



2019 Community Health Needs Assessment

Memphis Metro

Baptist Memorial Hospital-Collierville • Baptist Memorial Hospital-DeSoto
Baptist Memorial Hospital-Memphis • Baptist Memorial Hospital-Tipton
Baptist Memorial Hospital for Women • Baptist Memorial Restorative Care Hospital
Spence and Becky Wilson Baptist Children's Hospital



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Our Commitment to Community Health

Baptist Memorial Health Care is dedicated to the health and well-being of the many communities we serve across the Mid-South. We believe strongly in corporate citizenship and the importance of collaboration with local organizations to build stronger and healthier communities.

To help us track community health and identify emerging concerns, Baptist conducts a Community Health Needs Assessment (CHNA) every three years. We use this comprehensive study to ensure our initiatives, activities and partnerships align with community needs.

Some of our key initiatives are listed below.

Providing access to high-quality health care

Baptist ensures residents can receive care when they need it across the region. We reinvest resources in technology to bring the highest level of health care to people across the Mid-South. We invest in hospitals and health services to deliver care to communities the federal government considers as Medically Underserved Areas or Health Professional Shortage Areas. We extend our care through community clinics and mobile services to reach people who might not otherwise receive care. We subsidize services, such as emergency care, free and reduced services for the uninsured and preventive screenings that are essential for health, but not adequately covered by federal and state funding.

Healthy communities lead to lower health care costs, robust community partnerships and an overall enhanced quality of life.

Developing community partnerships

We recognize that our hospitals are vital organizations within the communities we serve and we know that we cannot address every community need by ourselves. In order to promote health and quality of life, we collaborate with community partners who have expertise in social needs, specialty services, faith leadership, advocacy and essential resources. We also foster ongoing relationships with these partners and provide financial and in-kind gifts to support their work.

Investing in health care education and research

Baptist supports excellence in health care training and education through programs that focus on math, science and related subjects to prepare tomorrow's health care workforce. As we plan for the future, we provide training opportunities for emerging health care professionals and encourage students to pursue medicine, nursing and other allied health careers. Through leading-edge research and clinical trials, we help to advance learning in the medical field and develop new treatments for cancer and other diseases.

In these and many other ways, we demonstrate our commitment to the people we serve and our communities. In undertaking and funding regular community health needs assessments, we ensure our hospitals will be stronger partners in our neighborhoods and prepared to meet the future needs of all those who live there.

A Systemwide Approach to Community Health Improvement

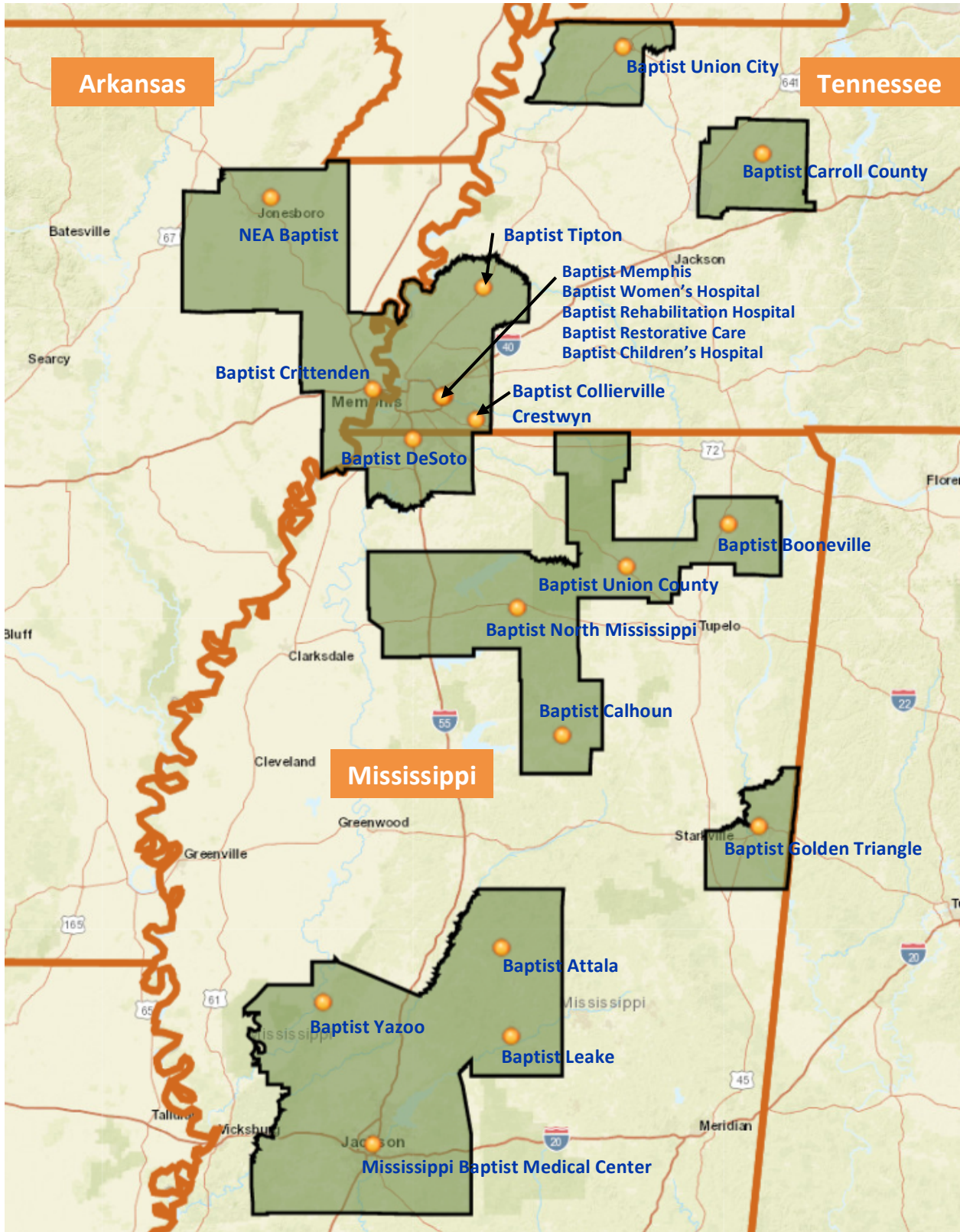
Baptist Memorial Health Care has 22 affiliate hospitals serving residents in three states. The CHNA focused on the primary service county of each not for profit Baptist Memorial hospital to identify health trends and unique disparities within these communities. Hospitals with overlapping service areas were grouped into regions for comparisons of health and socioeconomic data. Systemwide priorities were determined to address common health needs across the Mid-South. Specific strategies were outlined in each not for profit hospital’s Implementation Plan to guide local efforts and collaboration with community partners.

2019 CHNA Geographic Regions and Primary Service Areas

Region	Primary Service Counties	Hospitals
Memphis Metro	Shelby County, TN	Baptist Memorial Hospital–Memphis Baptist Memorial Hospital–Collierville Baptist Memorial Hospital for Women Baptist Memorial Rehabilitation Hospital* Baptist Memorial Restorative Care Hospital Crestwyn Behavioral Health* Spence and Becky Wilson Baptist Children’s Hospital
	Tipton County, TN	Baptist Memorial Hospital–Tipton
	DeSoto County, MS	Baptist Memorial Hospital–DeSoto
Northeast Arkansas	Craighead & Poinsett counties, AR	NEA Baptist Memorial Hospital
	Crittenden County, AR	Baptist Memorial Hospital–Crittenden
West Tennessee	Carroll County, TN	Baptist Memorial Hospital–Carroll County
	Obion County, TN	Baptist Memorial Hospital–Union City
North Mississippi	Lafayette & Panola counties, MS	Baptist Memorial Hospital–North Mississippi
	Benton and Union counties, MS	Baptist Memorial Hospital–Union County
	Prentiss County, MS	Baptist Memorial Hospital–Booneville
	Lowndes County, MS	Baptist Memorial Hospital–Golden Triangle
	Calhoun County, MS	Baptist Memorial Hospital–Calhoun
Central Mississippi	Attala, Hinds, Leake, Madison, Rankin and Yazoo counties, MS	Baptist Memorial Hospital–Mississippi Baptist Medical Center
	Attala County, MS	Baptist Memorial Hospital–Attala
	Leake County, MS	Baptist Memorial Hospital–Leake
	Yazoo County, MS	Baptist Memorial Hospital–Yazoo

*These entities are not required to conduct a CHNA.

Baptist's Affiliate Hospitals and Primary Service Counties



Memphis Metro Service Area 2019 CHNA Executive Summary

CHNA Hospital Partners and Study Service Area

Baptist Memorial Health Care has seven hospitals in the Memphis Metro Service Area, which collaborated on the 2019 CHNA. The study encompassed Shelby County, Tennessee; Tipton County, Tennessee and DeSoto County, Mississippi. The region is located in Southwest Tennessee and Northwest Mississippi, along the Arkansas border. The following hospitals participated in the 2019 CHNA for the Memphis Metro Service Area.

- > Baptist Memorial Hospital–Memphis
- > Baptist Memorial Hospital–Collierville
- > Baptist Memorial Hospital–DeSoto
- > Baptist Memorial Hospital for Women
- > Baptist Memorial Hospital–Tipton
- > Baptist Memorial Restorative Care Hospital
- > Spence and Becky Wilson Baptist Children’s Hospital

CHNA Leadership

A Baptist Memorial Health Care steering committee, along with community representatives and partners, oversaw the 2019 CHNA. Community health consultants assisted in all phases of the CHNA, including project management, data collection and analysis, report writing and development of Implementation Plans.

Baptist 2019 CHNA Steering Committee

Donna Baugus, Manager of Survey Research
 Cynthia Bradford, System Community Involvement Manager
 Scott Fountain, Senior Vice President and Chief Development Officer
 Tom Gladney, Director of Data Management and Decision Support
 Bill Griffin, Executive Vice President and Chief Financial Officer
 Caitlin Hayden, System Community Outreach and Special Events Coordinator
 Kelley Jerome, General Counsel
 Jeff Lann, Manager of Research and Marketing Development
 Debbie Lassiter, Health Services Research Consultant
 Cheryl Lee, Director of Tax and Compliance
 Jim Messineo, Director of Revenue and Operations Audits
 Brenna Piccirilli, Cost Accounting Analyst in Decision Support
 Kellie Prescott, Cancer Program Coordinator
 Anne Sullivan, MD, Chief Quality and Academic Officer
 Henry Sullivant, MD, Vice President and Chief Medical Officer
 Morgan Thornton, Finance and Health Research Intern
 Kimmie McNeil Vaulx, System Director of Corporate Communications
 Ann Marie Watkins Wallace, System Senior Community Outreach Coordinator

Consulting Team

Colleen Milligan, MBA, Director, Community and Population Health Planning
 Catherine Birdsey, MPH, Research Manager
 Jessica Losito, BA, Research Consultant

CHNA Methodology

The 2019 CHNA for Baptist's Memphis Metro Service Area was conducted from August 2018 to August 2019. Quantitative and qualitative methods, representing both primary and secondary research, were used to illustrate and compare health trends and disparities across each hospital's service area. The following research methods were used to determine community health needs.

- > A review of public health and demographic data portraying the health and socioeconomic status of the community. A full listing of data references is included in Appendix A.
- > A Key Informant Survey of 80 community representatives serving the Memphis Metro Service Area to identify community health priorities, underserved populations, partnership opportunities and other insights. A list of key informants and their respective organizations is included in Appendix B.
- > Focus groups with 98 cancer survivors or caregivers to collect perspectives about their experiences, preferences and attitudes related to cancer diagnosis and care.
- > Criteria-based prioritization of health issues to determine the most pressing health needs affecting the health status of Memphis Metro residents.

Community Engagement

Community engagement was an integral part of the CHNA research. In assessing the health needs of the community, Baptist solicited and received input from community leaders and residents who represent the broad interests of the community, including those with expertise in public health and members or representatives of medically underserved, low-income and minority populations. These individuals provided valuable information about health trends, insights about existing resources and gaps in services and perspectives about factors that contribute to health disparities.

Overview of the Memphis Metro Service Area

The Memphis Metro Service Area differs in some notable ways from the nation overall. DeSoto, Shelby and Tipton counties have a greater proportion of Black/African American residents than the nation, as well as lower proportions of Hispanics/Latinos and Asians. Consistent with Mississippi and Tennessee, the median income, median housing value and proportion of the population with health insurance within the three counties are lower than the nation. While more adults living in DeSoto, Shelby and Tipton counties have completed high school than the national average, fewer adult residents have a college education. Nonetheless, the proportion of white-collar versus blue-collar jobs and the unemployment rate are generally consistent with national trends. The age distribution in the Memphis Metro Service Area is also consistent with national distributions, with slightly larger proportions of the population under age 14 and slightly smaller proportions of the population age 65 or over.

Community Health Priorities

To improve community health, it is important to direct resources and activities to the most pressing and wide-ranging health needs in the community. Baptist determined health priorities for the 2019–2022 reporting cycle by using feedback from community partners and stakeholders, and taking into account its expertise and resources within the Memphis Metro Service Area. The prioritized health concerns, shown in alphabetical order, include the following:

Behavioral Health: Increase behavioral health screenings to initiate early treatment and improved outcomes for residents at all stages of life.

Cancer: Provide early detection and treatment to reduce death from breast, colorectal and lung cancers, and improve quality of life for patients.

Chronic Disease: Promote health as a community priority, and increase healthy lifestyle choices.

Maternal and Child Health: Improve birth outcomes for women and infants.

The rationale and criteria used to select these priorities included the following:

- > Prevalence of disease and number of community members affected
- > Rate of disease compared to state and national benchmarks
- > Health disparities among racial and ethnic minorities
- > Existing programs, resources and expertise to address the issue
- > Input from representatives of underserved populations
- > Alignment with concurrent public health and social service organization initiatives

Priority Health Needs in the Memphis Metro Service Area

Behavioral Health

Alzheimer's disease is more prevalent in the Baptist Memphis Metro Service Area, and in Mississippi and Tennessee in general, than in the United States. The rate of death due to Alzheimer's disease is 14 or more points higher in these counties compared to the nation. Fewer seniors within the service area live alone, creating an opportunity for interventions that provide support to family members and caregivers of seniors affected by Alzheimer's disease.

Among service area counties, Tipton County reports more risk factors and deaths associated with suicide, alcohol and drugs, and exceeds the state and/or the nation for these measures. In particular, the suicide death rate increased 5.5 points from 2008–2012 to 2012–2016.

Behavioral health disorders can reduce a patient's ability to effectively manage other chronic diseases, increasing disease complications, and potentially reducing life expectancy.

Cancer

Cancer is a leading cause of death in the Memphis Metro Service Area. Early detection of the disease improves outcomes and can reduce deaths. Late stage diagnosis likely contributes to higher death rates. The incidence of cancer in DeSoto, Shelby and Tipton counties is generally on par with national rates, but all three counties have a higher rate of cancer death than the nation, possibly indicating delayed detection and treatment. Findings from consumer focus groups support this hypothesis, pointing at fears, beliefs and access to care as reasons for delayed screenings. Lung cancer is of particular concern in DeSoto and Tipton counties, where the death rate exceeds the national rate by more than 17 points. In Shelby and Tipton counties, Blacks/African Americans are disproportionately impacted by cancer incidence and death.

Late stage diagnosis likely contributes to a higher cancer death rate in this region.

Chronic Disease

People living in the Memphis Metro are generally more likely to smoke, less likely to engage in physical activity and more likely to be obese than the typical American. In addition, many people living in the service area are food insecure, which is a significant contributor to obesity, increased stress and related issues.

These risk factors contribute to higher incidence and death due to diabetes in the Memphis Metro Service Area compared to national rates. Diabetes contributes to decreased quality of life and can lead to physical health complications and early death. Diabetes is preventable and treatable through lifestyle changes and medical interventions. By providing education, prevention, screening and support for diabetes identification and treatment, opportunity exists to increase the quality and length of life for adults, and instill healthy lifestyle habits for younger people in this area.

Residents are more likely to smoke and engage in less physical activity, contributing to higher rates of chronic disease.

Maternal and Child Health

Pregnant women in the Memphis Metro Service Area are less likely to access prenatal care in the first trimester and do not meet the Healthy People 2020 target for prenatal measures. Accessing prenatal care early and consistently has a positive effect on the health of both the mother and baby by identifying underlying risks for the mother and preventing negative birth outcomes for the baby, such as low birth weight and premature birth. The Memphis Metro Service Area has more low birth weight babies, premature deliveries, teen births and pregnant women who report smoking than the nation and/or Healthy People 2020 targets. By creating a targeted intervention to increase access to prenatal care early, there is an opportunity to improve outcomes for all of these indicators.

Implementation Plan

Each of Baptist's seven hospitals in the Memphis Metro Service Area developed an Implementation Plan to guide community health improvement activities over the 2019–2022 cycle. Each plan details the resources and strategies the hospitals will undertake to address priority health needs. Where applicable, the hospitals will coordinate efforts and leverage system resources to reduce health disparities. Each hospital's Implementation Plan, along with its 2019 CHNA report, can be found on the Baptist Memorial Health Care website at <https://www.baptistonline.org/about/chna>.

Board Approval

The Baptist Memorial Health Care Corporation Board of Directors approved this CHNA report and accompanying Implementation Plans on Tuesday, Sept. 24, 2019.

**Full Report of 2019 CHNA
Memphis Metro Service Area**

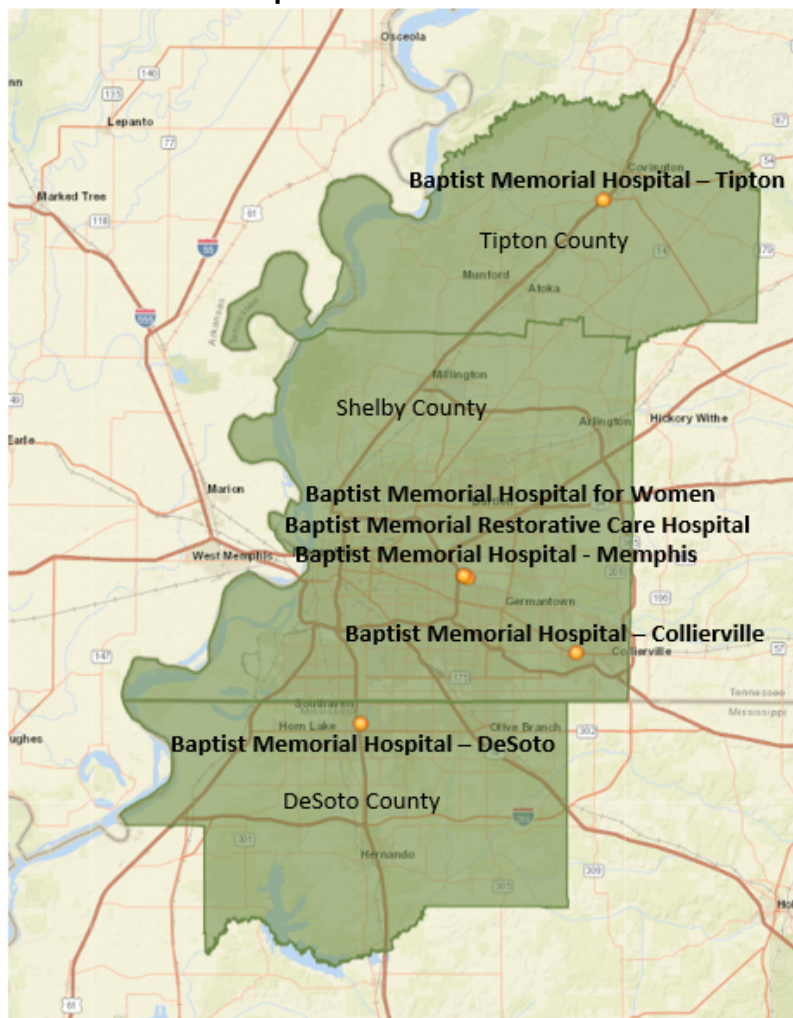
Baptist’s Memphis Metro Service Area

CHNA Hospital Partners and Study Service Area

Baptist Memorial Health Care operates the following seven hospitals in the Memphis Metro Service Area, which collaborated on the 2019 CHNA. The study encompassed Shelby and Tipton counties in Tennessee and DeSoto County in Mississippi. The region is located in southwest Tennessee and northwest Mississippi, along the Arkansas border.

- Baptist Memphis
- Baptist Collierville
- Baptist DeSoto
- Baptist Tipton
- Baptist Women’s Hospital
- Baptist Restorative Care
- Baptist Children’s Hospital

Memphis Metro Service Area



Memphis Metro Service Area Demographic Data Analysis

Background

Analyses of demographic and socioeconomic data are essential to understanding health trends and determining key drivers of health status. Socioeconomic indicators play a significant role in community and individual health. Known as **social determinants of health**, they are defined as factors within the environment in which people live, work and play that can affect health and quality of life. Social determinants of health are often the root causes of **health disparities**. Healthy People 2020 defines a health disparity as “a particular type of health difference that is closely linked with social, economic or environmental disadvantage.”

Social determinants of health are factors within the environment in which people live, work and play that can affect health and quality of life.

The Memphis Metro Service Area data are shown with state and national data sets to demonstrate broad trends and areas of strength and opportunity. Demographic analysis by ZIP code provides a detailed view of population statistics. All reported data were provided by Environmental Systems Research Institute (ESRI) Business Analyst, 2018 and the U.S. Census Bureau unless otherwise noted.

Population Overview

The 2018 total population of the Memphis Metro Service Area is 1,198,039; Shelby County accounts for 80% of the population. Populations in all three counties, and in both Mississippi and Tennessee, are growing. DeSoto County had the greatest population growth between 2010 and 2018. Higher growth is projected through 2023, suggesting a positive environment for residents.

Population Growth

	2018 Population	% Growth from 2010	% Growth by 2023
DeSoto County	181,116	12.3%	8.1%
Shelby County	953,993	2.8%	1.5%
Tipton County	62,930	3.0%	1.7%
Mississippi	3,051,594	2.8%	1.4%
Tennessee	6,818,402	7.4%	4.5%

2018 Population Overview

	White	Black or African American	Asian	Hispanic or Latino (any race)	Language Other Than English Spoken at Home*
DeSoto County	65.9%	27.9%	1.6%	4.6%	5.2%
Shelby County	37.6%	53.9%	2.6%	6.4%	9.3%
Tipton County	77.3%	18.3%	0.7%	2.8%	3.0%
Mississippi	57.7%	37.7%	1.1%	3.2%	3.9%
Tennessee	75.9%	16.9%	1.8%	5.5%	6.8%
United States	70.0%	12.9%	5.7%	18.3%	21.1%

*Data are reported for 2012–2016 based on availability.

The Memphis Metro Service Area has a larger Black/African American population when compared to the overall U.S. population. In Shelby County, more than half of all residents identify as Black or African American compared to the national average of 1 in 10. Conversely, the Asian and Hispanic/Latino populations are lower in all three counties than the national average. People who live in the Metro Memphis Service Area are more likely to speak English as their primary language.

The percent of population change by race and ethnicity in the Memphis Metro Service Area is generally consistent with the population change anticipated for the nation, which is marked by a decrease in the proportion of Whites and an increase in the proportion of people of color.

DeSoto County is anticipated to experience the greatest demographic shift with an 11-point decrease in the percentage of white residents and a 10-point increase in the percentage of Black/African American residents. Shelby County will also experience slight growth in the Black/African American population, while Tipton County is expected to see a decline in this population.

2010–2023 Population Change as a Percentage of Total Population by Race

	White		Black/African American		Asian		Hispanic/Latino	
	2010	2023	2010	2023	2010	2023	2010	2023
DeSoto County	72.2%	61.6%	21.9%	32.1%	1.3%	1.8%	5.0%	4.4%
Shelby County	40.6%	35.5%	52.1%	55.1%	2.3%	2.8%	5.6%	7.1%
Tipton County	77.8%	76.9%	18.7%	17.9%	0.6%	0.8%	2.1%	3.5%
Mississippi	59.1%	56.8%	37.0%	38.0%	0.9%	1.3%	2.8%	3.6%
Tennessee	77.6%	74.6%	16.7%	17.1%	1.4%	2.2%	4.6%	6.4%
United States	72.4%	68.2%	12.6%	13.0%	4.8%	6.4%	16.4%	19.8%

The population distribution by age is similar among the counties in the Memphis Metro Service Area, and is generally consistent with Mississippi, Tennessee and the nation. All geographies in the service area tend to have a slightly greater percentage of the population under age 14 and a slightly smaller percentage of the population over age 65 than the nation.

2018 Population by Age

	Under 14 years	15–24 years	25–34 years	35–54 years	55–64 years	65+ years	Median Age
DeSoto County	20.8%	13.0%	14.3%	27.6%	11.6%	12.7%	36.4
Shelby County	20.1%	13.8%	14.7%	25.4%	12.5%	13.5%	36.0
Tipton County	19.7%	12.8%	13.9%	26.2%	13.4%	14.0%	37.8
Mississippi	19.8%	13.4%	13.8%	24.6%	12.8%	15.6%	37.4
Tennessee	18.2%	12.6%	13.4%	25.8%	13.4%	16.6%	39.4
United States	18.6%	13.3%	13.9%	25.3%	13.0%	16.0%	38.3

Income and Poverty Status

There are notable differences between the counties in the Memphis Metro Service Area with regard to income and poverty. In Shelby County, more than 1 in 5 people and 1 in 3 children lives in poverty, and nearly 1 in 5 households receive Supplemental Nutrition Assistance Program (SNAP) benefits. These proportions exceed the Tennessee and national percentages. Tipton County has a similar median household income to the nation and fewer residents living in poverty compared to Mississippi and the nation.

Mississippi has a lower median household income and a greater percentage of people living in poverty than Tennessee and the nation. However, DeSoto County, which is in Northern Mississippi, has a higher median income and a lower percentage of people in poverty than any other geography listed below, including the national comparisons.

2012–2016 Household Income and Poverty Status

	Median Household Income	People in Poverty	Children in Poverty	Households with Food Stamps/ SNAP Benefits
DeSoto County	\$60,111	10.0%	13.0%	9.3%
Shelby County	\$46,854	21.4%	34.3%	19.9%
Tipton County	\$54,650	13.8%	18.6%	19.2%
Mississippi	\$40,528	22.3%	31.5%	18.1%
Tennessee	\$46,574	17.2%	25.1%	16.5%
United States	\$55,322	15.1%	21.2%	13.1%

The percentage of white-collar workers and blue-collar workers in DeSoto and Shelby counties is consistent with national percentages. Tipton County has a higher proportion of blue-collar workers, exceeding the national percentage by nearly 10 points. The unemployment rate is consistent across all three counties and comparable to the national rate. As of October 2018, all counties reported a lower than expected unemployment rate.

2018 Population by Occupation and Unemployment

	White-Collar Workforce	Blue-Collar Workforce	Unemployment Rate (2018 estimate)	Unemployment Rate (October 2018)
DeSoto County	59.0%	41.0%	4.7%	3.4%
Shelby County	60.0%	40.0%	5.6%	4.4%
Tipton County	52.0%	48.0%	5.7%	4.3%
Mississippi	55.0%	45.0%	6.4%	4.2%
Tennessee	58.0%	42.0%	4.5%	3.7%
United States	61.0%	39.0%	4.8%	3.5%

Note: Unemployment data are estimated for 2018 and the most recent actual rate reported by the Bureau of Labor Services is October 2018.

Housing Measures

Residents of DeSoto and Tipton counties are more likely to own their home than residents of Mississippi, Tennessee and the nation, in general. The percentage of home owners versus renters in Shelby County is nearly equal; the percentage of renters exceeds the national percentage by 20 points. Overall, the median home values in the three counties are lower than the national median.

2018 Population by Household Type

	Renter-Occupied	Owner-Occupied	Median Home Value
DeSoto County	26.9%	73.1%	\$170,652
Shelby County	46.7%	53.3%	\$163,230
Tipton County	29.7%	70.3%	\$171,204
Mississippi	33.0%	67.0%	\$118,021
Tennessee	34.7%	65.4%	\$170,899
United States	36.9%	63.1%	\$218,492

In all three counties and both states, the proportion of residents paying 30% or more of their income on rent or mortgages is generally consistent with the proportion across the nation. Shelby County residents are slightly more likely to spend 30% or more of their income on rent.

2012–2016 Housing-Cost Burden

	Percent of Renters Paying 30% or More of Income on Rent	Percent of Mortgages Costing 30% or More of Household Income
DeSoto County	45.1%	22.7%
Shelby County	55.3%	31.6%
Tipton County	45.3%	23.0%
Mississippi	51.6%	29.9%
Tennessee	49.4%	27.8%
United States	51.1%	30.8%

Education Measures

The percentage of people in the three counties who have not earned a high school diploma is generally consistent with the nation. However, the proportion of individuals who have achieved a bachelor’s degree or higher is consistently lower than the national percentage in all three counties, particularly in Shelby and Tipton counties. Shelby and Tipton counties also do not meet the state benchmark for higher educational attainment.

2018 Population (25 Years Old or Older) by Educational Attainment

	Less Than a High School Diploma	High School Graduate/GED	Bachelor’s Degree or Higher
DeSoto County	9.9%	29.3%	24.3%
Shelby County	11.6%	26.1%	17.5%
Tipton County	13.0%	39.0%	16.3%
Mississippi	15.5%	30.8%	22.2%
Tennessee	12.5%	32.1%	26.4%
United States	12.3%	27.0%	31.8%

Health Disparities

When stratified by race and ethnicity, the proportion of people living in poverty is generally lower in all categories and for all three counties than the averages for Tennessee and Mississippi. The exception is a higher percentage of Hispanic/Latino residents living in poverty within Shelby County. Across all three counties, poverty rates for Black/African American and Hispanic/Latino are higher than that of White residents. Disparities in poverty are most evident in Shelby County.

2012–2016 Poverty by Race

	White		Black/African American		Hispanic/Latino	
	Count	Percentage	Count	Percentage	Count	Percentage
DeSoto County	9,768	8.1%	6,037	14.4%	1,764	21.8%
Shelby County	32,176	10.2%	142,488	29.3%	19,774	36.0%
Tipton County	5,211	11.0%	2,774	25.3%	394	25.7%
Mississippi	242,180	14.1%	377,645	35.0%	24,294	30.5%
Tennessee	721,390	14.5%	297,340	28.1%	102,693	32.0%

Unemployment rates among job seeking adults varies across racial or ethnic groups within the three counties.

2012–2016 Unemployment by Race

	White		Black/African American		Hispanic/Latino	
	Count	Percentage	Count	Percentage	Count	Percentage
DeSoto County	94,701	5.7%	31,053	9.3%	5,373	9.5%
Shelby County	306,171	4.8%	374,835	13.7%	34,550	5.4%
Tipton County	37,762	8.3%	8,727	14.9%	1,085	2.1%
Mississippi	1,426,046	6.5%	842,349	14.8%	59,534	7.9%
Tennessee	4,149,126	6.4%	840,401	12.6%	208,464	6.2%

Tipton County has a smaller proportion of people of all races who have completed a bachelor's degree when compared to the other counties and Mississippi and Tennessee, which is significant due to the association between higher levels of education and better health outcomes. Disparity in educational attainment is greatest in Shelby County, where 43% of White residents have a bachelor's degree or higher compared to less than 20% of Blacks/African Americans or Hispanics/Latinos.

2012–2016 Bachelor's Degree or Higher by Race

	White		Black/African American		Hispanic/Latino	
	Count	Percentage	Count	Percentage	Count	Percentage
DeSoto County	18,890	23.2%	5,823	23.3%	610	14.7%
Shelby County	114,394	42.9%	55,363	18.4%	3,230	11.8%
Tipton County	5,358	16.6%	784	11.3%	72	9.0%
Mississippi	299,029	24.5%	97,953	14.6%	5,992	12.9%
Tennessee	940,959	26.3%	124,276	18.5%	23,232	14.3%

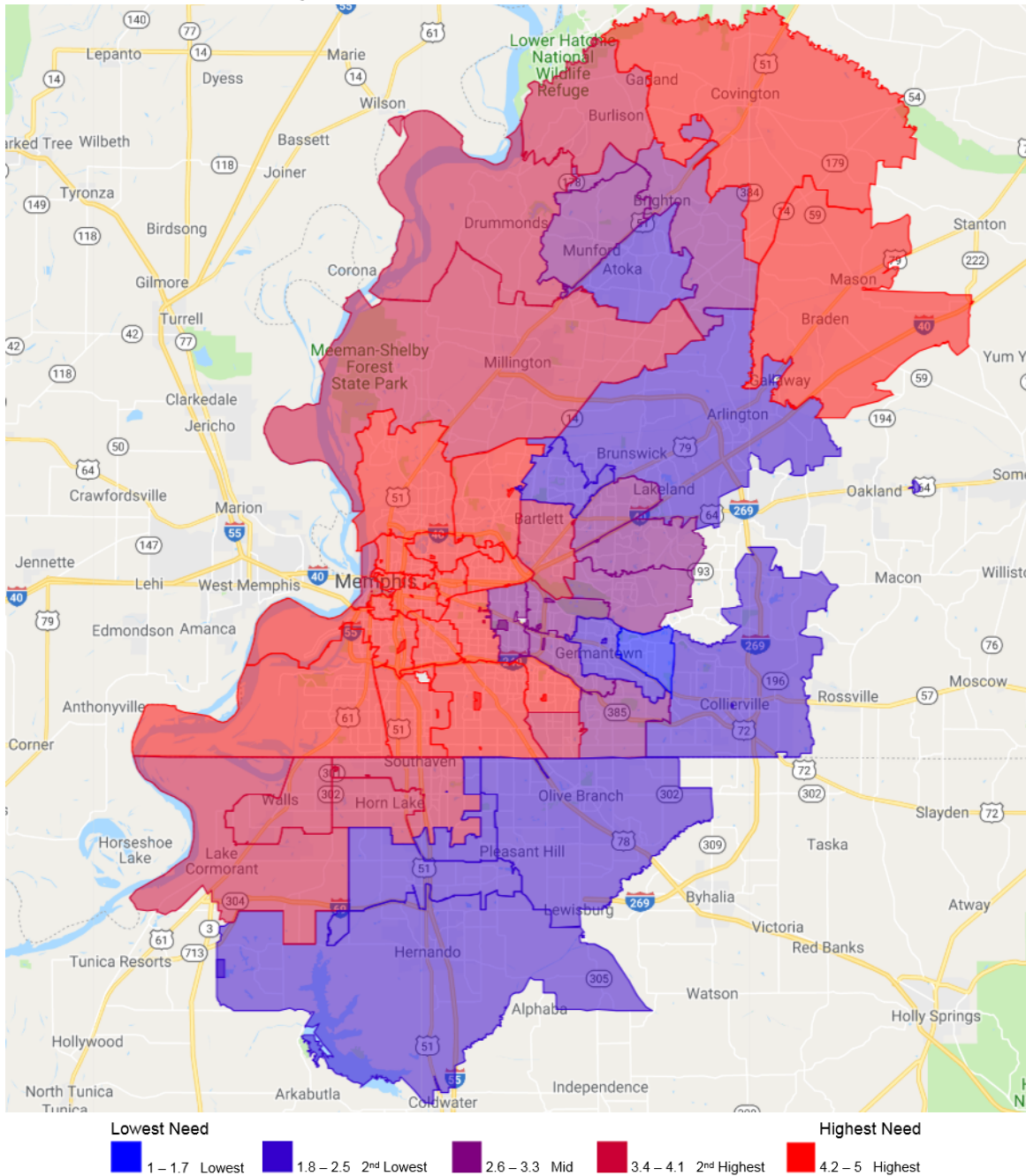
ZIP Code Analysis

ZIP code of residence is a strong predictor of health outcomes and disparities. The Community Need Index (CNI) was developed by Dignity Health and Truven Health Analytics to illustrate the potential for health disparity at the ZIP code-level. The CNI scores ZIP codes on a scale of 1.0 (low need) to 5.0 (high need) based on data indicators across five socioeconomic barriers listed below.

- > Income: Poverty among elderly households, families with children and single female-headed families with children
- > Culture/Language: Minority populations and English-language barriers
- > Education: Population 25 years old or older without a high school diploma
- > Insurance coverage: Unemployment rate among population age 16 or over and population without health insurance
- > Housing status: Householders renting their home

The weighted average CNI score for the Memphis Metro Service Area is 3.6, indicating higher than average overall community need.

Community Need Index for Memphis Metro Service Area



The following tables list the social determinants of health that contribute to ZIP code CNI scores and are often indicative of health disparities. ZIP codes with a CNI score of 3.4 or greater are shown in comparison to their respective county and the state, and are presented in descending order by CNI score. Cells highlighted in **yellow** are more than two percentage points higher than the county statistic, but not necessarily statistically significant.

Within Shelby County, more than half of all ZIP codes have a CNI score between 4.0 and 5.0, indicating the greatest disparities related to social determinants of health. All but one Shelby

County ZIP code with a CNI score of 3.4 or greater is located in Memphis. Overall, Memphis residents experience significant social barriers – poverty, unemployment, lack of health insurance, low education – that affect quality of life and overall health.

Poverty in Memphis is significant, with many ZIP codes reporting from 25% to more than 50% of households and 50% to 75% of children living in poverty. Approximately 1 in 4 residents are also uninsured. Together, poverty and a lack of health insurance present a significant barrier to accessing health care as well as healthy lifestyle choices.

Shelby County
Social Determinants of Health Indicators for ZIP Codes With CNI Score ≥3.4

	Households in Poverty	Households Receiving Food Stamps/ SNAP	Children in Poverty	Language Other Than English Spoken at Home	Unemployment	Less Than HS Diploma	Without Health Insurance	CNI Score
Shelby County	18.8%	19.9%	34.3%	9.3%	5.6%	11.6%	13.7%	3.7
38114, Memphis	37.7%	43.0%	59.8%	3.3%	12.3%	21.0%	20.4%	5.0
38108, Memphis	40.4%	48.8%	67.1%	22.9%	9.2%	30.1%	33.0%	5.0
38107, Memphis	32.1%	33.6%	51.0%	3.3%	9.0%	20.4%	16.7%	5.0
38105, Memphis	45.5%	43.9%	65.2%	9.8%	9.8%	20.9%	21.9%	5.0
38106, Memphis	37.0%	41.5%	64.3%	2.8%	15.9%	19.5%	17.9%	5.0
38127, Memphis	37.7%	39.3%	68.4%	3.9%	11.2%	22.7%	17.6%	5.0
38126, Memphis	57.9%	59.0%	75.6%	1.1%	21.3%	25.3%	15.6%	5.0
38122, Memphis	24.9%	26.4%	49.0%	25.2%	5.5%	21.1%	25.1%	5.0
38112, Memphis	29.2%	29.8%	45.4%	9.4%	6.4%	16.2%	16.2%	4.8
38116, Memphis	24.4%	32.3%	46.1%	7.9%	8.3%	13.6%	16.1%	4.8
38118, Memphis	29.2%	33.3%	54.2%	14.0%	8.7%	22.3%	22.0%	4.8
38115, Memphis	24.1%	25.0%	50.7%	9.8%	6.9%	13.0%	19.5%	4.6
38111, Memphis	25.0%	21.9%	45.0%	9.7%	6.4%	14.7%	16.7%	4.6
38109, Memphis	25.1%	33.2%	45.0%	3.7%	10.9%	17.6%	15.4%	4.6
38128, Memphis	25.8%	29.7%	48.1%	9.0%	6.5%	15.6%	18.4%	4.6
38132, Memphis	0.0%	0.0%	NA	66.7%	0.0%	33.3%	28.6%	4.4
38104, Memphis	22.7%	16.0%	26.1%	9.6%	2.9%	10.1%	13.4%	4.2
38103, Memphis	21.8%	9.1%	6.7%	13.0%	3.6%	8.2%	7.4%	4.0
38134, Memphis	12.7%	15.2%	24.5%	8.4%	4.3%	11.7%	12.2%	3.8
38053, Millington	14.9%	16.8%	26.1%	5.8%	5.7%	10.8%	11.3%	3.6
38152, Memphis	0.0%	0.0%	NA	5.2%	11.0%	9.4%	5.8%	3.6
38141, Memphis	15.9%	16.9%	45.8%	9.9%	6.7%	9.2%	13.3%	3.6
Tennessee	16.3%	16.5%	25.1%	6.8%	4.5%	12.5%	11.8%	

**Shelby County
Demographic Indicators for ZIP Codes With CNI Score ≥3.4**

	White	Black/ African American	Hispanic/ Latino	18–24	25–34	35–44	45–54	55–64	65+
Shelby County	37.6%	53.9%	6.4%	9.9%	14.7%	12.8%	12.6%	12.5%	13.5%
38114, Memphis	4.8%	91.8%	3.7%	9.0%	13.7%	11.2%	11.5%	13.0%	16.4%
38108, Memphis	21.0%	62.1%	21.3%	9.3%	14.2%	12.0%	11.8%	11.7%	13.8%
38107, Memphis	14.2%	82.8%	1.5%	10.1%	14.0%	11.8%	12.4%	13.3%	14.9%
38105, Memphis	10.4%	76.5%	10.1%	10.0%	16.3%	12.9%	14.8%	15.6%	11.1%
38106, Memphis	1.2%	96.8%	1.8%	9.1%	12.2%	10.1%	12.4%	13.8%	18.8%
38127, Memphis	11.6%	85.1%	2.5%	10.8%	13.9%	11.0%	11.2%	12.0%	10.6%
38126, Memphis	2.2%	95.7%	0.9%	11.9%	12.6%	10.2%	10.8%	12.3%	11.2%
38122, Memphis	52.8%	25.2%	24.7%	8.7%	16.5%	14.0%	11.6%	11.1%	11.3%
38112, Memphis	34.8%	56.6%	5.7%	14.8%	13.0%	11.5%	10.8%	12.5%	13.8%
38116, Memphis	3.5%	93.9%	2.3%	10.1%	14.7%	11.1%	11.4%	13.3%	13.2%
38118, Memphis	9.4%	78.9%	12.4%	11.2%	16.3%	12.6%	11.6%	10.6%	8.4%
38115, Memphis	9.4%	80.6%	10.8%	13.0%	18.7%	12.8%	10.8%	8.6%	8.4%
38111, Memphis	38.3%	52.2%	7.9%	15.3%	15.4%	12.2%	10.7%	11.6%	13.6%
38109, Memphis	1.5%	96.8%	1.2%	9.0%	12.3%	10.7%	11.7%	13.6%	18.3%
38128, Memphis	14.1%	78.0%	8.8%	11.4%	16.4%	11.8%	11.3%	10.9%	9.7%
38132, Memphis	14.3%	57.1%	28.6%	14.3%	57.1%	14.3%	14.3%	0.0%	0.0%
38104, Memphis	55.9%	36.0%	3.8%	10.2%	18.7%	13.7%	13.6%	14.2%	15.6%
38103, Memphis	50.3%	40.0%	2.8%	13.8%	31.1%	17.0%	11.8%	9.8%	8.4%
38134, Memphis	46.5%	43.9%	8.4%	11.8%	19.1%	14.2%	11.7%	10.3%	13.1%
38053, Millington	65.4%	26.5%	5.6%	8.3%	13.3%	11.6%	13.9%	14.2%	17.4%
38152, Memphis	60.1%	30.6%	3.9%	37.8%	12.3%	3.6%	6.6%	10.8%	24.0%
38141, Memphis	8.0%	81.2%	11.6%	11.6%	15.7%	13.8%	14.4%	11.1%	7.7%
Tennessee	75.9%	16.9%	3.2%	9.1%	13.4%	12.7%	13.1%	13.4%	16.6%

Within DeSoto County, it appears that there are two distinct populations within the county, one with above average needs, and the other with better than average unemployment, education, poverty and insurance indicators. Populations with above average needs are primarily located in the northwest portion of the county along the Tennessee border. Socioeconomic need for these populations is higher when compared to the county overall, but lower than or on par with state indicators.

**DeSoto County
Social Determinants of Health Indicators for ZIP Codes With CNI Score ≥3.4**

	Households in Poverty	Households Receiving Food Stamps/ SNAP	Children in Poverty	Language Other Than English Spoken at Home	Unemployment	Less Than HS Diploma	Without Health Insurance	CNI Score
DeSoto County	8.8%	9.3%	13.0%	5.2%	4.7%	9.9%	11.2%	3.0
38637, Horn Lake	12.3%	14.0%	21.2%	7.5%	5.9%	13.5%	16.3%	4.0
38641, Lake Cormorant	10.0%	14.3%	14.8%	2.4%	6.2%	14.8%	15.0%	3.8
38671, Southaven	12.6%	12.1%	19.7%	5.2%	4.3%	12.4%	15.2%	3.8
38680, Walls	8.1%	7.6%	9.4%	5.1%	8.9%	11.7%	13.9%	3.6
Mississippi	21.2%	18.1%	31.5%	3.9%	6.4%	15.5%	14.6%	

**DeSoto County
Demographic Indicators for ZIP Codes With CNI Score ≥3.4**

	White	Black/ African American	Hispanic/ Latino	18–24	25–34	35–44	45–54	55–64	65+
DeSoto County	65.9%	27.9%	4.6%	9.0%	14.3%	13.9%	13.7%	11.6%	12.7%
38637, Horn Lake	50.2%	41.8%	7.1%	10.0%	16.8%	14.9%	12.6%	10.0%	9.1%
38641, Lake Cormorant	74.4%	20.1%	4.0%	8.6%	13.4%	12.0%	14.9%	13.8%	16.0%
38671, Southaven	63.4%	28.9%	5.7%	10.1%	16.0%	13.9%	11.9%	10.2%	12.2%
38680, Walls	52.5%	39.9%	6.8%	8.9%	16.9%	14.1%	12.4%	10.4%	10.0%
Mississippi	57.7%	37.7%	3.2%	9.8%	13.8%	12.3%	12.4%	12.8%	15.6%

Tipton County has above average disparity in nearly all ZIP codes. The primary identified barrier is low education with roughly 13% of the county population without a high school education, the highest in the service area. Residents with low education attainment also experience higher poverty and/or higher uninsured rates.

Tipton County
Social Determinants of Health Indicators for ZIP Codes With CNI Score ≥3.4

	Households in Poverty	Households Receiving Food Stamps/ SNAP	Children in Poverty	Language Other Than English Spoken at Home	Unemployment	Less Than HS Diploma	Without Health Insurance	CNI Score
Tipton County	14.4%	19.2%	18.6%	3.0%	5.7%	13.0%	11.2%	3.5
38019, Covington	20.7%	29.2%	26.3%	3.3%	7.1%	17.3%	15.1%	4.6
38049, Mason	19.4%	24.2%	40.1%	2.2%	6.2%	18.3%	10.4%	4.4
38023, Drummonds	15.7%	20.3%	13.9%	1.5%	5.5%	14.3%	9.7%	3.4
38015, Burlison	14.9%	21.3%	10.8%	4.1%	4.5%	19.4%	13.5%	3.4
Tennessee	16.3%	16.5%	25.1%	6.8%	4.5%	12.5%	11.8%	

Tipton County
Demographic Indicators for ZIP Codes With CNI Score ≥3.4

	White	Black/ African American	Hispanic/ Latino	18–24	25–34	35–44	45–54	55–64	65+
Tipton County	77.3%	18.3%	2.8%	8.8%	13.9%	12.7%	13.5%	13.4%	14.0%
38019, Covington	63.1%	34.2%	1.5%	8.9%	13.6%	11.5%	11.9%	13.6%	16.4%
38049, Mason	44.9%	50.0%	5.1%	9.6%	17.7%	12.6%	12.8%	14.0%	14.8%
38023, Drummonds	82.1%	12.7%	2.7%	8.4%	14.1%	12.1%	14.1%	14.3%	14.6%
38015, Burlison	92.5%	4.2%	2.1%	8.0%	12.7%	12.5%	13.8%	14.3%	16.6%
Tennessee	75.9%	16.9%	3.2%	9.1%	13.4%	12.7%	13.1%	13.4%	16.6%

Statistical Analysis of Health Indicators

Health indicators were analyzed across a number of health issues, including access to care, health behaviors and outcomes, chronic disease morbidity and mortality, mental health and substance use disorder trends and maternal and child health measures.

Data were compiled from secondary sources, including the Mississippi and Tennessee Departments of Health, the Centers for Disease Control and Prevention (CDC), the University of Wisconsin County Health Rankings & Roadmaps program, among other sources. A comprehensive list of data sources can be found in Appendix A.

Health data focused on county-level reporting, which is generally the most recent and consistent data available. Health data for Baptist's service counties are compared to state and national averages and Healthy People 2020 (HP 2020) goals, where applicable, to provide benchmark comparisons. Healthy People is a U.S. Department of Health and Human Services health promotion and disease prevention initiative that sets science-based, 10-year national objectives for improving the health of all Americans.

Age-adjusted rates are referenced throughout the report to depict the burden of disease among residents. Age-adjusted rates are summary measures adjusted for differences in age distributions so that data from one year to another, or between one geographic area and another, can be compared as if the communities reflected the same age distribution.

The Behavioral Risk Factor Surveillance System (BRFSS) is a telephone survey of residents age 18 or over conducted nationally by states as required by the CDC. A consistent survey tool is used across the United States to assess health risk behaviors, prevalence of chronic health conditions, access to care, preventive health measures and other health indicators. BRFSS results included in this report were provided by the Mississippi and Tennessee Departments of Health.

The most recent data available at the time of this study were used unless otherwise noted.

Access to Health Care

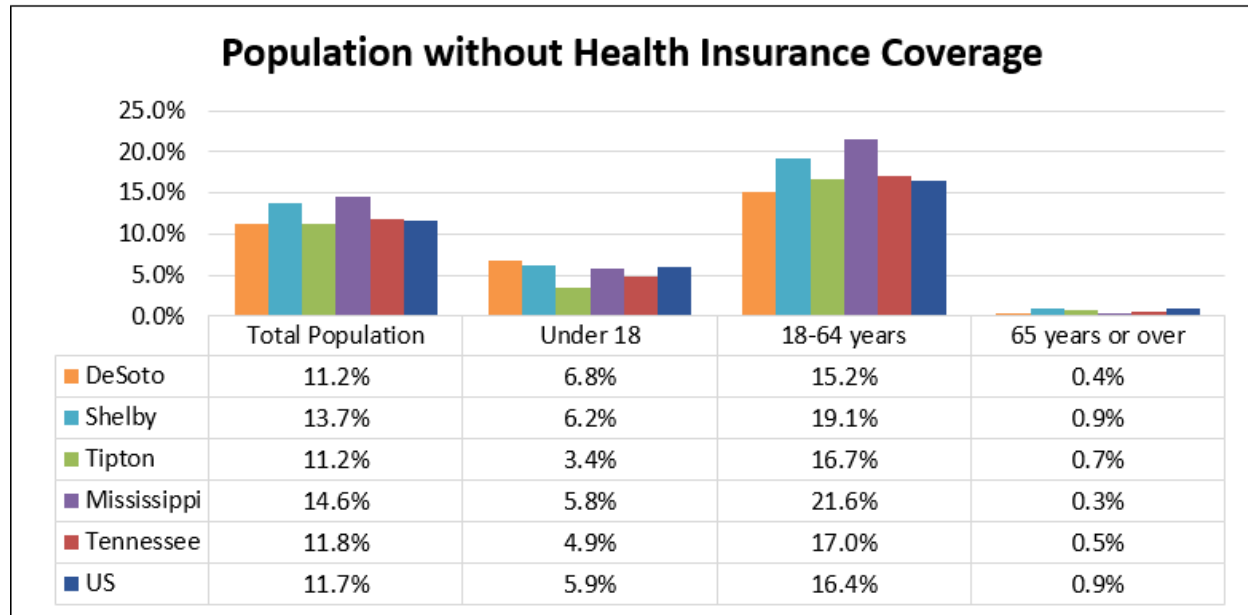
According to the University of Wisconsin County Health Rankings & Roadmaps program, counties in Baptist’s Memphis Metro Service Area received the following rankings for clinical care out of 82 counties in Mississippi and 95 counties in Tennessee. The rankings are based on a number of indicators, including health insurance coverage and provider access, with a rank of No. 1 being the best in the state.

2018 Clinical Care County Health Rankings
No. 7 DeSoto County (No. 7 in 2015)
No. 21 Shelby County (No. 18 in 2015)
No. 31 Tipton County (No. 27 in 2015)

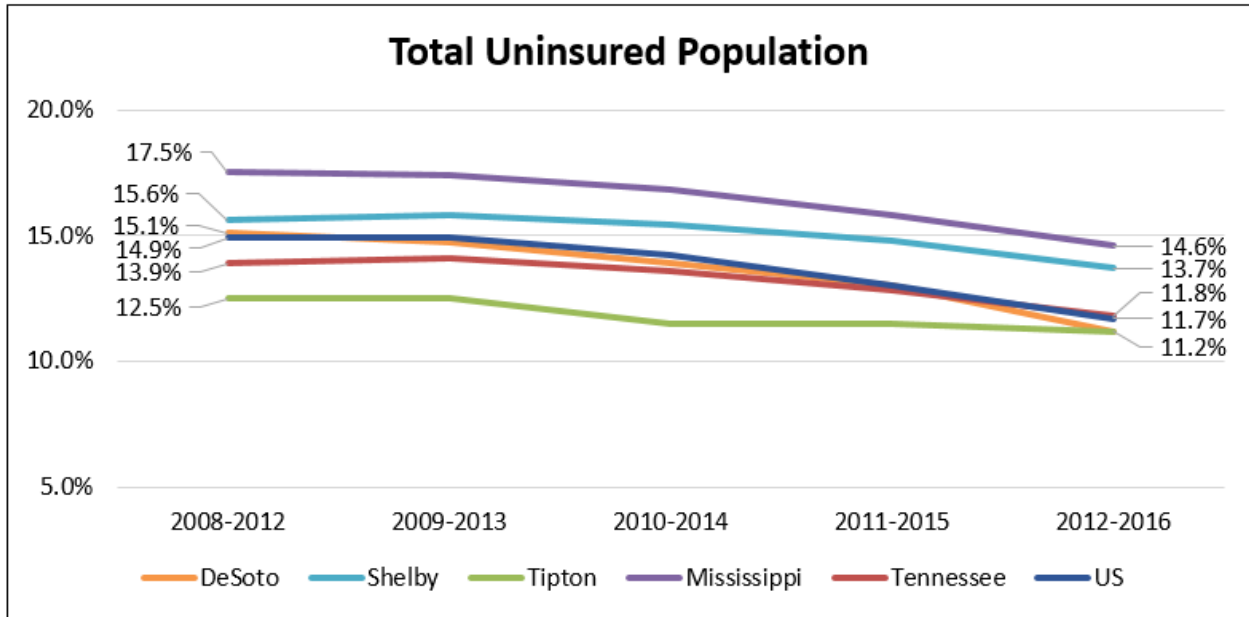
Health Insurance Coverage

The population without health insurance coverage is generally greater than the national percent in Shelby County and consistent with the national percent in DeSoto and Tipton counties. Since 2008, the proportion of uninsured in all three counties and both states has decreased, consistent with national trends. Mississippi in general has a higher uninsured rate than the nation, but DeSoto County mirrors the national uninsured rate for the past five years.

The percent uninsured is declining and lower than the national percent for all counties except Shelby.



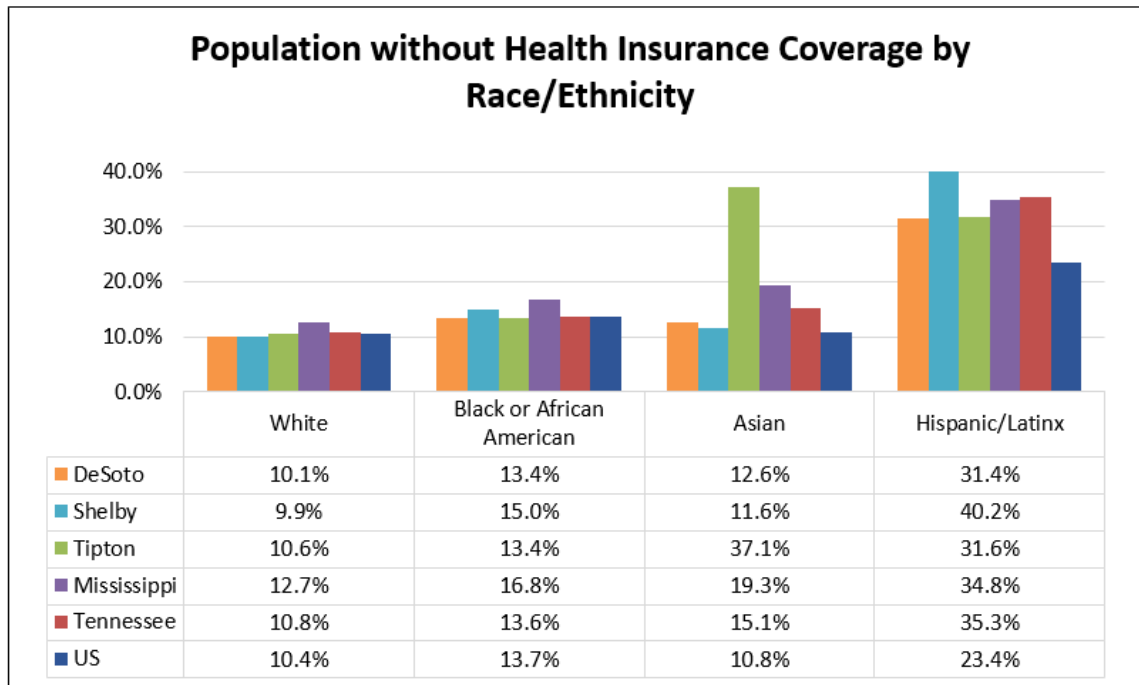
Source: U.S. Census Bureau, 2012–2016



Source: U.S. Census Bureau, 2008–2012 to 2012–2016

The population without health insurance coverage by race is consistent in all three counties for White as well as Black/African American residents, with slightly higher percentages among Blacks/African Americans. Among Asian residents, more than 1 in 3 in Tipton County is without insurance, although the percentage is based on a small count. Among Hispanic/Latino residents, more than 1 in 3 is without health insurance in all three counties and in both states.

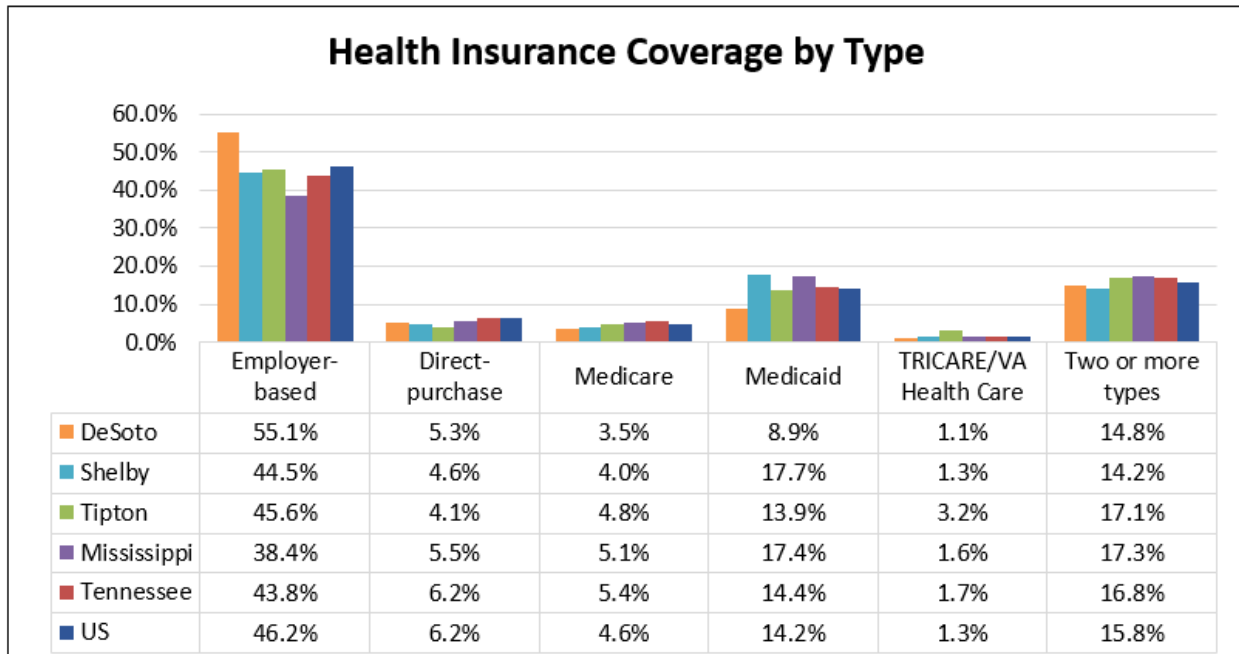
More than 1 in 3 Hispanic/Latino residents in all counties is uninsured.



Source: U.S. Census Bureau, 2012–2016

Comparable to the state and the nation, most people in the Memphis Metro Service Area get their health insurance through their employer. However, residents of Shelby County are more likely to have health insurance coverage through Medicaid than Tennessee or the nation.

Shelby County residents are more likely to be covered by Medicaid insurance.



Source: U.S. Census Bureau, 2012–2016

The city of Memphis is the second most populous city in Tennessee. Residents of Memphis experience greater socioeconomic disparity, as evidenced by higher Community Need Index scores, indicating a likelihood of greater health disparity. Having health insurance is a first step in being able to access health care that can improve wellness and reduce disparity. The following table depicts the percent uninsured for specific population groups within the city.

Memphis, Tennessee Uninsured Percentages

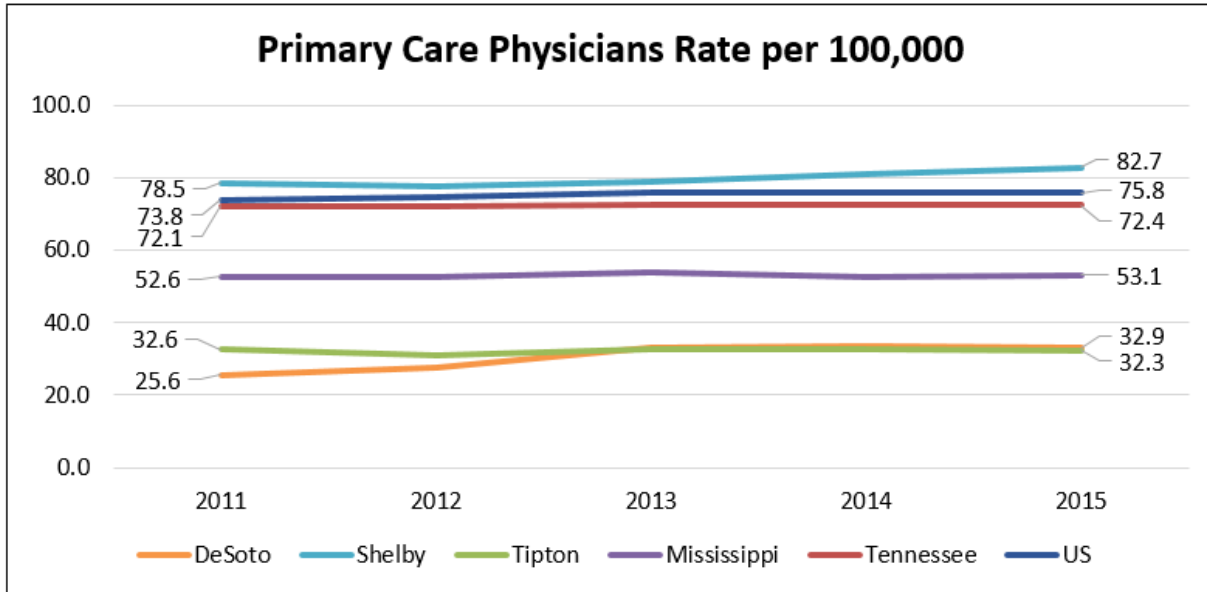
Uninsured Children	Uninsured Adults	Uninsured Whites	Uninsured Black/African American	Uninsured Hispanic/Latino	Uninsured Low-income Households	Uninsured High-income Households
6.0%	15.2%	7.5%	11.9%	39.3%	16.5%	4.6%

Source: U.S. Census Bureau, 2017 (WalletHub publication)

Provider Access

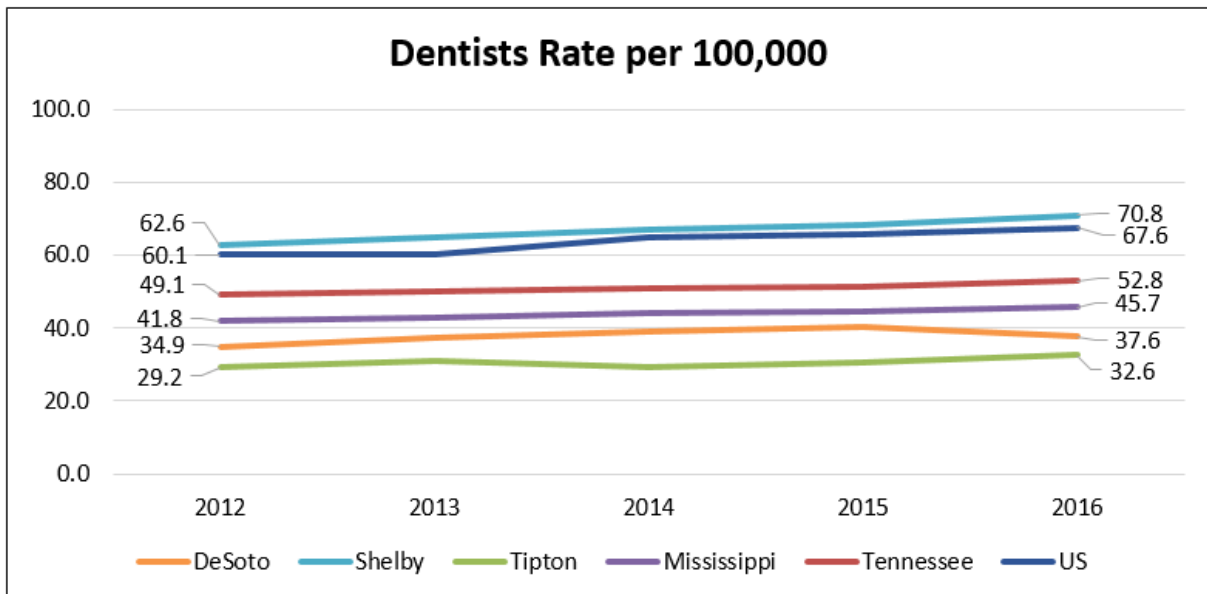
Provider rates are measured by the number of providers per 100,000 people and are measured against state and national benchmarks for primary, dental and mental health care. The rate of primary care and dental providers has been steady in all geographies over the past five years.

Shelby County is in line with or exceeds the national rates for primary care and dental providers; while DeSoto and Tipton counties, as well as Mississippi and Tennessee in general, have fewer providers than the nation. While the rate of mental health providers has not decreased in any of the geographies, it is still far below the national rate for all three counties and both states.

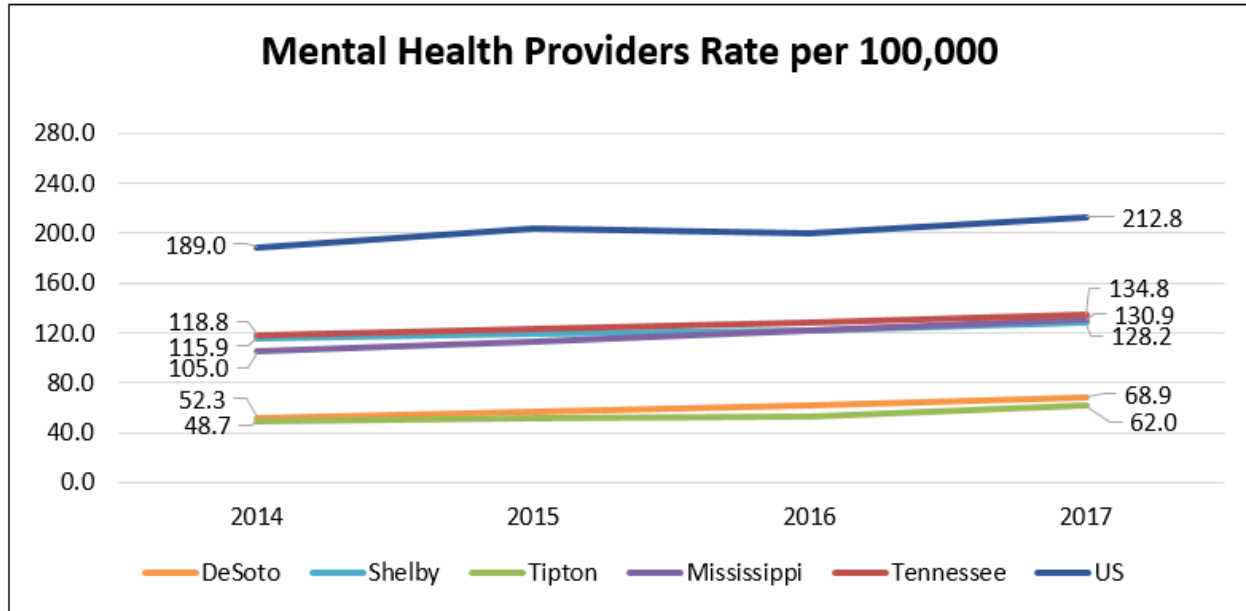


Source: Health Resources & Services Administration, 2011–2015

Note: Providers are identified by the location of their preferred professional/business mailing address. Provider rates do not take into account providers who serve multiple counties or who have satellite clinics.



Source: Health Resources & Services Administration, 2012–2016



Source: Centers for Medicare & Medicaid Services, 2014–2017

Note: An error occurred in the County Health Rankings method for identifying mental health providers in 2013. Data prior to 2014 are not shown. Leake County is not shown due to limited data availability.

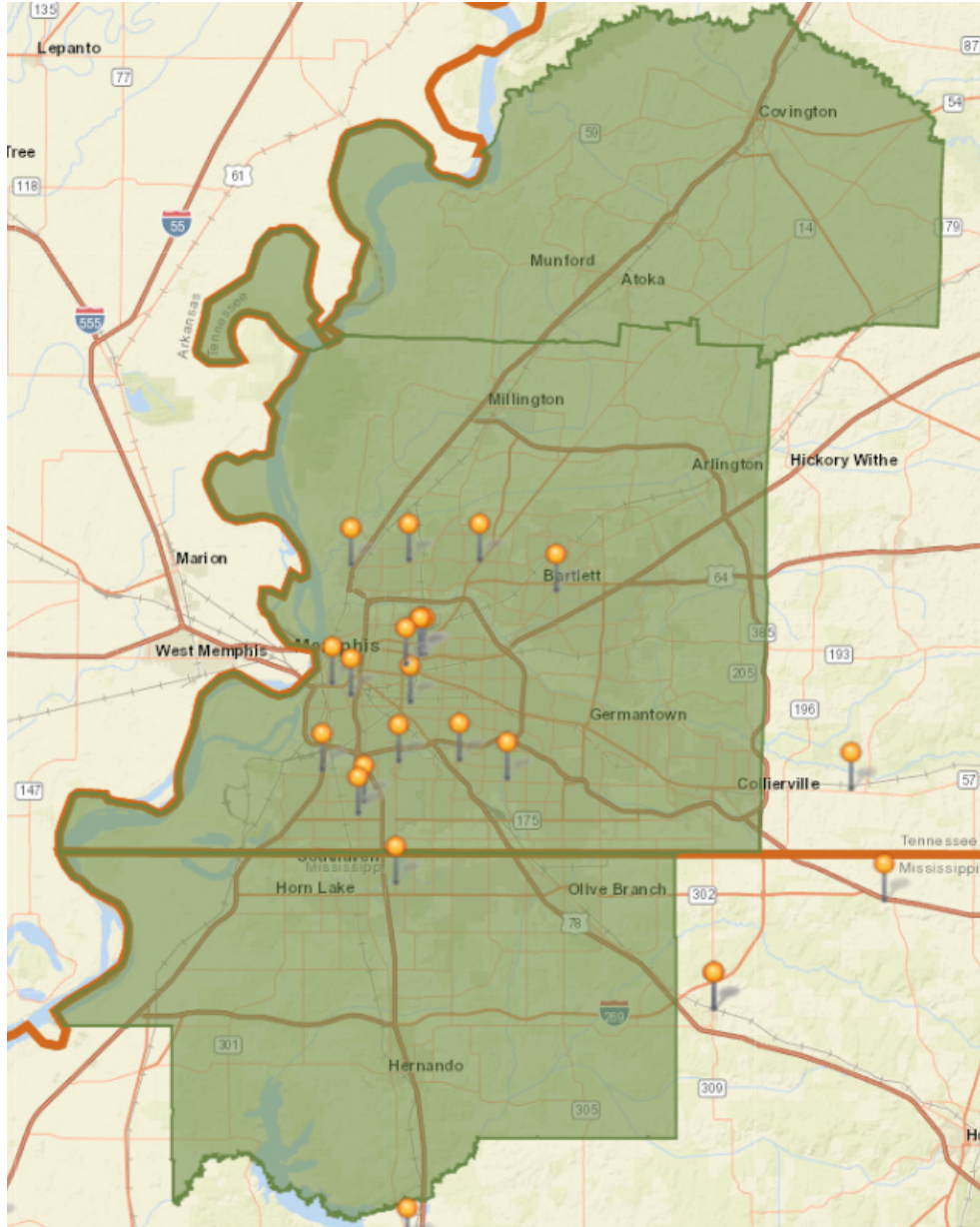
The Health Resources & Services Administration (HRSA) is responsible for designating Health Professional Shortage Areas (HPSAs), as well as Medically Underserved Areas (MUAs). Shortage areas are determined by a defined ratio of total health professionals versus the total population. Medically Underserved Areas are areas designated as having too few primary care providers, high infant mortality, high poverty or a large elderly population. The following HPSAs and MUAs are located in the Memphis Metro Service Area.

**Health Professional Shortage Areas and Medically Underserved Areas
in the Memphis Metro Service Area**

Geographic Area	Medically Underserved Area	Health Professional Shortage Area(s)
DeSoto County (All)	x	Mental health care
Shelby County: Southwest Memphis/Whitehaven/Levi	x	Low-income population (primary care, dental care, mental health care)
Shelby County: Southeast Memphis	x	
Shelby County: Northwest Memphis/Frayser/Raleigh	x	Low-income population (primary care, dental care, mental health care)
Shelby County: Northwest Shelby County/Millington/Woodstock/Lucy	x	Low-income population (primary care, dental care, mental health care)
Shelby County: Parkway Village/Fox Meadows		Low-income population (primary care, dental care, mental health care)
Shelby County: Mullins Station/Macon		Low-income population (dental care, mental health care)
Tipton County (All)	x	Low-income population (primary care, dental care, mental health care)

The Health Resources & Services Administration also plays a role in designating Federally Qualified Health Centers (FQHCs). Federally Qualified Health Centers are defined as “community-based health care providers that receive funds from the HRSA Health Center Program to provide primary care services in underserved areas.” Services are provided on a sliding fee scale based on patients’ ability to pay. A map of FQHC locations within the Memphis Metro Service Area is below. A listing of FQHCs within the service area can be found in Appendix C.

FQHC Locations In and Around the Memphis Metro Service Area



Overall Health Status

According to the University of Wisconsin County Health Rankings & Roadmaps program, Memphis Metro Service Area counties received the following rankings for health outcomes out of 82 counties in Mississippi and 95 counties in Tennessee. Health outcomes are measured in relation to premature death (before age 75) and quality of life, with a ranking of No. 1 being the best in the state.

2018 Health Outcomes County Health Rankings
No. 2 DeSoto County (No. 1 in 2015)
No. 28 Tipton County (No. 18 in 2015)
No. 49 Shelby County (No. 39 in 2015)

DeSoto County is comparable to the nation in premature death and quality of life indicators, such as adults with poor physical and mental health. Mississippi and Tennessee both have higher rates of premature death and a higher number of adults reporting poor physical and/or mental health when compared to national measures. Shelby and Tipton counties have similar or higher rates than Tennessee indicators.

Shelby and Tipton counties have a higher premature death rate than Tennessee and the nation.

Health Outcomes Indicators
(Red = Higher Than the State and Nation)

	Premature Death Rate per 100,000	Adults with "Poor" or "Fair" Health Status	30-Day Average –Poor Physical Health Days	30-Day Average –Poor Mental Health Days
DeSoto County	7,120	16.5%	3.4	3.9
Shelby County	9,629	19.7%	4.4	4.5
Tipton County	9,401	18.2%	4.5	4.5
Mississippi	10,234	22.2%	4.4	4.4
Tennessee	8,760	19.1%	4.4	4.5
United States	6,700	16.0%	3.7	3.8

Source: National Center for Health Statistics, 2014–2016; Centers for Disease Control and Prevention, 2016

Health Behaviors

Individual health behaviors include risky behaviors, such as tobacco use and obesity, or positive behaviors, such as exercise, good nutrition and stress management. Health behaviors may increase or reduce the likelihood of disease or early death. The prevalence of these health behaviors is provided below, with benchmark comparisons, as available.

Smoking

Smoking is a significant contributor to heart disease, cancer, stroke, respiratory health, low birth weight, early death and other conditions. Healthy People 2020 sets a national target of no more than 12% of adults reporting smoking. None of the counties in the Memphis Metro Service Area meet the target with roughly 1 in 5 adults reporting smoking. Current percentages for all three counties are higher than the nation, but lower than both state percentages. DeSoto County has the lowest percentage of adult smokers, but it is the only county that experienced an increase in smokers from 2014 to 2016.

DeSoto County has the lowest percentage of adult smokers, but smoking rates increased 3 points from 2014 to 2016.

Tobacco Use Among Adults

(Red = Increase of More Than 2 Points; Green = Decrease of More Than 2 Points)

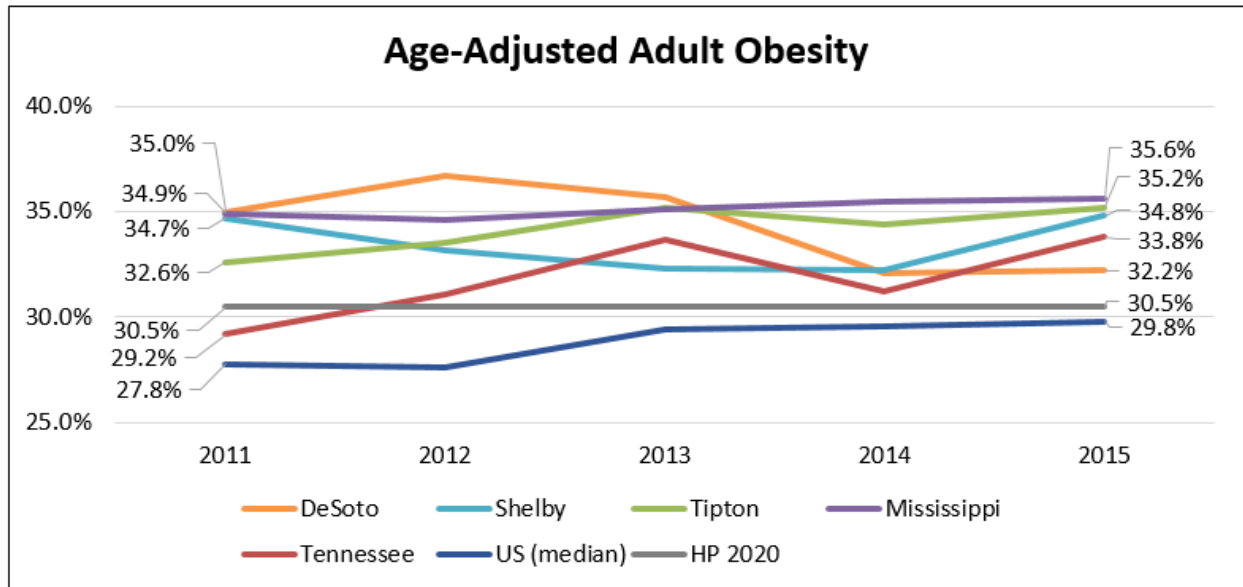
	Adult Smoking	
	2014	2016
DeSoto County	16.5%	19.4%
Shelby County	20.9%	20.5%
Tipton County	22.6%	20.2%
Mississippi	23.0%	22.7%
Tennessee	24.2%	22.1%
United States	17.0%	17.0%
Healthy People 2020	12.0%	12.0%

Source: Centers for Disease Control and Prevention, 2014 & 2016; Healthy People 2020

Obesity

Overweight and obesity are associated with greater risk for a variety of diseases, including heart disease and diabetes, and contribute to decreased quality of life. Healthy People 2020 sets a target of no more than 30.5% of all adults experiencing obesity by 2020. The nation in general has met this target. None of the counties or states in the Memphis Metro Service Area have met the national or Healthy People 2020 target. Obesity percentages remained stable or decreased in DeSoto and Shelby counties, but increased in Tipton County.

All counties report more obesity than the national average and do not meet Healthy People 2020 Goals.



Source: Centers for Disease Control and Prevention, 2011–2015

Healthy Eating and Food Insecurity

Food insecurity, defined as being without a consistent source of sufficient and affordable nutritious food, negatively impacts the opportunity for healthy eating and healthy weight management. Food insecurity is reflective of a variety of social factors, including employment, income, access to healthy food options, transportation, housing and other factors.

In DeSoto County, food insecurity among residents is consistent with the nation and lower than in Mississippi. Residents in Tipton County experience more food insecurity than most Americans, but are consistent with the percentage of food insecure residents in Tennessee. Residents of Shelby County are the most likely to be food insecure, exceeding the levels for Tennessee and the nation.

Access to free and reduced-price lunch for low-income school children can improve food insecurity for households with children. Eligibility for free lunch includes households with an income at or below 130% of the poverty threshold, while eligibility for reduced-price lunch includes households with an income between 130% and 185% of the poverty threshold.

The percentage of children eligible for free or reduced-price lunch ranges from 54% in DeSoto County to 70% in Shelby County.

More than half of all children in DeSoto County, nearly 2 out of 3 children in Tipton County and 7 out of 10 children in Shelby County are eligible for free or reduced-price lunch.

Food Insecurity
(Red = Higher Than the State and Nation)

	All Residents	Children
DeSoto County	12.7%	17.0%
Shelby County	21.2%	21.6%
Tipton County	14.3%	19.0%
Mississippi	20.1%	24.4%
Tennessee	14.5%	19.7%
United States	12.9%	17.5%

Source: Feeding America, 2016

Children Eligible for Free or Reduced-Price Lunch

	Percent
DeSoto County	54.1%
Shelby County	69.5%
Tipton County	60.2%
Mississippi	74.9%
Tennessee	58.8%

Source: National Center for Education Statistics, 2015–2016

Healthy Living

Healthy habits, such as regular exercise, are important for establishing and maintaining a healthy lifestyle. Access to physical activity opportunities promotes regular exercise. This includes access to parks, gyms, pools and other safe venues designed to facilitate activity.

DeSoto and Tipton counties have fewer spaces for physical activity compared to the nation, as well as the highest percentage of physically inactive adults. Shelby County residents have slightly better access to physical activity than the nation, but more than one-quarter of adults in the county still report being physically inactive.

DeSoto and Tipton counties have lower access to physical activity space and the highest percentage of physically inactive adults.

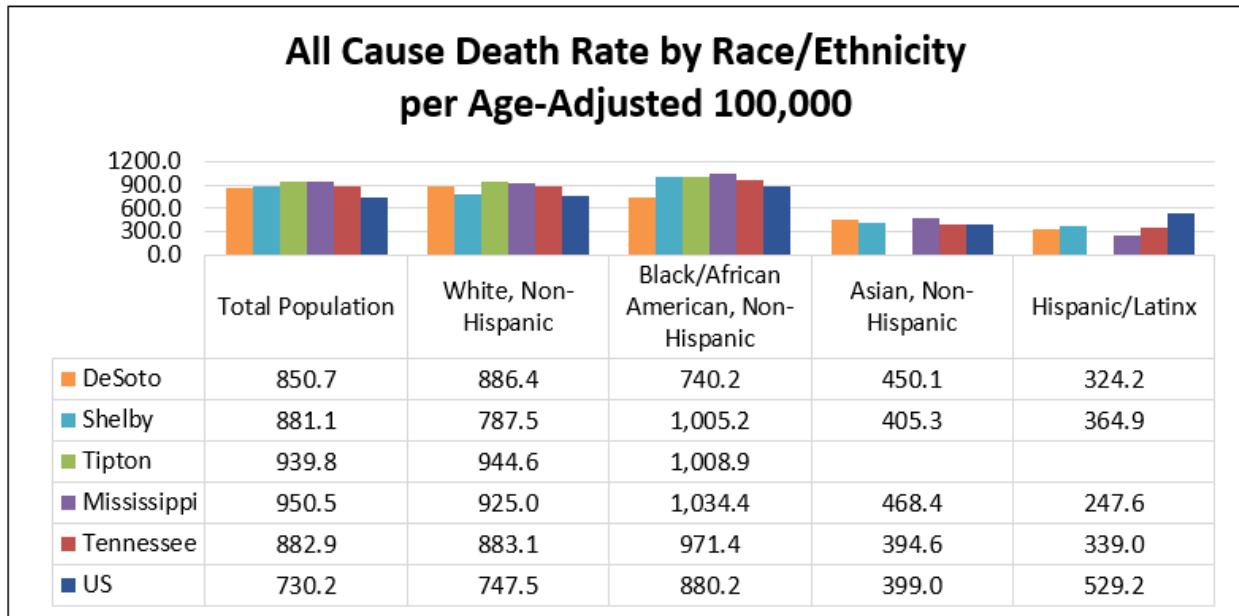
Physical Activity
(Red = Lower Access and Higher Inactivity Than the State and/or Nation)

	Access to Physical Activity	Physically Inactive Adults
DeSoto County	74.4%	34.2%
Shelby County	86.8%	27.4%
Tipton County	71.6%	35.2%
Mississippi	57.7%	34.0%
Tennessee	71.2%	30.1%
United States	83.0%	23.0%

Source: Business Analyst, Delorme Map Data, ESRI, & U.S. Census Tigerline Files, 2010 & 2016; Centers for Disease Control and Prevention, 2014

Mortality

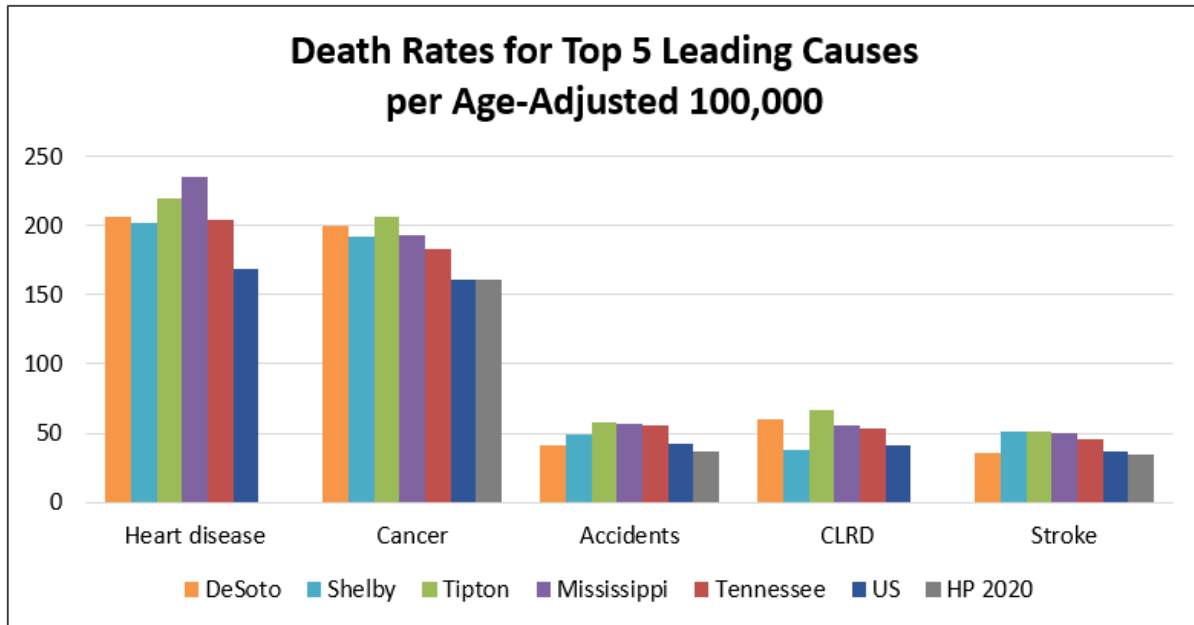
The following graph depicts the all cause age-adjusted death rate by county and by race/ethnicity. The death rates for White, Black/African American and Asian residents in the Memphis Metro Service Area are higher than the nation in general. Death rate disparities are greatest in Shelby and Tipton counties with notably higher rates among Blacks/African Americans than Whites.



Source: Centers for Disease Control and Prevention, 2012–2016

*Asian and Hispanic/Latino death rates are not available for Tipton County due to low counts.

The top five causes of death in the nation, in rank order, are heart disease, cancer, accidents, chronic lower respiratory disease (CLRD) and stroke. The following chart profiles death rates for the top five causes by county and for Mississippi and Tennessee. The rate of death for each of these five leading causes is generally higher in all of the counties in the Memphis Metro Service Area than in the nation. None of the Memphis Metro Service Area geographies meet the Healthy People 2020 targets in these categories.



Source: Centers for Disease Control and Prevention, 2012–2016; Healthy People 2020

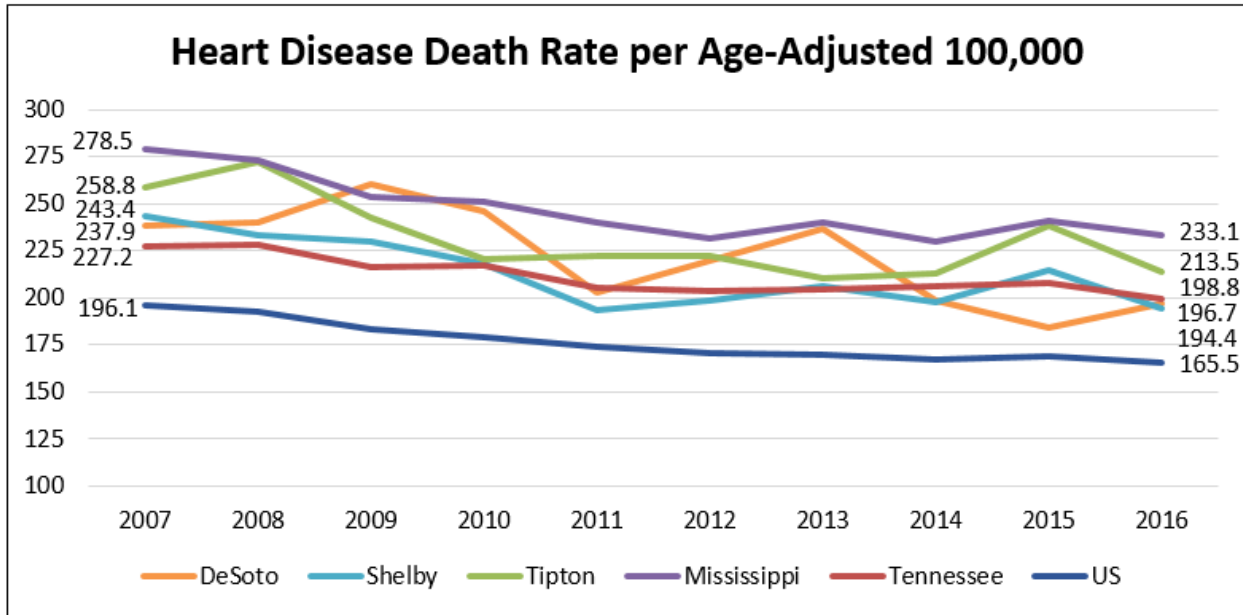
Chronic Diseases

Chronic diseases are the leading causes of death and disability in the nation and disease rates continue to increase. Chronic diseases are often preventable through reduced health risk behaviors, such as not smoking and limiting alcohol use, increased physical activity, good nutrition and early detection of risk factors.

Heart Disease

Heart disease is a leading cause of death in the nation, and in the communities in the Memphis Metro Service Area. While the rate of death due to heart disease is decreasing in all three counties, current rates exceed the national rate.

The heart disease death rate is higher in all counties when compared to the nation.



Source: Centers for Disease Control and Prevention, 2007–2016

When stratified by race, the rate of heart disease death generally remains higher than national rates for Whites and Blacks/African Americans in the Memphis Metro Service Area. DeSoto County is an exception with a lower rate of heart disease death among Blacks/African Americans when compared to the nation. The rate of heart disease death is lower than national rates for Hispanics/Latinos, but the proportion of the population that is Hispanic/Latino is far smaller than in the nation in general, which may account for some of the differences seen here.

Heart Disease Death Rates per Age-Adjusted 100,000 by Race

	White, Non-Hispanic Death Rate	Black/African American, Non-Hispanic Death Rate	Hispanic/Latino Death Rate
DeSoto County	217.0	160.2	NA*
Shelby County	178.7	233.0	65.1
Tipton County	219.3	250.8	NA*
Mississippi	226.5	260.6	46.6
Tennessee	202.6	233.5	66.4
United States	170.9	212.6	118.2

Source: Centers for Disease Control and Prevention, 2012–2016

*Hispanic/Latino death rates are not available for DeSoto and Tipton counties due to low counts.

Coronary Heart Disease and Stroke

Coronary heart disease (CHD) is characterized by the buildup of plaque inside the coronary arteries. Several types of heart disease, including coronary heart disease, are risk factors for stroke. The death rates due to CHD and stroke in DeSoto, Shelby and Tipton counties, and in Mississippi and Tennessee, are higher than national rates and do not yet meet Healthy People 2020 targets.

All counties have higher rates of death due to CHD and stroke when compared to the nation.

**Coronary Heart Disease and Stroke Death Rates
(Red = Higher Than the State and Nation)**

	Coronary Heart Disease Death per Age-Adjusted 100,000	Stroke Death per Age-Adjusted 100,000
DeSoto County	127.5	37.2
Shelby County	113.4	51.4
Tipton County	133.1	53.1
Mississippi	107.7	50.7
Tennessee	129.3	45.9
United States	99.6	36.9
Healthy People 2020	103.4	34.8

Source: Centers for Disease Control and Prevention, 2014–2016

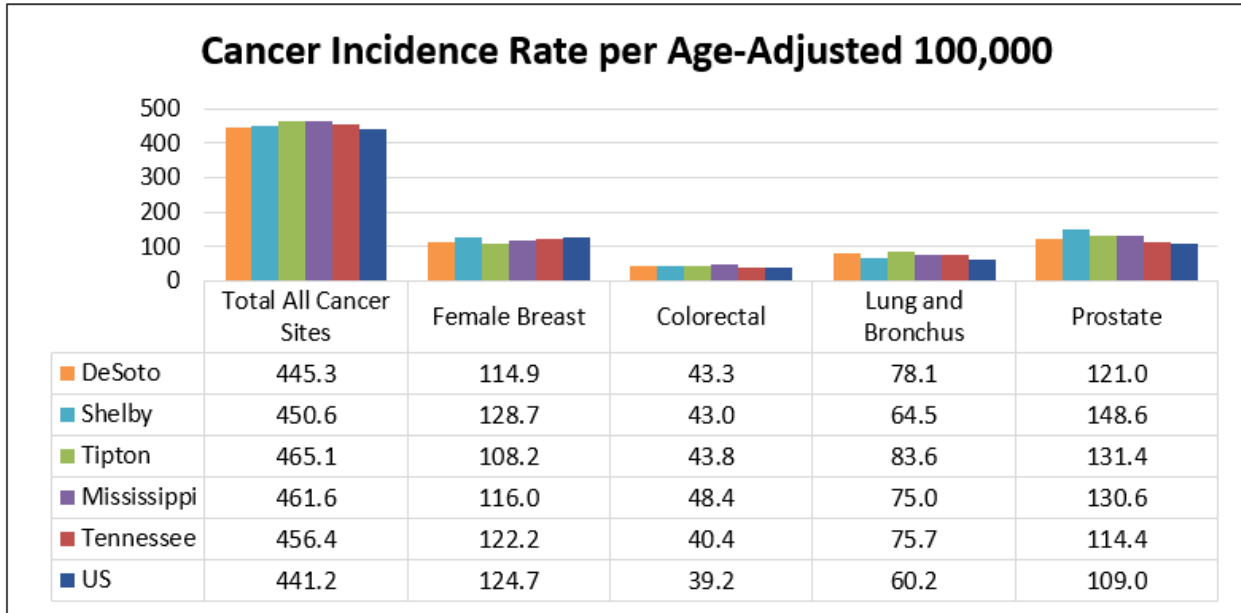
Cancer

Cancer remains a leading cause of death, but if detected early, can often be effectively treated. The incidence of cancer of all types in the counties and states in the Memphis Metro Service Area is generally consistent with national rates. However, all three counties and both states have a higher rate of cancer death than the nation, indicating delayed detection and treatment.

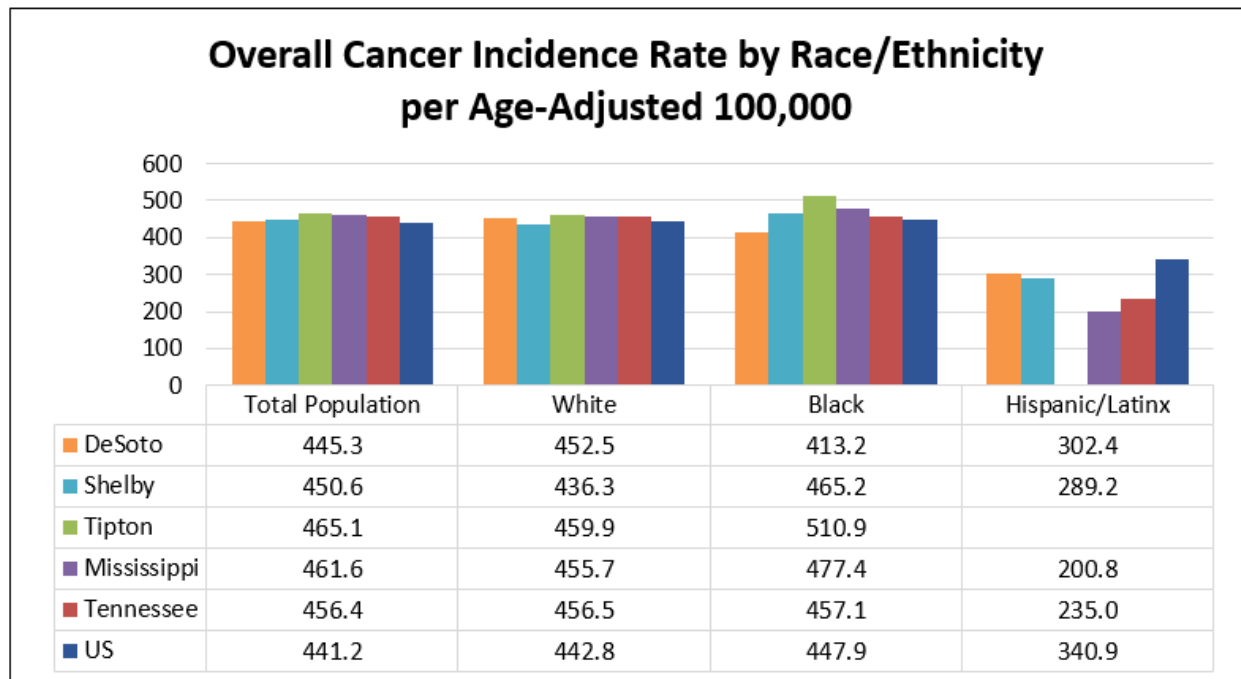
Overall cancer incidence in the Memphis Metro Service Area is generally consistent with national rates, but cancer death rates are higher.

DeSoto and Tipton counties have higher incidence and death rates due to lung cancer. Lung cancer death rates in the two counties exceed the national rate by 17 points or more.

Consistent with national trends, Blacks/African Americans have higher incidence and death rates due to cancer when compared to Whites and Hispanics/Latinos in all counties and both states, except DeSoto County.

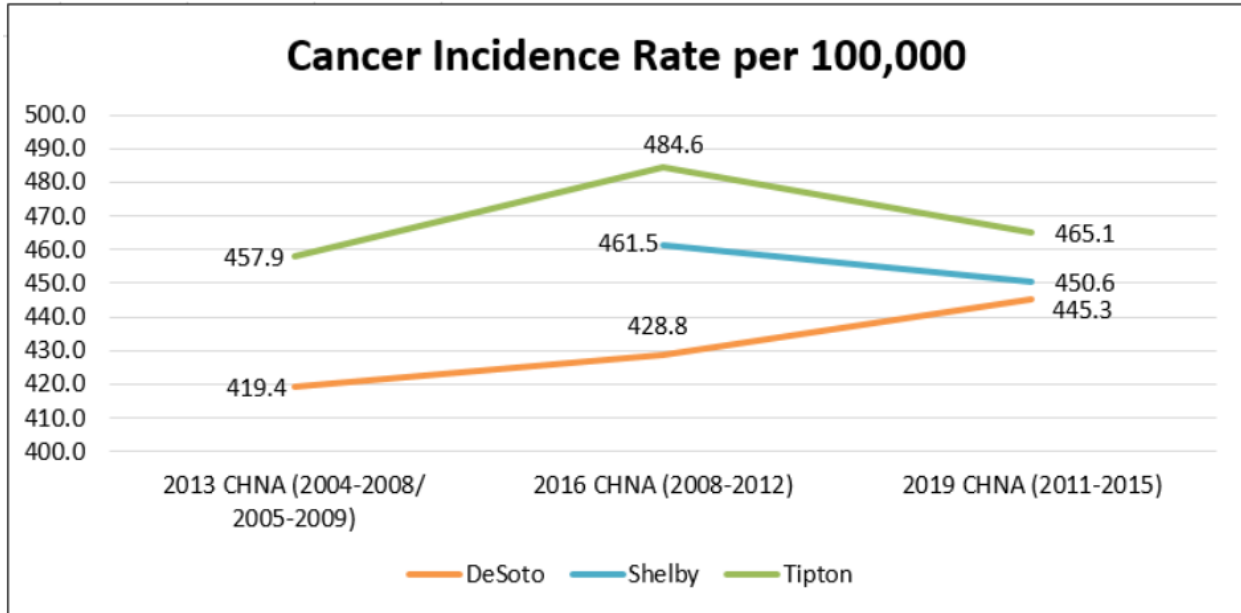


Source: National Cancer Institute, 2011–2015



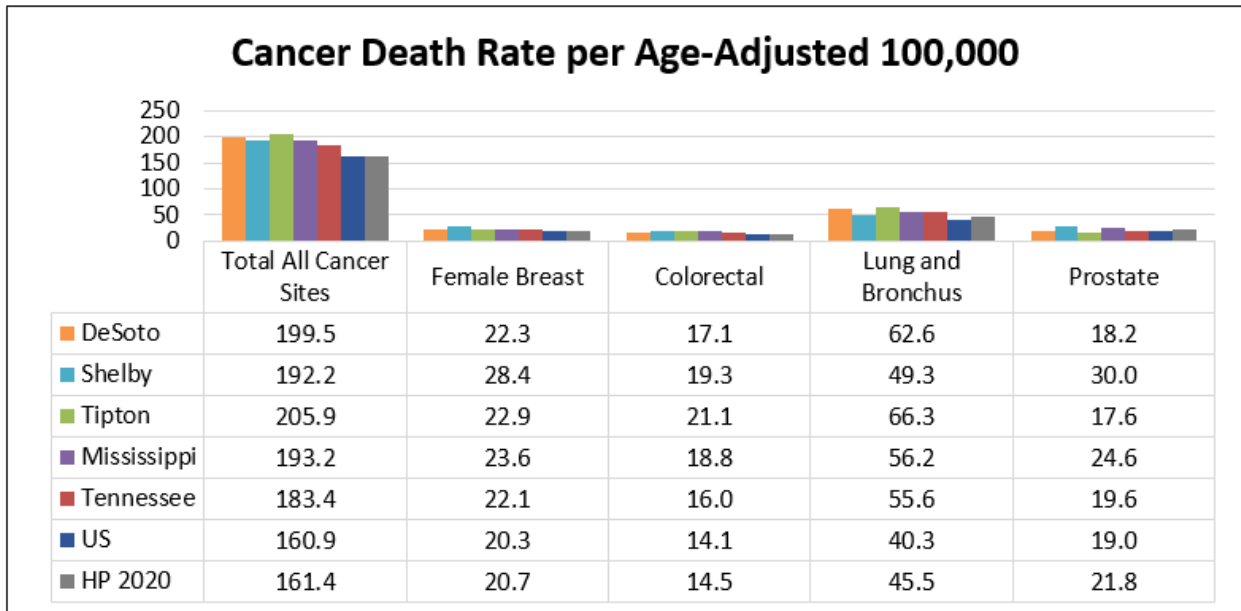
Source: National Cancer Institute, 2011–2015

*Hispanic/Latino cancer incidence data reported as available.



Source: National Cancer Institute, 2004–2008/2005–2009 to 2011–2015

*2013 CHNA data are reported for 2004–2008 for Tipton County and 2005–2009 for DeSoto County. 2013 CHNA is not available for Shelby County.



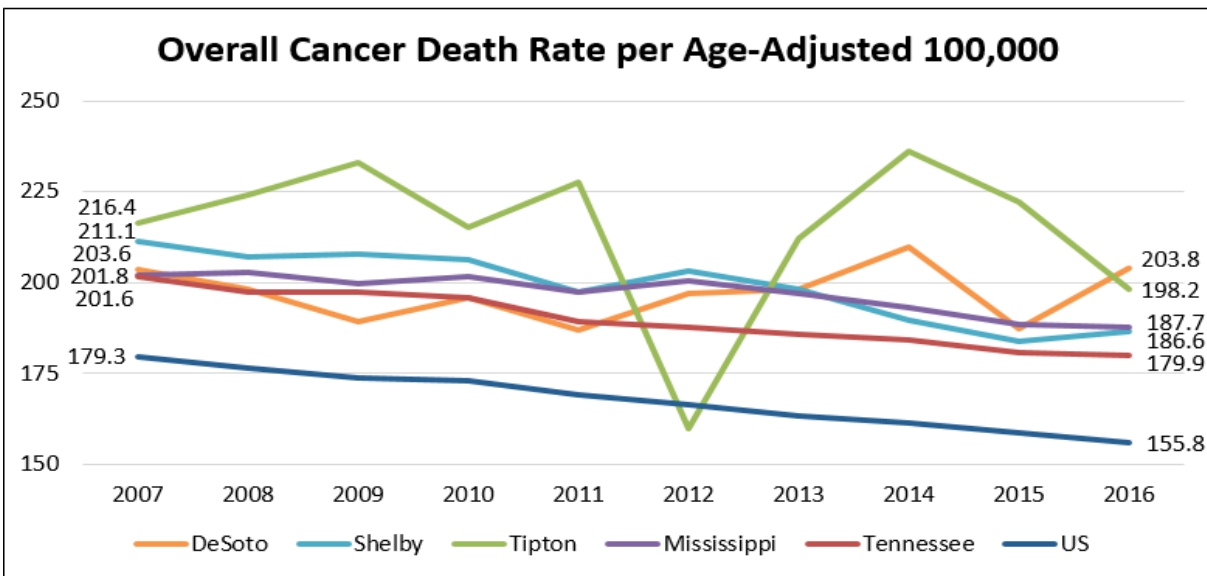
Source: Centers for Disease Control and Prevention, 2012–2016; Healthy People 2020

Cancer Death Rates per Age-Adjusted 100,000 by Race

	White, Non-Hispanic Death Rate	Black/African American, Non-Hispanic Death Rate	Hispanic/Latino Death Rate
DeSoto County	205.3	191.1	NA*
Shelby County	168.3	226.9	91.1
Tipton County	201.6	254.2	NA*
Mississippi	186.3	216.7	48.9
Tennessee	182.3	212.2	74.9
United States	165.7	190.0	112.6

Source: Centers for Disease Control and Prevention, 2012–2016

*Hispanic/Latino death rates are not available for DeSoto and Tipton counties due to low counts.



Source: Centers for Disease Control and Prevention, 2007–2016

Chronic Lower Respiratory Disease

Chronic lower respiratory disease (CLRD) is the third most common cause of death in the nation. CLRD encompasses such diseases as chronic obstructive pulmonary disorder (COPD), emphysema and asthma, all of which contribute to lower quality of life and increased risk of early death. The rate of death from CLRD in the Memphis Metro Service Area is generally higher than the nation, except in Shelby County.

CLRD death rates in DeSoto and Tipton counties exceed the state and national rates.

CLRD Death Rates per Age-Adjusted 100,000 by Race

	Total Population	White, Non-Hispanic Death Rate	Black/African American, Non-Hispanic Death Rate	Hispanic/Latino Death Rate
DeSoto County	59.6	67.7	NA*	NA*
Shelby County	37.6	44.7	27.8	NA*
Tipton County	66.5	75.3	NA*	NA*
Mississippi	56.1	65.0	34.0	NA*
Tennessee	53.4	57.0	32.6	10.4
United States	41.2	46.3	29.7	17.8

Source: Centers for Disease Control and Prevention, 2012–2016

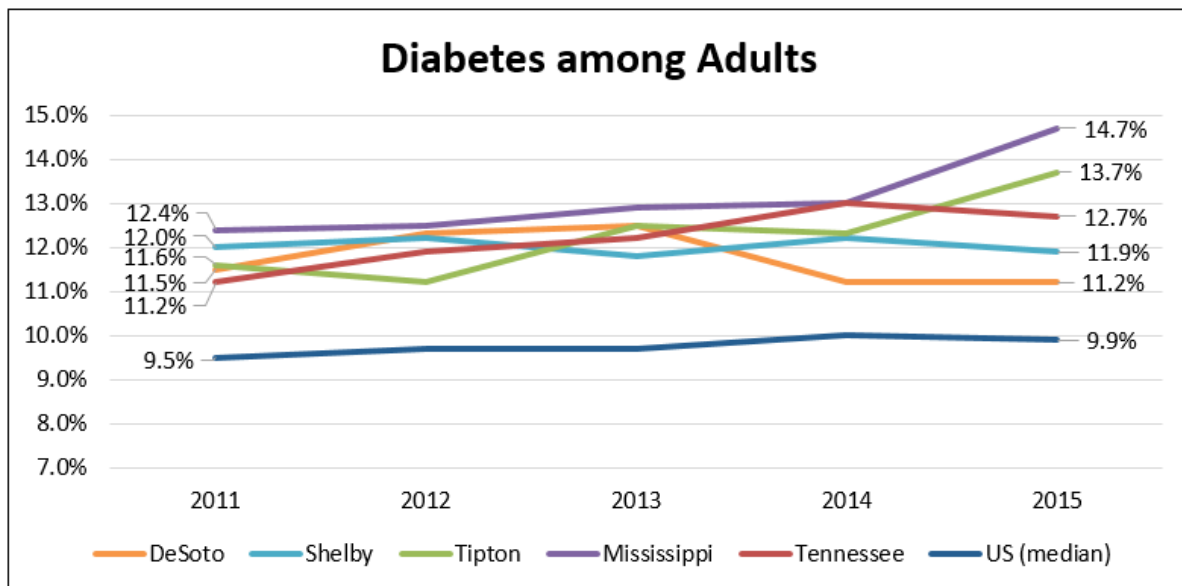
*Data are reported as available due to low counts. Hispanic/Latino death rates are not available at the county level due to low counts.

Diabetes

According to the American Diabetes Association, diabetes and prediabetes affect more than 110 million Americans and cost the nation \$322 billion per year. Type 2 diabetes, the most common form, is preventable, and if diagnosed early, can often be reversed through improved diet and increased exercise.

The proportion of the Memphis Metro adult population diagnosed with diabetes is growing, and exceeds the national percentage. Additionally, the diabetes death rate among Memphis Metro Service Area counties is higher than the nation in nearly all categories, including when stratified by race. DeSoto County has the lowest prevalence of diabetes, but the county’s rate of death due to diabetes is more than double the national rate for both White and Black/African American residents.

Despite a lower diabetes prevalence rate, the DeSoto County diabetes death rate is more than double the national rate.



Source: Centers for Disease Control and Prevention, 2011–2015

Diabetes Death Rates per Age-Adjusted 100,000 by Race

	Total Population	White, Non-Hispanic Death Rate	Black/African American, Non-Hispanic Death Rate	Hispanic/Latino Death Rate
DeSoto County	55.1	52.0	78.0	NA*
Shelby County	27.0	15.5	42.5	NA*
Tipton County	24.9	23.5	NA*	NA*
Mississippi	32.0	22.6	56.5	NA*
Tennessee	24.2	21.8	44.2	11.2
United States	21.1	18.6	38.6	25.6

Source: Centers for Disease Control and Prevention, 2012–2016

*Data are reported as available due to low counts. Hispanic/Latino death rates are not available at the county level due to low counts.

Chronic Conditions Among Seniors

According to the CDC, “Among Medicare fee-for-service beneficiaries, people with multiple chronic conditions account for 93% of total Medicare spending.” The tables below indicate the percentages of Medicare beneficiaries within Baptist’s Memphis Metro Service Area who have been diagnosed with specific chronic conditions, followed by the average number of chronic disease diagnosis by county.

The burden of chronic conditions among Medicare beneficiaries is greater in DeSoto and Tipton counties than Shelby County. More than 40% of DeSoto and Tipton County Medicare beneficiaries manage four or more chronic conditions. The most common chronic conditions among senior Medicare beneficiaries in any of the three counties are hypertension and high cholesterol, consistent with state and national trends.

More than 40% of senior Medicare beneficiaries in DeSoto and Tipton counties manage four or more chronic conditions.

**Chronic Conditions among Medicare Beneficiaries 65 Years Old or Older
(Red = Higher Than the Respective State and Nation;
Green = Lower Than the Respective State and Nation)**

	DeSoto County	Shelby County	Tipton County	Mississippi	Tennessee	US
Alzheimer’s Disease	10.2%	12.8%	12.1%	12.6%	12.2%	11.3%
Arthritis	30.7%	31.6%	31.2%	34.4%	32.1%	31.3%
Asthma	6.4%	6.0%	7.6%	7.3%	7.8%	7.6%
Cancer	8.9%	9.3%	8.1%	8.1%	8.3%	8.9%
COPD	11.5%	9.1%	12.9%	12.3%	12.7%	11.2%
Depression	14.0%	11.3%	13.3%	13.7%	15.1%	14.1%
Diabetes	27.3%	26.4%	30.3%	29.6%	27.5%	26.8%
Heart Failure	15.6%	14.7%	16.7%	16.2%	15.2%	14.3%
High Cholesterol	54.4%	45.2%	49.0%	43.8%	46.7%	47.8%
Hypertension	64.0%	62.0%	65.4%	64.6%	61.6%	58.1%
Ischemic Heart Disease	33.1%	27.6%	35.9%	30.0%	29.5%	28.6%
Stroke	4.4%	5.1%	4.5%	4.4%	4.1%	4.2%

Source: Centers for Medicare & Medicaid Services, 2015

**Number of Chronic Conditions Among Medicare Beneficiaries 65 Years Old or Older
(Red = Higher Than the State and Nation)**

	DeSoto County	Shelby County	Tipton County	Mississippi	Tennessee	US
0 to 1 condition	28.3%	32.2%	28.5%	29.9%	30.5%	32.3%
2 to 3 conditions	31.0%	30.7%	29.7%	30.9%	30.4%	30.0%
4 to 5 conditions	23.7%	21.8%	23.1%	22.5%	22.2%	21.6%
6 or more conditions	17.0%	15.4%	18.7%	16.8%	17.0%	16.2%

Source: Centers for Medicare & Medicaid Services, 2015

Regular screenings are essential for the early detection and management of chronic conditions. The following table lists diabetes and mammogram screenings among Medicare enrollees. Seniors in DeSoto, Shelby and Tipton counties are screened for diabetes (HbA1c) at similar levels as seniors in the nation in general, but they are slightly less likely to be screened for breast cancer (mammogram).

Memphis Metro Service Area seniors are less likely to be screened for breast cancer when compared to the nation.

Chronic Disease Screenings Among Medicare Enrollees

	Annual HbA1c Test from a Provider (Ages 65–75)	Mammogram in Past Two Years (Ages 67–69)
DeSoto County	88.0%	57.6%
Shelby County	84.0%	60.3%
Tipton County	84.0%	60.6%
Mississippi	84.1%	57.3%
Tennessee	86.6%	62.7%
United States	85.0%	63.0%

Source: Dartmouth Atlas of Health Care, 2014

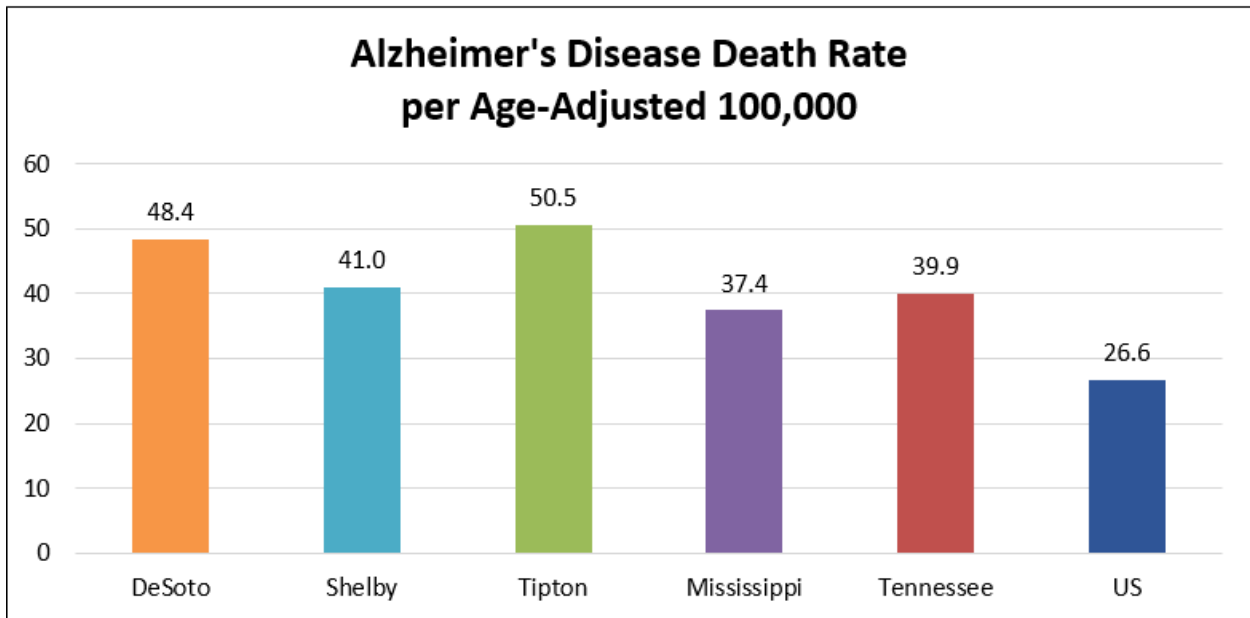
Alzheimer's disease is a type of dementia that causes problems with memory, thinking and behavior. Symptoms usually develop slowly and get worse over time, becoming severe enough to interfere with daily tasks. The disease weakens the body's defense mechanisms, increasing susceptibility to catastrophic infection and other causes of death related to frailty. Alzheimer's is the sixth leading cause of death in the United States. While there is no cure, treatment is focused on helping people maintain mental function, manage behavioral symptoms and slow or delay the symptoms of the disease.

The death rate due to Alzheimer's disease is noticeably higher in DeSoto, Shelby and Tipton counties than Mississippi, Tennessee and/or the nation in general. The death rate due to Alzheimer's disease in DeSoto and Tipton counties is nearly twice the national rate.

All counties have a higher Alzheimer's disease death rate than the nation.

Categorizations for cause of death can vary among reporting entities. Given the propensity for Alzheimer's to increase risk factors for other diseases, cause of death for individuals with the

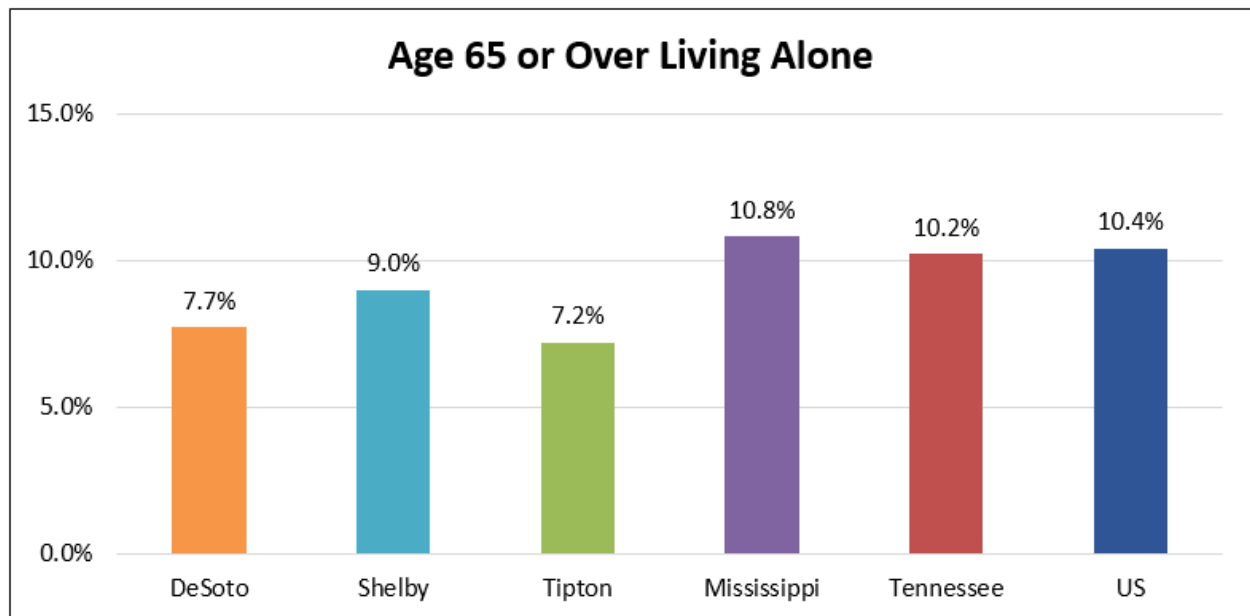
disease is not always attributed solely to Alzheimer’s. Additional exploration of procedures for categorization of cause of death may further illuminate trends.



Source: Centers for Disease Control and Prevention, 2012–2016

As seniors age, they are at risk for isolation due to physical limitations and decreasing social circles. One indicator of isolation is the percentage of seniors 65 years old or older who live alone. Seniors living in DeSoto, Shelby and Tipton counties are less likely to live alone than seniors in Mississippi, Tennessee or the nation in general.

Seniors living in the Memphis Metro are less likely to live alone when compared to the nation.



Source: American Community Survey, 2012–2016

Behavioral Health

Mental Health

Healthy People 2020 provides a benchmark for age-adjusted suicide death per 100,000 at 10.2. The suicide rate in Tennessee exceeds the national rate, and does not yet meet the Healthy People 2020 target for this indicator. Shelby County has a lower suicide rate than Tennessee, and the rate decreased. Tipton County has the highest suicide rate in the service area, exceeding all state and national benchmarks. The Tipton County suicide rate increased notably from 2010–2014 to 2012–2016. The DeSoto County suicide rate is consistent with Mississippi and the nation and declined.

The Tipton County suicide rate increased and currently exceeds all state and national benchmarks.

Mental and behavioral health disorders include a wide range of conditions, including disorders from psychoactive substance use, anxiety disorders, schizophrenia and other delusional disorders, and mood or personality disorders. These disorders are not induced by alcohol and other psychoactive substances, but they may result from substance abuse. In the Memphis Metro Service Area, the death rate due to mental and behavioral health disorders is generally lower than or consistent with national rates, and have decreased.

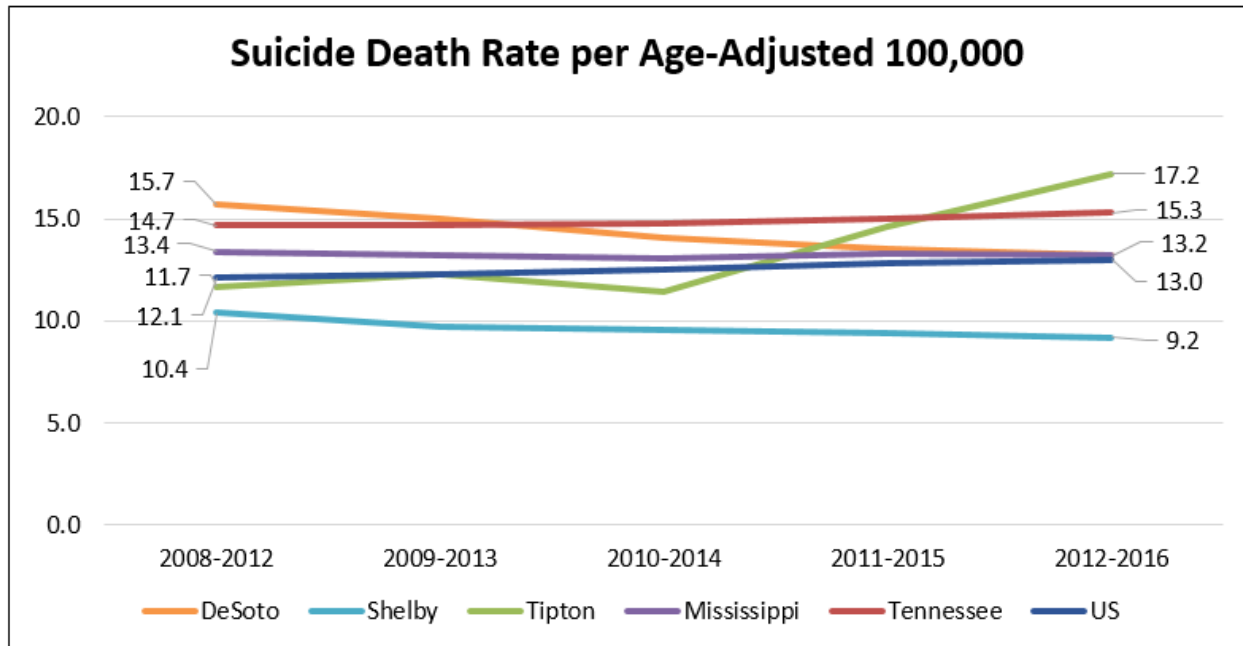
Mental and behavioral disorders/death rates decreased in all three counties.

A myriad of barriers — including stigma, availability of providers, ability to afford or otherwise access care, among other individual and social constraints — can keep individuals from getting help with behavioral health needs.

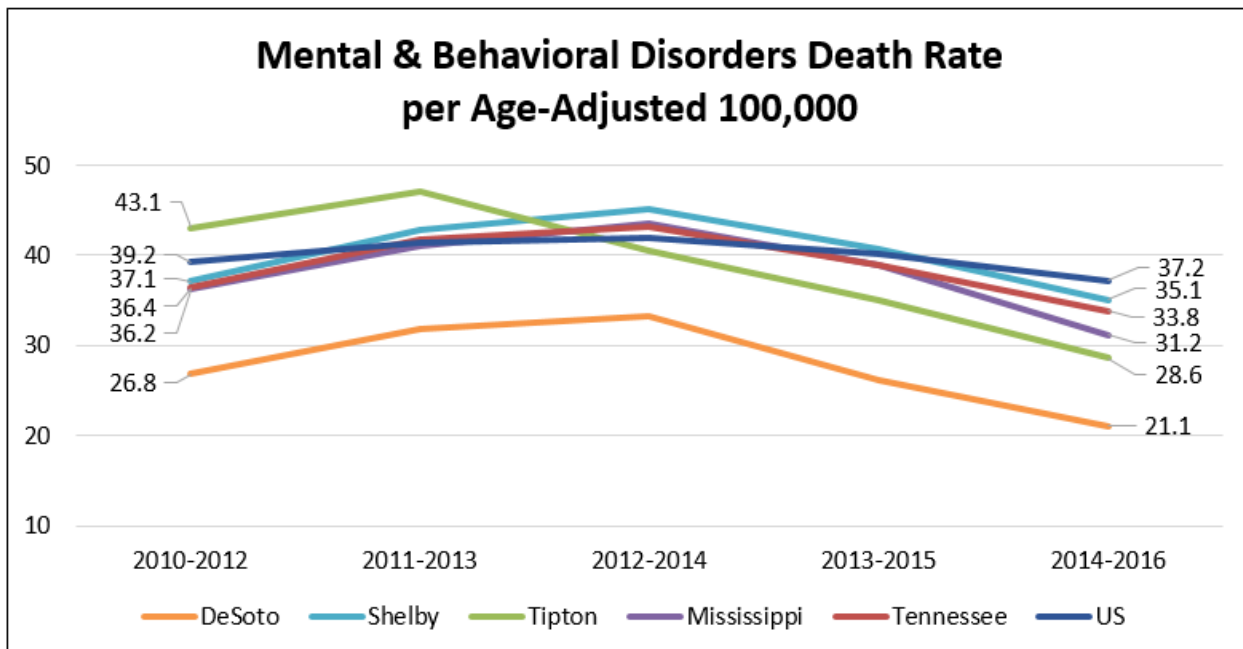
Mental Health Measures (Five-Year Trends)
(Red = Higher Than State and National Benchmarks)

	Suicide Deaths	Suicide Rate per Age-Adjusted 100,000	Mental & Behavioral Disorders Deaths	Mental & Behavioral Disorders Death Rate per Age-Adjusted 100,000
DeSoto County	116	13.2	169	25.7
Shelby County	437	9.2	1,701	39.6
Tipton County	53	17.2	98	37.7
Mississippi	1,992	13.2	5,697	36.2
Tennessee	5,184	15.3	16,221	45.9
United States	213,733	13.0	724,640	39.3
Healthy People 2020	NA	10.2	NA	NA

Source: Centers for Disease Control and Prevention, 2012–2016; Healthy People 2020



Source: Centers for Disease Control and Prevention, 2008–2012 to 2012–2016



Source: Centers for Disease Control and Prevention, 2010–2012 to 2014–2016

Note: Mental and behavioral disorder deaths are trended as three-year aggregates to depict a more current state of disease. Suicide deaths are trended as five-year aggregates due to low death counts.

Substance Use Disorder

Excessive drinking includes heavy drinking (two or more drinks per day for men; one or more drinks per day for women) and binge drinking (five or more drinks on one occasion for men; four or more

Adults in all counties report less excessive drinking than the nation.

drinks on one occasion for women). Mississippi, Tennessee and the three counties in the Memphis Metro Service Area all have smaller percentages of adults reporting excessive drinking than the nation in general. DeSoto and Shelby counties also have a lower percent of driving deaths due to driving under the influence (DUI) than the nation.

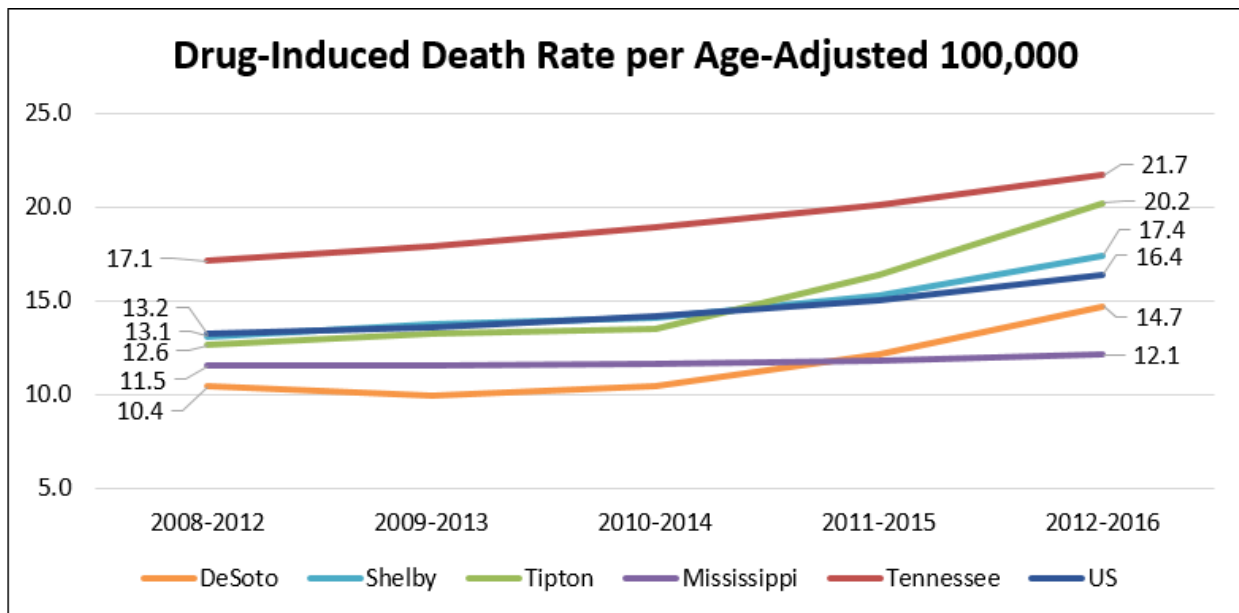
Drug-induced deaths include all deaths for which drugs are the underlying cause, including drug overdoses and deaths from medical conditions resulting from chronic drug use. The drug-induced death rate increased in all three counties; Tipton County has the highest death rate, exceeding the national rate by 4 points. Tennessee has a higher drug-induced death rate in general compared to the nation.

The drug-induced death rate increased in all three counties; Tipton County has the highest death rate.

**Substance Use Disorder Measures
(Red = Higher Than the Respective State and Nation)**

	Excessive Drinking (Adults)	Percent of Driving Deaths from DUI	Drug-Induced Deaths	Drug-Induced Death Rate per Age-Adjusted 100,000
DeSoto County	15.6%	17.9%	124	14.7
Shelby County	13.1%	19.3%	830	17.4
Tipton County	14.9%	31.7%	59	20.2
Mississippi	13.7%	22.7%	1,759	12.1
Tennessee	14.4%	27.5%	7,121	21.7
United States	18.0%	29.0%	262,672	16.4

Source: Centers for Disease Control and Prevention, 2012–2016 & 2016; National Highway Traffic Safety Administration, 2012–2016

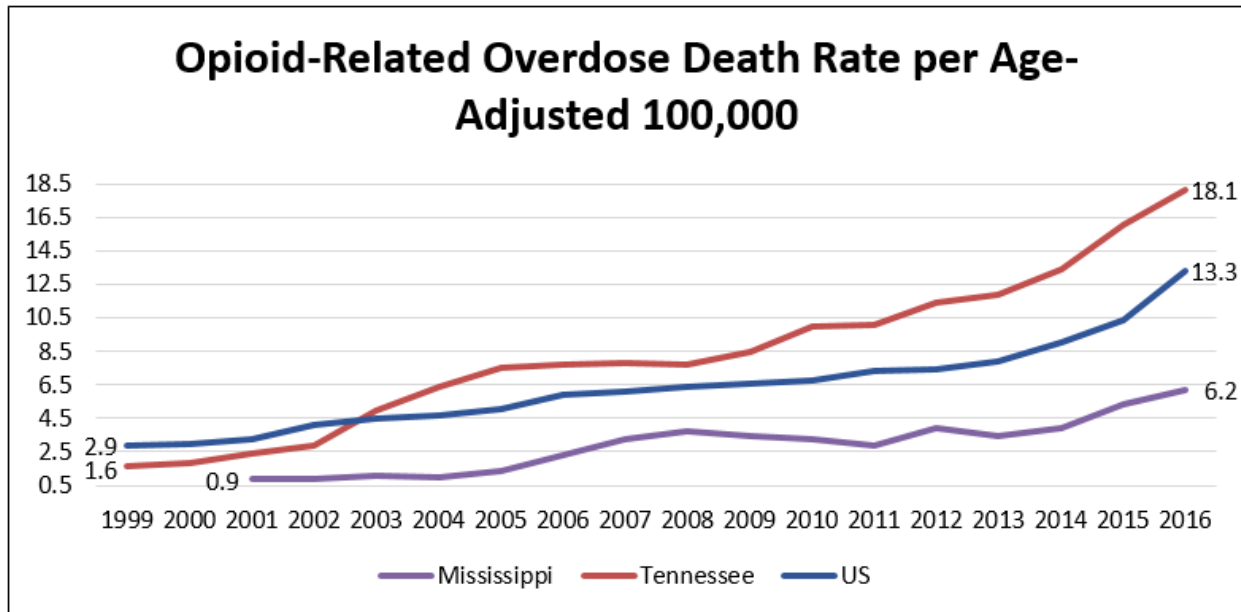


Source: Centers for Disease Control and Prevention, 2008–2012 to 2012–2016

Opioids

A significant contributor to the number of drug-induced deaths across the nation and within Baptist’s Memphis Metro Service Area is opioid overdose. According to the National Institute on Drug Abuse, in 2016, there were 180 opioid-related overdose deaths in Mississippi — a rate of 6.2 deaths per 100,000 persons compared to the national death rate of 13.3. Between 2013 and 2016, the number of deaths in Mississippi from heroin overdose increased from 10 to 33; deaths from synthetic opioid overdose increased from 24 to 45; and deaths from prescription opioid overdose increased from 66 to 103.

The same National Institute on Drug Abuse source reported, in 2016, there were 1,186 opioid-related overdose deaths in Tennessee — a rate of 18.1 deaths per 100,000 persons — and higher than the national rate of 13.3 deaths per 100,000 persons. Deaths from heroin overdose increased since 2010 from 17 to 260. Deaths from synthetic and prescription opioids also increased, from 72 to 395 and from 516 to 739, respectively.”



Source: Centers for Disease Control and Prevention, 1999–2016

Medication assisted treatment (MAT) has been found to be an effective treatment for people struggling with opioid addiction. MAT uses FDA-approved medications, including buprenorphine (Suboxone, Subutex), methadone and extended release naltrexone (Vivitrol), in combination with counseling and behavioral therapies to provide a “whole-patient” approach to the treatment of substance use disorders. There are 24 facilities in Mississippi and 87 facilities in Tennessee providing some form of MAT; 15 of these facilities are within the Memphis Metro Service Area.

Opioid Treatment Services

	Facilities Providing Medication Assisted Treatment
DeSoto County	2
Shelby County	13
Tipton County	0
Mississippi	24
Tennessee	87
United States	5,470

Source: American Foundation for AIDS Research, 2018

Neonatal Abstinence Syndrome (NAS)

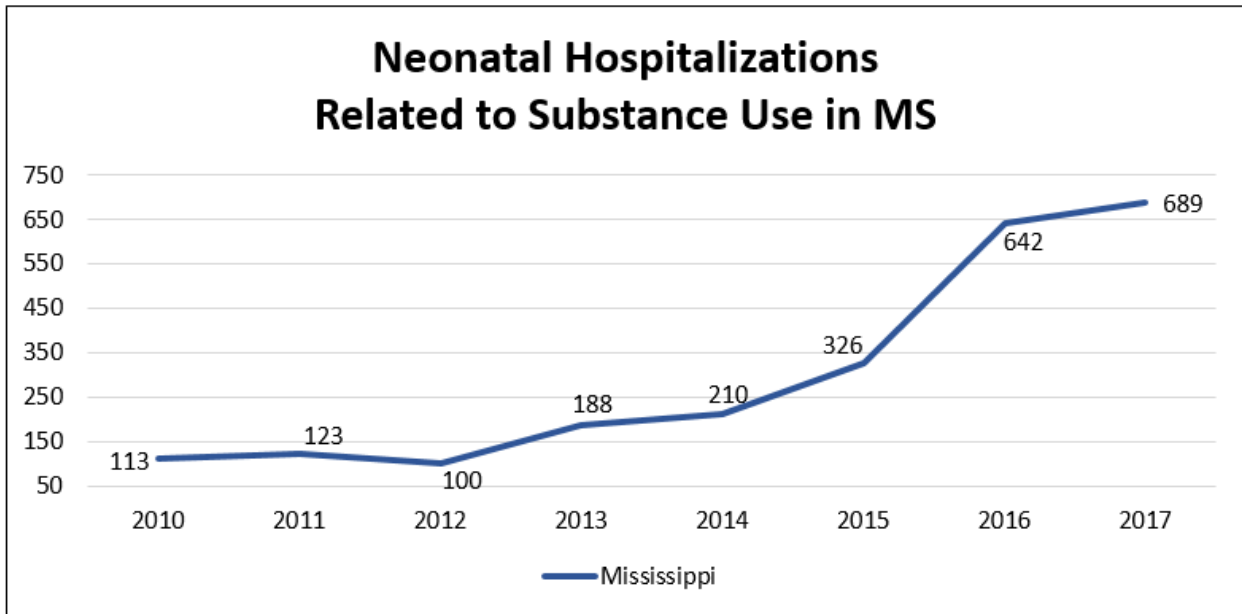
Neonatal abstinence syndrome (NAS) is a group of conditions caused when a baby withdraws from certain drugs he or she has been exposed to in the womb. Although most commonly associated with opioid exposure, other substances can also cause NAS, including antidepressants and benzodiazepines. In addition to the specific difficulties of withdrawal after birth, problems in the baby may include premature birth, seizures, respiratory distress, birth defects, poor growth and other developmental problems.

Due to a variety of challenges in screening infants for NAS, data is not consistently collected among health providers or state entities. Some states have mandated NAS reporting, yet data is likely underreported given the aforementioned challenges.

In May 2019, the Mississippi Department of Health published the Neonatal Hospitalizations Related to Substance Use in Mississippi: Surveillance Report, 2010–2017. The Department of Health identified the following key findings within the report:

- > In Mississippi, neonatal hospital stays related to substance use spiked from 113 in 2010 to 689 in 2017.
- > During 2016–2017, neonatal stays associated with substance use were nearly three times as costly as all other neonatal stays (\$32,451 versus \$12,555). Medicaid was responsible for 77.0% of total hospital charges. Hospital charges increased by 16.6%, from \$19,936,930 in 2016 to \$23,255,948 in 2017.
- > During 2016–2017, comorbidities were highly prevalent among infant stays related to substance exposure — 26.7% had coexisting respiratory conditions, 26.7% had a coexisting low birth weight and 13.9% had a coexisting congenital disease.

- > During 2016–2017, several clusters of high hospitalization rates for infants affected by substance use were identified — the northeastern corner of the state, the Gulf Coast area and the Pine Belt region of southeast Mississippi.

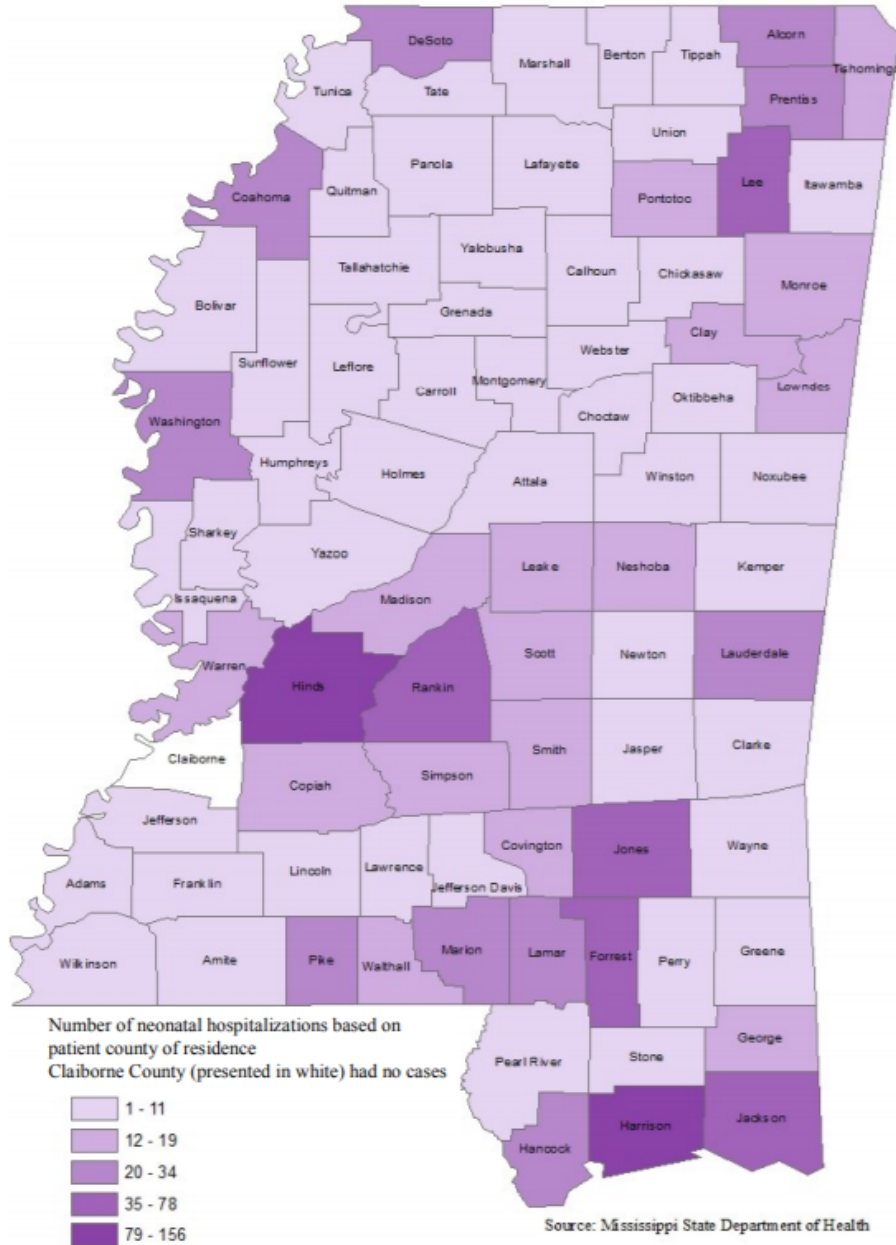


Source: Mississippi Department of Health, 2010–2017

Note: The increase in the number of infant hospitalizations due to substance exposure in 2015 may be attributed to the implementation of new diagnostic codes that allowed for coding of non-specific drug abuse versus specific coding for only three different substances: narcotics, hallucinogens and cocaine.

The statewide rate for infant hospitalizations related to substance use was 16.5 in 2016 and 17.9 in 2017 per 1,000 live births, representing an 8.5% increase. Rates reflect Mississippi residents only and are based on patient county of residence. The following map shows the number of neonatal hospitalizations related to substance use by county.

Neonatal Hospitalizations Related to Substance Use in Mississippi, Combined Data for 2016–2017



The table below shows the number of neonatal hospitalizations related to substance use and the rate per 1,000 live births for Mississippi counties that reported 20 or more cases. Of the 17 Mississippi counties that reported 20 or more cases, DeSoto County ranked No. 17 based on hospitalization rates per 1,000 live births.

**Neonatal Hospitalizations Related to Substance Use
for Counties With More Than 20 Cases**

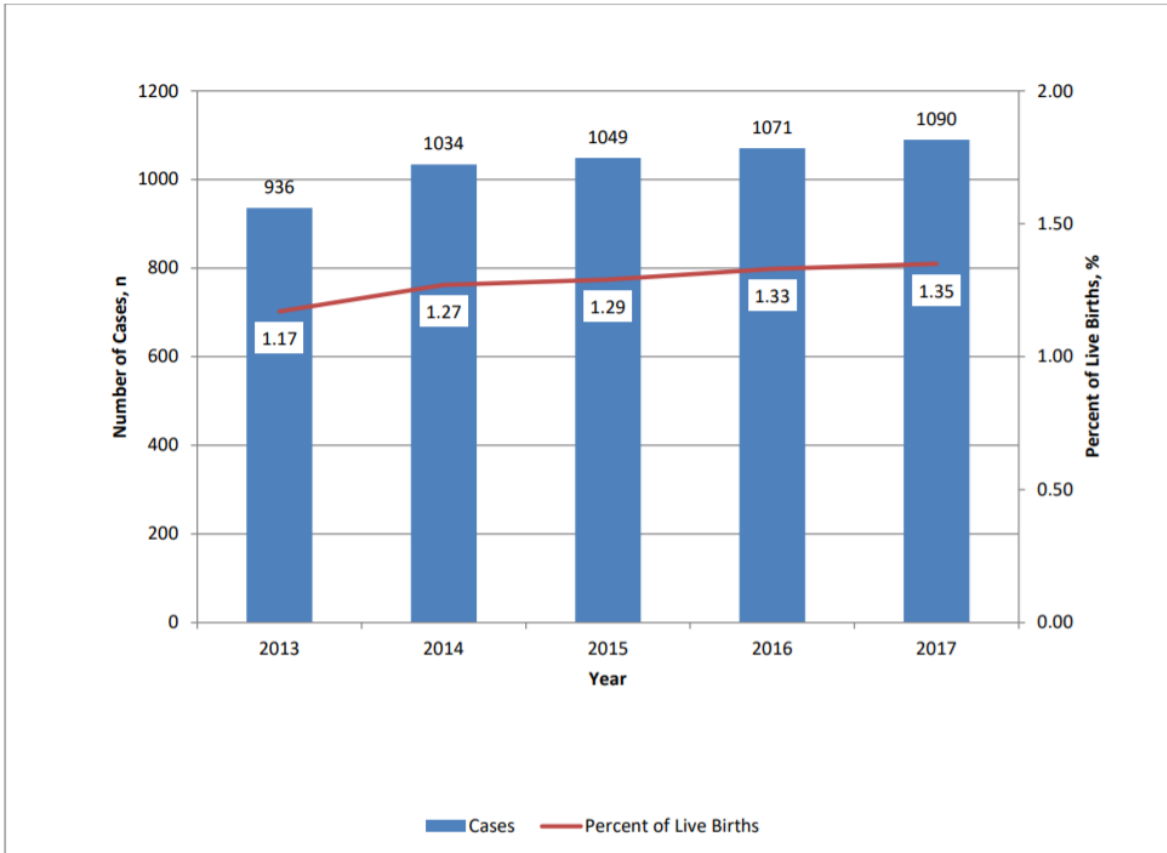
	Number of neonatal hospitalizations related to substance use	Rate per 1,000 live births
Alcorn	34	39.9
Prentiss	25	39.8
Marion	22	37.1
Lee	78	32.8
Coahoma	23	31.0
Pike	33	30.0
Harrison	156	28.5
Hancock	22	24.1
Forrest	43	21.5
Jones	39	21.3
Hinds	132	21.1
Lamar	32	19.8
Washington	21	16.2
Lauderdale	29	14.8
Jackson	40	12.1
Rankin	38	10.7
DeSoto	25	5.8

Source: Mississippi Department of Health, 2016–2017

According to the Tennessee Department of Health's Neonatal Abstinence Syndrome (NAS) Surveillance Annual Report 2017, the incidence of NAS increased 10-fold since the early 2000s, a faster pace than the nation overall. The Department of Health identified the following key findings within the report:

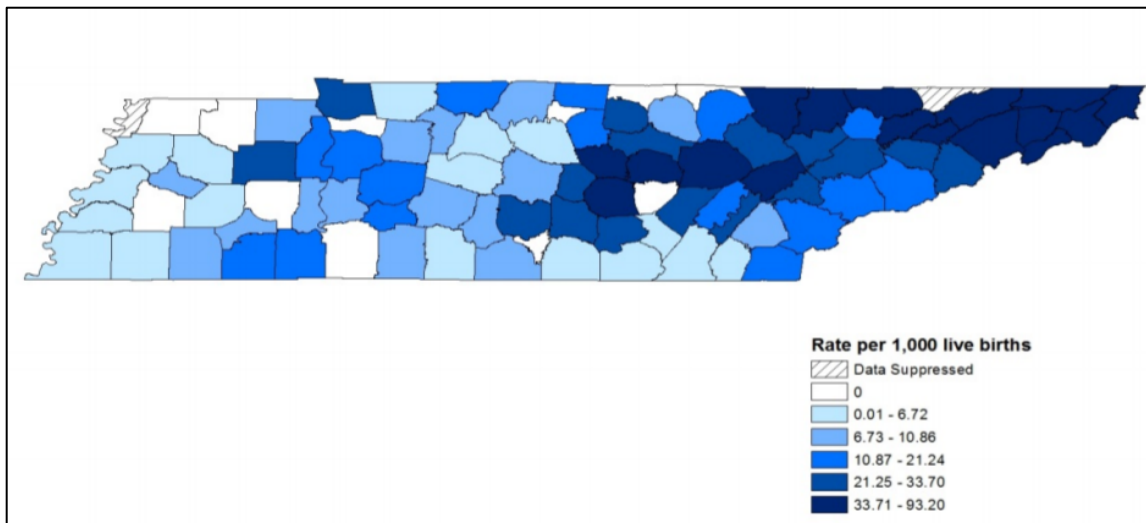
- > While the rate of NAS continues to increase, the rate of increase has slowed.
- > As in previous years, more males were diagnosed with NAS than females.
- > In 2017, most NAS cases were reported by the infant's birth hospital.
- > Rates of NAS increase when moving from west to east across Tennessee.

Number of Cases of Neonatal Abstinence Syndrome in Tennessee as a Percentage of Live Births



Source: Tennessee Department of Health, 2013–2017

Rate of Neonatal Abstinence Syndrome per 1,000 Live Births by Tennessee County, 2017



Source: Tennessee Department of Health, 2017

Maternal and Infant Health

Total Births

The birth rate for DeSoto and Tipton counties is consistent with their respective state birth rate. Shelby County has the highest birth rate, exceeding the state rate, and the highest percentage of births to non-White mothers. In 2016, 58% of births in Shelby County were to Black/African American mothers.

2016 Births by Race

	Total Births	Birth Rate per 1,000	Percent of Total Births to White Mothers	Percent of Total Births to Black/African American Mothers	Percent of Total Births to Hispanic/Latina Mothers
DeSoto County	2,192	12.5	60.9%	29.5%	6.4%
Shelby County	13,219	14.1	36.7%	58.3%	NA*
Tipton County	723	11.8	77.3%	21.3%	NA*
Mississippi	37,928	12.7	51.2%	41.8%	4.4%
Tennessee	80,755	12.1	75.6%	20.3%	NA*

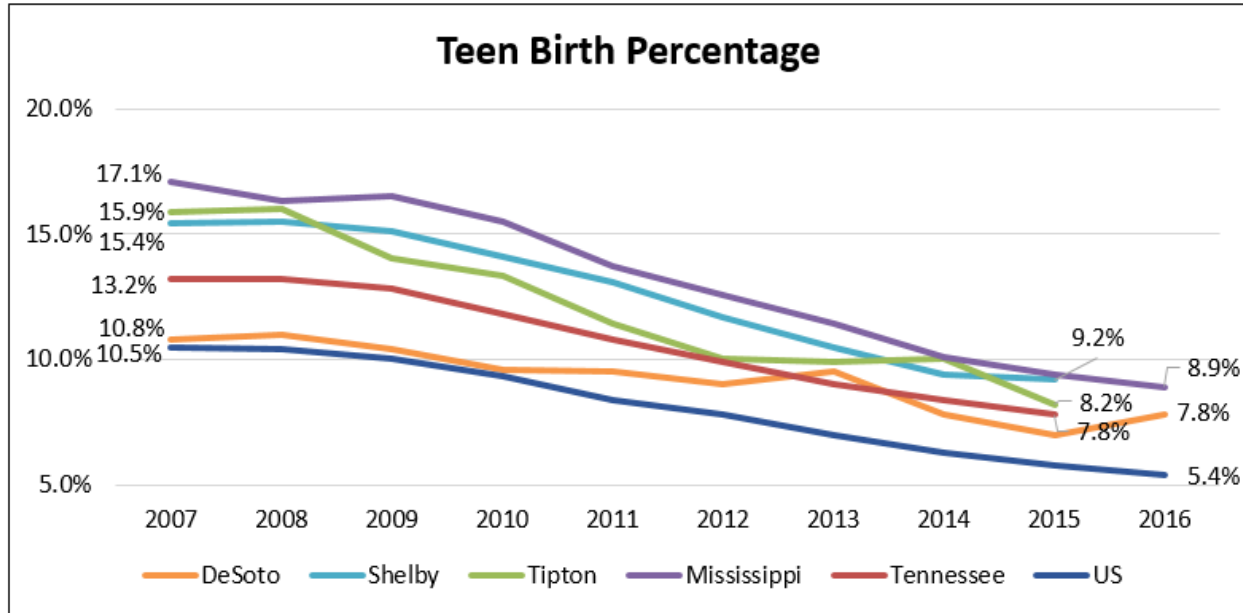
Source: Mississippi Department of Health, 2016; Tennessee Department of Health, 2016

*Data for Tennessee are not reported. Mississippi data includes White, Non-Hispanic and Black/African American, Non-Hispanic birth percentages. Tennessee data includes White and Black/African American birth percentages regardless of ethnicity.

Births to Teens

The percent of live births to teens under age 19 is higher than the national percentage in DeSoto, Shelby and Tipton counties. However, the percent of all live births to teens 19 years old or younger is decreasing in all of the Memphis Metro Service Area, consistent with national trends.

Although the teen birth percentage for all counties is higher than the nation, it is decreasing.



Source: Centers for Disease Control and Prevention, 2007–2016; Mississippi Department of Health, 2007–2016; Tennessee Department of Health, 2007–2015
 *Data for Tennessee is not available for 2016.

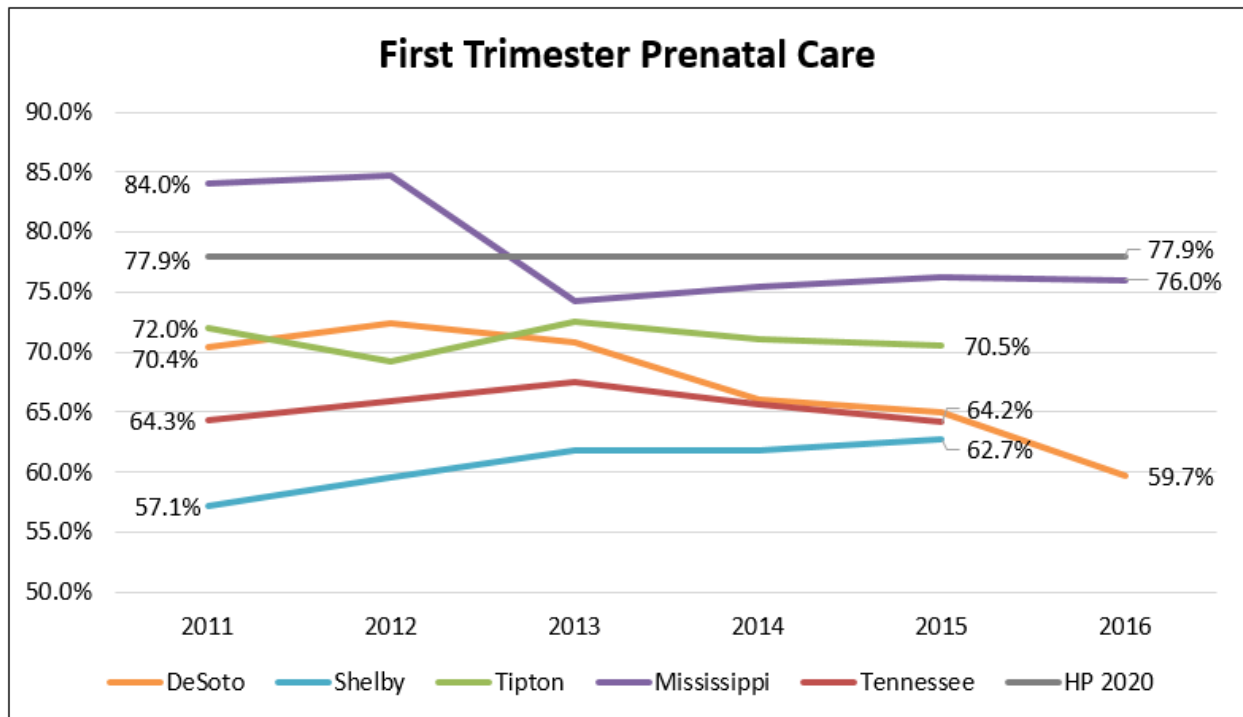
Prenatal Care

Engaging in prenatal care within the first trimester of pregnancy increases the chances that a mother will have a healthy pregnancy and a healthy birth. Entry into prenatal care after the first trimester can suggest barriers to care, such as lack of information, lack of access to health care, transportation challenges or behavioral health needs.

The Memphis Metro Service Area counties do not meet the Healthy People 2020 target of 77.9% for first trimester prenatal care.

Healthy People 2020 sets a target of 77.9% of all pregnant women engaging in prenatal care in the first trimester of pregnancy. None of the counties or states in the Memphis Metro Service Area meet the Healthy People 2020 target with more than 1 in 3 pregnant women not accessing prenatal care during the first trimester. Shelby County has the lowest percentage of mothers accessing first trimester prenatal care, but the percentage increased nearly 6 points from 2011 to 2015.

Note: In 2013, the Mississippi Department of Health started using the clinical estimate of gestation, instead of gestational age based upon last menstrual period, which was used in previous years. This change in methodology accounts for the decrease in women receiving first trimester prenatal care from 2012 to 2013.



Source: Mississippi Department of Health, 2011–2016; Tennessee Department of Health, 2011–2015; Healthy People 2020

*Data for Tennessee is not available for 2016. Starting in 2016, all of the U.S. reported data based on the 2003 U.S. Certificate of Live Birth, providing national indicators for timing of prenatal care. In 2016, 77.1% of mothers across the nation access first trimester prenatal care. Data prior to 2016 are not reported.

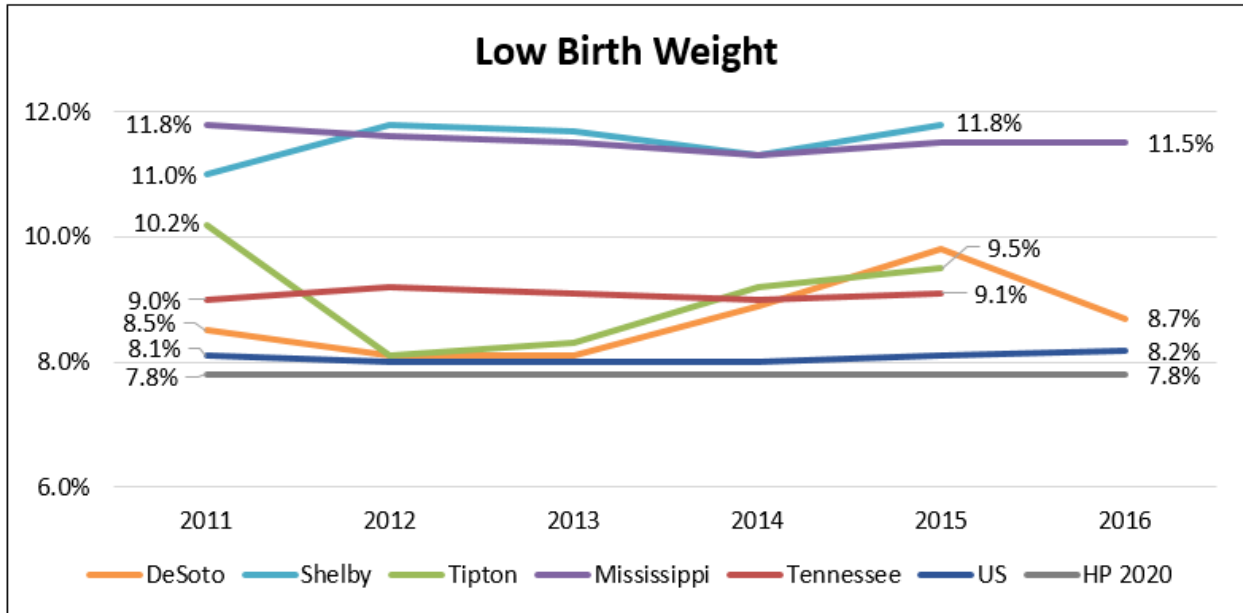
Low Birth Weight and Premature Birth

Delayed prenatal care can contribute to low birth weight and premature birth. Premature birth is defined as birth before 37 weeks of pregnancy, and can contribute to infant death or disability. Low birth weight is defined as a birth weight of less than 5 pounds, 8 ounces, and is often a result of premature birth, fetal growth restrictions or birth defects and can be associated with a variety of negative birth outcomes.

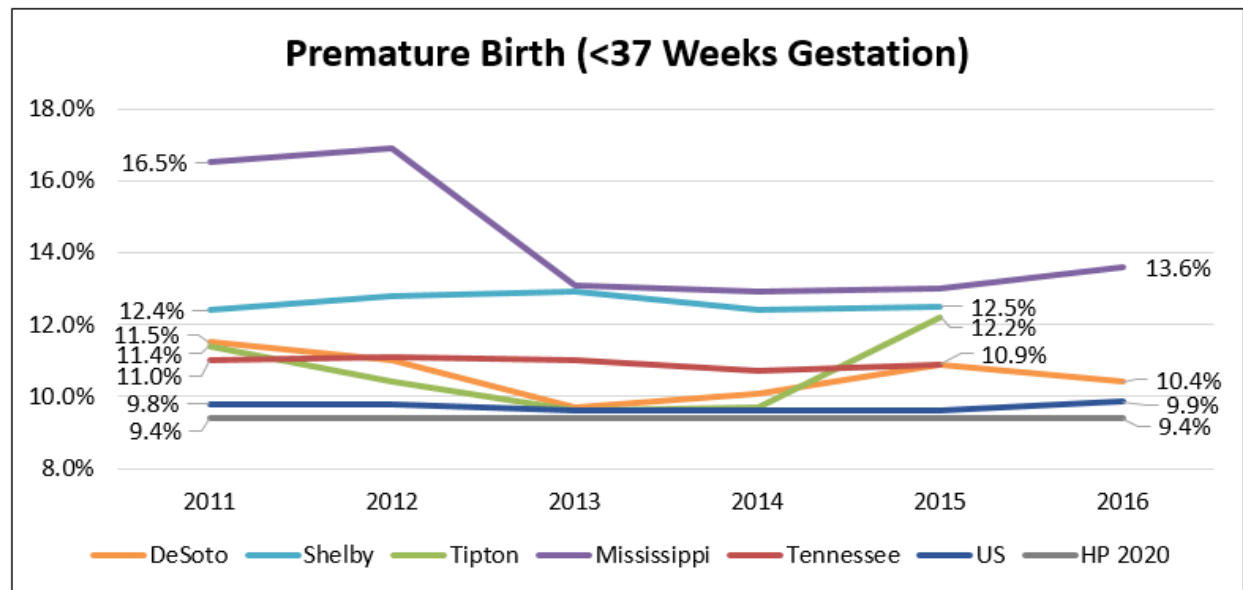
Healthy People 2020 sets a target of no more than 7.8% of all newborns having low birth weight. None of the counties or states in the Memphis Metro Service Area meet the Healthy People 2020 target for low birth weight, and all geographies have higher percentages of low birth weight than the nation in general. Low birth weight percentages have been stable across Mississippi and Tennessee over the past six years.

All counties have higher percentages of low birth weight and premature births when compared to the nation.

Healthy People 2020 sets a target of no more than 9.4% of all births occurring before 37 weeks of pregnancy. There has been variability in the percent of premature births in the Memphis Metro Service Area, but since 2011, the percent of premature births has not met the Healthy People 2020 target. All three counties and both states also exceed the national benchmark for premature births.



Source: Centers for Disease Control and Prevention, 2011–2016; Mississippi Department of Health, 2011–2016; Tennessee Department of Health, 2011–2015; Healthy People 2020
 *Data for Tennessee is not available for 2016.

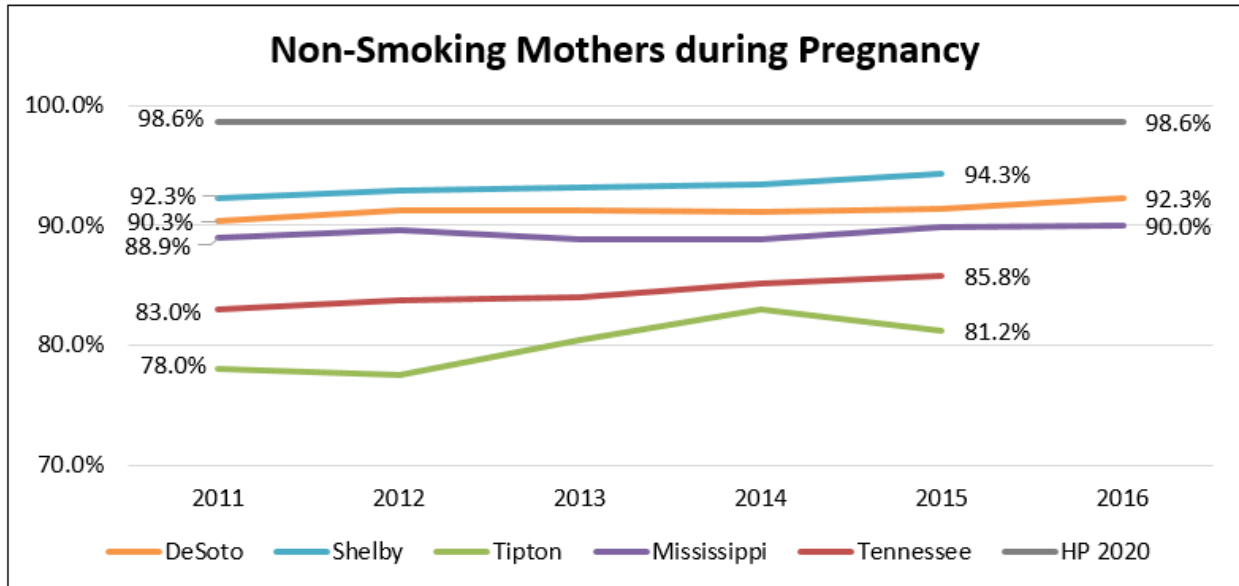


Source: Centers for Disease Control and Prevention, 2011–2016; Mississippi Department of Health, 2011–2016; Tennessee Department of Health, 2011–2015; Healthy People 2020
 *Data for Tennessee is not available for 2016.

Smoking During Pregnancy

Smoking during pregnancy is associated with a variety of negative birth outcomes, including low birth weight and premature birth. Healthy People 2020 set a target of reducing the number of pregnant women who smoke to 1.4%. None of the states or counties in the Memphis Metro Service Area meet the Healthy People 2020 target. One in 5 mothers in Tipton County and nearly 1 in 10 mothers in DeSoto and Shelby counties smoke during pregnancy.

1 in 5 women in Tipton County and 1 in 10 women in DeSoto and Shelby counties smoke during pregnancy.



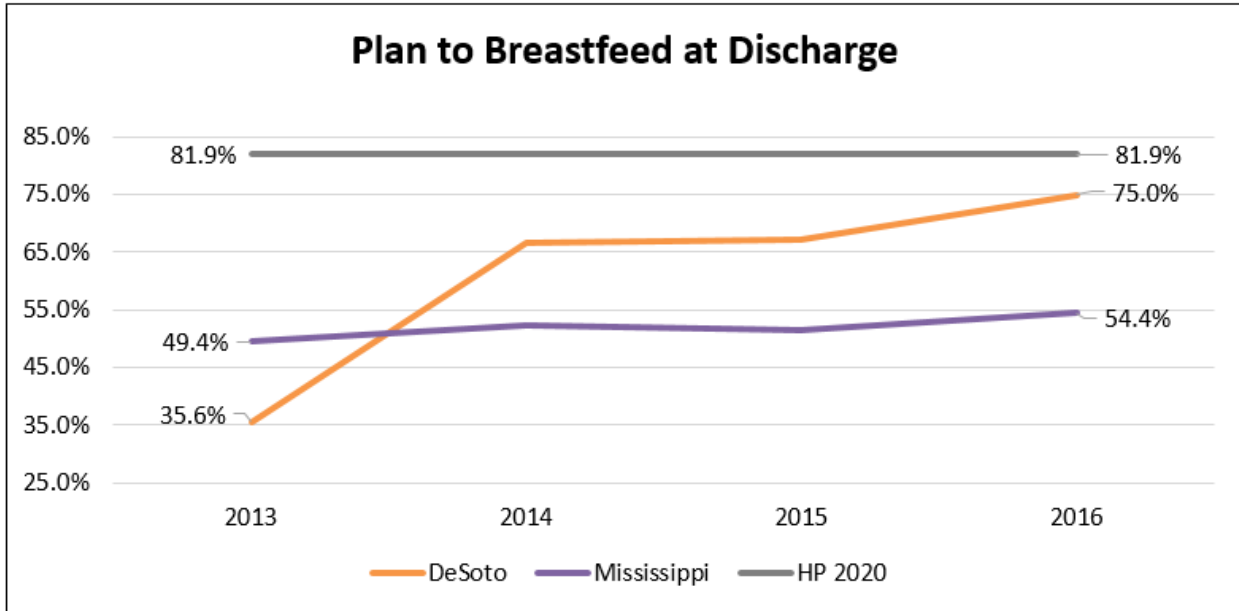
Source: Mississippi Department of Health, 2011–2016; Tennessee Department of Health, 2011–2015; Healthy People 2020

*Data for Tennessee is not available for 2016. Starting in 2016, all of the U.S. reported data based on the 2003 U.S. Certificate of Live Birth, providing national indicators for tobacco use during pregnancy. In 2016, 92.8% of mothers across the nation reported not smoking during pregnancy. Data prior to 2016 are not reported.

Breastfeeding

Breastfeeding is recommended to ensure healthy nutritional intake for babies and to promote bonding between mother and child. Healthy People 2020 set a target for 81.9% of all infants to have initiated breastfeeding at the time of delivery discharge. While DeSoto County has not yet met the Healthy People 2020 target for breastfeeding yet, it has made significant progress since 2013 in supporting mothers to breastfeed. Data are not available for Tennessee counties.

The percentage of DeSoto County mothers that plan to breastfeed more than doubled from 2013 to 2016.



Source: Mississippi Department of Health, 2013–2016; Healthy People 2020
 *Data for Tennessee is not available.

Maternal and Child Health Disparities

Maternal and child health indicators are presented in the table below by race and ethnicity for each county in the Memphis Metro Service Area. In all three counties, Black/African American mothers are more likely than their White and/or Hispanic/Latina peers to not access prenatal care in the first trimester, have low birth weight babies and deliver their babies before 37 weeks gestation. However, Black/African American mothers in all counties are less likely to smoke while pregnant when compared to their peers.

Black/African American mothers in all counties are less likely to access first trimester prenatal care and more likely to have low birth weight and premature babies.

Maternal and Child Health Indicators by Race

	DeSoto County	Shelby County	Tipton County
Mothers with First Trimester Care			
Total Population	59.7%	62.7%	70.5%
White	60.9%	70.7%	71.9%
Black/African American	57.4%	56.4%	67.3%
Hispanic/Latina	58.6%	NA*	NA*
Low Birth Weight Infants			
Total Population	8.7%	11.8%	9.5%
White	7.3%	7.1%	7.7%
Black/African American	12.4%	14.0%	15.0%
Hispanic/Latina	5.0%	NA*	NA*
Non-Smoking Mothers during Pregnancy			
Total Population	92.3%	94.3%	81.2%
White	89.4%	92.8%	79.6%
Black/African American	96.6%	93.5%	96.1%
Hispanic/Latina	97.9%	NA*	NA*
Premature Births			
Total Population	10.4%	12.5%	12.2%
White	9.7%	10.0%	9.3%
Black/African American	12.2%	14.0%	11.8%
Hispanic/Latina	7.9%	NA*	NA*

Source: Mississippi Department of Health, 2016; Tennessee Department of Health, 2015

*Hispanic/Latina percentages are not available for Shelby and Tipton counties. Mississippi data includes White, Non-Hispanic and Black/African American, Non-Hispanic birth percentages. Tennessee data includes White and Black/African American birth percentages regardless of ethnicity.

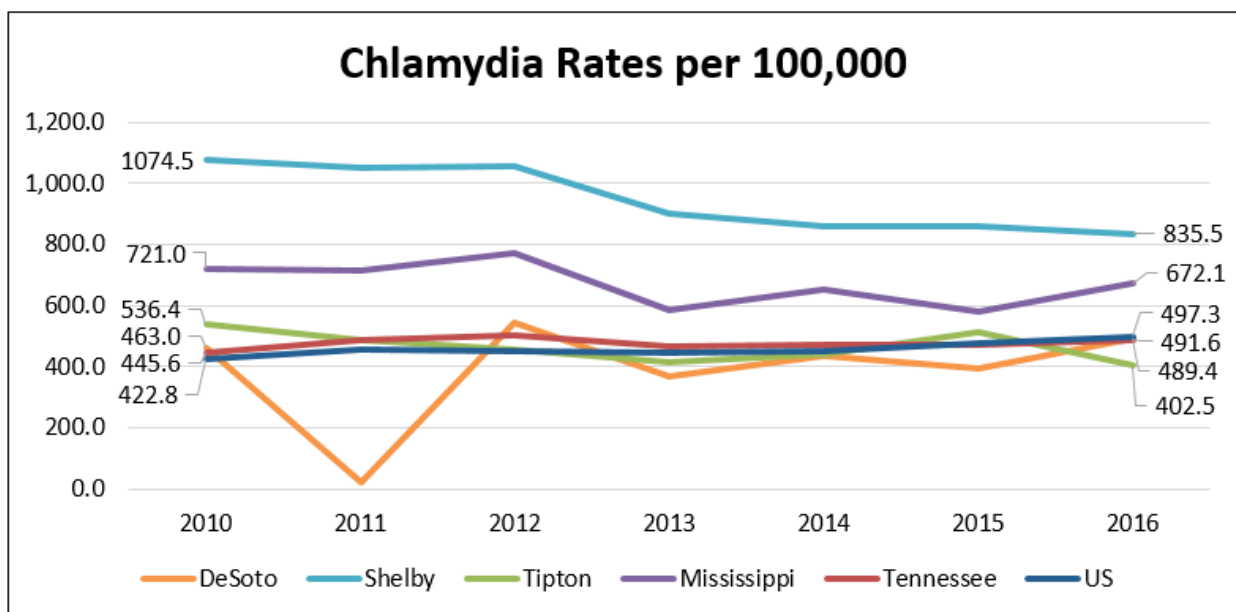
Notifiable Diseases

Sexually Transmitted Infections

Sexually transmitted infections (STIs) that require reporting to the CDC, state and local health bureaus upon detection include chlamydia, gonorrhea and HIV.

Chlamydia is both preventable and treatable, but if left untreated can lead to serious complications and decreased quality of life. The incidence of chlamydia in DeSoto and Tipton counties is consistent with national trends. The Shelby County infection rate declined, but the current rate is nearly twice the rate of infection for the nation or the other counties in the Memphis Metro Service Area.

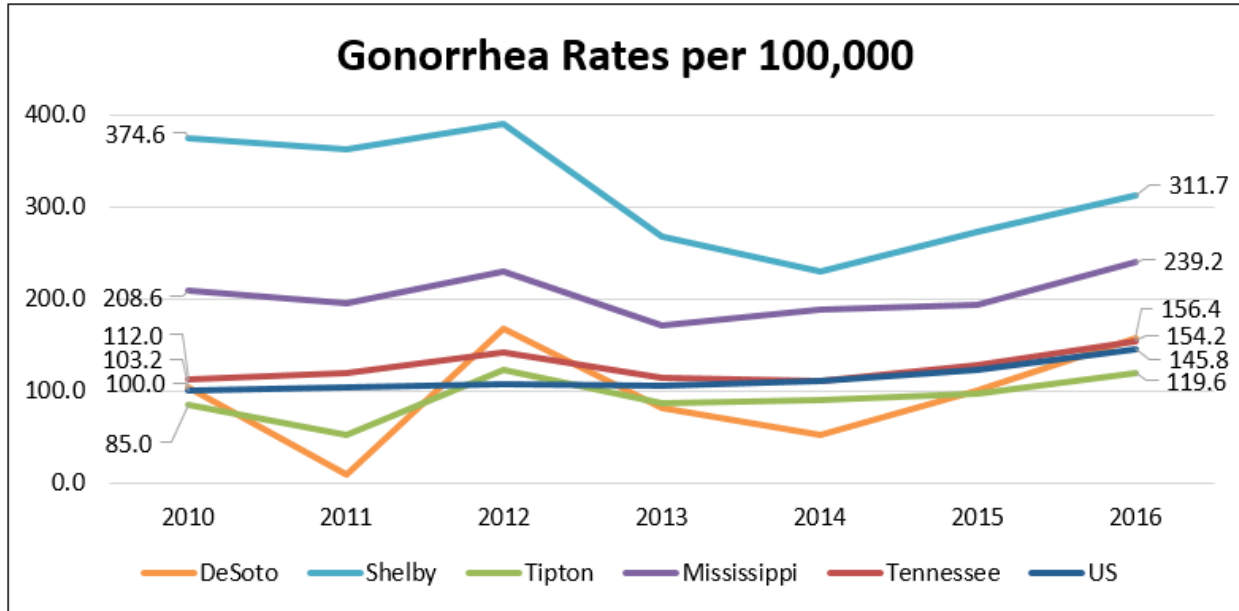
Rates of chlamydia, gonorrhea and HIV are approximately double in Shelby County compared to the nation.



Source: Centers for Disease Control and Prevention, 2010–2016

Gonorrhea is also preventable, treatable and can contribute to serious health complications and reduced quality of life. While the rates of gonorrhea are generally consistent with national rates in DeSoto and Tipton counties, they have increased. In Shelby County, the rate of gonorrhea infection is nearly double the national rate. The Shelby County rate decreased from 2010 to 2014, but increased through 2016.

The gonorrhea rate increased in all counties from 2014 to 2016.



Source: Centers for Disease Control and Prevention, 2010–2016

HIV prevalence is the number of people living with HIV infection at a given time, such as at the end of a year. According to the CDC, “At the end of 2015, an estimated 1.1 million persons aged 13 and older were living with HIV infection in the U.S., including an estimated 162,500 (15%) persons whose infections had not been diagnosed.” While there is no cure for HIV, it is preventable and treatable as a chronic disease if diagnosed early.

The rate and number of people diagnosed with HIV infection is relatively low in DeSoto and Tipton counties compared to state and national rates. The prevalence of HIV infection in Shelby County is roughly twice the national rate.

HIV Prevalence

	Cases	Rate Per 100,000
DeSoto County	292	206.3
Shelby County	5,731	749.7
Tipton County	81	159.5
Mississippi	9,236	374.0
Tennessee	16,425	297.4
United States	971,524	362.3

Source: Centers for Disease Control and Prevention, 2015

Secondary data findings were analyzed as part of the 2019 CHNA to inform health priorities. Secondary data is valuable for tracking and benchmarking community health status indicators, as well as for identifying emerging community needs.

Key Informant Survey Findings

Background

A Key Informant Survey was conducted with community representatives within Baptist's Memphis Metro Service Area to solicit information about health needs among residents. A total of 80 individuals responded to the survey, including health and social service providers; community and public health experts; civic, religious and social leaders; policy makers; elected officials; and others representing minority, low-income or other underserved populations. A list of the represented community organizations and the key informants' respective titles is included in Appendix B. Key informant's names are withheld for confidentiality.

Survey participants were asked a series of questions about their perceptions of community health status, health drivers, barriers to care, community infrastructure and gaps in services. A summary of findings from their responses is included below.

Summary of Findings

- > The top community health concerns, in rank order according to key informants, are diabetes, mental health conditions, drug or alcohol abuse, heart disease and stroke and overweight/obesity. In comparison to 2016 CHNA Key Informant Survey results, mental health and substance abuse conditions are greater perceived concerns.
- > The top contributing factors to identified health concerns, in rank order, are ability to afford health care, health habits, poverty, lack of preventive health care and stress. In comparison to 2016 survey results, economic barriers are greater perceived contributors to health concerns.
- > When asked if various health care services are available in the community, respondent mean scores were between 2.28 and 3.24 out of 5, indicating overall disagreement or neutral perspectives. Mental health and substance use disorder providers were considered the least available services.
- > When asked to rate community dimensions affecting social determinants of health, respondent mean scores were between 2.37 and 2.81 out of 5, indicating overall "poor" or "average" ratings. Education and health and health care were seen as the strongest dimensions. Overall mean scores for all dimensions decreased from the 2016 CHNA.
- > Nearly 60% of key informants indicated that their organization currently collaborates with Baptist to improve the health of the local community; nearly 80% expressed interest in collaboration opportunities.
- > Mental health services were the top identified missing resource by 61% of informants. Transportation options and health and wellness education and programs were the other top identified missing resources by more than half of informants.

Survey Participants

More than 40% of key informants indicated that they served all populations across Baptist’s Memphis Metro Service Area. The most commonly served special population groups were children/youth, Black/African American and families. “Other” populations served, as indicated by respondents, included pregnant women, breast cancer survivors, health professionals, public health facility patients and multicultural residents.

Populations Served by Key Informants

	Percent of Informants*	Number of Informants
Not Applicable (serve all populations)	42.5%	34
Children/Youth	41.3%	33
Black/African American	40.0%	32
Families	38.8%	31
Low-Income/Poor	36.3%	29
Women	32.5%	26
Seniors/Elderly	25.0%	20
White	25.0%	20
Men	23.8%	19
Uninsured/Underinsured	22.5%	18
Hispanic/Latino	21.3%	17
Disabled	16.3%	13
Homeless	13.8%	11
Asian/Pacific Islander	12.5%	10
Immigrant/Refugee	12.5%	10
LGBTQ+ Community	12.5%	10
American Indian/Alaska Native	8.8%	7
Other	6.3%	5

*Key informants were able to select multiple populations. Percentages do not add up to 100%.

Health Perceptions

Choosing from a wide-ranging list of health issues, key informants were asked to rank order what they perceived as the top five health concerns affecting the population(s) they serve. An option to “write in” any issue not included on the list was provided. The informants were then asked to similarly rank order what they saw as the top five contributing factors to those health concerns. The top 10 responses for each question are depicted in the tables below. The tables are rank ordered by the percentage of respondents that selected the issue among the top five health concerns. The number of informants that selected the issue as the No. 1 health concern is also shown.

Approximately 60% of informants chose the following issues among the top five community health concerns: diabetes, mental health conditions, drug or alcohol abuse, heart disease and stroke and overweight/obesity. Among these conditions, nearly 1 in 5 informants chose diabetes and overweight/obesity as the No. 1 health concerns. Cancer was also selected by nearly 1 in 5

informants as the #1 health concern, but only 44% of informants selected it among their top five choices.

A similar Key Informant Survey was conducted as part of the Baptist 2016 CHNA. The top five health concerns identified by 2016 survey respondents, in rank order, were diabetes, overweight/obesity, heart disease, behavioral health and hypertension. The 2019 survey results indicate similar perception of chronic conditions as the top community health issues and increasing concern for mental health and substance abuse conditions.

Top 10 Health Concerns Affecting Residents

Ranking	Health Concern	Top 5 Health Concerns Selected by Informants		Top (No. 1) Health Concern Selected by Informants	
		Percent*	Count	Percent	Count
1	Diabetes	58.7%	44	17.3%	13
2	Mental health conditions	57.3%	43	5.3%	4
3	Drug or alcohol abuse	56.0%	42	12.0%	9
4	Heart disease and stroke	54.7%	41	4.0%	3
5	Overweight/Obesity	53.3%	40	20.0%	15
6	Cancer	44.0%	33	17.3%	13
7	Tobacco use	21.3%	16	1.3%	1
8	Alzheimer's disease/dementia	20.0%	15	4.0%	3
9	Domestic violence	17.3%	13	2.7%	2
10	Firearm-related violence	16.0%	12	2.7%	2

*Key informants were able to select multiple health concerns. Percentages do not add up to 100%.

Correlation between the percent of informants selecting a contributing factor among their top five choices and the percent of informants selecting a contributing factor as their No. 1 choice demonstrates consistent perspectives regarding the top selection: ability to afford health care. Nearly 1 in 4 informants saw this factor as the top contributor to health concerns among residents and nearly 60% chose it among their top five selections. Health habits was also selected by nearly 60% of informants as a top five contributor, but only 1 in 10 informants selected it as the No. 1 contributor. It is worth noting that 49% of informants selected poverty as a top five contributing factor and 1 in 5 informants selected it as the No. 1 contributing factor.

The top contributing factors identified by 2016 CHNA Key Informant Survey respondents, in rank order, were lack of knowledge/awareness of the value of preventative care/screenings, lack of physical activity, lack of good nutrition, stress and lack of preventative care/screenings. The 2019 survey results indicate greater perceived impact of economic barriers.

Top 10 Contributing Factors to Community Health Concerns

Ranking	Contributing Factor	Top 5 Contributors Selected by Informants		Top (No. 1) Contributor Selected by Informants	
		Percent*	Count	Percent	Count
1	Ability to afford health care (doctor visits, prescriptions, deductibles, etc.)	58.1%	43	21.6%	16
2	Health habits (diet, physical activity)	58.1%	43	12.2%	9
3	Poverty	48.6%	36	20.3%	15
4	Lack of preventive health care (screenings, annual check-ups)	25.7%	19	6.8%	5
5	Stress (work, family, school, etc.)	24.3%	18	2.7%	2
6	Availability of healthy food options	23.0%	17	4.1%	3
7	Drug/Alcohol use	23.0%	17	6.8%	5
8	Health literacy (ability to understand health information)	23.0%	17	0.0%	0
9	Inadequate or no health insurance	21.6%	16	1.4%	1
10	Crime/Violence/Community blight	20.3%	15	1.4%	1

*Key informants were able to select multiple contributing factors. Percentages do not add up to 100%.

To expand upon their quantitative responses to the previous questions, informants’ were invited to provide free-form comments about the topics. Verbatim comments are included below by overarching theme.

Access to Care and Social Determinants of Health

- > *“There are so many factors contributing [factors] and many of them are interrelated. Poverty leads to lack of access to health care and health education and wellness programs and health food options. Stress leads to mental health issues, and lack of or limited access to mental health providers prevents patients from taking care of their overall health. There are transportation issues in regards to public transportation and insurance companies not providing assistance with transportation. There are political decisions that are being made that limit access to affordable health care and prescriptions. Prescription costs are prohibitive, copays are prohibitive. Demands and regulations on health care professionals limit face to face patient time. It’s a mess right now.”*
- > *“[Limited] hours of operation for service providers is a real issue.”*
- > *“In a community with high rates of poverty, "health" may not rise to the top of an individual list of priorities. Poverty is a community ill that is at the core of many issues facing a community. As a community, we typically do not dive deep into health issues. For example, if an individual is not compliant with their health providers' plan of care for diabetes, it may be that the person does not understand the consequences of unhealthy foods. It may be that the person does not understand because they have limited vocabulary; the person may have not finished high school because of an undiagnosed mental illness. It may be that the person was not diagnosed because he/she did not have a medical home. Why no medical home? Because parents worked low paying jobs*

with no medical insurance benefits. Maybe class, race, education, etc. were at play. Until we get to solutions for root causes, our community will not thrive to its fullest potential.”

- > *“Too many OB patients have no prenatal care, thus no health records, low birth weight babies and cause an increase in the NICU census. Often, children who come to the ED have not been properly cared for by their parents. Some of this is lack of knowledge. I am very pleased with the hospital staff and administration. They are excellent!”*
- > *“I believe our community is hungry for assistance with health and wellness, but have a fear of the unknown. [They are] afraid to go to the doctor because of no insurance and no income. People are dying because they feel that the human life has no value.”*

Community Health Improvement and Resources

- > *“Mississippi is known as the leader in childhood obesity. Our school system has worked to get students to develop, sustain and expand on positive changes in the school nutrition and physical activity environments in order to offer and promote healthy choices for students. Our goal is to support and promote nutrition and increased physical activity that impact student achievement. The problem is that most bad eating habits are learned at home. Fresh fruits and vegetables are expensive. Poverty plays a role in poor nutrition.”*
- > *“The area and people that need the more intervention services; the less you can find them where they are needed. We have no community organizations that are working with the hard to reach population. There was an agency within the area that was considered the worst part of Covington, they made a major difference. When the organization that worked with at-risk children and their families was in action in the community, everybody won. Families were helped to become more responsible, children were kept in school and became helpful people themselves, crime was down and neighborhoods were safer especially those that served these children. The organization failed after the founder left (after 20 years of building and refining) and the new people didn't continue the programs. The difference is a caring-purposed community involvement agency with a true interest in helping the people they are serving.”*
- > *“Having had personal experience with a parent with Alzheimer's, I have found the lack of resources to just be overwhelming. On top of insufficient financial resources, there is not enough social support for families. Medicare should do more to help with hospitalization and even long term care, etc. At a certain point in the disease process, these people absolutely cannot make decisions for themselves or even do simple self-care. So much change is needed in the way this is handled in our community and in our country.”*

Health Care Access

Key informants were asked to rate their agreement to statements pertaining to the health of the community and access to care using a scale of (1) “strongly disagree” to (5) “strongly agree.”

Approximately 64% of informants “disagreed” or “strongly disagreed” that their community is healthy, while 13% of informants “agreed” that their community is healthy. Access to adequate and timely health services is a key contributor to the health of a community.

Cultural sensitivity among providers and the number of providers accepting Medicaid received the highest mean scores among health care access indicators. However, informants had differing perspectives on the number of providers accepting Medicaid. Approximately 30% of informants “agreed” or “strongly agreed” that there were a sufficient number of providers accepting Medicaid, but 34% “disagreed” or “strongly disagreed.”

The number of providers treating mental health conditions and substance use disorders received the lowest mean scores. Approximately 60% of informants “disagreed” or “strongly disagreed” that there are a sufficient number of these providers in the service area.

Access to primary care and preventive screenings are also top concerns for the service area. Slightly more than half of all informants indicated that residents do not have a regular primary care provider, receive recommended preventive screenings and checkups, have health insurance or have transportation for medical appointments or other services.

Resident Health Care Access in Descending Order by Mean Score

	Informants Strongly Disagree	Informants Disagree	Informants Neither Agree nor Disagree	Informants Agree	Informants Strongly Agree	Mean Score (1–5)
Providers in our community are culturally sensitive to race, ethnicity and cultural preferences of patients.	7.6%	13.9%	31.6%	40.5%	6.3%	3.24
There are a sufficient number of providers that accept Medicaid in our community.	7.6%	26.6%	35.4%	29.1%	1.3%	2.90
Residents in our community have available transportation for medical appointments and other services.	17.5%	36.3%	17.5%	25.0%	3.8%	2.61
Residents have health insurance.	7.6%	46.8%	26.6%	17.7%	1.3%	2.58
Residents receive recommended preventive screenings and checkups.	8.9%	45.6%	31.6%	11.4%	2.5%	2.53
Residents in our community have a regular primary care provider/doctor/practitioner that they usually go to for health care.	13.9%	39.2%	27.8%	17.7%	1.3%	2.53
I would describe our community as healthy.	12.5%	51.2%	23.8%	12.5%	0.0%	2.36
There are a sufficient number of providers treating substance use disorders in our community.	24.1%	35.4%	26.6%	12.7%	1.3%	2.32
There are a sufficient number of mental health providers in our community.	25.3%	38.0%	21.5%	13.9%	1.3%	2.28

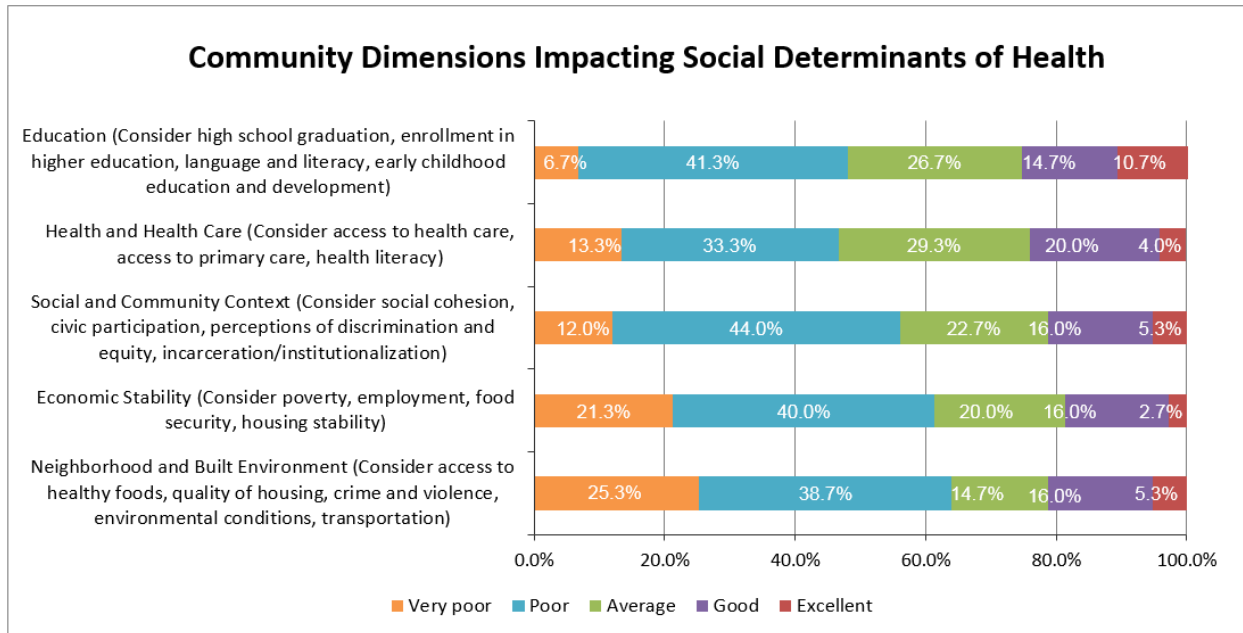
Social Determinants of Health

Healthy People 2020 defines social determinants of health as conditions in the environment in which people are born, live, learn, work, play, worship and age that affect a wide range of health, function and quality of life outcomes and risks. Informants were asked to rate five community dimensions that most highly affect social determinants of health — economic stability; education; health and health care; neighborhood and built environment; and social and community context using a scale of (1) “very poor” to (5) “excellent.”

The mean score for each dimension is listed in the table below in rank order, followed by a graph showing the scoring frequency. Mean scores were between 2.37 and 2.81 out of 5, with most respondents rating the listed dimensions as “poor” or “average.” Consistent with the 2016 Key Informant Survey results, education and health and health care were seen as the strongest community dimensions, ranked as #1 and #2 respectively. Overall mean scores for all dimensions decreased from the 2016 survey results.

Ranking of Community Dimensions Impacting Social Determinants of Health in Descending Order by Mean Score

Ranking	Community Dimension	2019 Results	2016 Results
		Mean Score	Mean Score
1	Education	2.81	2.93
2	Health and Health Care	2.68	2.93
3	Social and Community Context	2.59	2.84
4	Economic Stability	2.39	2.47
5	Neighborhood and Built Environment	2.37	2.71

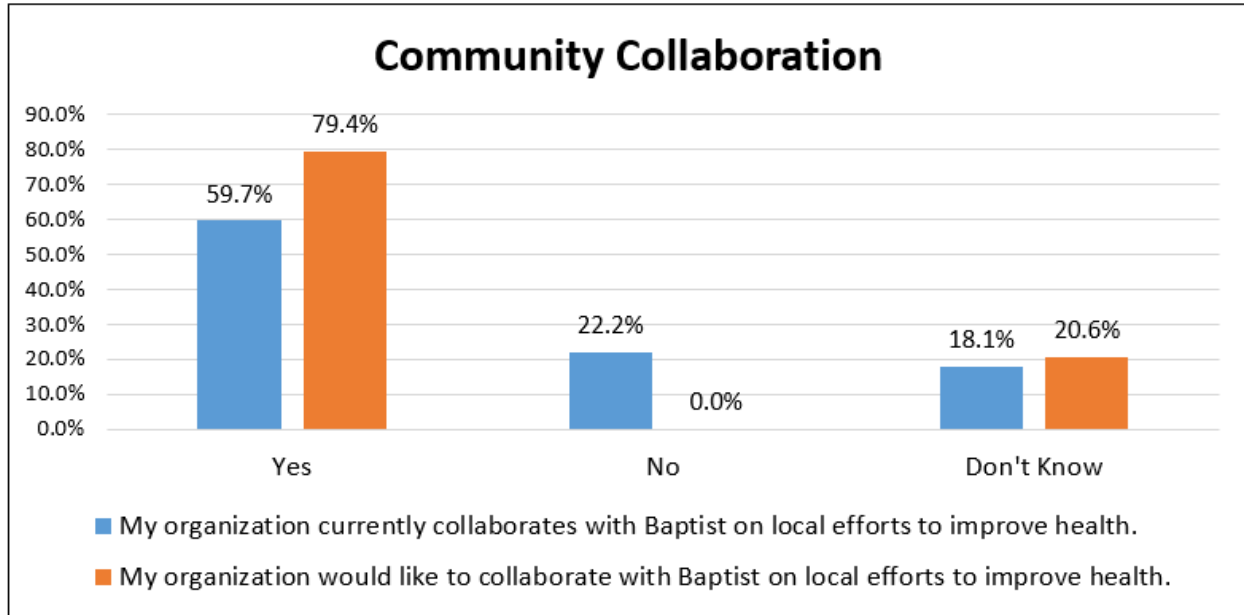


Key informants acknowledged the effect of social determinants on resident health, particularly their behavioral health. Informants noted an increase in behavioral health needs and a lack of treatment services in the community. Specific comments by informants are included below.

- > *“DeSoto County residents have more job opportunities and training available than probably any place in Mississippi. This is a safe place to live. Affluence brings another set of problems, like heroin addictions or drug/alcohol problems. Life is about choices. I think good choices are here if people want them.”*
- > *“Most of the people that we serve are indigent. Most often what impacts this [population] the most is the disease of addiction. Without a way of addressing this disease in a manner that not only removes the chemicals from their system, but teaches skills that helps to raise their level of functioning, not much else will matter for them.”*
- > *“Our city has a lot of crime, poverty, substandard schools, racial tension, gun violence, etc. Yet, another part of the city has an affluent population. Memphis is an exemplary medical center, but the underserved do not have health literacy or, in some cases, access to health care (transportation).”*
- > *“Our population, being in the health care field, have access to a lot of these resources but because of fear, shame and stigma, high expectations by colleagues and supervisors or not recognizing their own symptoms and being in denial, they are among the last to practice self-care.”*
- > *“Quality health service providers are not found in poor and true urban areas.”*
- > *“There seems to be a limited number of mental health professionals that DeSoto residents have access to in this area. I suppose many would need to go to Memphis to get these needs met.”*
- > *“We have allowed the city to disintegrate in certain areas and then wonder why crime has increased. You can see the pattern of poor education, poverty, lack of adequate homes, food, health care, crime and deterioration of the neighborhood that leads to people moving, which leads to deterioration of the entire city.”*

Leveraging Community Resources to Effect Health

Approximately 60% of key informants indicated that their organization currently collaborates with Baptist to improve the health of the local community. Nearly 80% of informants expressed interest in collaboration opportunities with Baptist.



Key informants were asked what resources are missing in the community that would help residents optimize their health. Respondents could choose as many options as they saw as needed. Approximately 61% of informants chose mental health services as a missing resource within the community. More than half of informants included transportation options and health and wellness education and programs. Community health screenings and healthy food options rounded out the top five selections by informants with 48% selecting them as missing resources.

Top Missing Resources Within the Community to Optimize Health

Ranking	Resource	Percent of Informants	Number of Informants
1	Mental health services	60.9%	42
2	Transportation options	56.5%	39
3	Health and wellness education and programs	53.6%	37
4	Community health screenings (blood pressure, cancer risk, stroke, etc.)	47.8%	33
4	Healthy food options	47.8%	33
6	Adult education (GED, training, workforce development)	46.4%	32
7	Substance abuse services	44.9%	31
8	Community support groups	42.0%	29
8	Social services assistance (housing, electric, food, clothing)	42.0%	29
10	Affordable housing	40.6%	28
10	Dental care	40.6%	28
10	Early childhood education	40.6%	28
10	Outlets for physical activity (parks, recreation centers, gyms, walking trails, etc.)	40.6%	28

Specific comments related to missing resources in the community are included below. Several informants indicated that the listed resources are available in the community, but that they may not be reaching the individuals most in need of them.

- > *“Services are present within certain Zip Codes and sectors in the community. The concern is that poverty drives demand and access to services are problematic. Social determinants of health are root causes of the community health issues. Increased efforts must be placed in ensuring babies are born healthy and remain healthy across their lifespan. [We] need more protective services for age 0 to 21, i.e. wrap around services.”*
- > *“I think that indigent people receiving services should be treated with respect. I think that when they are physically and mentally able, they should be able to receive health services during times that will allow them to not have to miss work in order to receive care. I also think that more clinics in the community should be more conscious of the cost of medicines. There are some safety net programs, but not enough clinics offer this.”*
- > *“I think in a town as small as Covington and county as small as Tipton, we need better coordination between all services helping the most needy citizens. We need to cut down on some people getting too much and some not getting any. I think a Health and Safety Council should be formed to share what and with whom things are being given, allowing as much sharing and disclosure as possible.”*
- > *“All of the resources listed above are necessary for a healthy, flourishing community. The key missing factor is: Are the resources quality, culturally sensitive and equitable for ALL.”*

Key Informant Survey findings were considered in conjunction with statistical secondary data to determine health priorities. Key Informant Survey data is valuable in informing community strengths and gaps in services, as well as wider community context for secondary data findings.

Summary of Focus Groups

Background

As part of the 2019 CHNA, focus groups were conducted in communities across the Baptist Mid-South Service Area with residents who have had experiences with cancer. The objectives of the focus groups were to collect perspectives on provider awareness of local and regional cancer services; collect patient experiences related to care delivery; understand consumers' views on preventive screenings; define barriers to accessing cancer services; and collect socioeconomic insights and barriers to care management. In total, 98 people participated in the discussion groups as listed below by locations and participants per region.

Memphis Metro Service Area

Germantown: 15 attendees

Southaven: 12 attendees

Northeast Arkansas Service Area

Jonesboro: 12 attendees

North Mississippi Service Area

Batesville: 9 attendees

Columbus: 14 attendees

Central Mississippi Service Area

Canton: 17 attendees

Carthage: 7 attendees

Jackson: 12 attendees

Recruitment efforts did not produce enough participants to hold focus groups in the West Tennessee Service Area.

Social Determinants of Health Survey

Focus Group participants were asked to complete an anonymous social determinants of health survey at the onset of each focus group. The survey assessed participants' access to health care, food security, housing status, safety perceptions and transportation availability. Survey questions and responses are shown below. Responses are compared across regions.

Note: The Northeast Arkansas focus group was conducted with key hospital partners and donors; the survey was not administered to this focus group to avoid skewing overall results.

Has there been a time in the past six months when you could not afford your health care, including medicine, doctor visits, procedures or other health costs?

	Often	Sometimes	Seldom	Never
Memphis Metro	7.4%	44.4%	14.8%	33.3%
Central Mississippi	16.7%	41.7%	8.3%	33.3%
North Mississippi	17.4%	39.1%	13.0%	30.4%

Has there been a time in the past six months that you worried you would not be able to afford food?

	Often	Sometimes	Seldom	Never
Memphis Metro	3.7%	11.1%	22.2%	63.0%
Central Mississippi	2.8%	27.8%	13.9%	55.6%
North Mississippi	8.7%	13.0%	17.4%	60.9%

Has there been a time in the past six months that you worried you would not have a place to live?

	Often	Sometimes	Seldom	Never
Memphis Metro	0.0%	11.1%	11.1%	77.8%
Central Mississippi	0.0%	11.1%	8.3%	80.6%
North Mississippi	17.4%	4.3%	8.7%	69.6%

Has there been a time in the past six months that you have not felt safe in your home?

	Often	Sometimes	Seldom	Never
Memphis Metro	0.0%	11.1%	22.2%	66.7%
Central Mississippi	2.8%	13.9%	13.9%	69.4%
North Mississippi	8.7%	8.7%	13.0%	69.6%

Do you have transportation available to you when you need it?

	Often	Sometimes	Seldom	Never
Memphis Metro	88.9%	3.7%	3.7%	3.7%
Central Mississippi	75.0%	19.4%	0.0%	5.6%
North Mississippi	73.9%	8.7%	13.0%	4.3%

Key Discussion Takeaways

Health Care Provider Preferences

Patients who received care at Baptist and their caregivers had positive experiences.

About half of all focus group participants had received cancer services from Baptist or cared for someone who did. The wide majority of these individuals had positive feedback about Baptist's cancer services. Positive experiences of their care included expertise of the providers; compassion of staff; ease of access via MyChart for physician communication and test results; and Baptist's reputation for quality care. Specific participant comments included:

- *"I was treated like a person at Baptist."*
- *"I like that they have a panel of doctors that meets weekly to discuss tough cases."*
- *"I feel at ease because of their reputation."*
- *"I would try [Baptist Memorial Hospital–Crittenden] if I was diagnosed with cancer in the future because it is in the Baptist system, and it has a good reputation."*

Participants perceived little differentiation in quality of cancer care between systems or networks. While individual system and provider preferences exist, provider and network options for cancer care and treatment were generally regarded as high quality across the region. Preferences and perceptions noted among regional competitors are included below.

- West Cancer Center in Southaven: Patients did not have a good first impression. The waiting room was "congested" and "filled with people who just didn't look healthy." Patients often "felt like cattle."
- NEA and St. Bernards are regarded equally for screening and diagnostic care, but patients perceived more advanced care was available at centers outside of the local community, including in Memphis, Little Rock and beyond the region.
- University of Mississippi Medical Center (UMMC): Patients liked UMMC for its research reputation. It was recognized as providing the newest procedures and treatments. MRI lung scans were specifically noted.
- St. Dominic Memorial Hospital: Patients perceived St. Dominic as providing spiritually-based, compassionate care with generous financial assistance to patients.

Insurance coverage is the key driver in decision-making for cancer care, usually in conjunction with primary care provider referrals. Patients are most influenced by their health insurance plan coverage. Provider referrals within network are usually followed. Recommendations from family and friends are also highly considered.

Trust in providers, shared faith, bedside manners rank highly after expertise. Patients value expertise and honesty with diagnosis, prognosis, preparation for path ahead and regular check-ins via phone. Good listening skills and a personal relationship with patients (knows patient info, shows interest in personal life, warm communication) are important. Nearly all participants relied on spiritual or religious beliefs and practices to help them cope with their condition and appreciated when their providers prayed with them.

Patients value nurse navigators to help with care and cost navigation, and recommended better communication of the role of nurse navigator within the patient care plan.

Patients who used nurse navigators were initially confused as to the staff's role in relation to their care. When patients understood their role in the care plan, nurse navigators were seen as vital in helping patients and families navigate their first experience with a serious medical condition. Participants recommended that all patients be connected with a nurse navigator at the onset of treatment to help navigate care and identify social needs (food, transportation, etc.).

- *“We haven't been here before. We need someone to walk us through it.”*
- *“We're asked if we have questions, but we don't even know what questions to ask.”*

Perceptions Related to Preventive Screenings

Most focus group participants discovered cancer diagnosis through routine screening.

The biggest motivator for screening is knowing someone with cancer. Families and friends were more likely to get screened if they knew someone personally who was diagnosed with cancer. Cancer survivors are influential advocates for preventive screenings and early treatment. Opportunity exists to encourage patients to share stories with their communities, such as faith congregations, employer groups, civic and social clubs, etc., to educate community members on the benefits of early diagnosis, improved outcomes for cancer care and advances in treatment and screening techniques.

Fear and discomfort are most common reasons for intentionally delayed screenings.

Patients are reluctant to be proactive in assessing cancer risk for fear of positive results and discomfort of procedures. Perceptions are changing as advances in cancer treatment improve outcomes and quality of life for survivors. More advocacy is needed to educate people about the benefits of early detection and new methods for screening. Policies and funding to help uninsured and underinsured residents receive equitable care are needed to reduce disparities among African American and low-income populations.

- *“People need to know that cancer doesn't mean death anymore.”*
- *“They think if they don't know; it won't happen to them.”*
- *“If you lose your breast, you won't be a woman. They aren't aware of options for plastic surgery and reconstruction.”*
- *“In this day and age, there has to be a better way to screen my breast than flattening it between two bars.”*

Limited insurance, transportation and after-hours care are barriers to screenings. The more rural the community, the more challenges exist to accessing screenings. Residents in Baptist's Central Mississippi Service Area may travel 1–2 hours to Jackson for screenings. Participants suggested that health care providers offer free or low-cost screenings at hair and nail salons, churches and area businesses. Mobile screenings in rural and isolated communities were recommended to bring services to residents, as was providing a “one-stop shop” to conduct multiple cancer screenings at one time. Focus group participants in rural areas were less able to recall health fairs and free community screenings than more populous areas. Germantown residents were most familiar with available community screenings.

Use tactics similar to mammography awareness to increase screenings for lung cancer.

Mammography screenings are among the most regularly recommended and received cancer screenings, regardless of risk factors. Community perception holds that lung cancer predominantly affects past or current smokers. Within the region, environmental factors are a significant risk factor for lung cancer, although this is largely unknown within the population. Participants recommended increased awareness and advocacy campaigns to encourage screening and awareness of lung cancer prevalence.

- *“Lung cancer is one of the most common and deadly cancers, but people only get screened if they’re a smoker.”*

Screenings are sometimes seen as “money makers” for hospitals. Participants believe hospitals will “always find something” or a reason for follow-up appointments.

Patients often misunderstand costs and coverage for wellness screenings vs. diagnostic testing. Education about potential for follow-up diagnostic tests and the benefits of further analysis, including better outcomes, may mitigate concerns.

Focus group participants were more likely to receive cancer screenings prior and after cancer diagnosis, but few had received screenings at free community events.

Focus group participants were generally reminded by their primary care providers to receive recommended screenings and did so within an outpatient setting. Symptoms and other concerns prompted screenings outside of age-related recommendations. Generally, residents in more rural locations were not aware of any free or community screenings held within their neighborhoods. Germantown, Tennessee, residents were most aware of availability of free screenings, but no focus groups participants had taken advantage of the screenings. Participants did not eschew the free screenings, rather they were aware of recommended screenings and could obtain screenings within a health care setting.

Financial Concerns

Participants did not forgo treatment because of cost. Deductibles, coinsurance are concerns, but participants “find a way” to afford care. Patients often rely on family, churches, support from local foundations, hospital payment plans or charity care to finance cancer treatment. A few participants were forced to declare bankruptcy due to their treatment costs. Others anticipated making monthly payments *“for the rest of my life.”*

Patients want a better estimate of expected costs and knowledge of financial assistance policies ahead of treatment.

Participants received unexpected bills for their care. Recommendations were to provide information during initial appointments about assistance at Baptist and within the community. Written materials are most useful so patients can refer to the information later. Ease of application and assistance with completing forms is necessary to ensure all patients can access programs. Streamline paper application across all programs with a single application.

- *“I made my payment to Baptist and thought I was fine, but then I got a bill from radiology that I didn’t expect. Why?”*
- *“I couldn’t afford my bill, so I set up a monthly payment. I was still sent to collections.”*

The financial expense of cancer care has a lasting impact on patients. Some participants are able to work throughout their treatment; others rely on short-term disability insurance or need to quit their jobs. Savings, retirement, loans and other finances are used to pay for care and have a long-term effect on the whole family.

- *“It changes your entire future. My husband and I had plans for retirement. We don’t anymore.”*
- *“The gas costs to get back and forth to Jackson for treatment really added up.”*

Support for Patients and Caregivers

Cancer brings loss of control in life and changes in family structure that affect mental well-being. Cancer treatment is emotionally draining for patients and caregivers. Women are especially affected. Health care providers, staff, advocates and others should help patients to prepare for what’s to come and provide support throughout treatment.

- *“You can lose your dignity pretty quickly.”*
- *“No one tells you how you’re going to feel or react when you lose your hair. I wouldn’t let my husband see my head for a week.”*
- *“I had to help my mom and take care of her house, but I still had my own family and I was still working.”*

Support groups for survivors and caregivers are valuable, but few are available in rural areas. Participants prefer support groups that are specific to their diagnosis, but appreciate general support groups for exchanging information and resources. Cancer care providers can ensure rural support networks by working with local partners to coordinate support groups, education sessions and other opportunities for networking and social support.

Patients and caregivers seek in-home services for personal care, home maintenance and meal delivery. They recommend providing a list of community resources in MyChart and other hospital communications. Meal delivery and prep services were seen as the most needed services, and critical to recovery.

- *“I couldn’t even make it to the kitchen when I was in treatment.”*
- *“We don’t have an appetite. We need meals that are pre-made and nourishing and that are delivered to the house.”*

Faith communities are a primary support system for cancer patients and their families. Volunteers provide transportation, meals, financial support and other services. Churches also serve as prevention partners through medical ministries, cancer screening events and trusted connections to the community. Participants recommended that health and human service providers offer a resource guide on where to find additional services.

Patients need transportation, escorts to frequent appointments; rural patients are most affected. Treatment and physician visits can be frequent and present transportation challenges for patients. Participants recommended satellite clinics in rural communities, bundled treatments and wider services provided through home care. Patients rely on family and friends to transport

them to chemotherapy, radiation and other appointments. Rural community members drive one to two hours to Memphis or Jackson for care, sometimes daily. A few participants lied to a provider about having a driver and drove themselves to and from treatment appointments.

- “It’s hard to get a commitment from people every day.”
- “I feel like a burden.”
- “Medicaid van requires advanced scheduling and has wait times of several hours. When you’re done with chemo, you just want to go home. You don’t want to wait for hours in a waiting room.”

Focus group findings were reviewed with Baptist’s CHNA committee and correlated with statistical secondary data and Key Informant Survey findings to inform priority health needs and community health improvement strategies.

Evaluation of Impact From the 2016–2019 CHNA Implementation Plan

In 2016, Baptist Memorial Health Care completed a Community Health Needs Assessment and developed a supporting three-year (2016–2018) Community Health Improvement Plan to address identified health priorities. Health priorities included behavioral health, cancer, chronic disease management and prevention and maternal and child health. The strategies used to address the health priorities support Baptist’s commitment to the people it serves and the communities they live in.

2016 Health Priority Goals

Behavioral Health: Improve outcomes for residents with a mental health or substance abuse condition and their families.

Cancer: Provide early detection and treatment to reduce cancer mortality rates and improve quality of life for patients living with cancer.

Chronic Disease Management and Prevention: Reduce risk factors for chronic disease and improve management of chronic disease through healthy lifestyle choices.

Maternal & Child Health: Improve birth outcomes for women and infants.

Completed Strategies

- > Donated educational activity books to the Tipton County Library Summer Reading Program, e.g. “A Visit to the Emergency Room”
- > Fostered youth health care career development by providing hospital tours, job shadowing opportunities and “Crash Courses” in health care careers
- > Hosted a breast cancer survivor luncheon at Baptist Memorial Hospital–DeSoto during breast cancer awareness month
- > Hosted educational events for local health providers, including the Cardiac and Stroke Symposium (103 attendees), Respiratory Care Symposium (100 attendees) and Mississippi EMS Association trainings
- > Hosted the Baby Fair at Baptist Memorial Hospital–DeSoto, including 33 vendors. Baptist provided a diaper bag to all attendees.
- > Participated in school health fairs for students and their parents to share health information and demonstrations related to illness, injury, nutrition and healthy lifestyles
- > Participated in various community and faith-based health fairs and events to share health information, healthy cooking demonstrations and free or low-cost screenings and immunizations, including BMI, blood pressure, flu shots, heart risk assessments, etc.
- > Provided education costs for respiratory therapist students from Northwest Mississippi Community College

- > Provided financial and in-kind contributions to community agencies and events, including A Step Ahead Foundation, American Cancer Society, DeSoto County Economic Development Council, DeSoto Grace, Go Lucy Go Foundation, Habitat for Humanity, Palmer Home for Children, Rock the Ribbon, Socks for Hospice, The Arc Northwest Mississippi, The Baddour Center, The Lord's Church Operation Shoe Box, Think Pink, Tipton County Health Department Baby Shower and United Way, among others
- > Provided financial assistance to patients and their families in the form of medications, defibrillators, gas cards, hospital meals and transportation services
- > Provided monthly car seat checks by a Certified Care Seat Technician to ensure infants and children are secured and safe in vehicles
- > Provided screenings for stroke, blood pressure and BMI to approximately 400 soldiers in partnership with Shoeboxes for Soldiers, a program that aims to raise awareness and hygiene support for troops in North Mississippi. The event also collected 5,029 boxes of supplies to donate to soldiers overseas.
- > Provided self-esteem coaching and health education, career development in partnership with local Girl Scout troops
- > Provided support groups for cancer, NICU siblings and new mothers (e.g. Beautiful Bundles and Rattled). Support groups included education by health practitioners, refreshments and relevant resources.
- > Sponsored Baptist Operation Outreach, mobile health care clinic for the homeless, in partnership with Christ Community Health Services. The van provides free acute and primary health care, information on disease prevention and guidance and a medical home to about 3,000 area residents without permanent housing annually.
- > Sponsored community 5K and 10k runs, including the Munford 5K, CASA Stop Child Abuse 5K and Hernando Water Tower 10K

By providing health education and opportunities for residents to participate in programs to improve their health, Baptist Memorial Health Care helped thousands of our community members lead healthier lives. We believe strongly in corporate citizenship and recognize the importance of collaboration with local organizations to build stronger and healthier communities. We remain committed to supporting community health improvement in line with our mission and vision.

Priorities for 2019–2022 CHNA Implementation Plan

Prioritization of Health Needs

To achieve community health improvement, it is imperative to prioritize resources and activities toward the most pressing and wide-ranging health needs within the community. The Baptist CHNA Steering Committee reviewed findings from CHNA research, comparing statistical data from public health and socioeconomic measures with input received from key informants and focus group participants. The committee sought to determine unique and common health needs and disparities for each hospital service area, service regions and the Mid-South service area to effectively leverage resources across the system to address community health needs.

The rationale and criteria used to select health priorities included:

- > Prevalence of disease and number of community members impacted
- > Rate of disease in comparison to state and national benchmarks
- > Health disparities among racial and ethnic minorities
- > Existing programs, resources and expertise to address the issue
- > Input from representatives of underserved populations
- > Alignment with concurrent public health and social service organization initiatives

The 2019 CHNA research findings indicated that priority areas identified in the 2016 CHNA were still relevant and among the highest health needs across the region. Building upon its work over the past two CHNAs, while recognizing emerging health needs and a changing health care delivery environment, Baptist adopted the following systemwide priority health needs. The priorities are supported by systemwide goals for community health improvement and local hospital service area strategies.

Systemwide Community Health Priorities and Goals

Baptist determined the following health concerns were priorities on which to focus during the 2019–2022 reporting cycle.

Behavioral Health: Increase behavioral health screenings to initiate early treatment and improved outcomes for residents at all stages of life.

Cancer: Provide early detection and treatment to reduce death from breast, colorectal and lung cancers, and improve quality of life for patients.

Chronic Disease: Promote health as a community priority, and increase healthy lifestyle choices.

Maternal and Child Health: Improve birth outcomes for women and infants.

Hospital Implementation Plans

Supported by systemwide goals for community health improvement, individual hospitals developed specific strategies that reflect local needs, unique challenges, community assets and health disparities within the hospitals' service areas. Individual plans are available upon request and can be found on Baptist Memorial Health Care's website at <https://www.baptistonline.org/about/chna> along with the 2019 CHNA reports.

Board Approval

On Tuesday, Sept. 24, 2019, the Baptist Memorial Health Care corporate board reviewed and adopted this report (2019 CHNA) along with plans to create Implementation Plans for each hospital in Baptist's Memphis Metro Service Area.

Appendix A: Public Health Secondary Data References

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Appendix B: Key Informant Survey Participants

Key Informant Organization	Key Informant Title/Role	City/State
Abundant Grace Fellowship	Health Ministry	Memphis, TN
Academy for Youth Empowerment	Board Member/Project Manager	Memphis, TN
Alliance for a Healthier Generation	Associate Director	Memphis, TN
Arkansas Blue Cross	Social Work	Jonesboro, AR
Arkansas State University	Associate Professor	Jonesboro, AR
ArtsMemphis	President & CEO	Memphis, TN
Atoka Police Department	Chief	Atoka, TN
BancorpSouth	AVP, CRA Specialist	Jonesboro, AR
Baptist's Corporate Office - Internal Audit	Director of Operations and Revenue Audits	Memphis, TN
Baptist Memorial Hospital for Women	Community Advisory Board	Memphis, TN
Big Brothers Big Sisters	Executive Director	Memphis, TN
Boys & Girls Club of Greater Memphis	Vice President of Development and External Affairs	Memphis, TN
Church Health Center of Memphis	Senior Director of Integrated Health	Memphis, TN
Citadel Church of God In Christ	Volunteer	Memphis, TN
City of Bartlett	Director of Personnel	Bartlett, TN
City of Covington	Alderswoman District 1	Covington, TN
City of Hernando	Community Development Director	Hernando, MS
City of Millington	Alderman	Millington, TN
City of Millington	Alderman	Millington, TN
City of Munford	Public Works Director	Munford, TN
City of Munford	Board of Aldermen	Munford, TN
Collierville Chamber of Commerce	President/CEO	Collierville, TN
Collierville Schools	Superintendent	Collierville, TN
Common Table Health Alliance	CEO	Memphis, TN
DeSoto Baptist Patient Family Advisory Council	Volunteer	Southaven, MS
DeSoto County Economic Development Council	President/CEO	Hernando, MS
DeSoto County Schools	Director, Communications	Hernando, MS
DeSoto County Schools Career Tech West	Principal	Horn Lake, MS
Dixon Gallery and Gardens	Director of Planned Giving	Memphis, TN
Evolve Bank & Trust	Vice President–Commercial Lender	Jonesboro, AR
Family Crisis Services of Northwest Mississippi, Inc.	Executive Director	Oxford, MS
First Baptist Church Horn Lake	Senior Pastor	Horn Lake, MS
Governor's Foundation for Health and Wellness	Memphis Neighborhood Director	Memphis, TN
Grace House of Memphis	Executive Director	Memphis, TN
Home Instead Senior Care	President	Memphis, TN
Kroc Center of Memphis	Health & Recreation Director	Memphis, TN
Le Bonheur	Administration	Memphis, TN
Leadership Memphis	President/CEO	Memphis, TN
March of Dimes	Senior Manager of Development for Memphis/Jackson	Memphis, TN
Memphis Catholic Middle & High School	Director of Work Study	Memphis, TN

Key Informant Organization	Key Informant Title/Role	City/State
Memphis City Beautiful	Executive Director	Memphis, TN
Memphis Jewish Community Center	Fitness Director	Memphis, TN
Memphis Library Foundation	Executive Director	Memphis, TN
Methodist Le Bonheur Healthcare - Le Bonheur	Director of Program Evaluation	Memphis, TN
New Memphis	CEO	Memphis, TN
Northwest Mississippi Community College	Director, Division of Nursing	Senatobia, MS
Omega Ministries/Omega Healthy Practices	Pastor/Founder	Memphis, TN
Optus Inc.	Vice President, HR	Jonesboro, AR
Physician	Physician	Memphis, TN
ProMatura	President	Oxford, MS
Regional One Health	Chief Administrative Officer	Memphis, TN
RISE Foundation, Inc.	President/CEO	Memphis, TN
Shelby County Commission	County Commissioner	Shelby County, TN
Shelby County Government	County Commissioner	Memphis, TN
Shelby County Government	Shelby County Commissioner District 4	Memphis, TN
Shelby County Health Department	Tobacco Prevention Specialist	Memphis, TN
Shelby County Health Department	Public Health Coordinator	Memphis, TN
Shelby County Health Department	Public Health Coordinator	Memphis, TN
Shelby County Health Department	Public Health Coordinator	Memphis, TN
Shelby County Health Department	Manager	Memphis TN
Shelby County Health Department	Management–Administration	Memphis, TN
Shelby County Health Department	Community Health Planner	Memphis, TN
Shelby County Health Department	Administrator, Health Planning and Promotion Bureau	Memphis, TN
Shelby County Health Department	Administrative Technician	Memphis, TN
Shelby County Health Department	Public Health Coordinator	Memphis, TN
Shelby County Schools	Director of Optional Schools and Advanced Academics	Memphis, TN
Shelby Farms Park Conservancy	Director of Visitor Experience	Memphis, TN
South Tipton County Chamber of Commerce	President	Munford, TN
Starting All Over Outreach Ministry	Executive Director	Memphis, TN
Susan G. Komen Memphis–Mid-South Mississippi	CEO	Memphis, TN
Tennessee General Assembly	State Representative	Nashville, TN
Tennessee Medical Foundation	Development Coordinator	Nashville, TN
Tharp Consulting Services	Owner	Cordova, TN
The Marketing Spectrum	President/CEO	Memphis, TN
The Neighborhood Christian Center, Inc.	President/CEO	Memphis, TN
Town of Walls	Mayor	Walls, MS
University of Memphis	Professor	Memphis, TN
University of Mississippi–DeSoto	Executive Director	Southaven, MS
Vitalant	Senior Donor Recruitment Representative	Memphis, TN
Young Life	Associate Area Directory	Collierville, TN

Appendix C: Federally Qualified Health Center Locations

DeSoto County

Location	Address
DeSoto Community Health Center	7535 Airways Blvd., Southaven, MS 38671

Shelby County

Location	Address
Christ Community Health Services (CCHS) - Broad Avenue Dental Center	2953 Broad Ave., Memphis, TN 38112
Resurrection Health - Frayser	2574 Frayser Blvd., Memphis, TN 38127
CCHS - Frayser Health Center	969 Frayser Blvd., Memphis, TN 38127
CCHS - Hickory Hill Health Center	5366 Winchester Road, Memphis, TN 38115
Memphis Health Center, Inc.	360 E EH Crump Blvd., Memphis, TN 38126
CCHS – Baptist Operation Outreach Mobile Clinic	2861 Broad Ave., Memphis, TN 38112
CCHS - Orange Mound Health Center	2569 Douglass Ave., Memphis, TN 38114
CCHS - Raleigh Health Center	3481 Austin Peay Hwy., Memphis, TN 38128
Salvation Army ARC	2646 Kirby-Whitten Road, Memphis, TN 38133
Synergy Treatment Centers	2305 Airport Interchange Ave., Memphis, TN 31832
CCHS - Third Street Health Center	3362 S 3 rd St., Memphis, TN 38109
Memphis Health Center - Towne Center Family Health Services	915 E McLemore Ave., Memphis, TN 38106
CAAP - Tri State Community Health Center	4041 Knight Arnold Road, Memphis, TN 38118
Whitehaven Health Center	4250 Faronia Road, Memphis, TN 38116
Memphis Health Center - Whitehaven	4593 Elvis Presley Blvd., Memphis, TN 38116

*Note: There are no Federally Qualified Health Center locations in Tipton County.