internet and health information at home

5. Access and Education Questions

- How easy is it in your community to access health services?
    - Do they have a primary care provider?
    - Can they access Behavioral Health services?
    - Are they able to get cancer screenings and vaccinations?
    - Is telehealth an option? Why or why not?
    - Is transportation a barrier?
- How easy is it for adults in your community to maintain a healthy lifestyle?
    - Is there access to healthy foods?
    - Are there places to exercise?
    - Do you feel a sense of cohesion in your community?

6. Solutions and Strategies Questions

- What do you think a community needs to be healthy?
    - Depending on responses, follow up on specifics – jobs, housing, access to care, schools, parks, food access, etc.
- Who do you think can contribute to make a community healthy?
    - Probe: neighbors, doctors, hospitals, social service agencies, politicians, etc.

7. Final Questions

- What do you think CHRISTUS Health can do to help your community?
- Where do you get your health information now?
- What is the best way to communicate with you about health information?

8. Closing and Next Steps

- Explain how the notes will be synthesized and shared.
- Ask whether participants would like to be involved in future stages of the CHNA and set the process for continued engagement.
- Thank everyone for their participation

Key Informant Interview Protocols

CHNA Key Informant Interview Guide

FACILITATION PROTOCOLS

1. Establishing ground rules

- Establish purpose of the interview
  - CHRISTUS Health is conducting a Community Health Needs Assessment and your input is an important part of the work.
  - We have collected thousands of surveys and held over two dozen focus groups. Now we are interviewing key informants like yourself.
  - You were selected to participate in this interview because of the valuable insight you can provide.
  - We would like to understand how the hospital can partner to improve the health of the community.
- Establish confidentiality of the conversation
  - I will be taking notes about what is discussed, but your name and identifying information will not be used.
- Give participants an estimated timeline of when results will be shared.
  - We expect to make the report available later this year.

2. Introductions

- During our time together, I'm interested in learning about your work and the needs of the people you serve.
- What is your:
  - Name?
  - Organization?
  - Work you do for that organization and/or the community?

3. Survey-alignment questions

- What are strengths you see with your patients/community members right now?
- What are the challenges they face?
  - How do you think those challenges can be addressed?
- What programs or partnerships have worked well? Why?

4. Health questions

- What do you think are the biggest health challenges your patients/constituents/community members face?
  - Follow up on specifics—diabetes, heart disease, asthma/COPD, cancer, sickle cell, substance abuse, mental health
  - With chronic disease answers probe on what are the specific challenges (i.e., managing diabetes, accessing medicine, getting screened, etc.)
  - For cancer ask about specifics
  - For substance abuse follow up on types—alcohol, marijuana, opioids, other?
- How has COVID-19 impacted you and your work?

5. Social Determinant questions

- What elements in the community make it hard for people to be healthy?
  - Follow up on food access, affordable housing, childcare, crime, access to care, etc.
- How can Christus help address these issues?

6. Next Steps

- Explain how the notes will be synthesized and shared.
- Thank them for their participation.

Appendix 3: Data Sources

Secondary data that was used throughout this report was compiled from Metopio's data platform. Underneath each graphic in this report, there is a label that cites the data source for that visual. Primary sources of this data come from:

- American Community Survey
- Behavioral Risk Factor Surveillance System
- Centers for Disease Control PLACES data
- Centers for Disease Control WONDER database
- Centers for Medicare and Medicaid Services: Provider of Services Files, National Provider Identifier
- Decennial Census (2010 and 2020 census data)
- Diabetes Atlas
- Environmental Protection Agency
- Housing and Urban Development
- FBI Crime Data Explorer
- National Vital Statistics System
- The New York Times
- State Health Department COVID dashboards
- Texas Department of State Health Services
- United States Department of Agriculture: Food Access Research Atlas