2022 Community Health Needs Assessment

Memphis Metropolitan Area

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 (Baptist) 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, we conduct 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
We ensure 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.

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. 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 foster ongoing relationships with these partners and provide financial and in-kind gifts to support their work.

Investing in health care education and research
We support 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.

Overview of the 2022 CHNA

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 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 socio-economic data. Systemwide priorities were determined to address common health needs across the Mid-South. Specific strategies were outlined in each hospital's implementation plan to guide local efforts and collaboration with community partners.

2022 CHNA Geographic Regions and Primary Service Areas

<table>
<tr><th>Region</th><th>Primary Service Counties</th><th>Hospitals</th></tr>
<tr><td rowspan="3">Memphis Metro</td><td>Shelby and Fayette counties, TN</td><td>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</td></tr>
<tr><td>Tipton County, TN</td><td>Baptist Memorial Hospital–Tipton</td></tr>
<tr><td>DeSoto County, MS</td><td>Baptist Memorial Hospital–DeSoto</td></tr>
<tr><td rowspan="2">Northeast Arkansas</td><td>Craighead and Poinsett counties, AR</td><td>NEA Baptist Memorial Hospital</td></tr>
<tr><td>Crittenden County, AR</td><td>Baptist Memorial Hospital–Crittenden</td></tr>
<tr><td rowspan="2">West Tennessee</td><td>Carroll County, TN</td><td>Baptist Memorial Hospital–Carroll County</td></tr>
<tr><td>Obion County, TN</td><td>Baptist Memorial Hospital–Union City</td></tr>
<tr><td rowspan="5">North Mississippi</td><td>Lafayette and Panola counties, MS</td><td>Baptist Memorial Hospital–North Mississippi</td></tr>
<tr><td>Benton and Union counties, MS</td><td>Baptist Memorial Hospital–Union County</td></tr>
<tr><td>Prentiss County, MS</td><td>Baptist Memorial Hospital–Booneville</td></tr>
<tr><td>Lowndes County, MS</td><td>Baptist Memorial Hospital–Golden Triangle</td></tr>
<tr><td>Calhoun County, MS</td><td>Baptist Memorial Hospital–Calhoun</td></tr>
<tr><td rowspan="4">Central Mississippi</td><td>Attala, Hinds, Leake, Madison, Rankin and Yazoo counties, MS</td><td>Baptist Memorial Hospital–Mississippi Baptist Medical Center</td></tr>
<tr><td>Attala County, MS</td><td>Baptist Memorial Hospital–Attala</td></tr>
<tr><td>Leake County, MS</td><td>Baptist Memorial Hospital–Leake</td></tr>
<tr><td>Yazoo County, MS</td><td>Baptist Memorial Hospital–Yazoo</td></tr>
</table>

CHNA Leadership

A Baptist Memorial Health Care steering committee, along with community representatives and partners, oversaw the 2022 CHNA. These individuals served as liaisons to their organizations and the communities served by their entities.

2022 CHNA Steering Committee Members

Donna Baugus; Survey Research Manager

Cynthia Bradford; System Community Involvement Manager

Abby Brann; System Community Involvement Coordinator

David Garrison; System Finance Director

Tom Gladney; Data Management and Decision Support Director

Bill Griffin; Executive Vice President and Chief Financial Officer

Caitlin Hayden; System Senior Community Involvement Coordinator

Kelley Jerome; Internal Audits Manager

Briana Jegier, PhD; Program Chair & Associate Professor, Baptist Health Sciences University

Taylor Jones; Strategic Planning Data Analyst

Saju Joy, MD; Senior Vice President and Chief Medical Officer

Jeff Lann; Research and Marketing Development Manager

Michelle McDonald, PhD; Dean of General Education and Health Studies, Baptist Health Sciences University

Jim Messineo; Revenue and Operations Audits Director

Keith Norman, DMin; Vice President, Chief Government Affairs and Community Relations Officer

Shivani Patel; Health Services Research Intern

Anne Sullivan, MD; Chief Quality and Academic Officer

Kimmie Vaulx; System Corporate Communications Director

Ann Marie Wallace; System Senior Community Involvement Coordinator

Nicholas Weaver; System Community Involvement Coordinator

Baptist partnered with Community Research Consulting (CRC) to conduct the CHNA. CRC is a woman-owned business that specializes in conducting stakeholder research to illuminate disparities and underlying inequities and transform data into practical and impactful strategies to advance health and social equity. Our interdisciplinary team of researchers and planners have worked with hundreds of health and human service providers and their partners to reimagine policies and achieve measurable impact. Learn more about our work at buildcommunity.com.

Methodology and Community Engagement

The 2022 CHNA was conducted from July 2021 to August 2022 and included quantitative and qualitative research methods to determine health trends and disparities affecting service area residents. Through a comprehensive view of statistical health indicators and community stakeholder feedback, a profile of priority areas was determined. The findings will guide health care services and health improvement efforts, as well as serve as a community resource for grant making and advocacy, and support the many programs provided by health and social service partners.

Community engagement was an integral part of the 2022 CHNA. In assessing community health needs, input was solicited and received from persons who represent the broad interests of the community, as well as underserved, low-income and minority populations. These individuals provided wide perspectives on health trends, expertise about existing community resources available to meet those needs and insights into service delivery gaps that contribute to health disparities and inequities.

Baptist sought to engage individuals and communities historically underrepresented and underserved by health care services to illuminate diverse perspectives on community needs and inform community health improvement strategy. Consumer interviews and focus groups were hosted across the Baptist service areas with the goal of garnering stakeholder feedback and recommendations to improve health and the health care experience by addressing access to care challenges and underlying social determinants of health and inequities. This feedback is reflected in Baptist's approach to defining the 2022-25 priority areas and developing each hospital Community Health Improvement Plan (CHIP).

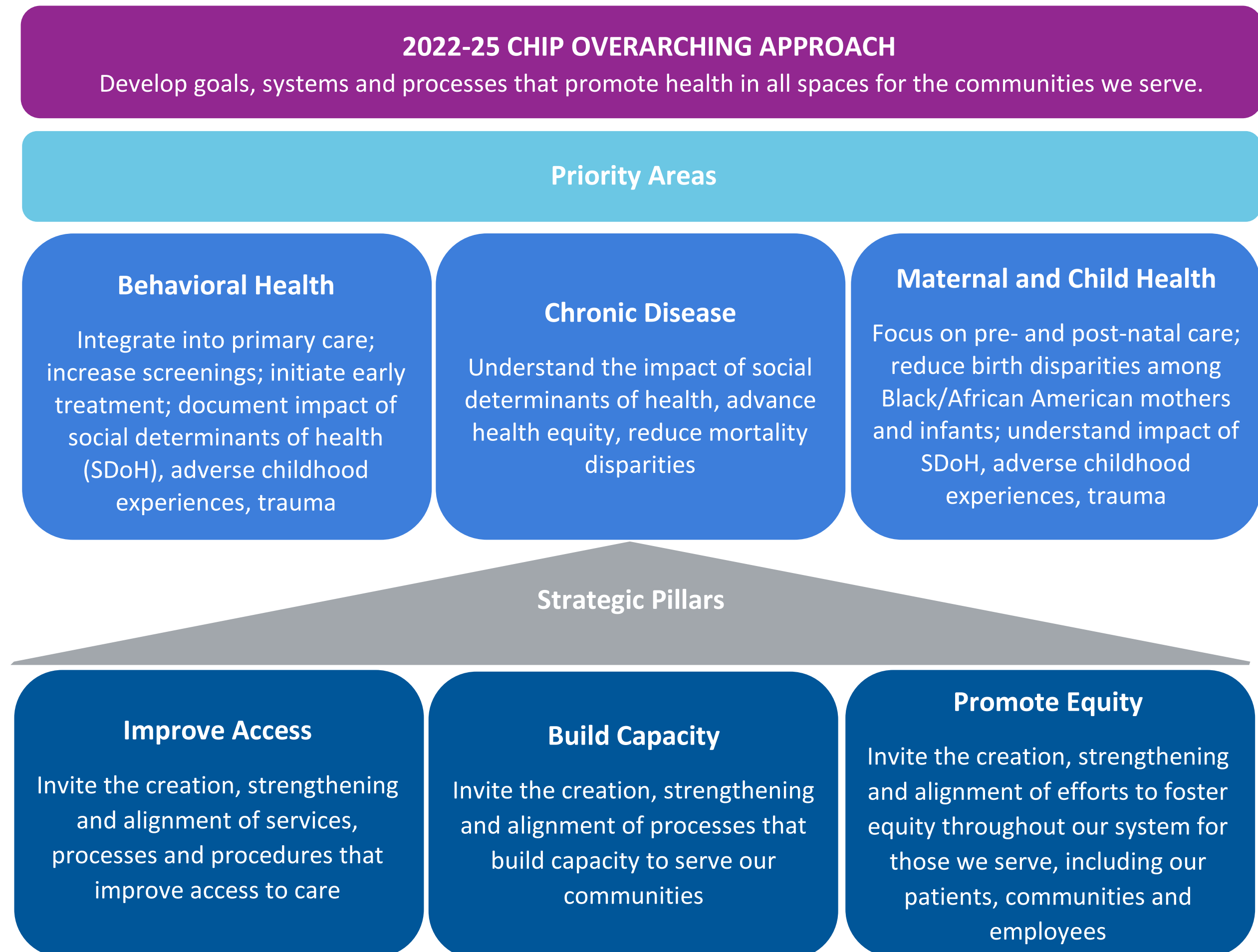
The following research methods were used to determine community health needs:

- Analysis of existing secondary data sources, including public health statistics, demographic and social measures and health care utilization
- Key Informant Surveys to assess perceived health priorities, perspectives on emerging health trends and recommendations to advance community health improvement
- Patient Access to Care and Services Survey to understand health care providers' perspectives on barriers to care, the impact of social determinants of health, cultural competencies and other factors that impede optimal outcomes for patients
- Consumer interviews and focus groups with individuals representing Black, Indigenous and People of Color (BIPOC) and other populations historically underserved by health care services to inform community health improvement strategy

Community Health Priorities

It is imperative to prioritize resources and activities toward the most pressing and cross-cutting health needs within our community. In determining the issues on which to focus efforts over the next three-year cycle, Baptist collected feedback from community partners and sought to align with community programs, population health management strategies and diversity, equity and inclusion initiatives.

In defining the 2022 to 2025 priority areas and developing hospital CHIPs, Baptist outlined an overarching approach that promotes health in all spaces for the communities they serve and centers health equity strategies. The approach is illustrated in the graphic below.



Board Approval

The 2022 CHNA was conducted in a timeline to comply with IRS Tax Code 501(r) requirements to conduct a CHNA every three years as set forth by the Affordable Care Act (ACA). The research findings will be used to guide community benefit initiatives for the collaborating Baptist hospitals and to engage local partners to collectively address identified health needs.

Baptist is committed to advancing initiatives and community collaboration to support the issues identified through the CHNA. The 2022 CHNA report was presented to the Baptist Board of Directors and approved in September 2022.

Following the board's approval, the CHNA report was made available to the public via the Baptist website at baptistonline.org/about/chna.

Baptist Memphis Metro Service Area Description

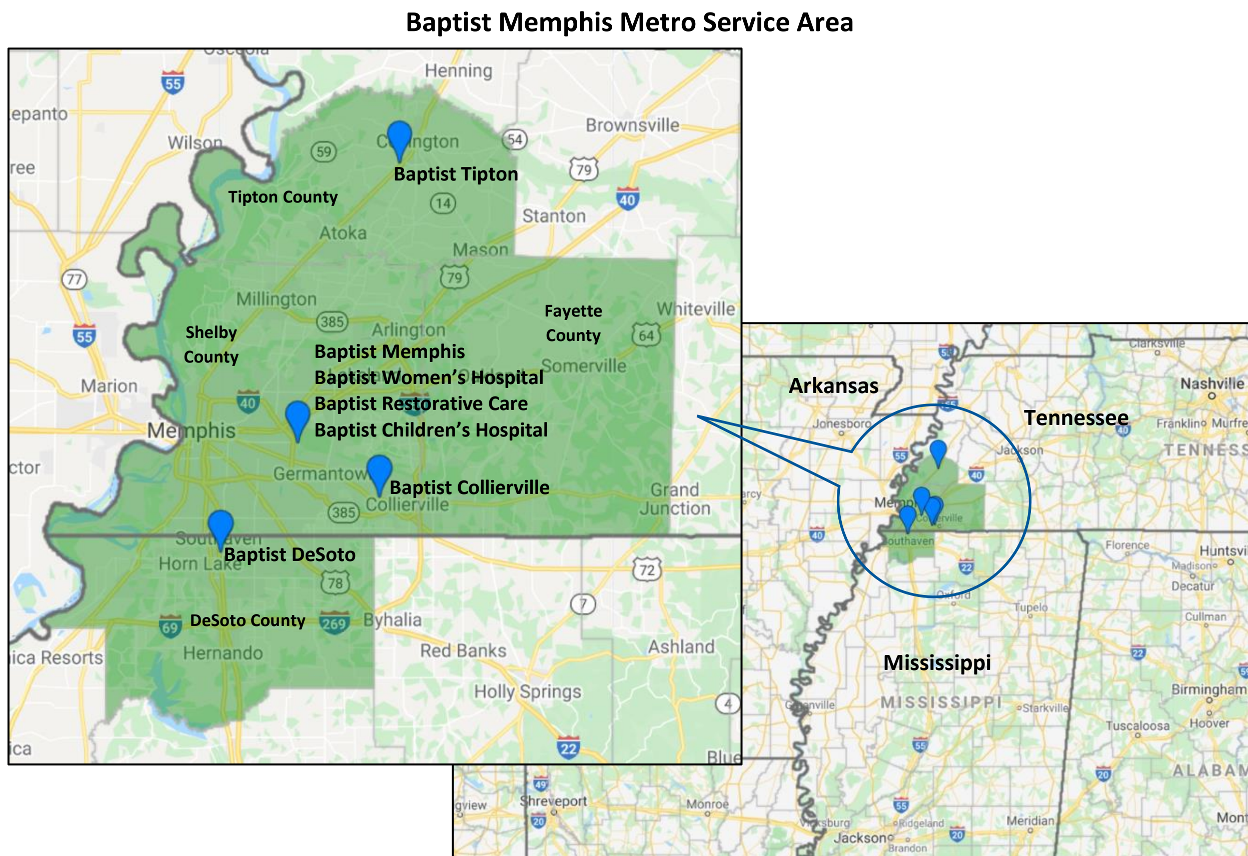
Baptist has 22 affiliate hospitals serving residents in three states. For purposes of the CHNA, Baptist focused on the primary service county(ies) of each of its not-for-profit hospitals to identify health trends and unique disparities within these communities. Hospitals with overlapping service areas were grouped into regions for comparisons of health and socio-economic data.

Baptist has seven hospitals in the Memphis metro service area, which collaborated on the 2022 CHNA. The study encompassed Fayette, Shelby and Tipton counties in Tennessee, and DeSoto County in Mississippi. Select data for service area ZIP codes are also shown throughout the report.

The following hospitals participated in the 2022 CHNA for the Memphis metro service area.

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

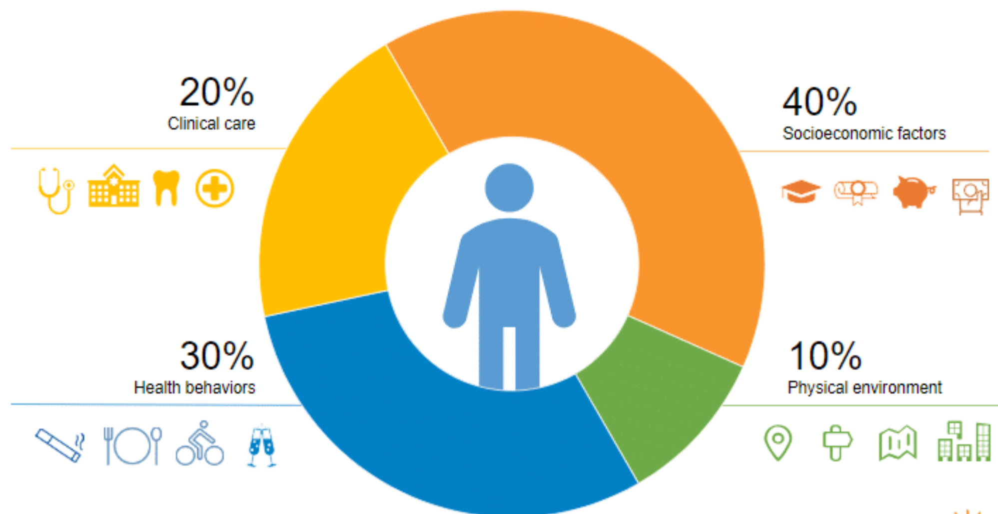
Baptist Memphis Metro Service Area



Social Determinants of Health: The connection between our communities and our health

Social determinants of health (SDoH) are the conditions in the environments where people are born, live, learn, work, play, worship and age that affect a wide range of health risks and outcomes. Healthy People 2030, the national benchmark of the United States (US) Centers for Disease Control and Prevention (CDC) for health, recognizes SDoH as central to its framework, naming "social and physical environments that promote good health for all" as one of the four overarching goals for the decade. Healthy People 2030 outlines five key areas of SDoH: economic stability, education access and quality, health care access and quality, neighborhood and built environment and social and community context.

The mix of ingredients that influence each person's overall health profile include individual behaviors, clinical care, environmental factors and social circumstance. While health improvement efforts have historically targeted health behaviors and clinical care, public health agencies, including the U.S. Centers for Disease Control, widely hold that at least **50% of a person's health profile is determined by SDoH.**



Addressing SDoH is a primary approach to achieving *health equity.* Health equity encompasses a wide range of social, economic and health measures but can be simply defined as "a fair opportunity for every person to be as healthy as possible." In order to achieve health equity, we need to look beyond the health care system to dismantle systematic inequities born through racism and discrimination like power and wealth distribution, education attainment, job opportunities, housing and safe environments, to build a healthier community for all people now and in the future.

Understanding Health Equity

Social determinants of health are in part responsible for the unequal and avoidable differences in health status within and between communities. In the Memphis metro service area some of these inequities fall along lines of race, particularly affecting Black/African American communities. As the CDC notes, throughout the U.S. centuries of racism have had a profound impact on communities of color, and this impact creates “inequities in access to a range of social and economic benefits—such as housing, education, wealth and employment. These conditions—often referred to as social determinants of health—are key drivers of health inequities within communities of color, placing those within these populations at greater risk for poor health outcomes.”

Through understanding the obstacles to health equity and how those obstacles create disparate outcomes, such as decreased average life expectancy, community partners can plan strategically to decrease health care barriers and improve health outcomes.

A key SDoH metric is poverty. Overall poverty declined across Mississippi, Tennessee and the Memphis metro service area since the 2019 CHNA, but economic indicators continue to vary widely by population. For example, in Fayette County, 7.5% of white residents live in poverty compared with 27.7% of Black/African American residents. Other key measures of SDoH, including educational attainment and health insurance coverage, demonstrate similar disparities across the service area.

Socio-economic differences within the Memphis metro service area correlate with differences in life expectancy. In Fayette County, where the most significant socio-economic differences exist between white and Black/African American residents, there is a nearly seven-year difference in life expectancy. This finding correlates with consistent disparate health outcomes for Black/African Americans living in Fayette County. It is worth noting that in Desoto County, where socio-economic factors are more similar for white and Black/African American residents, average life expectancy is nearly equal.

Residents of select ZIP codes in the Memphis metro service area, particularly in the City of Memphis, experience significant socio-economic disparities that disproportionately affect Black/African Americans. For example, in Memphis ZIP code 38126, 65% of residents live in poverty and 96% of residents identify as Black/African American. These disparities also correlate with differences in life expectancy. Many of the census tracts comprising Memphis and majority Black/African American communities have average life expectancy of 72 years or less compared with 81 years or higher in neighboring areas. Racism has been declared a public health crisis in Memphis and Shelby County in recognition of these societal issues.

Key Social Determinants of Health Metrics by County and Race

	People in Poverty		Adults with a Bachelor’s Degree		People without Health Insurance	
	White	Black	White	Black	White	Black
DeSoto County	7.5%	12.3%	25.5%	23.7%	7.4%	8.1%
Fayette County	7.5%	27.7%	25.6%	12.6%	5.7%	10.0%
Shelby County	9.5%	26.5%	44.6%	19.6%	8.6%	12.4%
Tipton County	10.5%	18.4%	18.2%	12.9%	9.0%	9.3%

Source: U.S. Census Bureau, American Community Survey, 2015-2019

Average Life Expectancy by County and Race

	Overall Life Expectancy	White Life Expectancy	Black Life Expectancy	Difference (White – Black)
DeSoto County	77.0	76.4	76.9	+0.5
Fayette County	78.1	79.9	73.0	-6.9
Shelby County	75.5	78.0	73.2	-4.8
Tipton County	75.4	75.6	73.1	-2.5

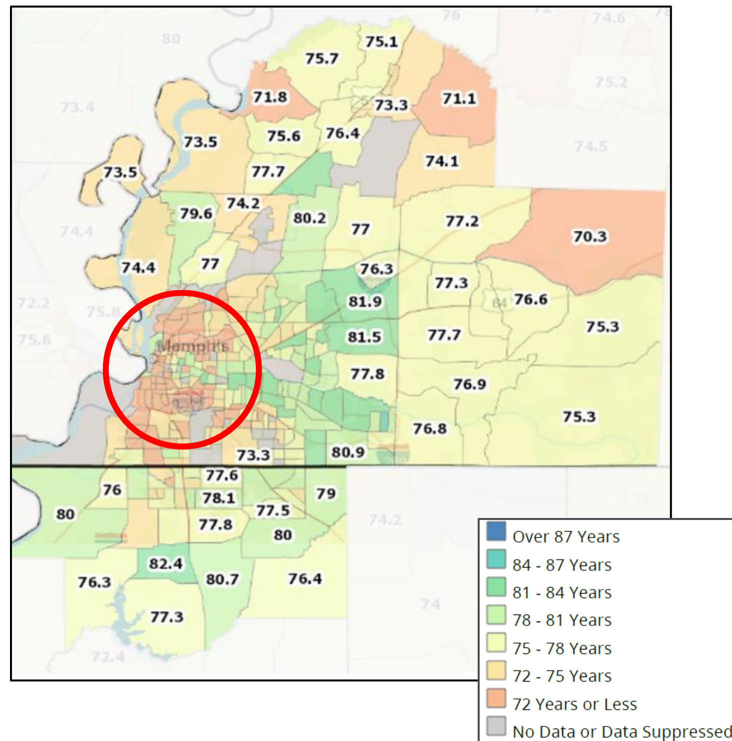
Source: National Vital Statistics System, 2017-2019

Areas of Socio-Economic Disparity within the Memphis Metro Service Area and Disproportionate Impact on Communities of Color

ZIP Code	People in Poverty	Adults Not Completing High School	People without Health Insurance	Racial Composition	
				Black	White
38127, Memphis	41.7%	22.9%	16.8%	84.1%	10.9%
38108, Memphis	40.9%	31.5%	28.6%	60.6%	26.8%
38106, Memphis	40.1%	20.1%	20.3%	95.9%	3.6%
38126, Memphis	65.2%	26.5%	14.0%	96.0%	3.1%
38114, Memphis	34.1%	19.7%	18.8%	93.4%	4.4%
38118, Memphis	33.2%	21.3%	18.2%	77.4%	10.6%
US Benchmark	13.4%	12.0%	8.8%	12.7%	72.5%

Source: U.S. Census Bureau, American Community Survey, 2015-2019

Average Life Expectancy by Census Tract



As part of the 2022 CHNA, a Patient Access to Care and Services Survey was conducted among health care providers and support staff across the Baptist regions. The survey findings demonstrated how SDoH impact clinical care and ultimately health outcomes.

Among respondents serving the Memphis metro service area, more than 60% "agreed" or "strongly agreed" that SDoH negatively impacted the health of patients and families they serve, and nearly 75% "agreed" or "strongly agreed" that the COVID-19 pandemic negatively impacted health due to delayed preventive or maintenance care. Similarly, approximately 62% of participants "agreed" or "strongly agreed" that the pandemic exacerbated the negative impact of SDoH.

Survey participants across the Baptist regions indicated awareness of the impact of SDoH, but pointed to a lack of resources as a limitation in responding to these issues, as indicated in the following comments:

> "*We do not screen because we do not currently have resources to refer and follow up with patients. However, we GREATLY need to implement screening and referral practices in our specialty clinic. SDoH impacts our patients in all aspects of life and chronic illness management."*
>
> *"We have very scarce resources to help our very underserved patients."*
>
> "*We cannot impact the patients' socio-economic status, nor provide transportation when they have none. All we can do is treat them with respect and dignity while we have them here."*

Several Memphis metro service area providers shared specific cases in which the SDoH impacted patients. For example:

> *"Type 1 diabetics being readmitted to the ICU in DKA because they cannot afford insulin, do not have an outpatient provider, and lack any community support in housing, education and employment."*
>
> *"I had a patient who had difficulty adhering to a treatment plan due to personal financial strain, transportation issues and home issues. Their rental unit had a hole in the roof of their kitchen that the landlord was unable to repair for an extended amount of time. Also, due to COVID, the children in the home were also remote schooling without the resources they needed and adults unable to tend to their remote schooling. This increased stress as well as ability to come to the clinic when the patient needed to. The whole situation just broke our hearts, but there were limited resources to be able to connect and provide to assist the patient in meeting treatment goals while undergoing all the life stress on top of health stress."*
>
> *"Teenagers living under a bridge without parents. At least one parent in jail. At least one parent that has been murdered. These are all not rare."*

Collectively, SDoH were identified as the top clinical service gap by survey participants across the Baptist regions. Among the top identified needs was transportation, followed by insurance coverage and economic security. Insurance coverage included both access or insured status and affordable coverage (e.g., copays). Economic security included income or financial support and job opportunities.

COVID-19 Demonstrated Inequities

The COVID-19 pandemic both highlighted and deepened socio-economic and health inequities. According to the Community Vulnerability Index developed by Surgo Ventures, the entire Memphis Metro Area, spanning eight counties across Arkansas, Mississippi and Tennessee, was considered more vulnerable to COVID-19 than 97% of other U.S. metros. Among the factors impacting this finding were unemployment, financial insecurity and older age and underlying health issues. Within the Baptist Memphis metro service area, Shelby County was identified as the most vulnerable to COVID-19, although other service area counties also had high vulnerability.

By the end of 2020, average national unemployment was double what it was at the beginning of the year. Within the Memphis metro service area, all counties, particularly Shelby County, saw an increase in unemployment. While unemployment has since declined, pandemic-level rates will likely have a lasting economic and social impact on residents.

As of September 2021, the Memphis metro service area had a combined 185,855 COVID-19 cases and 2,581 related deaths. Nationally, COVID-19 cases and deaths have been disproportionately higher among Black/African American and Latinx residents. Mississippi differs from the nation in that COVID-19 cases among racial and ethnic groups were largely proportional to their representation within the overall population. In Tennessee, the Black/African American death rate slightly exceeded the white death rate, although data may be skewed by "pending" race results, which accounted for 10% of all cases and 3% of deaths.

As part of the Key Informant Survey, 109 community representatives serving the Memphis metro service area provided their feedback on a wide range of health and social needs and opportunities. Among respondents, nearly 90% "agreed" or "strongly agreed" that COVID-19 had a negative impact on the health and well-being of the people their organization served. When asked to provide recommendations on how community organizations can better serve priority populations in light of COVID-19 and demonstrated societal inequities, respondents provided the following select comments:

> *"Advocate on the policy level to increase access to quality, equitable service for all, increase access to financial resources, create an atmosphere in organizations that embrace culture."*
>
> *"Breaking down barriers so we move from a blaming negative perception/attitude (reality) to a united positive perception (reality). This has to stem from equal education for all, high standards of excellence for our schools and assist programs that truly fight the growth of gangs and violence in our communities."*
>
> *"By having community liaisons leading more conversation in regard to health. Make the conversation a priority in communities, conversations generated around holistic medicine, modern medicine, physical movement and knowing your physical stats. Good health is an individual's future physical savings account."*
>
> *"Ensure racial and health disparities are widely discussed within the medical profession (nurses, doctors, aids, assistants) and equity is instilled in every component of caregiving."*
>
> *"Hear the voice of the people within the community and be attuned to their needs."*

Our Community

Population Trends/Changes

Since 2010, Tennessee saw a similar increase in population as the US overall, while the Mississippi population declined marginally. Within the Memphis metro service area, all counties except Tipton saw population growth from 2010. Population growth within DeSoto County (+14.9%) was double the national growth percentage. Shelby County saw the smallest population growth, but accounts for approximately 76% of the total service area population.

Health needs change as individuals age. Therefore, the age distribution of a community impacts its social and health care needs. The age distribution and median age of Mississippi and Tennessee is consistent with the nation and aging, with an increasing proportion of adults age 65 or older. Nationally, among older adults age 65 or older, the 65 to 74 age category is the fastest growing demographic, largely due to the aging of the baby boomer generation. This finding suggests health needs and support services for older adults will likely continue to grow in coming years.

Racial and ethnic diversity varies widely within the Memphis metro service area. Consistent with the 2019 CHNA, Shelby County is the most diverse community with a majority Black/African American population. Diversity is largely centered in and around Memphis, where as many as 98% of residents identify as non-white. Other counties within the service area largely mirror their respective state for racial and ethnic diversity. Of note, all counties have a higher proportion of Black/African American residents, but a lower proportion of all other non-white populations when compared to the nation.

Racial and ethnic diversity is increasing nationally and across the Memphis metro service area, particularly for Asian, other race, multiracial and Latinx groups. The multiracial population increased more than 200% from the 2010 Census in all reported counties and states, and the nation. The “other race” category has historically captured ethno-racially mixed individuals, as well as Latinx individuals who do not consider ethnicity as separate or distinct from race.

Socio-Economic Trends

All Memphis metro service area counties have areas of socio-economic disparity, but consistent with past needs assessments, disparities are concentrated in Shelby County. Of the 35 ZIP codes in Shelby County, 20 have a Community Need Index (CNI) score of 4.0 or higher out of a maximum score of 5.0. The CNI is a ZIP code-based index of community socio-economic need calculated nationwide. The CNI scores ZIP codes on a scale of 1.0 to 5.0, with 1.0 indicating a ZIP code with the least need and 5.0 indicating a ZIP code with the most need compared to the U.S. national average of 3.0.

All of the Shelby County ZIP codes with a CNI score of 4.0 or higher are located within Memphis. As many as 40% of residents in Memphis live in poverty compared with fewer than 5% in the eastern suburbs of the county. Differences in poverty largely follow racial lines, disproportionately affecting Black/African American residents. For example, 65.2% of residents in Memphis ZIP code 38126 live in poverty, the highest proportion in the service area, and 96% of residents identify as Black/African

American. Across Shelby County ZIP codes, the proportion of white residents generally increases with improving CNI scores. In this way we can begin to see how inequities perpetuate persistent disparities.

The COVID-19 pandemic had a profound impact on economic security, particularly for children. From 2019 to 2020, the percentage of food insecure children was projected to increase approximately 3 to 4 percentage points across Mississippi and Tennessee. Shelby County saw a larger increase in child food insecurity in 2020 of nearly 7 percentage points. In 2020, 26.5% of children in Shelby County were projected to be food insecure. Other service area counties had projected food insecurity of approximately 15% (DeSoto County) to 20% (Fayette and Tipton counties).

Rural Health Challenges

While Memphis is an urban center, much of the surrounding Memphis metro service area is rural. There are specific challenges facing residents of rural communities. According to the CDC, “rural Americans are more likely to die from heart disease, cancer, unintentional injury, chronic lower respiratory disease and stroke than their urban counterparts.” The CDC notes that rural Americans are likely to be older and sicker than their urban counterparts, and as noted above, the percentage of residents age 65 or older in the service area has increased.

There are a number of reasons why rural populations are at greater risk for poorer outcomes, including environmental challenges such as longer drives to receive both emergency and routine care. In addition, according to the CDC, rural Americans tend to have higher rates of cigarette smoking, high blood pressure and obesity. The challenges residents face as a result of these disparities impact health care access in a variety of ways.

Priority Health Needs

It is imperative to prioritize resources and activities toward the most pressing and cross-cutting health needs within our community. In determining the issues on which to focus efforts over the next three-year cycle, Baptist collected feedback from community partners and sought to align with community programs, population health management strategies and diversity, equity and inclusion initiatives. Baptist will focus efforts on the following community health priorities over the next three-year cycle:

- Behavioral Health
- Chronic Disease
- Maternal and Child Health

Behavioral Health

Living with behavioral health conditions can reduce an individual's life expectancy, particularly if they have co-occurring chronic conditions, such as heart disease or diabetes, or engage in risky health behaviors like tobacco or drug use. Behavioral health disorders can reduce a patient's ability to effectively manage other conditions, increasing disease complications and the need for medical care.

Nearly 1 in 5 adults across Mississippi, Tennessee and the Memphis metro service area report having poor mental health on 14 or more days during a 30-day period, a higher proportion than the nation overall. Suicide deaths steadily increased across the U.S., Mississippi and Tennessee over the past decade. The suicide death rate for Mississippi has largely mirrored the nation, but Tennessee continues to have a higher rate of death. Within the Memphis metro service area, Tipton County has a higher prevalence of frequent mental distress and a suicide death rate that is nearly 50% higher than the national rate. Shelby County meets the HP2030 goal for suicide deaths, but the death rate increased in recent years.

Tennessee and Mississippi have historically reported a higher percentage of youth attempting suicide than the nation. Mississippi reports a higher percentage of youth attempting suicide than Tennessee, at nearly 13% in 2019 compared with 11% across Tennessee and 9% nationwide. When considered by subpopulation, attempted suicides were highest among students identifying as lesbian, gay or bisexual (LGB), followed by Black/African American, Latinx and/or female. Of note, nearly 30% of LGB students in Mississippi reported an attempted suicide compared to 23.4% nationwide.

The Memphis metro service area as a whole has experienced more accidental drug overdose deaths than the nation. All counties except Fayette exceed the national rate for overdose deaths. Additionally, all counties saw an increase in overdose deaths over the past decade. Tipton County saw the most significant increase in deaths and currently has a rate of death that exceeds both Tennessee and the nation. It is worth noting that DeSoto County differs from Mississippi overall with a higher and increasing rate of death.

In Tennessee, the accidental overdose death rate increased gradually among white people since 2013, but nearly tripled among Black/African American people. This trend is occurring nationally and is rooted in inequities in addiction treatment and prevention efforts. Studies conducted by the National Institutes

of Health have found that Black/African American people are less likely to be prescribed medications for opioid use disorder, or to have access to life saving antidote drugs like naloxone.

Accidental drug overdose death rates should continue to be monitored in light of the COVID-19 pandemic. Provisional data released by the CDC predicts that 2020 and 2021 brought the highest number of overdose deaths ever in the U.S. Based on a rolling 12-month count from March 2020 to March 2021, the number of drug overdose deaths is predicted to have increased 48.3% in Mississippi and 50.8% in Tennessee, compared to a national increase of 30.8%.

Nearly one third of respondents to the Key Informant Survey selected mental health conditions as one of the top five concerns for the people their organization serves, and availability of specialty care services, including mental health care, were noted as a missing resource within the community.

Similarly, in the Patient Access to Care and Services Survey, after SDoH, the top identified clinical service gaps were mental health services, with a focus on psychiatry and psychology and services that are covered by insurance. Providers serving the Memphis Metro service area shared the following comments:

> *"As a pediatrician I see children with mental health concerns that no doubt have roots in more complex problems within the unit as well as extended family. Getting individual help for the child is challenging; getting parents to recognize that they themselves need help is hugely difficult."*
>
> *"Patient unable to afford visits and medications related to alcohol abuse. Next opportunity for inpatient treatment for an uninsured patient at facility was 30+ days away."*
>
> *"Need better collaboration with sources with addiction clinics for patients without insurance, homeless patients who are too unstable for shelters and have no family but can't go to facility, alignment to prevent bounce back to hospital due to social issues requires social intervention."*

Chronic Disease

Mississippi and Tennessee adults overall have increased risk factors for chronic disease, including physical inactivity and tobacco use. All Memphis metro service area counties also exceed national benchmarks for physical inactivity and smoking; Fayette, Shelby and Tipton counties exceed Tennessee benchmarks.

Consistent with reporting more health risk factors, Mississippi and Tennessee adults have historically higher prevalence of obesity and diabetes than the nation. In all Memphis metro service area counties except Fayette, approximately 1 in 3 adults have obesity and more than 1 in 10 adults have diabetes. Of note, DeSoto County saw notable increases in both obesity and diabetes from 2015 to 2019 and has the highest prevalence in the service area. DeSoto County has also historically had a high rate of death due to diabetes, although the death rate declined in recent years and is on par with the state.

Heart disease is the leading cause of death nationally. High blood pressure and cholesterol are two of the primary causes of heart disease and can be preventable. Mississippi, Tennessee and Memphis metro service area adults have a higher prevalence of high blood pressure and/or high cholesterol than the

nation overall, and a higher rate of death due to heart disease. Shelby and Tipton counties also slightly exceed Tennessee for high blood pressure prevalence and deaths due to heart disease.

Across Mississippi, Tennessee, the nation and all Memphis metro service area counties except DeSoto, heart disease death rates are higher among Black/African American people than other racial or ethnic groups. While Fayette County has a lower rate of heart disease death overall compared to other service area counties, it has the largest disparity in death rates between Black/African American and white people.

Cancer is the second leading cause of death nationally. Mississippi and Tennessee report higher cancer incidence and death rates than the nation. This finding may reflect both increased health risk factors and lower access to cancer screenings for early detection and treatment. Mississippi and Tennessee adults are generally less likely to receive cancer screenings compared to national benchmarks.

Cancer incidence rates increased in DeSoto, Fayette and Tipton counties in recent years and exceed state and/or national benchmarks. Cancer death rates in DeSoto and Tipton counties also exceed state and national benchmarks. Cancer disparities in DeSoto and Tipton counties are largely due to disparities in lung cancer. The lung cancer death rate in DeSoto and Tipton counties exceeds the national death rate by more than 20 points.

In Fayette County, the cancer death rate generally declined and is on par with the nation. Higher cancer incidence, coupled with a declining and lower cancer death rate, is typically indicative of better cancer screening for early detection and treatment. Fayette County has similar cancer screening rates as the nation, and among the highest screening rates in the service area. However, positive cancer outcomes in Fayette County are not shared equitably across population groups. Consistent with heart disease findings, Fayette County has the largest disparity in cancer incidence and death between white and Black/African American people, with Black/African American people reporting rates that are nearly 100 points higher.

Chronic lower respiratory disease (CLRD) includes several chronic conditions of the respiratory tract, including asthma and chronic obstructive pulmonary disease (COPD). All service area counties except DeSoto have a higher prevalence of both asthma and COPD than state and/or national benchmarks. Respiratory disease disparities in Fayette, Shelby and Tipton counties are due in part to high smoking rates among adults. Tipton County has the highest prevalence of adult smoking and COPD, and the highest death rate due to lung cancer, in the service area.

Consistent with state and national benchmarks, the Memphis metro service area is aging, and older adults in this area experience more health disparities. Approximately 73% to 74% of Mississippi and Tennessee older adult Medicare beneficiaries have two or more chronic conditions, a higher proportion than the nation (70.3%). Within the Memphis metro service area, DeSoto County has the highest proportion of beneficiaries with multiple chronic conditions and saw the largest increase in this population from the 2019 CHNA, from 73.7% to 75.3%. It is worth noting that all service area counties report a higher prevalence of comorbidities among older adults compared to the national benchmark, although Fayette County is more similar to the nation and did not see an increase from prior years.

The Alzheimer's disease death rate among older adults in Mississippi and Tennessee is 75 to 100 points higher than the national death rate. All Memphis metro service area counties except Fayette also report a higher Alzheimer's disease death rate than the nation, despite having a similar or lower prevalence of Alzheimer's disease among older adult Medicare beneficiaries.

Social determinants of health, such as economic stability, health care access and racism, are in part responsible for the unequal and avoidable differences in health status within and between communities, such as the disparities seen within the Memphis metro service area and between white and Black/African American people. Addressing barriers to care based on the SDoH is critical to ensure health equity for all residents and to improve outcomes and rates of chronic disease.

Respondents to the Patient Access to Care and Services Survey identified health education and programs among the top community factors that would help improve SDoH for patients and residents. Health education/program topics included diabetes, asthma and preventative care. Other top needed community factors included transportation and social workers or case managers. When asked to describe the ideal scenario for addressing SDoH in the care setting, survey participants serving the Memphis metro service area provided the following select comments:

> *"Gather stories of the people and translate stories into marketing campaigns and cultural organizing strategies that mobilize the community, from inside out, to creating their own solutions to the problem. Giving communities where there is organized infrastructure the resources to self-address the challenges. Then create learning community infrastructure where neighborhoods can adapt best practices from their sister neighborhood to implement in their own. Different communities can take on transportation solutions, others can take on nutritional solutions - and through social innovation modeling, and on-the-ground (OTG) investments in people and infrastructure, communities can be centered in the solution-design of system level strategies."*

> *"Having a social resource and disease planning navigator to ensure gaps are closed with social barriers and access; to ensure education on condition/disease process is clear enough for patients to be their own advocates and make their own appropriate arrangements."*

> *"Previously, partnerships with organizations such as Church Health would facilitate learning opportunities for patients and families to gain knowledge on community resources to obtain nutritious foods; cooking classes; age-appropriate activities in a safe environment for patients. A minimum of one on-site social worker per physician to assist patients and their families accessing community resources. On-site pharmacy students who could explain to patients what each medication was treating, the correct way to take the medications and potential drug-drug and drug-food/beverage interactions. Recreation centers and gymnasiums which provide low cost or free classes for obese or otherwise physically impaired individuals. Access to alternative medicine modalities such as acupuncture, yoga, Pilates and mindfulness training as methods of pain and stress relief."*

Maternal and Child Health

While both white and Black/African American people residing in Mississippi and Tennessee report notable birth disparities compared to the nation overall, these disparities disproportionately impact Black/African American people. In both states, there is a more than 10-point deficit in the percentage of Black/African American pregnant people receiving early or adequate prenatal care compared to white pregnant people. Nearly 1 in 5 babies born to Black/African American people are born premature and/or with low birth weight compared to 1 in 10 white babies. These disparities are consistent across Memphis metro service area counties, and most evident in Fayette and Shelby counties.

From 2015 to 2019, infant deaths totaled 1,631 in Mississippi and 2,887 in Tennessee. In both states, the infant mortality rate for Black/African American people was nearly double the white infant mortality rate. Within the Memphis metro service area, Shelby County has a higher rate of infant death than both states and the nation, a finding that is consistent with existing SDoH barriers and inequities experienced by Black/African Americans.

Similar disparities are seen in the maternal death rate. From 2017 to 2019, Tennessee reported 222 maternal deaths, and Black/African American people were 1.5 times as likely to die during or within a year of pregnancy as white people. From 2013 to 2016, Mississippi reported 136 maternal deaths. The pregnancy-related death rate for Black/African American people in Mississippi was 51.9 per 100,000 live births, nearly three times the white death rate of 18.9.

Positive birth outcomes for the Memphis metro service area include an overall declining percentage of births to teens and increasing prenatal care access. Additionally, all counties except Tipton report a lower proportion of pregnant people who smoke during pregnancy when compared to their respective state and/or the nation. The proportion of pregnant people who smoke during pregnancy declined in nearly all counties.

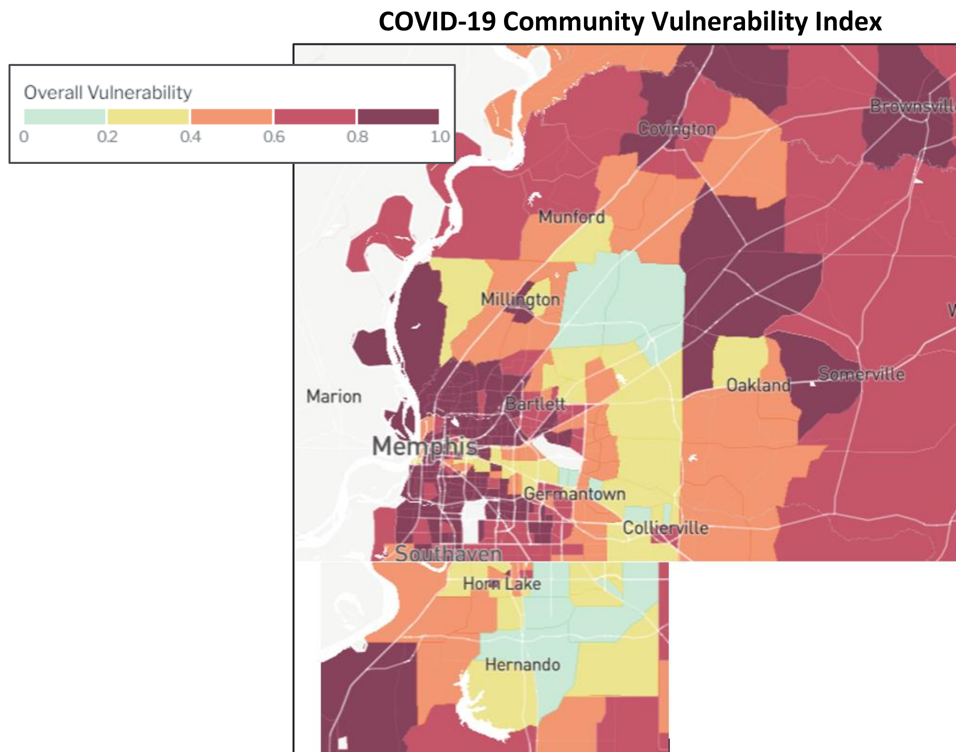
A full summary of CHNA findings for the Memphis metro service area follows.

COVID-19 Impact on Communities

COVID-19 is the name of the disease caused by the SARS-CoV-2 virus. "CO" stands for corona, "VI" for virus and "D" for disease. The number "19" refers to the year 2019 when the first case of COVID-19 was identified. COVID-19 has not impacted all people equally. Rather, certain structural issues—population density, low income, crowded workplaces, etc.—contribute to higher levels of spread and worse outcomes from COVID-19. Surgo Ventures developed the Community Vulnerability Index to measure how well any community in the U.S. could respond to the health, economic and social consequences of COVID-19 without intentional response and additional support.

Using this scale, the entire Memphis metro area, spanning eight counties across Arkansas, Mississippi and Tennessee has "very high" vulnerability and is considered more vulnerable than 97% of other U.S. metros. Among the factors impacting this score are unemployment, financial insecurity and older age and underlying health issues. Within the Baptist Memphis metro service area, Shelby County is the most vulnerable to COVID-19, although other counties in the service area also have "high" vulnerability.

COVID-19 Community Vulnerability Index



	Vulnerability Level	Description
DeSoto County, MS	High	Average vulnerability among U.S. counties
Fayette County, TN	High	More vulnerable than 68% of U.S. counties
Shelby County, TN	Very High	More vulnerable than 99% of U.S. counties
Tipton County, TN	High	More vulnerable than 79% of U.S. counties

Source: COVID Act Now

COVID-19 infection is typically measured by case incidence, which looks at the number of daily new cases per 100,000. When calculating case incidence, an important part of understanding how COVID-19 is affecting certain communities is to analyze the demographics of the community. The COVID-19 pandemic has highlighted health disparities along racial, ethnic and economic lines in the U.S. The following analysis depicts COVID-19 infection for all of the Memphis metro service area, as well as by age group and race and ethnicity.

As of Sept. 22, 2021, the Memphis metro service area had a combined 185,855 COVID-19 cases and 2,581 related deaths. Three-quarters of cases and deaths occurred among residents of Shelby County. **Shelby County had a lower case rate than the state, but a higher death rate, potentially indicating more severe disease incidence and/or delayed detection or treatment barriers. Fayette County also had a higher death rate than the state, a finding that is consistent with the community's older demographic.** Individuals age 65 or older have had the highest COVID-19 death rate nationwide.

COVID-19 Cases and Deaths (as of Sept. 22, 2021)

	Cases		Deaths	
	Total Cases	Cases per 100,000*	Total Deaths	Deaths per 100,000*
DeSoto County, MS	30,491	16,453.7	353	190.5
Fayette County, TN	6,917	16,473.0	94	223.9
Shelby County, TN	137,729	14,813.6	2,017	216.9
Tipton County, TN	10,718	17,579.1	117	191.9
Memphis Metro Service Area Total	185,855	--	2,581	
Mississippi	481,397	16,256.4	9,395	317.3
Tennessee	1,199,956	17,363.4	14,677	212.4

Source: Mississippi State Department of Health & Tennessee Department of Health
*Rates calculated based on 2020 population counts.

COVID-19 has affected all age groups. **While older adults were among the earliest and hardest hit by COVID-19, adults age 25 to 39 made up one-quarter of cases in Mississippi and adults age 21 to 40 made up one-third of cases in Tennessee.** COVID-19 deaths were concentrated among older adults.

Mississippi COVID-19 Cases and Deaths by Age Group (as of Sept. 22, 2021)

	Cases		Deaths	
Age Group	Count	Percent of Total	Count	Percent of Total
Under 18	82,319	17.6%	8	0.1%
18-24	56,695	12.1%	28	0.3%
25-39	108,956	23.3%	261	2.8%
40-49	68,429	14.6%	478	5.1%
50-64	89,296	19.1%	1963	20.9%
65+	61,414	13.1%	6655	70.9%

Source: Mississippi State Department of Health

Tennessee COVID-19 Cases and Deaths by Age Group (as of Sept. 22, 2021)

Age Group	Cases		Deaths	
	Count	Percent of Total	Count	Percent of Total
Under 10	90,004	8.0%	8	0.0%
11-20	178,374	15.0%	12	0.0%
21-30	209,903	18.0%	88	1.0%
31-40	187,401	16.0%	241	2.0%
41-50	172,290	14.0%	636	4.0%
51-60	156,942	13.0%	1503	10.0%
61-70	110,047	9.0%	2,861	20.0%
71-80	62,843	5.0%	4,349	30.0%
81+	30,574	3.0%	4979	34.0%

Source: Tennessee Department of Health

Nationally, COVID-19 cases and deaths have been disproportionately higher among Black/African American and Latinx people. Mississippi differs from the nation in that COVID-19 cases among racial and ethnic groups were largely proportional to their representation within the overall population. **In Tennessee, white and Black African American people accounted for a similar proportion of deaths relative to their representation in the overall population, although the Black/African American death rate slightly exceeded the white death rate.** Note: Tennessee data may be skewed by "pending" race results, which accounted for 10% of all cases.

Mississippi COVID-19 Cases and Deaths by Race and Ethnicity (as of Sept. 22, 2021)

	Percent of Total Population	Percent of Total Cases	Percent of Total Deaths
White	56.0%	58.2%	57.1%
Black or African American	36.6%	35.6%	39.2%
Other race	5.6%	4.9%	2.1%
Latinx origin (any race)	3.6%	3.0%	1.2%
Asian	1.1%	0.5%	0.3%
American Indian or Alaska Native	0.6%	0.8%	1.3%

Source: Mississippi State Department of Health

Tennessee COVID-19 Cases and Deaths by Race and Ethnicity (as of Sept. 22, 2021)

	Percent of Total Population	Percent of Total Cases	Percent of Total Deaths	Death Rate per 100,000*
White	72.2%	62.0%	75.0%	220.0
Black or African American	15.8%	14.0%	18.0%	241.7
Other/multiracial	9.6%	8.0%	3.0%	71.5
Latinx origin (any race)	6.9%	5.0%	3.0%	77.0
Asian	2.0%	1.0%	1.0%	63.4
American Indian or Alaska Native	0.4%	0.0%	0.0%	49.9
Pending	NA	10%	3%	NA

Source: Tennessee Department of Health

*Rates calculated based on 2020 population counts.

COVID-19 vaccination will be essential to managing the pandemic. The following table shows the percentage of eligible residents fully vaccinated. **Mississippi, Tennessee and the Memphis metro service area had lower vaccine coverage than the nation; DeSoto and Tipton counties had lower vaccine coverage than their respective state.**

COVID-19 Vaccination among Population Age 12 or Older (as of Sept. 22, 2021)

	Fully Vaccinated
DeSoto County, MS	37.0%
Fayette County, TN	46.6%
Shelby County, TN	43.4%
Tipton County, TN	32.6%
Mississippi	41.0%
Tennessee	44.9%
United States	64.3%

Source: Mississippi State Department of Health & Tennessee Department of Health & Centers for Disease Control and Prevention

The CDC has prioritized vaccine equity, defined as preferential access and administration to those who have been most affected by COVID-19. Among the prominent racial and ethnic groups within the region, vaccine coverage was generally higher among Asians, particularly in Mississippi. Other racial and ethnic groups in Mississippi reported similar vaccine coverage. In Tennessee, vaccine coverage was highest among Latinx relative to other racial groups in the state. Black/African American people in Tennessee were the least likely to be vaccinated, reported at 38%.

COVID-19 At Least Partially Vaccinated by Race and Ethnicity (as of Sept. 20, 2021)

	Mississippi	Tennessee
White	46%	42%
Black or African American	49%	38%
Asian	83%	54%
Latinx (any race)	45%	52%

Source: Kaiser Family Foundation

Service Area Population Statistics

Demographics

Since 2010, Tennessee saw a similar increase in population (+8.9%) as the U.S. overall (+7.4%), while the Mississippi population declined marginally (-0.2%). Within the Memphis metro service area, all counties except Tipton saw population growth from 2010. **Population growth within DeSoto County (+14.9%) was double the national growth percentage.** Shelby County saw the smallest population growth of +0.2%, but accounts for approximately 76% of the total service area population.

2020 Total Population

	Total Population	Percent Change Since 2010
DeSoto County, MS	185,314	+14.9% ⬆
Fayette County, TN	41,990	+9.3% ⬆
Shelby County, TN	929,744	+0.2% ⬆
Tipton County, TN	60,970	-0.2% ⬇
Mississippi	2,961,279	-0.2%
Tennessee	6,910,840	+8.9%
United States	331,449,281	+7.4%

Source: U.S. Census Bureau, Decennial Census

Health needs change as individuals age. Therefore, the age distribution of a community impacts its social and health care needs. The age distribution and median age of Mississippi and Tennessee is consistent with the nation. Within the Memphis metro service area, **DeSoto and Shelby counties have a younger demographic with proportionately more youth and young adults and fewer adults age 55 or older.** The Fayette County population differs from other service area counties with an older demographic. The median age of Fayette County is 45.8 years and nearly 40% of residents are age 55 or older compared to 28.5% nationally. The Tipton County age distribution largely mirrors the state and nation.

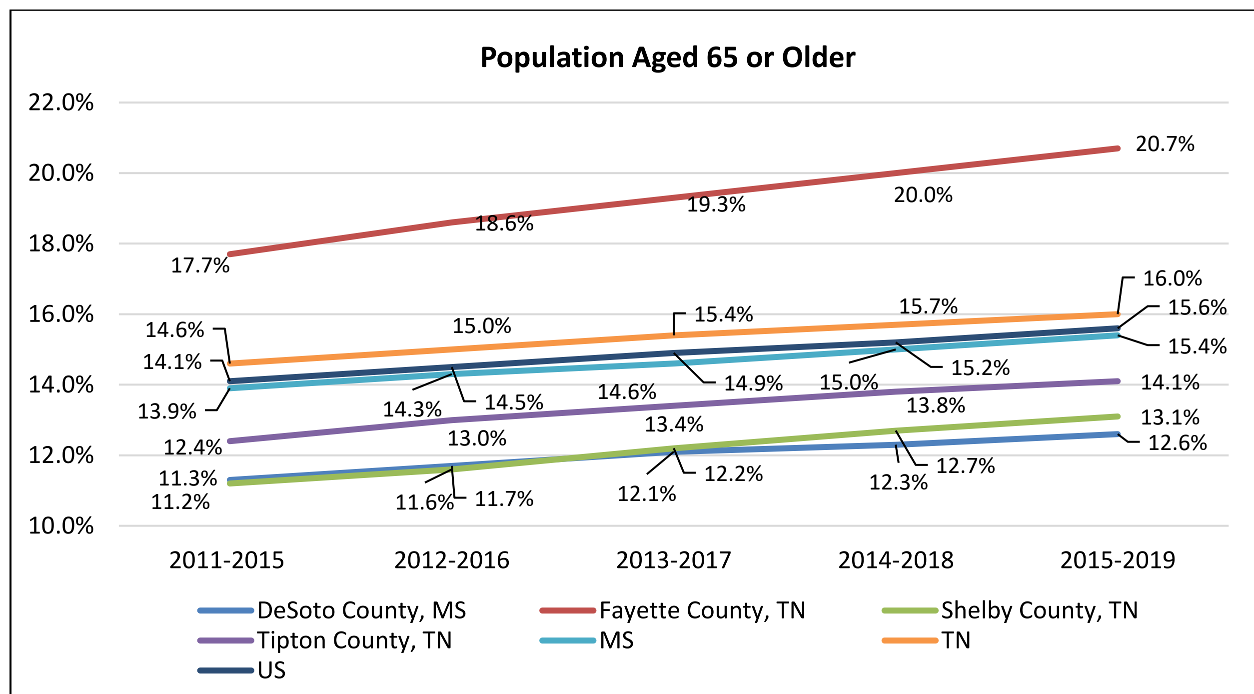
The proportion of older adult residents increased across Mississippi, Tennessee and the nation, and in all Memphis metro service area counties. Nationally, among older adults age 65 or older, the 65 to 74 age category is the fastest growing demographic, largely due to the aging of the baby boomer generation. This finding suggests health needs and support services for older adults will likely continue to grow in coming years.

While the older adult population increased across the Memphis metro service area, youth under age 18 comprise approximately 1 in 4 residents in all counties except Fayette.

2015-2019 Population by Age

	Gen Z/ Gen C	Gen Z	Millennial	Millennial/ Gen X	Gen X	Boomers	Boomers/ Silent	Median Age
	Under 18 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65 years and over	
DeSoto County, MS	25.9%	8.8%	12.8%	14.2%	14.0%	11.6%	12.6%	36.8
Fayette County, TN	19.6%	6.9%	11.2%	11.4%	13.7%	16.6%	20.7%	45.8
Shelby County, TN	25.1%	9.5%	14.7%	12.5%	12.7%	12.5%	13.1%	35.6
Tipton County, TN	24.6%	8.5%	12.8%	12.6%	14.1%	13.3%	14.1%	37.5
Mississippi	23.9%	9.9%	13.0%	12.4%	12.5%	12.8%	15.4%	37.5
Tennessee	22.4%	9.2%	13.6%	12.5%	13.2%	13.0%	16.0%	38.7
United States	22.6%	9.4%	13.9%	12.6%	13.0%	12.9%	15.6%	38.1

Source: U.S. Census Bureau, American Community Survey



Source: U.S. Census Bureau, American Community Survey

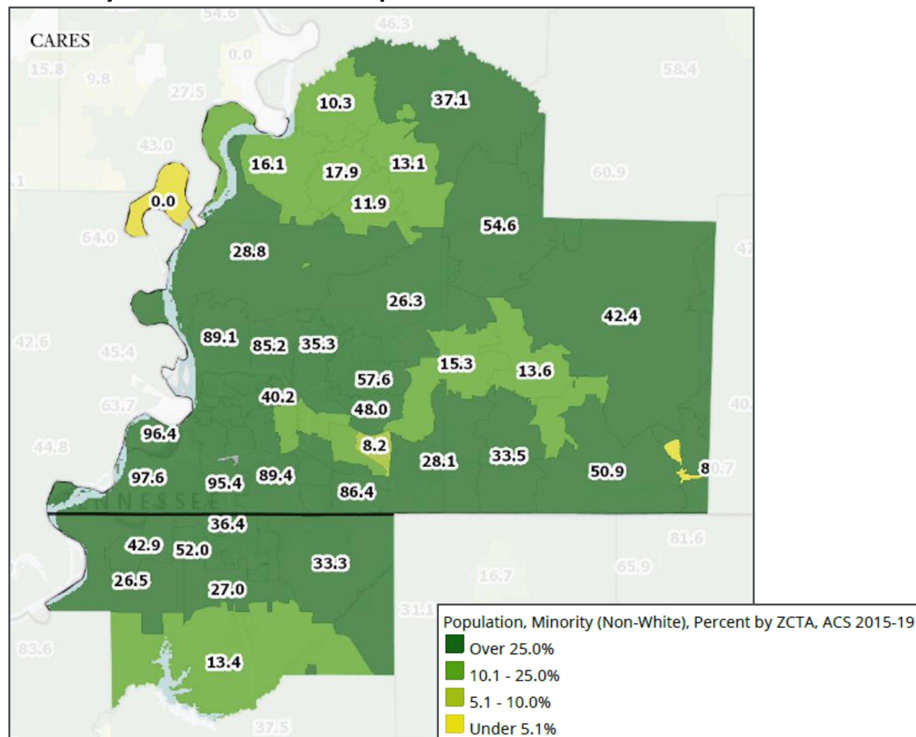
Racial and ethnic diversity varies widely within the Memphis metro service area. Consistent with the 2019 CHNA, Shelby County is the most diverse community with a majority Black/African American population. **Diversity is largely centered in and around Memphis, where as many as 98% of residents identify as non-white.** Other counties within the service area largely mirror their respective state for racial and ethnic diversity. Of note, **all counties have a higher proportion of Black/African American residents and a lower proportion of all other non-white populations when compared to the nation.** DeSoto County is the most diverse community after Shelby County with 30.3% of residents identifying as Black/African American and 5.5% identifying as Latinx. Tipton County is the least diverse community with nearly three-quarters of residents identifying as white.

2020 Population by Race and Ethnicity

	White	Black or African American	Asian	American Indian / Alaska Native	Native Hawaiian / Pacific Islander	Other Race	Two or More Races	Latinx origin (any race)
DeSoto County, MS	59.4%	30.3%	1.6%	0.3%	0.1%	3.3%	5.0%	5.5%
Fayette County, TN	66.3%	26.4%	0.6%	0.2%	0.1%	1.8%	4.5%	3.4%
Shelby County, TN	35.1%	51.3%	3.0%	0.4%	0.0%	5.2%	4.9%	8.4%
Tipton County, TN	74.5%	17.8%	0.6%	0.4%	0.1%	1.1%	5.6%	2.8%
Mississippi	56.0%	36.6%	1.1%	0.6%	0.0%	1.9%	3.7%	3.6%
Tennessee	72.2%	15.8%	2.0%	0.4%	0.1%	3.6%	6.0%	6.9%
United States	61.6%	12.4%	6.0%	1.1%	0.2%	8.4%	10.2%	18.7%

Source: U.S, Census Bureau, Decennial Census

2015-2019 Non-White Population
by ZIP Code in the Memphis Metro Service Area



Racial and ethnic diversity is increasing nationally and across the Memphis metro service area, particularly for Asian, other race, multiracial and Latinx groups. **The multiracial population increased more than 200% from the 2010 Census in all reported counties and states and the nation.** The “other race” category has historically captured ethno-racially mixed individuals, as well as Latinx individuals who do not consider ethnicity as separate or distinct from race.

Consistent with overall population growth within DeSoto and Fayette counties, these areas saw among the largest growth across racial and ethnic groups. DeSoto saw a nearly 60% increase in Black/African American residents from the 2010 Census; Fayette County saw a nearly 500% increase in multiracial residents. **Shelby and Tipton counties saw declines in both white and Black/African American residents, the racial groups comprising the majority of their population.**

Population Change among Prominent Racial and Ethnic Groups, 2010 to 2020

	White	Black or African American	Asian	Other Race	Two or More Races	Latinx origin (any race)
DeSoto County, MS	-5.5%	+59.4%	+49.8%	+35.4%	+265.7%	+25.7%
Fayette County, TN	+4.8%	+2.7%	+44.6%	+82.4%	+457.0%	+66.7%
Shelby County, TN	-13.3%	-1.3%	+31.6%	+59.6%	+243.7%	+49.2%
Tipton County, TN	-4.4%	-5.1%	+7.1%	+45.0%	+237.4%	+32.9%
Mississippi	-5.5%	-1.3%	+27.1%	+49.0%	+224.7%	+29.1%
Tennessee	+1.4%	+3.4%	+48.6%	+73.5%	+275.3%	+65.2%
United States	-8.6%	+5.6%	+35.5%	+46.1%	+275.7%	+23.0%

Source: US Census Bureau, Decennial Census

Many Roads Lead to Home

The Memphis metro service area is home to proportionately fewer immigrants than the nation overall. **Outside of Shelby County, more than 95% of residents were born in the U.S. compared to a national average of 85%.** Shelby County has the largest proportion of non-U.S. citizens in the service area and the largest proportion of residents who speak a primary language other than English, although both percentages fall below national averages.

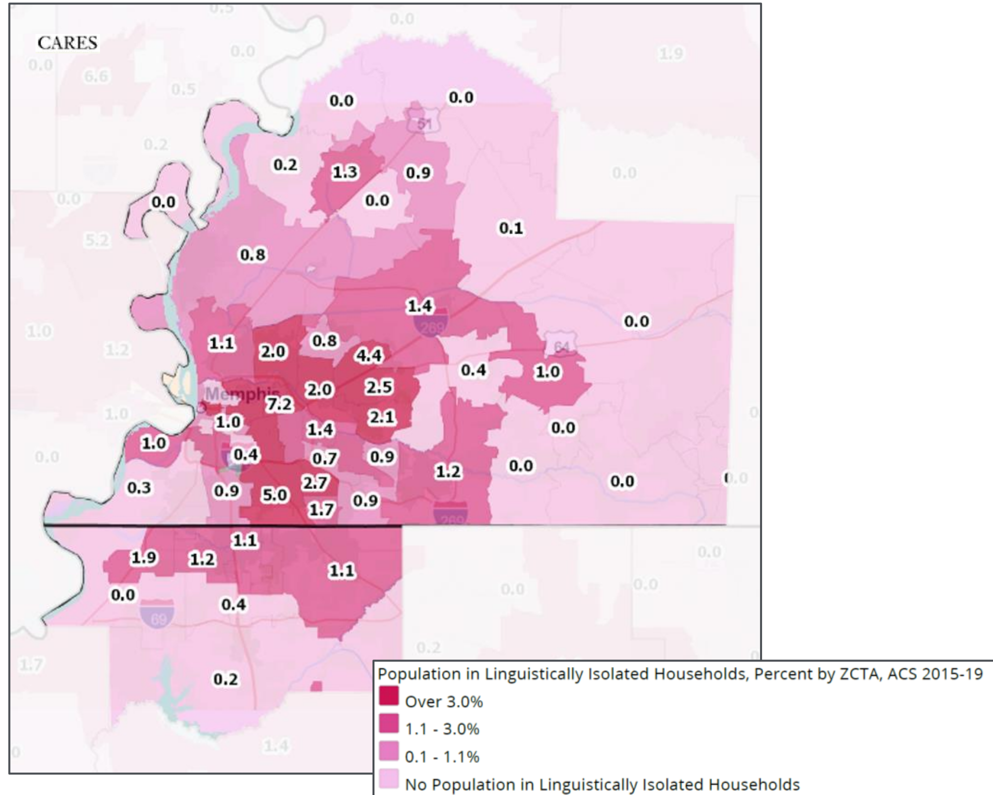
Linguistically isolated households, defined as persons who cannot speak English at least "very well" or who do not live in a household where an adult speaks English "very well," are largely centered in and around Memphis. Of note, **7.2% of households in Memphis ZIP code 38122, located in the Berclair District, are considered linguistically isolated. The ZIP code is home to largest proportion of Latinx residents in the service area at 31%.**

2015-2019 Nativity and Citizenship Status

	U.S. citizen, born in the U.S.	U.S. citizen, born in Puerto Rico or U.S. Island Areas	U.S. citizen, born abroad of American parent(s)	U.S. citizen by naturalization	Not a U.S. citizen	Speak Primary Language Other Than English
DeSoto County, MS	95.7%	0.1%	0.5%	1.7%	2.0%	5.5%
Fayette County, TN	97.7%	0.1%	0.5%	0.9%	0.9%	2.7%
Shelby County, TN	92.8%	0.1%	0.6%	2.4%	4.1%	9.6%
Tipton County, TN	97.4%	0.0%	0.9%	1.0%	0.6%	2.8%
Mississippi	97.0%	0.2%	0.5%	0.9%	1.4%	4.0%
Tennessee	94.0%	0.2%	0.7%	2.0%	3.1%	7.2%
United States	84.9%	0.6%	1.0%	6.7%	6.8%	21.6%

Source: U.S. Census Bureau, American Community Survey

2015-2019 Population in Linguistically Isolated Households by ZIP Code in the Memphis Metro Service Area



Poverty

Overall poverty declined across Mississippi, Tennessee and the Memphis metro service Area since the 2019 CHNA, but economic indicators continue to vary widely among service area counties, representing both areas of wealth and poverty. Consistent with the 2019 CHNA, DeSoto County has a higher median income and lower poverty in comparison to both Mississippi and the nation. Fayette and Tipton counties have similar median income and overall poverty as the nation and fare better than Tennessee as a whole, although child poverty in Fayette County is elevated. Shelby County continues to be an area of economic disparity with nearly 1 in 5 people and 1 in 3 children living in poverty.

Within Shelby County, as many as 40% of residents in Memphis live in poverty compared to fewer than 5% in the eastern suburbs of the county. Differences in poverty within Shelby County largely follow racial lines, disproportionately affecting Black/African American residents. For example, **65.2% of residents in Memphis ZIP code 38126 live in poverty, the highest proportion in the service area, and 96% of residents identify as Black/African American.** Similar racial disparities are seen across the Memphis metro service area, including the eastern portion of Fayette County, the northern portion of Tipton County and Horn Lake in DeSoto County.

Statewide and nationally, poverty declined for all reported racial and ethnic groups from the 2019 CHNA, but people of color continue to be disproportionately impacted. Across Mississippi and

Tennessee, approximately one-quarter to one-third of Black/African American, Latinx, multiracial and other race populations live in poverty compared with 13% of the white population. Within the Memphis metro service area, wealth disparities are most evident in Shelby and Fayette counties. For example, in Fayette County, nearly 28% of Black/African American and 46% of Latinx residents live in poverty compared with 7.5% of white residents. Tipton County wealth disparities should also be monitored as poverty levels increased for nearly all non-white population groups from the 2019 CHNA.

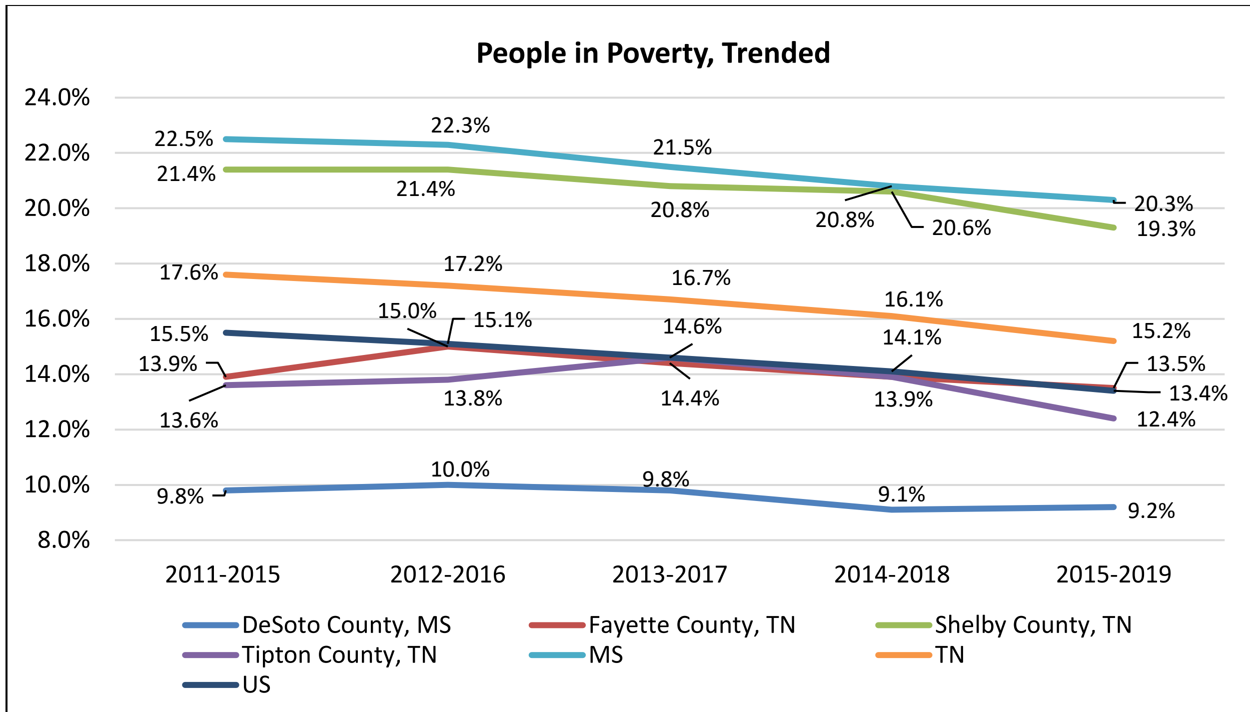
Note, income and poverty data reflect pre-COVID-19 findings and likely do not demonstrate economic hardship experienced by individuals and families during the pandemic. Unemployment and food insecurity data for 2020 and 2021 provide insight into the economic impact of the pandemic.

COVID-19 had a significant impact on unemployment rates across the nation. By the end of 2020, average national unemployment was double what it was at the beginning of the year. **Within the Memphis metro service area, all counties, particularly Shelby County, saw an increase in unemployment.** While unemployment has since declined, nearly reaching pre-pandemic levels in all counties except Shelby, pandemic-level rates will likely have a lasting economic and social impact on the community.

Economic Indicators

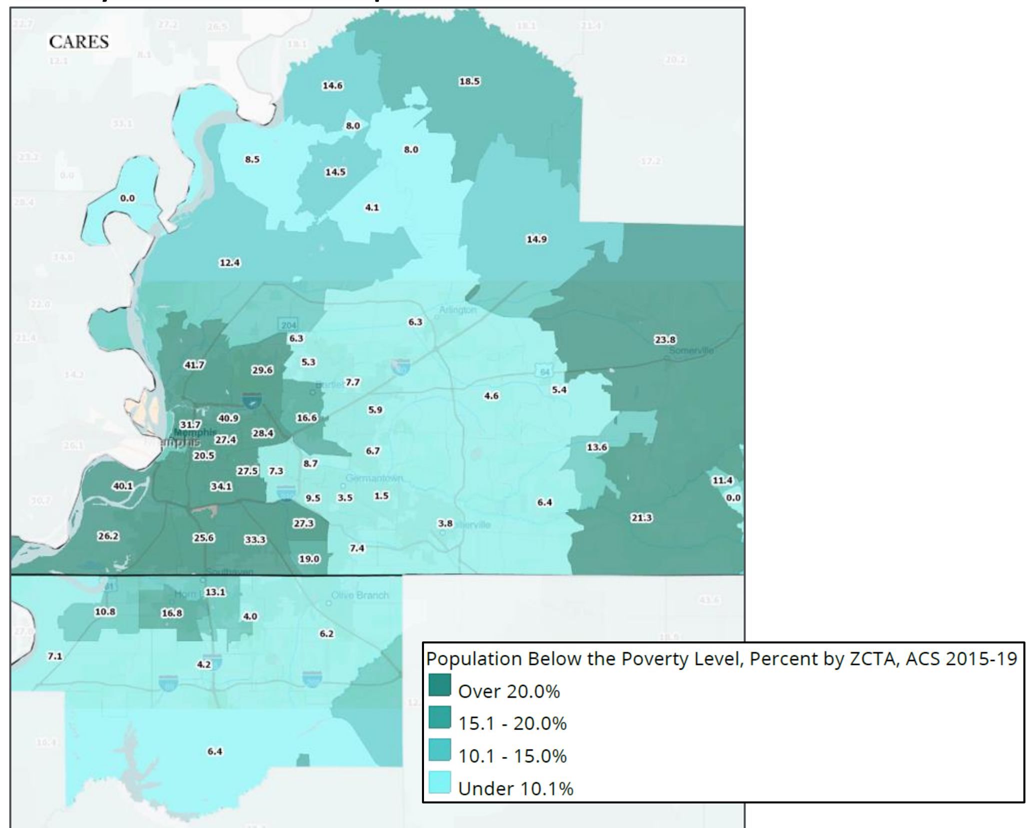
	DeSoto County, MS	Fayette County, TN	Shelby County, TN	Tipton County, TN	Mississippi	Tennessee	United States
Income and Poverty (2015-2019)							
Median household income	$67,038	$60,711	$51,657	$61,291	$45,081	$53,320	$62,843
People in poverty	9.2%	13.5%	19.3%	12.4%	20.3%	15.2%	13.4%
Children in poverty	12.1%	22.6%	31.0%	18.0%	28.7%	21.9%	18.5%
Older adults (65+) in poverty	6.9%	6.5%	10.9%	7.4%	12.8%	9.4%	9.3%
Households with SNAP* benefits	8.4%	13.1%	17.2%	15.6%	15.4%	13.6%	11.7%
Unemployment							
January 2020	4.4%	4.0%	4.5%	4.6%	5.5%	4.0%	4.0%
2020 average	6.0%	6.4%	9.7%	6.9%	8.1%	7.5%	8.1%
July 2021	5.3%	4.8%	7.5%	4.9%	6.7%	4.7%	5.7%

Source: U.S. Census Bureau, American Community Survey & US Bureau of Labor Statistics
*Supplemental Nutrition Assistance Program



Source: U.S. Census Bureau, American Community Survey

2015-2019 Population in Poverty by ZIP Code in the Memphis Metro Service Area



2015-2019 People in Poverty among Prominent Racial and Ethnic Groups with 2019 CHNA Comparison (2012-2016)

	White	Black / African American	Asian	Other Race	Two or More Races	Latinx origin (any race)
DeSoto County, MS	**7.5%** ↓	**12.3%** ↓	**8.0%** ↑	**22.5%** ↓	**7.1%** ↓	**17.2%** ↓
2019 CHNA	8.1%	14.4%	5.3%	31.2%	11.9%	21.8%
Fayette County, TN	**7.5%** ↓	**27.7%** ↓	**0.0%** ↓	**21.9%** ↓	**16.6%** ↑	**45.9%** ↓
2019 CHNA	9.2%	28.4%	2.3%	56.3%	8.1%	48.9%
Shelby County, TN	**9.5%** ↓	**26.5%** ↓	**7.6%** ↓	**31.8%** ↓	**18.9%** ↓	**28.4%** ↓
2019 CHNA	10.2%	29.3%	11.8%	39.9%	22.2%	36.0%
Tipton County, TN	**10.5%** ↓	**18.4%** ↓	**5.8%** ↑	**47.5%** ↑	**24.3%** ↑	**28.9%** ↑
2019 CHNA	11.0%	25.3%	4.3%	19.2%	19.0%	25.7%
Mississippi	**12.8%**	**31.6%**	**13.3%**	**27.6%**	**25.4%**	**24.9%**
2019 CHNA	14.1%	35.0%	14.0%	34.5%	29.0%	30.5%
Tennessee	**12.9%**	**24.7%**	**10.3%**	**29.1%**	**22.9%**	**26.2%**
2019 CHNA	14.5%	28.1%	12.5%	34.6%	26.0%	32.0%
United States	**11.1%**	**23.0%**	**10.9%**	**21.0%**	**16.7%**	**19.6%**
2019 CHNA	12.4%	26.2%	12.3%	25.4%	19.3%	23.4%

Source: U.S. Census Bureau, American Community Survey

*Arrows indicate an increase or decrease or greater than one percentage point.

Food Insecurity

Food insecurity is defined as not having reliable access to a sufficient amount of nutritious, affordable food. Food insecurity is associated with lower household income and poverty, as well as poorer overall health status. Similar to unemployment rates, COVID-19 had a profound impact on food insecurity, particularly among children. **From 2019 to 2020, the percentage of food insecure children was projected to increase approximately 3 to 4 percentage points across Mississippi and Tennessee.**

The proportion of food insecure residents was projected to increase in all Memphis metro service area counties from 2019 to 2020, but consistent with unemployment rates, Shelby County saw disproportionately larger increases. **In 2019, approximately 1 in 5 children in Shelby County were food insecure, the highest proportion in the service area. In 2020, more than 1 in 4 children in Shelby County were projected to be food insecure.**

Projected food insecurity declined in 2021 but continues to be higher than pre-pandemic years. In addition to Shelby County, Fayette County reports slightly elevated child food insecurity in comparison to the state and nation. **Fayette County also reported more than 70% of school students participating in the free or reduced-price lunch program, before the pandemic.** Consistent with child food insecurity trends, school lunch program participation in Shelby and Tipton counties was declining before the pandemic.

Trended and Projected Food Insecurity

	DeSoto County, MS	Fayette County, TN	Shelby County, TN	Tipton County, TN	Mississippi	Tennessee	United States
All Residents							
2021 (projected)	**13.0%**	**12.3%**	**14.6%**	**13.4%**	**18.7%**	**14.0%**	**12.9%**
2020 (projected)	**14.2%**	**13.4%**	**16.1%**	**14.5%**	**20.1%**	**15.6%**	**13.9%**
2019	12.5%	11.1%	12.4%	12.2%	18.5%	13.3%	10.9%
2018	12.1%	12.2%	15.0%	12.9%	18.7%	14.0%	11.5%
2017	12.6%	13.4%	19.8%	13.6%	19.2%	13.9%	12.5%
Children							
2021 (projected)	**12.3%**	**18.1%**	**23.5%**	**16.9%**	**22.2%**	**16.6%**	**17.9%**
2020 (projected)	**14.8%**	**20.2%**	**26.5%**	**19.2%**	**24.9%**	**19.8%**	**19.9%**
2019	11.9%	16.2%	19.8%	15.1%	22.3%	15.7%	14.6%
2018	12.4%	16.1%	18.7%	15.7%	23.0%	17.7%	15.2%
2017	16.2%	17.8%	20.8%	18.6%	22.9%	18.9%	16.1%

Source: Feeding America

Children Participating in Free and Reduced-Price Lunch Program*

	2017		2018		2019	
	Student Participants	Percent of All Students	Student Participants	Percent of All Students	Student Participants	Percent of All Students
Fayette County, TN	2,278	71.5%	2,266	68.9%	2,344	72.1%
Shelby County, TN	86,177	60.1%	86,030	58.4%	85,731	57.9%
Tipton County, TN	4,516	42.5%	4,426	41.5%	4,136	39.7%
Tennessee	485,279	51.3%	477,849	49.5%	451,452	46.7%

Source: Annie E. Casey Foundation, Kids Count Data Center

*Data are not available for Mississippi.

Education

High school graduation is one of the strongest predictors of longevity and economic stability. A similar proportion of Memphis metro service area adult residents have completed high school when compared to their respective state and the nation, but attainment of higher education varies widely. Adults in Tipton and Fayette counties are less likely to attain higher education when compared with Tennessee overall and the nation. Tipton and Fayette counties also have a similar median household income and proportion of residents living in poverty.

DeSoto County reports higher median household income and lower poverty than the nation, but lower educational attainment. The county's overall economic strength may be due in part to fewer socio-economic disparities among racial and ethnic groups. Contrary to state and national trends, a similar proportion of Whites and Black/African American people in DeSoto County live in poverty and/or attain higher education.

Shelby County reports higher educational attainment overall, with nearly one-third of adults achieving at least a bachelor's degree. Despite this finding, the county continues to experience stark economic disparities in comparison, a difference largely rooted in racial inequities. **Shelby County is a majority Black/African American community, and fewer than 20% of Black/African American adults attain higher education compared with 45% of white adults. This 25-point difference is more than double the national difference in educational attainment between these racial groups.**

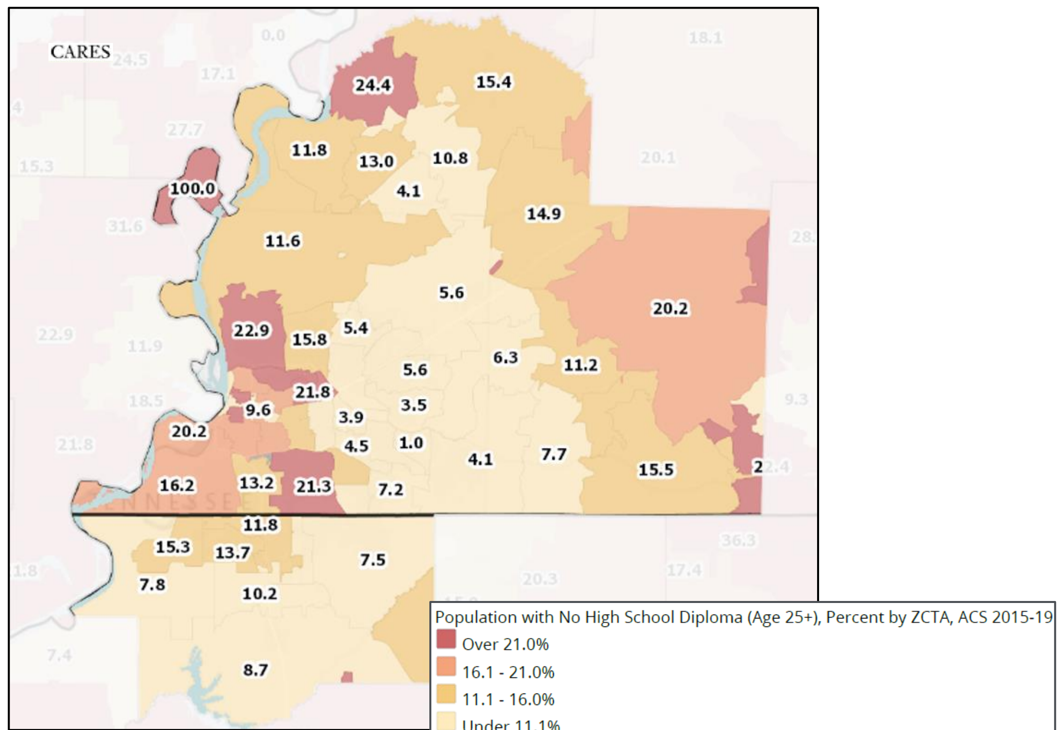
Educational attainment generally increased across racial and ethnic groups from the 2019 CHNA. However, improvements were marginal and continue to reflect disparities among people of color.

2015-2019 Population (Age 25 or Older) by Educational Attainment

	Less than high school diploma	High school graduate (includes GED)	Some college or associate's degree	Bachelor's degree	Graduate or professional degree
DeSoto County, MS	9.6%	29.2%	36.1%	16.6%	8.5%
Fayette County, TN	13.8%	32.1%	31.9%	14.7%	7.5%
Shelby County, TN	11.6%	27.5%	29.3%	18.9%	12.7%
Tipton County, TN	12.2%	37.6%	32.9%	10.9%	6.3%
Mississippi	15.5%	30.4%	32.1%	13.7%	8.4%
Tennessee	12.5%	32.1%	28.0%	17.2%	10.1%
United States	12.0%	27.0%	28.9%	19.8%	12.4%

Source: U.S. Census Bureau, American Community Survey

2015-2019 Population with No High School Diploma by ZIP Code in the Memphis Metro Service Area



2015-2019 Population with a Bachelor's Degree by Prominent Racial and Ethnic Group with 2019 CHNA Comparison (2012-2016)

	White	Black / African American	Asian	Other Race	Two or More Races	Latinx origin (any race)
DeSoto County, MS	**25.5%** ↑	**23.7%**	**36.3%** ↑	**18.7%** ↑	**22.1%**	**19.4%** ↑
2019 CHNA	23.2%	23.3%	32.1%	13.9%	21.4%	14.7%
Fayette County, TN	**25.6%**	**12.6%** ↑	**35.3%** ↓	**10.8%** ↓ **(n=17)**	**39.2%** ↑	**22.5%** ↑
2019 CHNA	26.0%	10.4%	43.3%	23.6%	31.1%	21.0%
Shelby County, TN	**44.6%** ↑	**19.6%** ↑	**62.4%** ↑	**11.1%** ↑	**39.0%** ↑	**14.3%** ↑
2019 CHNA	42.9%	18.4%	58.1%	7.2%	30.8%	11.8%
Tipton County, TN	**18.2%** ↑	**12.9%** ↑	**15.5%** ↑	**25.0%** ↑	**22.1%** ↓	**20.3%** ↑
2019 CHNA	16.6%	11.3%	6.9% (n=19)	18.3%	28.0%	9.0%
Mississippi	**25.7%**	**15.4%**	**40.3%**	**10.8%**	**26.7%**	**14.8%**
2019 CHNA	24.5%	14.6%	39.2%	9.5%	24.0%	12.9%
Tennessee	**28.3%**	**20.4%**	**53.9%**	**14.7%**	**28.9%**	**16.1%**
2019 CHNA	26.3%	18.5%	51.4%	11.9%	24.6%	14.3%
United States	**33.5%**	**21.6%**	**54.3%**	**12.0%**	**31.9%**	**16.4%**
2019 CHNA	31.6%	20.0%	52.1%	10.8%	29.1%	14.7%

Source: U.S. Census Bureau, American Community Survey

*Arrows indicate an increase or decrease or greater than one percentage point. Low population counts are noted in parentheses and should be interpreted with caution.

Housing

Housing is the largest single expense for most households and should represent 30% of a household's monthly income. The median home value for Mississippi and Tennessee is less expensive than the median home value for the U.S. overall, and fewer homeowners are considered housing cost burdened compared to the U.S. benchmark. **In all Memphis metro service area counties except Shelby, more residents own their home and fewer homeowners are considered cost burdened when compared to state and national benchmarks.**

Despite having a lower median home value than the state, Shelby County has fewer homeowners and higher housing cost burden among owners and renters. **Nearly 45% of households in Shelby County rent their home compared with 34% statewide. Median rent is more expensive in Shelby County than the state and 54% of renters are cost burdened compared to 47% statewide.** Rental expenses and disparities in Fayette County should also be monitored. Fayette County has the lowest median rent in the service area, but 54% of renters are cost burdened.

2015-2019 Housing Indicators

	Owners			Renters		
	Occupied Units	Median Home Value	Cost-Burdened*	Occupied Units	Median Rent	Cost-Burdened*
DeSoto County, MS	74.0%	$168,500	20.5%	26.0%	$1,057	43.6%
Fayette County, TN	79.9%	$206,700	22.9%	20.1%	$739	53.8%
Shelby County, TN	55.1%	$150,400	27.1%	44.9%	$942	53.6%
Tipton County, TN	71.3%	$150,000	18.2%	28.7%	$825	45.4%
Mississippi	68.2%	$119,000	26.5%	31.8%	$780	49.3%
Tennessee	66.3%	$167,200	24.4%	33.7%	$869	47.3%
United States	64.0%	$217,500	27.8%	36.0%	$1,062	49.6%

Source: U.S. Census Bureau, American Community Survey

*Defined as spending 30% or more of household income on rent or mortgage expenses.

The following map depicts the percentage of cost burdened households by census tract within the service area. While the prevalence of housing cost burden is generally low across the counties, pockets of disparity exist, particularly in Memphis. Areas with higher housing cost burden generally correlate with areas of higher poverty and greater racial diversity.

2015-2019 Cost Burdened Households by Census Tract in the Memphis Metro Service Area

Cost Burdened Households (Housing Costs Exceed 30% of Household Income), Percent by Tract, ACS 2015-19
- Over 35.1%
- 28.1 - 35.0%
- 21.1 - 28.0%
- Under 21.1%
- No Data or Data Suppressed

Mississippi and Tennessee overall have newer housing stock in comparison to the nation, with approximately 1 in 4 housing units built after 1999 compared to 1 in 5 nationwide. Within the Memphis metro service area, **DeSoto, Fayette and Tipton counties have newer housing than their respective state, while Shelby County has older housing than the state and nation.** More than half of housing in Shelby County was built before 1980 compared with 44.8% across Tennessee.

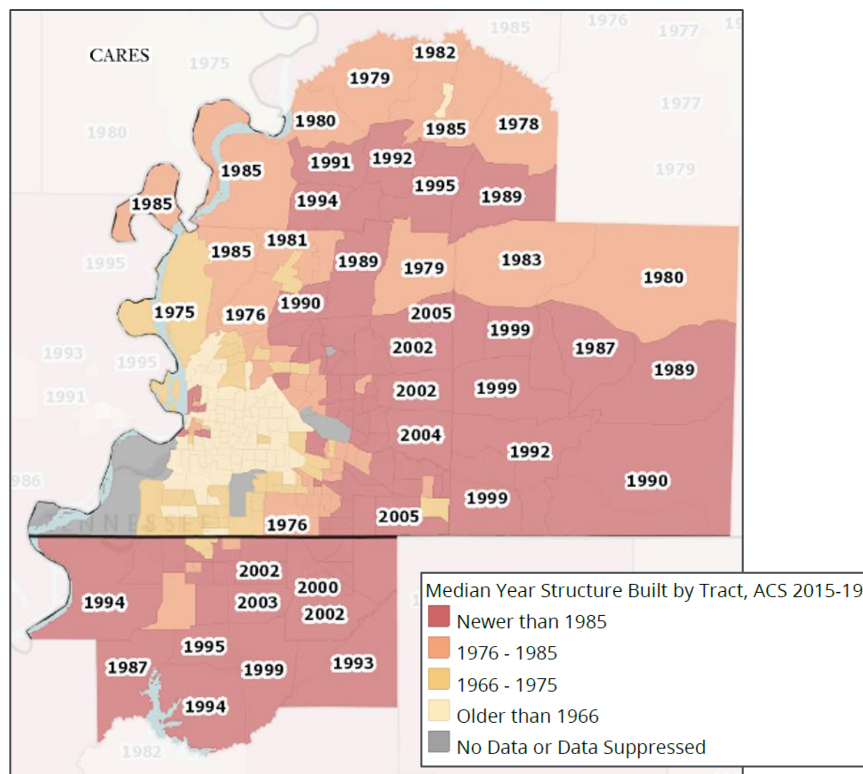
2015-2019 Housing by Year Built

	Before 1980	1980-1999	2000-2009	2010-2013	2014 or Later
DeSoto County, MS	22.5%	39.1%	30.8%	3.6%	3.9%
Fayette County, TN	27.8%	33.5%	29.7%	4.4%	4.6%
Shelby County, TN	56.7%	28.2%	11.7%	2.0%	1.6%
Tipton County, TN	35.2%	38.6%	22.1%	2.6%	1.6%
Mississippi	45.2%	32.1%	17.0%	3.4%	2.4%
Tennessee	44.8%	32.1%	16.4%	3.3%	3.4%
United States	53.6%	27.3%	14.0%	2.7%	2.5%

Source: U.S. Census Bureau, American Community Survey

The following map depicts the median year that housing structures were built by census tract within the service area. **Older housing is almost exclusively centered around the city of Memphis.**

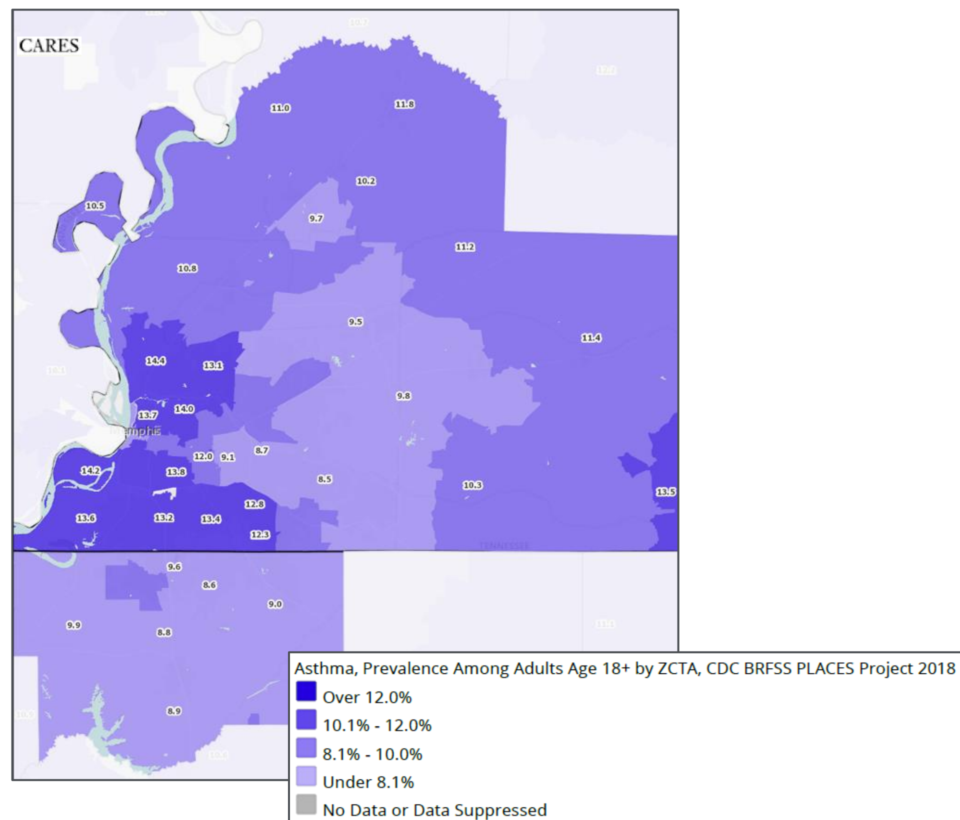
2015-2019 Median Year of Housing Build by Census Tract in the Memphis Metro Service Area



Quality and affordable housing has a direct impact on health. Unhealthy housing puts residents at risk of health issues including lead poisoning, asthma, injury and other chronic diseases. Housing built before 1979 may contain lead paint and other hazardous materials like asbestos.

Mississippi and Tennessee residents have a slightly higher prevalence of asthma than their peers nationwide. As of 2018, nearly 10% of Mississippi and Tennessee adults reported having a current asthma diagnosis compared with 9% nationally. The following map depicts adult asthma prevalence by ZIP code in the Memphis metro service area. **Areas of higher asthma prevalence in Memphis align with areas with older housing.**

2018 Adult Asthma Prevalence by ZIP Code in the Memphis Metro Service Area



Asthma is the most common chronic condition among children, and a leading cause of school absenteeism and hospitalization. In 2019, approximately 1 in 4 children in Mississippi and Tennessee reported ever being diagnosed with asthma compared to 1 in 5 nationwide. Nationally, Black/African American and Latinx children are more likely to live in rented households and areas with older housing. These trends, coupled with other SDoH barriers, contribute to a disproportionately higher prevalence of asthma among Black/African American and Latinx children compared to other racial groups. **Childhood asthma disparities are stark in Tennessee, where 31.6% of Black/African American children have been diagnosed with asthma compared to 20.9% of white children.**

2019 High School Students Ever Diagnosed with Asthma

	Mississippi	Tennessee	United States
Total	25.0%	23.4%	21.8%
Race and Ethnicity			
Black or African American	28.0%	31.6%	29.2%
White	22.1%	20.9%	19.8%
Latinx origin (any race)	21.4%	24.9%	21.0%

Source: Centers for Disease Control and Prevention, YRBS

The Point-in-Time (PIT) count is a count of sheltered and unsheltered people experiencing homelessness required by the United States Department of Housing and Urban Development (HUD) for communities that participate in its Continuum of Care (CoC) program. The count is usually conducted in the last 10 days of January each year. Sheltered locations include emergency shelters and transitional housing. Unsheltered locations include cars, streets, parks, etc.

The HUD CoC program is designed to provide the services and resources needed to assist individuals and families experiencing homelessness. As part of their planning responsibility, each CoC entity must conduct a PIT count of homeless persons at least biennially. Mississippi has three CoC programs that cover its urban centers in Jackson and the remainder of its largely rural communities. Tennessee has 10 CoCs throughout the state, covering urban, suburban and rural settings. The following data, provided by Mississippi and Tennessee CoCs, provide insight into the homeless population and service gaps.

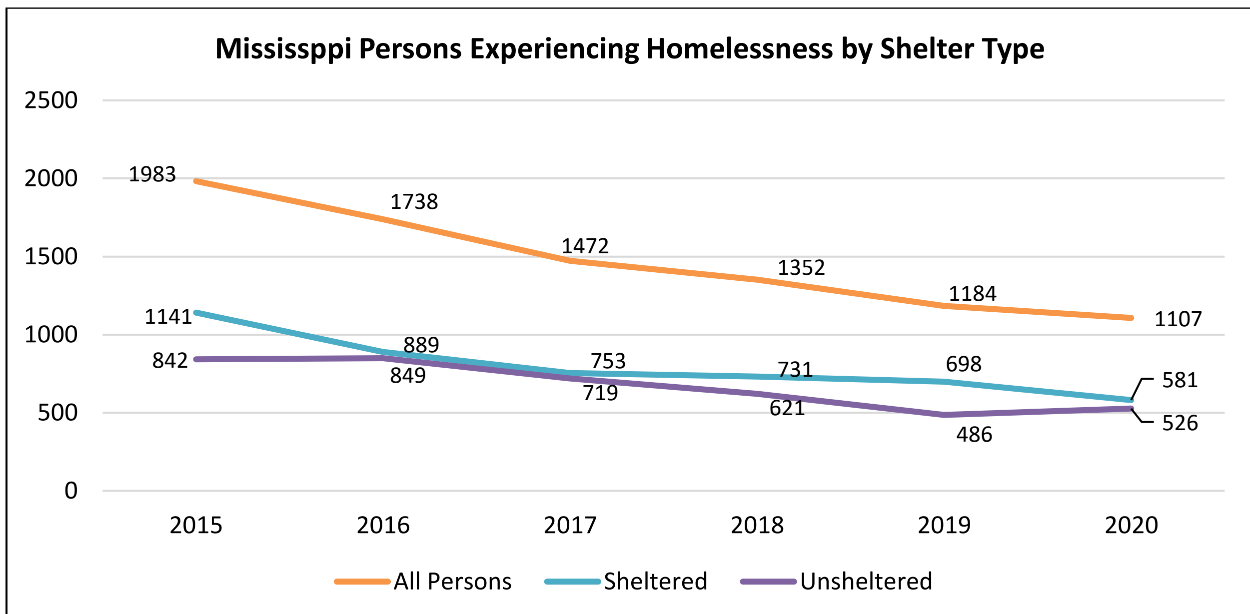
As of 2020, a total of 1,107 people in Mississippi and 7,256 people in Tennessee were experiencing homelessness. Many of these individuals resided in the Jackson (36.7%) or Memphis (14.1%) metro areas. In both states, more than 1 in 10 individuals experiencing homelessness were youth under age 18 and/or chronically homeless, having experienced homelessness for at least one year. Approximately 6% to 8% of individuals were veterans. Black/African American people were disproportionately represented among individuals experiencing homelessness. **In Mississippi, Black/African American people represent 36.6% of the total population, but 50% of individuals experiencing homelessness in 2020. In Tennessee, Black/African American people represent 15.8% of the total population, but 39.3% of individuals experiencing homelessness in 2020.**

The number of people experiencing homelessness declined in Mississippi and Tennessee through 2020, but it may have increased in 2021 due to economic hardships for individuals and families resulting from the COVID-19 pandemic. The 2021 PIT count is pending release and results should be interpreted with caution as many CoC programs did not conduct an unsheltered homeless count due to pandemic restrictions.

2020 Mississippi Point-in-Time Homeless Count by Continuum of Care (CoC) Program

	Jackson / Rankin & Madison Counties CoC	Gulf Port / Gulf Coast Regional CoC	Balance of State CoC	Mississippi Statewide
Total	406	254	447	1,107
Household Type				
Individuals	300	191	362	853
Families	106	63	85	254
Individual Characteristics				
Chronically homeless	80	3	63	146
Under age 18	69	40	56	165
Veterans	35	8	25	68
Race and Ethnicity				
White	142	167	203	512
Black/African American	255	69	230	554
Other race	9	18	14	41
Hispanic/Latinx	1	14	3	18

Source: U.S. Department of Housing and Urban Development Exchange



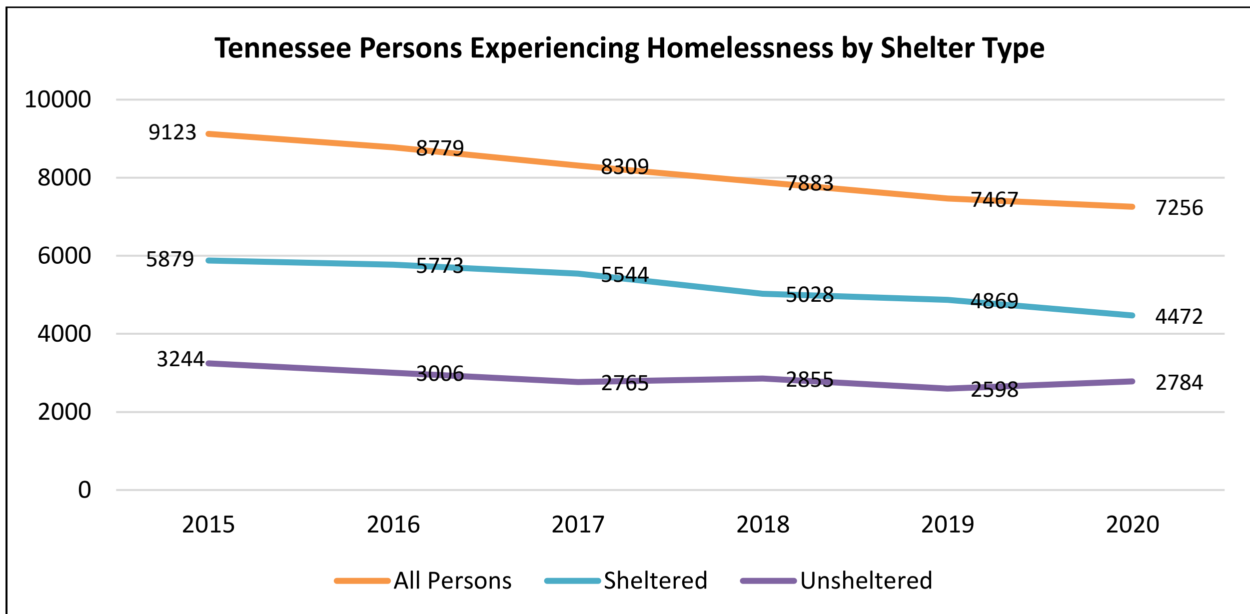
Source: U.S. Department of Housing and Urban Development Exchange

2020 Tennessee Point-in-Time Homeless Count by Continuum of Care (COC) Program*

	Memphis & Shelby County CoC	Jackson / West Tennessee CoC	Tennessee Statewide
Total	1,022	861	7,256
Individuals	738	493	5,673
Families	284	368	1,583
Chronically homeless	21	71	1,153
Under age 18	178	210	998
Veterans	78	10	570
White	158	481	4,091
Black/African American	836	340	2,849
Other race	28	40	316
Hispanic/Latinx	8	4	188

Source: U.S. Department of Housing and Urban Development Exchange

*Tennessee has 10 CoC programs. For purposes of the CHNA, data focus on CoCs located in and around the Memphis metro service area.



Source: U.S. Department of Housing and Urban Development Exchange

Related to housing concerns is access to computers and internet service. Termed the "digital divide," there is a growing gap between the underprivileged members of society—especially poor, rural, elderly and disabled populations—who do not have access to computers or the internet and the wealthy, middle-class and young Americans living in urban and suburban areas who have access.

Mississippi and Tennessee overall have lower digital access than the nation. Within the Memphis metro service area, Fayette, Shelby and Tipton counties have lower internet access than the state; Fayette and Shelby counties also have lower computer access. DeSoto County exceeds Mississippi and the nation for both computer and internet access.

2015-2019 Households by Digital Access

	With Computer Access			With Internet Access	
	Computer Device	Desktop / Laptop	Smartphone	Internet Subscription	Broadband Internet
DeSoto County, MS	92.8%	77.5%	84.8%	86.7%	86.4%
Fayette County, TN	85.0%	69.4%	74.8%	76.0%	75.8%
Shelby County, TN	84.5%	67.5%	76.5%	75.6%	75.3%
Tipton County, TN	87.9%	69.0%	79.3%	76.0%	75.4%
Mississippi	83.8%	63.2%	75.4%	71.9%	71.5%
Tennessee	87.1%	71.8%	77.1%	78.7%	78.4%
United States	90.3%	77.8%	79.9%	83.0%	82.7%

Source: U.S. Census Bureau, American Community Survey

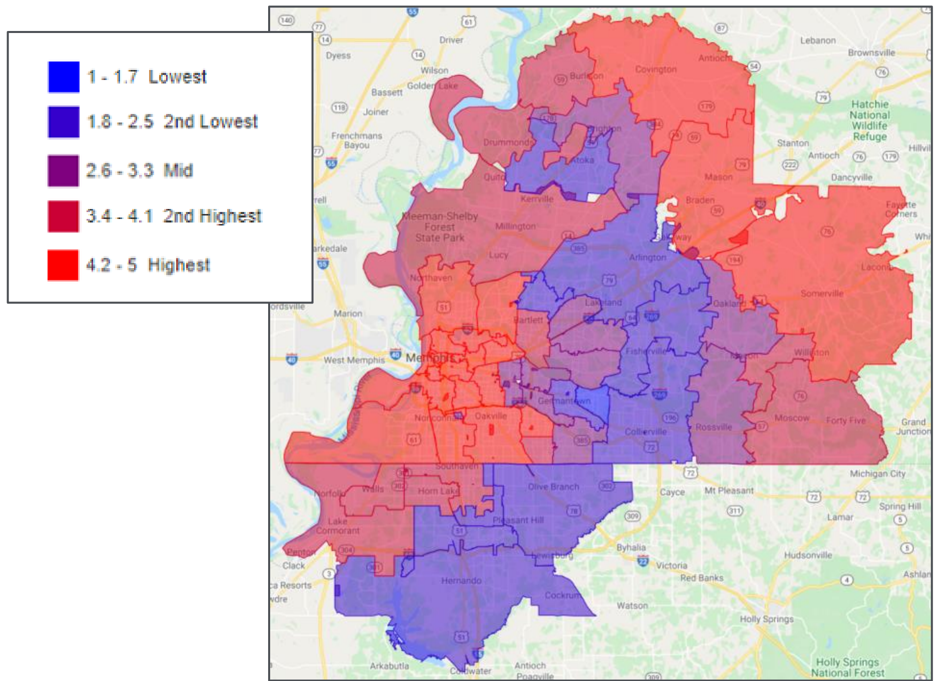
Illuminating Health Inequities

A host of indexes are available to illustrate the potential for health disparities and inequities at the community-level based on SDoH. A description of each index is provided below followed by data visualizations of each tool that show how well Memphis metro service area communities fare compared to state and national benchmarks.

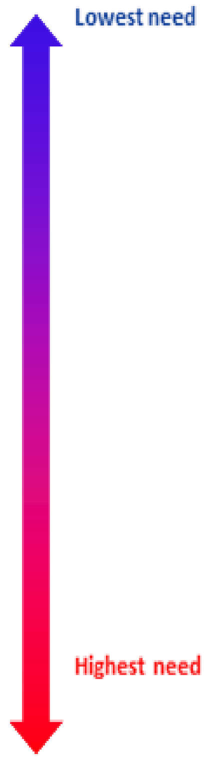
The following data visualizations illustrate the potential for health disparities and inequities at the community-level based on SDoH barriers. A description of each data visualization tool is provided below:

- **Community Need Index (CNI)**: The CNI is a ZIP code-based index of community socio-economic need calculated nationwide. The CNI scores ZIP codes on a scale of 1.0 to 5.0, with 1.0 indicating a ZIP code with the least need and 5.0 indicating a ZIP code with the most need compared to the U.S. national average of 3.0. The CNI weights, indexes and scores ZIP codes by socio-economic barriers, including income, culture, education, insurance and housing.
- **Vulnerable Population Footprint**: The Vulnerable Population Footprint identifies areas where high concentrations of people living in poverty and people living without a high school diploma overlap. Areas are reported by census tract. Census tracts are statistical subdivisions of a county that have roughly 4,000 inhabitants.
- **Area Deprivation Index (ADI)**: The ADI provides a census block group measure of socio-economic disadvantage based on income, education, employment and housing quality. ADI scores are displayed at the block group level on a scale from 1 (least disadvantaged) to 10 (most disadvantaged). A block group is a subdivision of a census tract and typically contains between 250 and 550 housing units.
- **Racial Disparities and Disproportionality Index (RDDI):** The RDDI was developed by the Corporation for Supportive Housing (CSH) to assess unique systems and measure whether a racial and/or ethnic group's representation in a particular public system is proportionate to, over or below their representation in the overall population. The index can be viewed as the likelihood of one group experiencing an event, compared to the likelihood of another group experiencing that same event. Results are provided on a state-by-state basis.

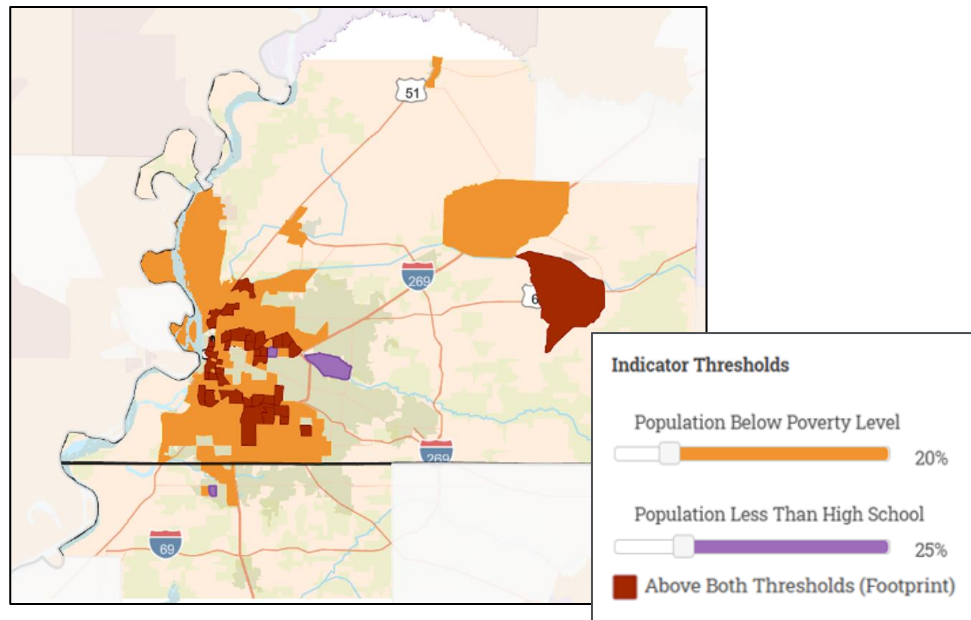
Community Need Index



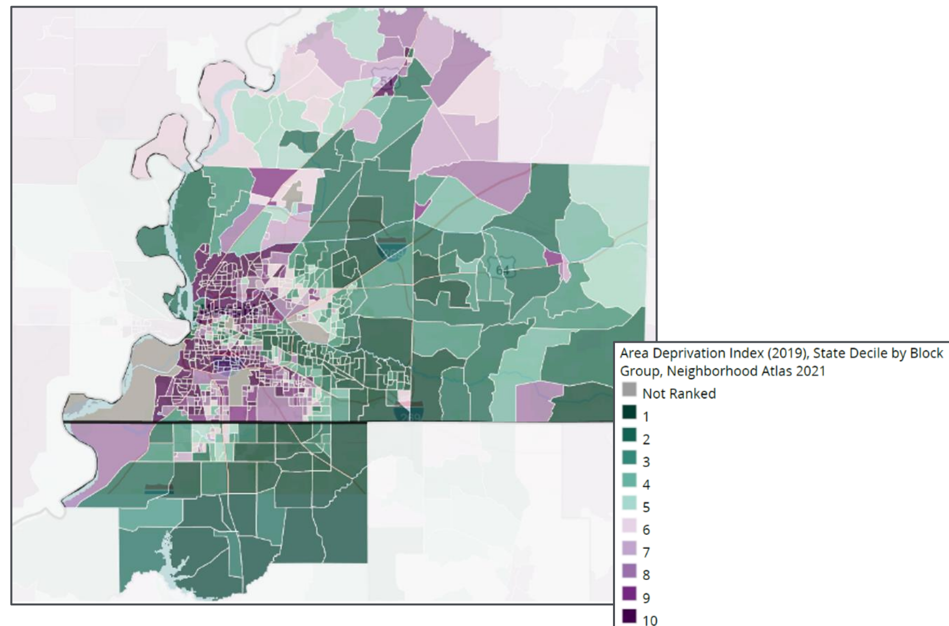
ZIP Code	Town	CNI Score	ZIP Code	Town	CNI Score
38139	Germantown	1.4			
38017	Collierville	1.8	38028	Eads	2.0
38002	Arlington	1.8	38632	Hernando	2.0
38672	Southaven	1.8	38651	Nesbit	2.0
38138	Germantown	2.0	38004	Atoka	2.2
38135	Memphis	2.0	38654	Olive Branch	2.2
38131	Memphis	2.6	38011	Brighton	2.8
38117	Memphis	2.6	38119	Memphis	3.0
38018	Cordova	2.6	38133	Memphis	3.0
38060	Oakland	2.6	38125	Memphis	3.2
38120	Memphis	2.8	38066	Rossville	3.2
38016	Cordova	2.8			
38058	Munford	3.4	38637	Horn Lake	3.6
38641	Lake Cormorant	3.4	38671	Southaven	3.6
38680	Walls	3.4	38057	Moscow	3.8
38141	Memphis	3.6	38053	Millington	3.8
38076	Williston	3.6	38152	Memphis	4.0
38023	Tipton County	3.6	38134	Memphis	4.0
38015	Burlison	3.6			
38132	Memphis	4.2	38112	Memphis	4.8
38103	Memphis	4.2	38105	Memphis	4.8
38049	Mason	4.2	38122	Memphis	4.8
38104	Memphis	4.4	38118	Memphis	5.0
38109	Memphis	4.4	38114	Memphis	5.0
38068	Somerville	4.4	38126	Memphis	5.0
38116	Memphis	4.6	38106	Memphis	5.0
38115	Memphis	4.6	38107	Memphis	5.0
38111	Memphis	4.6	38108	Memphis	5.0
38128	Memphis	4.6	38127	Memphis	5.0
38019	Covington	4.6			



Vulnerable Population Footprint



Area Deprivation Index



All Memphis metro service area counties have areas of socio-economic disparity, but consistent with existing SDoH barriers and racial inequities, disparities are concentrated in Shelby County. **Of the 35 ZIP codes in Shelby County, 20 have a CNI score of 4.0 or higher, and all of these ZIP codes are located in Memphis.** With few exceptions, Shelby County CNI scores remained stable or increased from the 2019 CHNA.

In DeSoto County, the northwest portion continues to report higher than average community need, but all ZIP codes in this area saw a decline in their CNI score from the 2019 CHNA. Tipton County overall is an

area of high socio-economic disparity, with five of seven ZIP codes scoring in high CNI categories. Community need in Fayette County is largely concentrated in the eastern portion of the county in Somerville, an area also identified by the Vulnerable Population Footprint.

The following table lists the SDoH that contribute to ZIP code CNI scores and are often indicative of health disparities. ZIP codes with a CNI score of 3.4 or higher are shown, in descending order, by CNI score.

2015-2019 Social Determinants of Health by Geography
Red = Higher CNI Score from the 2019 CHNA

ZIP Code (County)	Population in Poverty	Children in Poverty	Primary Language Other Than English	Less than HS Diploma	Without Health Insurance	2022 CHNA CNI Score	2019 CHNA CNI Score
38127, Memphis (Shelby)	41.7%	62.7%	4.7%	22.9%	16.8%	5.0	5.0
38108, Memphis (Shelby)	40.9%	56.9%	22.2%	31.5%	28.6%	5.0	5.0
38107, Memphis (Shelby)	31.7%	47.8%	1.8%	19.9%	11.0%	5.0	5.0
38106, Memphis (Shelby)	40.1%	58.5%	3.1%	20.1%	20.3%	5.0	5.0
38126, Memphis (Shelby)	65.2%	86.6%	1.1%	26.5%	14.0%	5.0	5.0
38114, Memphis (Shelby)	34.1%	50.0%	3.0%	19.7%	18.8%	5.0	5.0
38118, Memphis (Shelby)	33.2%	52.3%	14.0%	21.3%	18.2%	5.0	4.8
38122, Memphis (Shelby)	28.4%	46.2%	33.6%	21.8%	20.5%	4.8	5.0
38105, Memphis (Shelby)	38.8%	48.0%	8.5%	21.3%	23.5%	4.8	5.0
38112, Memphis (Shelby)	27.4%	42.9%	10.0%	19.3%	15.9%	4.8	4.8
38019, Covington (Tipton)	18.5%	27.9%	1.9%	15.4%	12.5%	4.6	4.6
38128, Memphis (Shelby)	29.6%	45.4%	7.7%	15.8%	14.9%	4.6	4.6
38111, Memphis (Shelby)	27.5%	40.7%	9.4%	15.8%	14.1%	4.6	4.6
38115, Memphis (Shelby)	27.3%	46.7%	10.4%	13.5%	17.1%	4.6	4.6
38116, Memphis (Shelby)	25.6%	44.6%	6.0%	13.2%	14.9%	4.6	4.8
38068, Somerville (Fayette)	23.8%	40.4%	1.5%	20.2%	8.4%	4.4	NA
38109, Memphis (Shelby)	26.2%	43.3%	3.3%	16.2%	15.3%	4.4	4.6
38104, Memphis (Shelby)	20.5%	14.2%	8.0%	9.6%	12.1%	4.4	4.2
38049, Mason (Tipton)	14.9%	32.7%	2.4%	14.9%	6.5%	4.2	4.4
38103, Memphis (Shelby)	14.1%	5.3%	11.2%	8.2%	4.5%	4.2	4.0
38134, Memphis (Shelby)	16.6%	24.7%	9.6%	10.9%	12.0%	4.0	3.8
38053, Millington (Shelby)	12.4%	18.8%	5.4%	11.6%	11.8%	3.8	3.6
38057, Moscow (Fayette)	21.3%	38.7%	3.3%	15.5%	10.1%	3.8	NA
38671, Southaven (DeSoto)	13.1%	18.1%	6.7%	11.8%	12.3%	3.6	3.8
38637, Horn Lake (DeSoto)	16.8%	24.6%	7.2%	13.7%	12.5%	3.6	4.0
38015, Burlison (Tipton)	14.6%	15.7%	3.0%	24.4%	17.8%	3.6	3.4
38023, Drummonds (Tipton)	8.5%	8.0%	2.4%	11.8%	7.8%	3.6	3.4
38076, Williston (Fayette)	13.6%	31.7%	0.4%	11.2%	3.3%	3.6	NA
38141, Memphis (Shelby)	19.0%	36.3%	10.3%	11.0%	10.0%	3.6	3.6
38680, Walls (DeSoto)	10.8%	18.3%	7.4%	15.3%	15.4%	3.4	3.6
38641, Lake Cormorant (DeSoto)	7.1%	12.4%	9.8%	7.8%	16.7%	3.4	3.8
38058, Munford (Tipton)	14.5%	19.0%	6.6%	13.0%	6.4%	3.4	3.2
Mississippi	20.3%	28.7%	4.0%	15.5%	12.3%	NA	NA
Tennessee	15.2%	21.9%	7.2%	12.5%	9.7%	NA	NA
United States	13.4%	18.5%	21.6%	12.0%	8.8%	NA	NA

Source: U.S. Census Bureau, American Community Survey
*Data are not available for Memphis ZIP codes 38132 and 38152.

Comparing health indicators with population statistics demonstrates the adverse impact of SDoH on populations that historically and continually experience inequities. **Among Memphis ZIP codes with the highest CNI score of 5.0, 60% or more of the population identifies as Black/African American.** The proportion of white residents generally increases with improving CNI scores. In this way we can begin to see how inequities perpetuate persistent disparities in health and social outcomes.

2015-2019 Population (Pop.) by Prominent Racial and Ethnic Groups

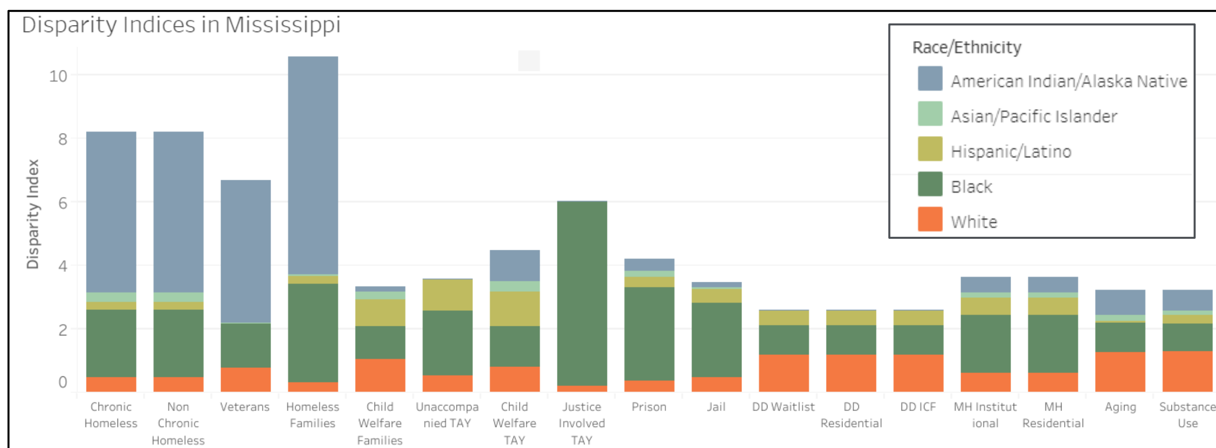
ZIP Code (County)	Total Pop.	White	Black or African American	Two or More Races	Latinx origin (any race)
38127, Memphis (Shelby)	43,086	10.9%	84.1%	2.0%	4.0%
38108, Memphis (Shelby)	17,626	26.8%	60.6%	0.8%	22.6%
38107, Memphis (Shelby)	15,784	17.7%	78.7%	1.6%	1.3%
38106, Memphis (Shelby)	23,791	3.6%	95.9%	0.1%	1.7%
38126, Memphis (Shelby)	6,329	3.1%	96.0%	0.5%	0.7%
38114, Memphis (Shelby)	25,474	4.4%	93.4%	0.7%	2.1%
38118, Memphis (Shelby)	39,168	10.6%	77.4%	1.1%	14.2%
38122, Memphis (Shelby)	24,419	59.8%	18.3%	1.5%	31.0%
38105, Memphis (Shelby)	59,150	14.0%	78.2%	1.5%	4.2%
38112, Memphis (Shelby)	16,512	37.3%	57.0%	1.3%	5.4%
38019, Covington (Tipton)	16,298	62.9%	34.1%	2.4%	1.5%
38128, Memphis (Shelby)	45,023	14.8%	79.9%	1.8%	7.1%
38111, Memphis (Shelby)	42,846	45.1%	48.4%	2.4%	7.5%
38115, Memphis (Shelby)	39,644	8.1%	84.0%	0.5%	9.4%
38116, Memphis (Shelby)	40,777	4.6%	93.0%	1.0%	1.6%
38068, Somerville (Fayette)	10,985	57.6%	38.9%	0.8%	0.4%
38109, Memphis (Shelby)	44,911	2.4%	96.5%	0.6%	1.4%
38104, Memphis (Shelby)	23,456	65.5%	27.3%	2.6%	4.0%
38049, Mason (Tipton)	4,181	45.4%	51.0%	0.8%	2.1%
38103, Memphis (Shelby)	14,684	57.7%	33.1%	2.1%	4.2%
38134, Memphis (Shelby)	45,612	45.7%	49.2%	1.3%	6.5%
38053, Millington (Shelby)	26,282	71.2%	21.9%	3.2%	5.9%
38057, Moscow (Fayette)	3,524	49.1%	47.6%	1.0%	2.5%
38671, Southaven (DeSoto)	37,456	63.6%	30.4%	2.7%	6.3%
38637, Horn Lake (DeSoto)	27,204	48.0%	45.3%	1.4%	7.3%
38015, Burlison (Tipton)	2,385	89.7%	7.3%	1.8%	3.0%
38023, Drummonds (Tipton)	6,466	83.9%	10.4%	3.7%	1.1%
38076, Williston (Fayette)	1,126	76.3%	23.3%	0.3%	0.3%
38141, Memphis (Shelby)	22,861	9.4%	82.8%	1.2%	10.4%
38680, Walls (DeSoto)	6,041	57.1%	33.7%	2.2%	8.8%
38641, Lake Cormorant (DeSoto)	2,100	73.5%	18.0%	1.5%	9.8%
38058, Munford (Tipton)	10,007	82.1%	12.6%	1.4%	7.2%
Mississippi	2,984,418	58.4%	37.7%	1.4%	3.1%
Tennessee	6,709,356	77.6%	16.8%	2.2%	5.4%
United States	324,697,795	72.5%	12.7%	3.3%	18.0%

Source: U.S. Census Bureau, American Community Survey

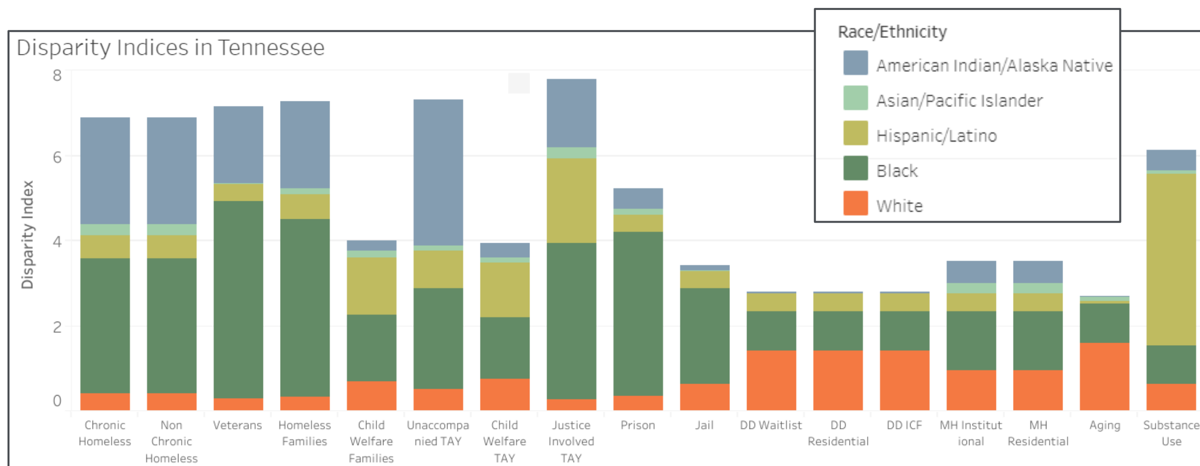
The RDDI measures whether a racial group's representation in a particular public system is proportionate to their representation in the overall population. Public systems include homelessness, veterans, prison/justice systems, child welfare, developmental disabilities, mental health institutions, aging population and substance use. An index of 1 signifies equal representation; an index below 1 signifies underrepresentation and an index above 1 signifies overrepresentation in a system.

Across Mississippi and Tennessee, Black/African American residents have higher index scores of 2.09 and 3.18, respectively, indicating overrepresentation in public systems. In Mississippi, American Indian/Alaska Native residents represent less than 1% of the total population, but they are also overrepresented in public systems with an index score of 5.07.

In both Mississippi and Tennessee, Black/African American people are most overrepresented in prison and justice systems. This finding is consistent with systemic issues of racism within the nation's criminal justice system that leads to disproportionate incarceration and sentencing among people of color. In Tennessee, Black/African American people also have high representation among individuals experiencing homelessness and veterans.



Source: Corporation for Supportive Housing



Source: Corporation for Supportive Housing

*TAY: Transition-age youth; DD: Developmental Disability; MH: Mental Health

Life expectancy is another measure of adverse SDoH. Across Mississippi and Tennessee, life expectancy is highest for Latinx and Asian residents. Life expectancy disparity trends are largely reflected in mortality data presented in this report. In all service area counties except DeSoto, Black/African American people have a higher all-cause death rate compared to white people. Consistent with life expectancy trends, the all-cause death rate for Black/African American people in Fayette and Shelby counties is more than 200 points higher than the death rate for white people.

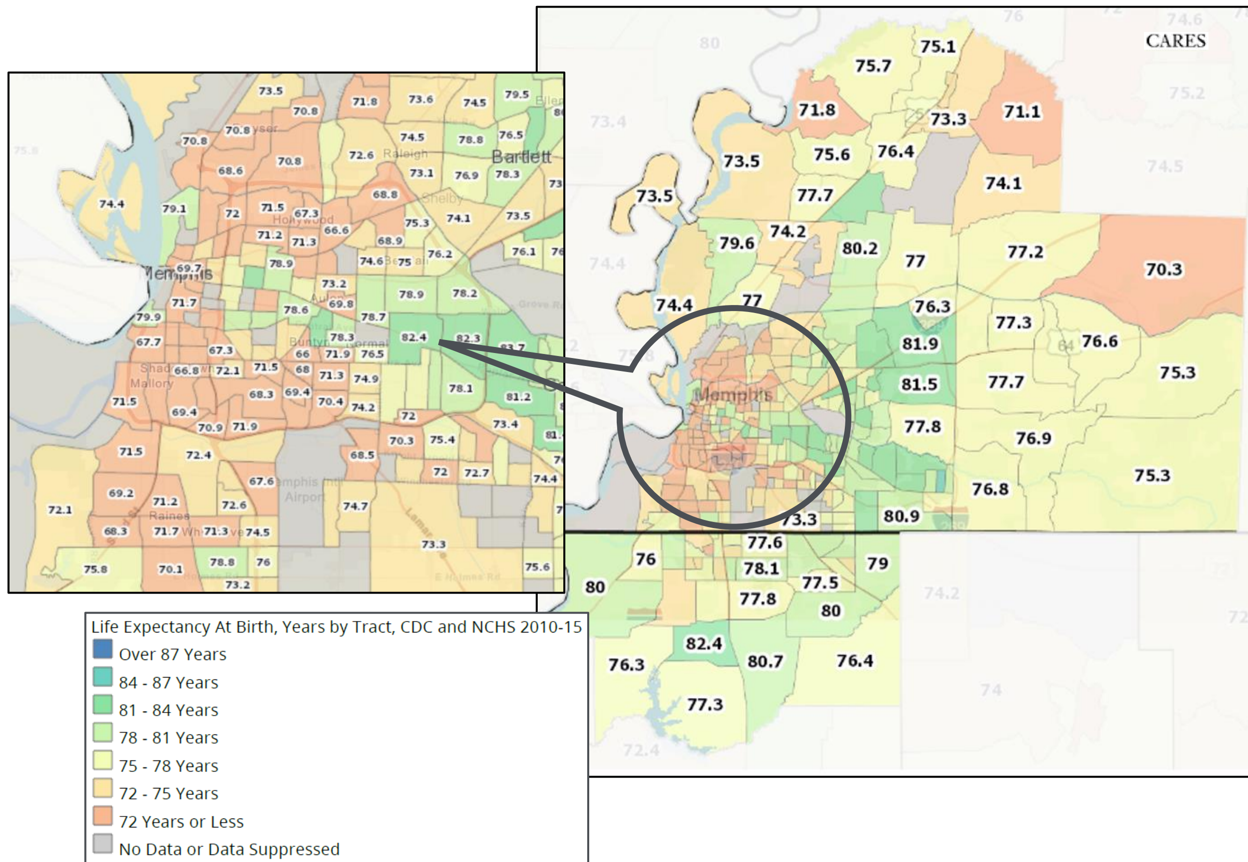
At the census tract-level, areas of lower life expectancy largely align with areas of more socio-economic barriers and racial inequities. **In portions of Memphis ZIP codes 38106 and 38126, where more than 95% of residents identify as Black/African American and more than 40% of residents live in poverty, life expectancy is less than 70 to 72 years. In contrast, in neighboring Germantown ZIP code 38139, where 91.8% of residents identify as white and 1.5% of residents live in poverty, life expectancy exceeds 82 years.**

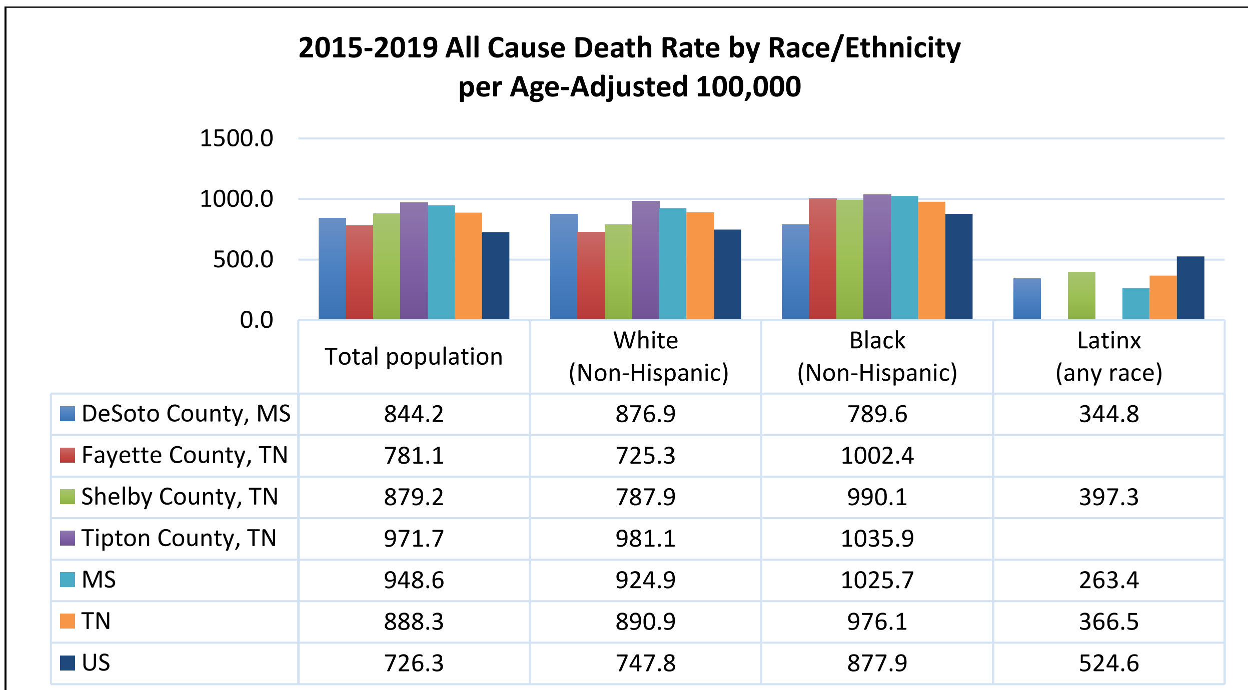
2017-2019 Life Expectancy by Race and Ethnicity

	Overall Life Expectancy	White	Black	Asian	Latinx origin (any race)
DeSoto County, MS	77.0	76.4	76.9	84.6	NA
Fayette County, TN	78.1	79.9	73.0	NA	NA
Shelby County, TN	75.5	78.0	73.2	86.3	86.5
Tipton County, TN	75.4	75.6	73.1	NA	87.5
Mississippi	74.9	75.7	73.1	84.9	100.4
Tennessee	76.0	76.1	73.6	87.0	91.0

Source: National Vital Statistics System

2010-2015 Life Expectancy at Birth by Census Tract





	Total population	White (Non-Hispanic)	Black (Non-Hispanic)	Latinx (any race)
DeSoto County, MS	844.2	876.9	789.6	344.8
Fayette County, TN	781.1	725.3	1002.4	
Shelby County, TN	879.2	787.9	990.1	397.3
Tipton County, TN	971.7	981.1	1035.9	
MS	948.6	924.9	1025.7	263.4
TN	888.3	890.9	976.1	366.5
US	726.3	747.8	877.9	524.6

Source: Centers for Disease Control and Prevention
*Latinx data are shown by county as available.

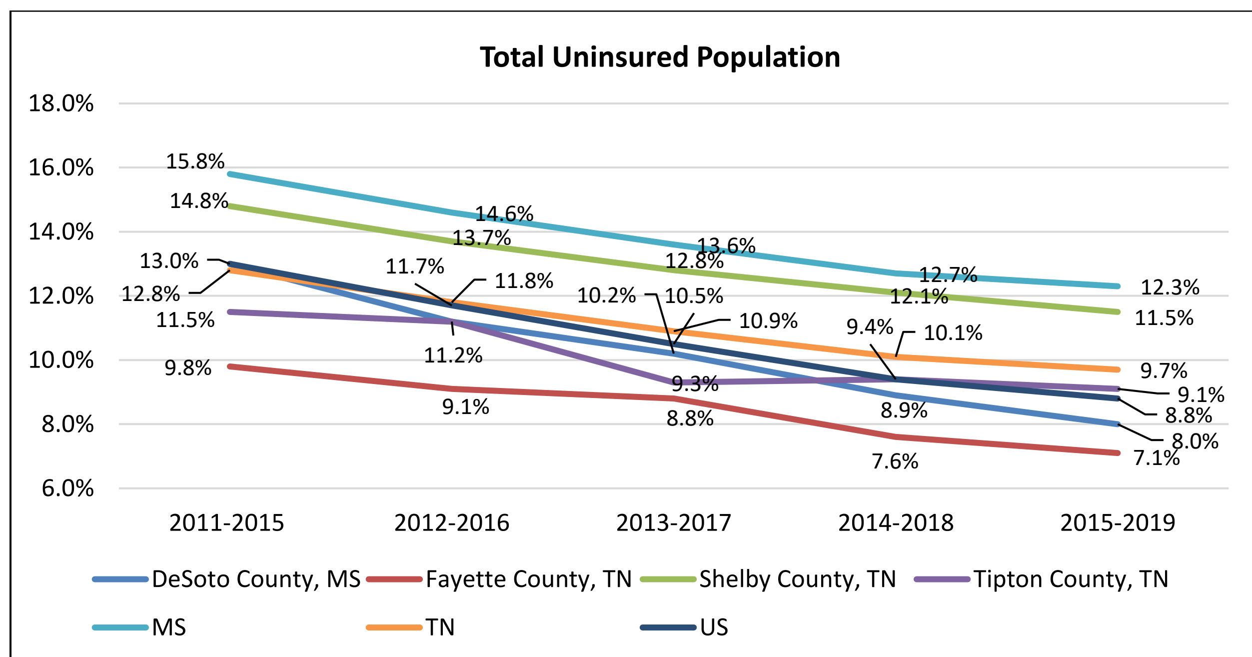
A Closer Look at Health Statistics

Access to Health Care

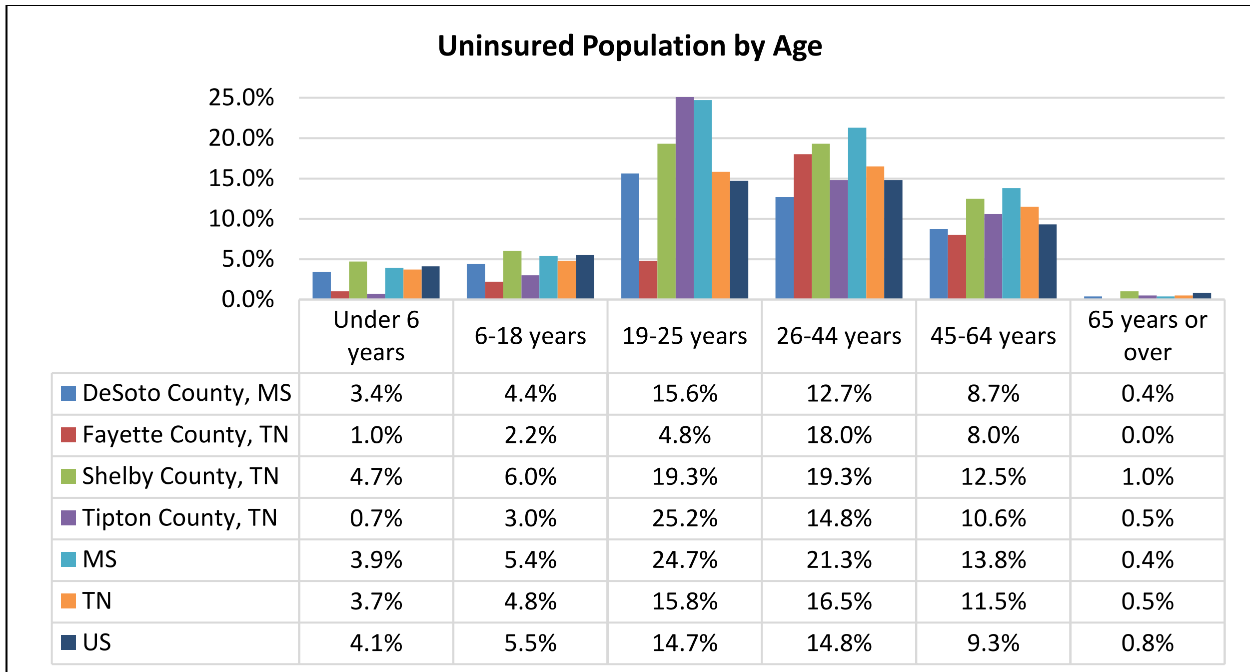
The percentage of uninsured residents in the Memphis metro service area continued to decline from the 2019 CHNA. From 2011-2015 to 2015-2019, the percent uninsured declined approximately 2 to 5 percentage points across the service area, with the largest decline in DeSoto County. Mississippi and Tennessee did not expand Medicaid under the Affordable Care Act, and outside of DeSoto County, the percent uninsured declined at a slower rate than the nation overall. Medicaid coverage increased less than 1 percentage point in all service area counties from the 2019 CHNA. All counties except Shelby have a lower percentage of residents covered by Medicaid than the nation overall.

DeSoto and Fayette county residents are more likely to be insured than their peers statewide and nationally and meet the HP2030 goal of 92.1% insured residents. Tipton County is also within reach of the HP2030 goal with an uninsured percentage that mirrors the nation. **Shelby County continues to have a higher uninsured percentage than both Tennessee and the nation, a trend that is persistent regardless of resident age.** Higher uninsured percentages in Shelby County are due in part to disparities among Black/African American residents, who make up the majority population and have an uninsured ratio of 12.4%.

The uninsured percentage declined for all racial and ethnic groups across Mississippi and Tennessee, but individuals of color continue to be disproportionately uninsured compared to white individuals. Nearly 1 in 3 “other race” and Latinx residents are uninsured compared with 1 in 10 white residents. “Other race” has historically captured ethno-racially mixed individuals, as well as Latinx individuals who do not consider ethnicity as separate or distinct from race.



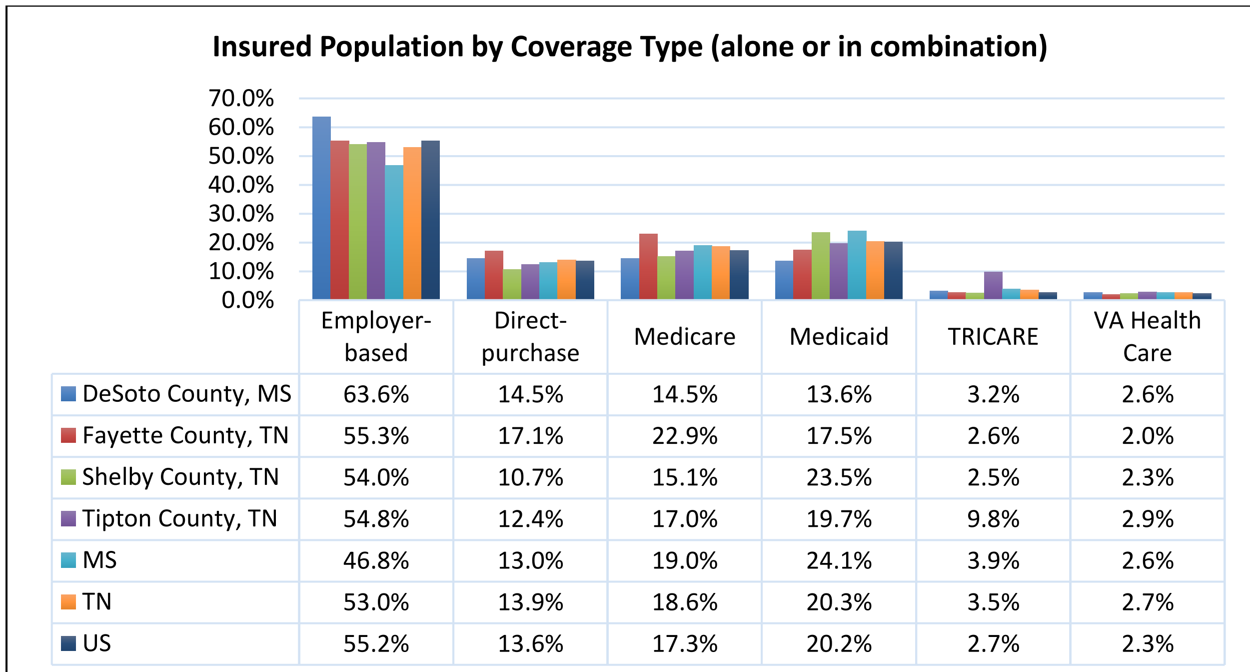
Source: U.S. Census Bureau, American Community Survey



Uninsured Population by Age

	Under 6 years	6-18 years	19-25 years	26-44 years	45-64 years	65 years or over
DeSoto County, MS	3.4%	4.4%	15.6%	12.7%	8.7%	0.4%
Fayette County, TN	1.0%	2.2%	4.8%	18.0%	8.0%	0.0%
Shelby County, TN	4.7%	6.0%	19.3%	19.3%	12.5%	1.0%
Tipton County, TN	0.7%	3.0%	25.2%	14.8%	10.6%	0.5%
MS	3.9%	5.4%	24.7%	21.3%	13.8%	0.4%
TN	3.7%	4.8%	15.8%	16.5%	11.5%	0.5%
US	4.1%	5.5%	14.7%	14.8%	9.3%	0.8%

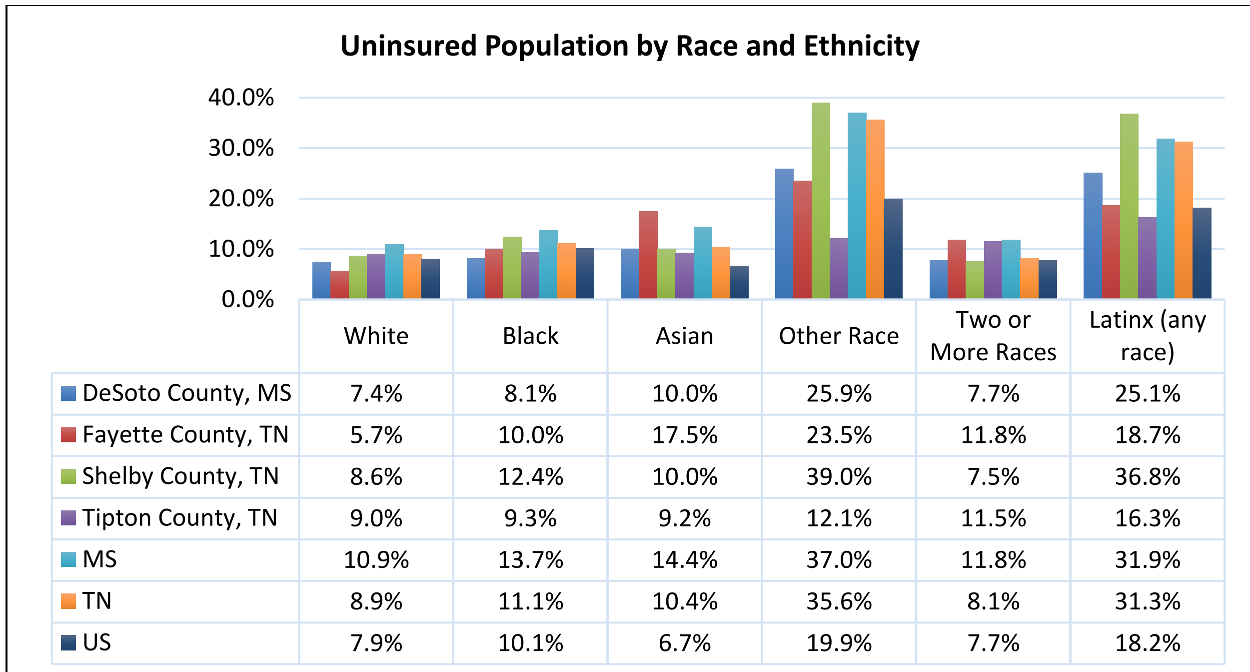
Source: U.S. Census Bureau, American Community Survey



Insured Population by Coverage Type (alone or in combination)

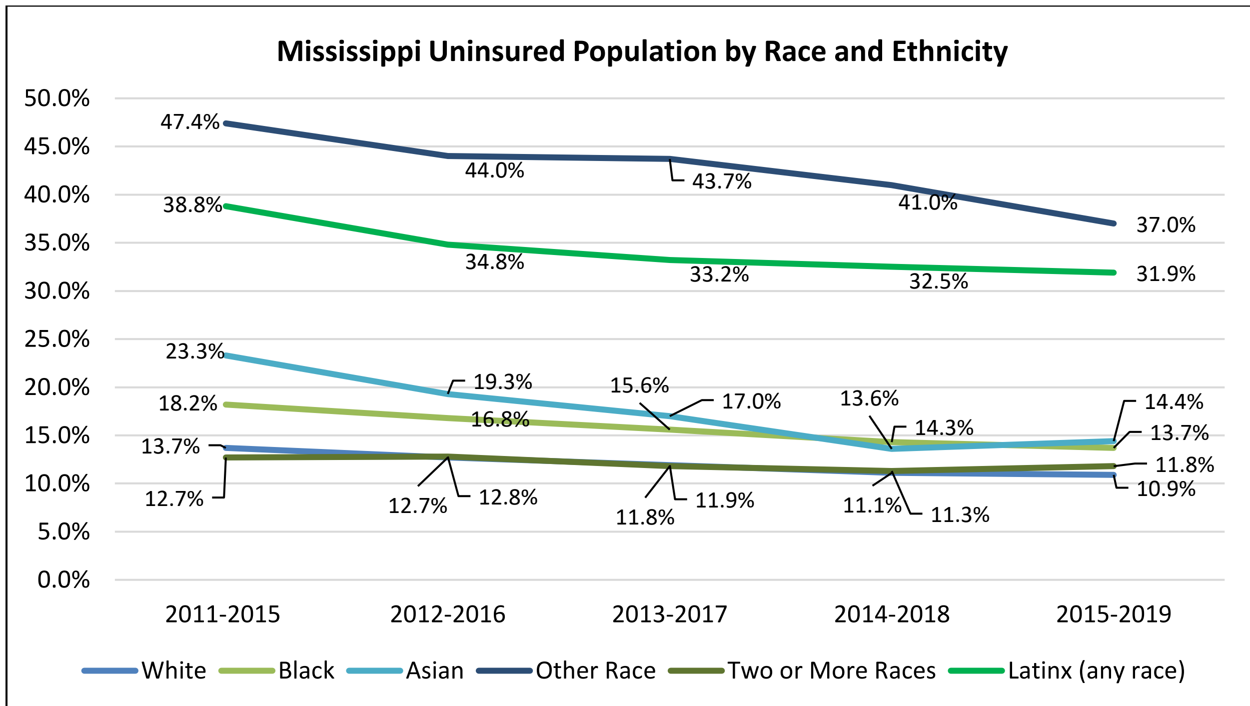
	Employer-based	Direct-purchase	Medicare	Medicaid	TRICARE	VA Health Care
DeSoto County, MS	63.6%	14.5%	14.5%	13.6%	3.2%	2.6%
Fayette County, TN	55.3%	17.1%	22.9%	17.5%	2.6%	2.0%
Shelby County, TN	54.0%	10.7%	15.1%	23.5%	2.5%	2.3%
Tipton County, TN	54.8%	12.4%	17.0%	19.7%	9.8%	2.9%
MS	46.8%	13.0%	19.0%	24.1%	3.9%	2.6%
TN	53.0%	13.9%	18.6%	20.3%	3.5%	2.7%
US	55.2%	13.6%	17.3%	20.2%	2.7%	2.3%

Source: U.S. Census Bureau, American Community Survey

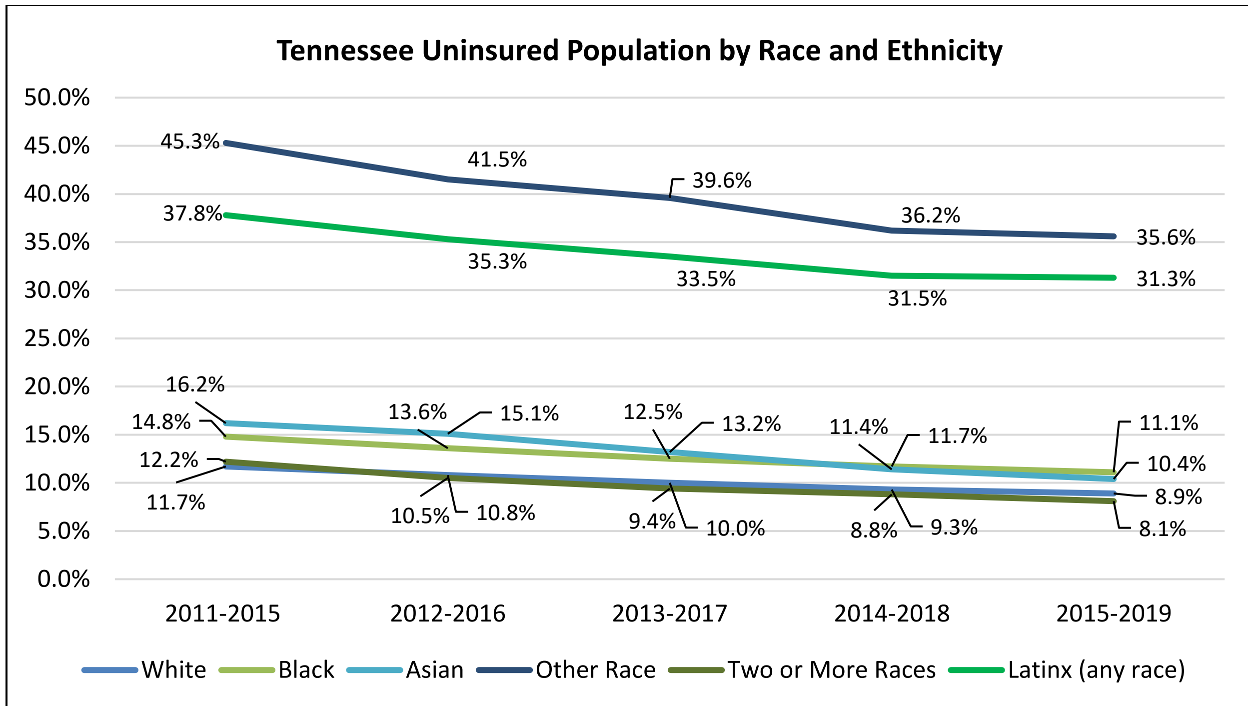


	White	Black	Asian	Other Race	Two or More Races	Latinx (any race)
DeSoto County, MS	7.4%	8.1%	10.0%	25.9%	7.7%	25.1%
Fayette County, TN	5.7%	10.0%	17.5%	23.5%	11.8%	18.7%
Shelby County, TN	8.6%	12.4%	10.0%	39.0%	7.5%	36.8%
Tipton County, TN	9.0%	9.3%	9.2%	12.1%	11.5%	16.3%
MS	10.9%	13.7%	14.4%	37.0%	11.8%	31.9%
TN	8.9%	11.1%	10.4%	35.6%	8.1%	31.3%
US	7.9%	10.1%	6.7%	19.9%	7.7%	18.2%

Source: U.S. Census Bureau, American Community Survey



Source: U.S. Census Bureau, American Community Survey



Source: U.S. Census Bureau, American Community Survey

Availability of health care providers also impacts access to care and health outcomes. Tennessee has similar primary care provider availability as the nation, but Mississippi continues to have fewer providers. Provider availability in both states is generally consistent from the 2019 CHNA. Within the Memphis metro service area, **primary care providers are concentrated in Shelby County, where the rate of providers exceeds both the state and nation. All other service area counties have provider rates that are less than half the national rate.** Of note, despite higher primary care provider availability in Shelby County, much of the county, particularly in and around Memphis, is designated by the Federal Department of Health and Human Services as a Health Professional Shortage Area (HPSA) for low-income individuals.

Mississippi and Tennessee overall have fewer dentists than the nation and fewer adults receiving regular dental care. **Memphis metro service area adults are also less likely to receive dental care, even when they reside in counties with overall better provider access.** Shelby County has a higher dentist provider rate than the state and nation, but the proportion of adults receiving dental care is on par with the state and lower than the national average. Dentist provider rates in other service area counties are approximately half the national rate, and approximately 56% of adults in these counties receive dental care compared to 66% nationally. **Consistent with primary care access findings, while Shelby County has higher overall dental provider availability, much of the county is a HPSA for low-income residents.**

When viewed at the ZIP code-level, wide disparities in adult dental care access exist across the Memphis metro service area. **Within Memphis ZIP codes 38106, 38108 and 38126, 40% or fewer of adults receive regular dental care.** These ZIP codes represent areas of greater community need and inequity,

as identified by the Community Need Index. Other areas of disparity include the eastern portion of Tipton County, where fewer than 50% of adults receive regular dental care.

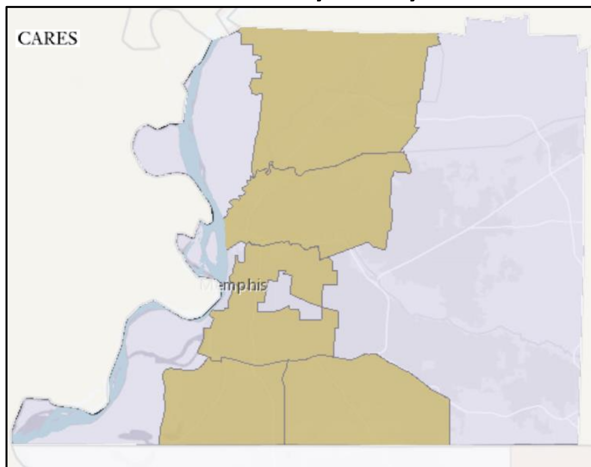
COVID-19 had a significant impact on access to care. Individuals nationwide delayed regular preventive and maintenance care due to fear of contracting COVID-19 in a health care setting and new financial constraints, among other concerns. Nationally, the percentage of adults receiving a routine physical checkup declined from 77.6% in 2019 to 76% in 2020. **Delayed care access was more pronounced in Tennessee, where 73.5% of adults received a routine physical checkup in 2020 compared with 76.8% in 2019.** Mississippi did not see a notable decline in care access from 2019 (77.3%) to 2020 (77.1%). Note: county-level data for 2020 are not yet available.

Primary and Dental Provider Rates and Adult Health Care Access

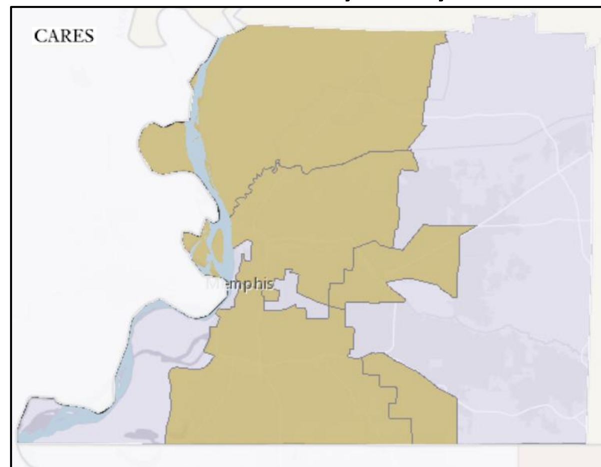
	Primary Care		Dental Care	
	Physicians per 100,000 Population (2018)	Routine Checkup within Past Year (2018)*	Dentists per 100,000 Population (2019)	Dental Visit within Past Year (2018)*
DeSoto County, MS	32.4	75.5%	35.1	55.8%
Fayette County, TN	37.0	77.2%	29.2	55.8%
Shelby County, TN	86.1	78.1%	73.6	58.8%
Tipton County, TN	27.6	76.0%	35.7	55.5%
Mississippi	52.9	75.8%	48.8	54.5%
Tennessee	71.6	75.3%	55.5	58.2%
United States	75.8	75.1%	71.4	66.2%

Source: Health Resources and Services Administration & Centers for Disease Control and Prevention, PLACES & BRFSS
*Data are reported as age-adjusted percentages.

Low-Income Primary Care HPSAs within Shelby County

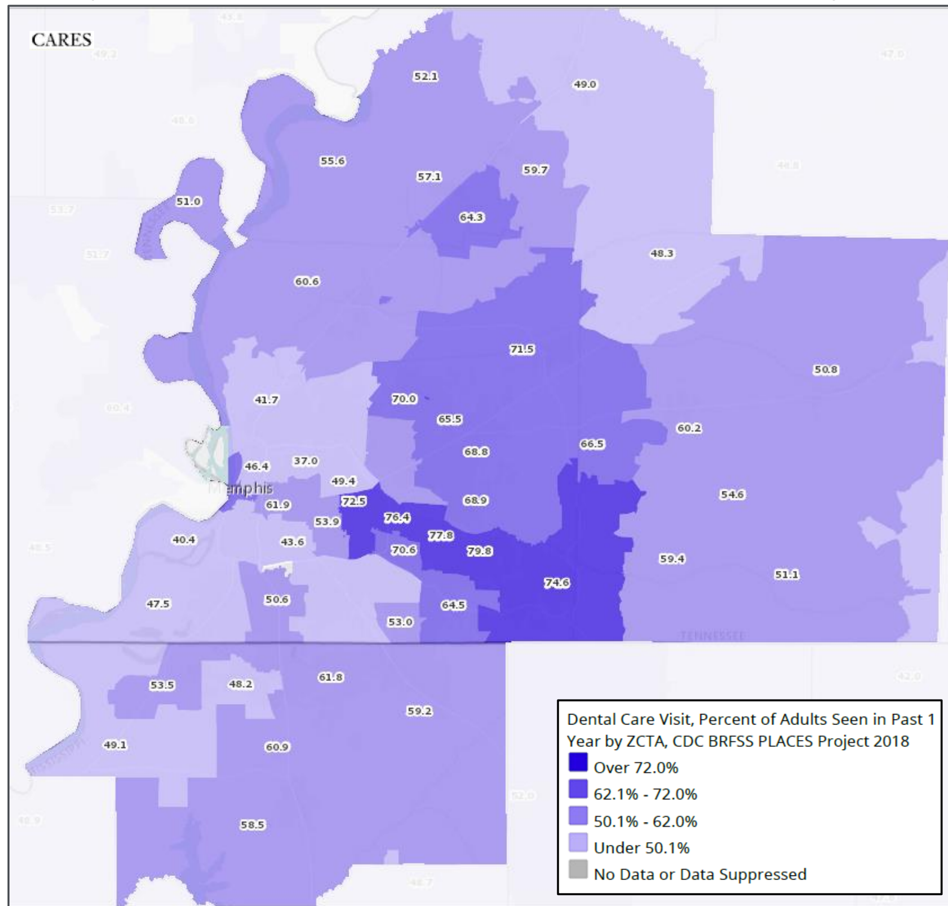


Low-Income Dental Care HPSAs within Shelby County



Source: Health Resources and Services Administration, 2021

Memphis Metro Service Area Adults with an Annual Dental Visit by ZIP Code



Health Risk Factors and Chronic Disease

Routine preventive care contributes to fewer health risk factors and better health status. Despite a similar proportion of adults in the Memphis metro service area accessing primary care services as the state and nation overall, they are less healthy than their peers, including more health risk factors and higher prevalence and mortality due to chronic disease.

Mississippi and Tennessee adults overall have increased risk factors for chronic disease, including lack of physical activity and tobacco use. **All Memphis metro service area counties exceed national benchmarks for physical inactivity and smoking; Fayette, Shelby and Tipton counties also exceed Tennessee benchmarks.** Of note, in Fayette and Tipton counties, an estimated 1 in 4 adults uses tobacco. While DeSoto County exceeds national benchmarks for poor physical health and tobacco use, adults are generally healthier than their peers statewide.

The following report sections further explore health risk factors and chronic disease, and their connection to underlying SDoH. Social determinants of health not only lead to poorer health outcomes and the onset of disease, but they are also likely to impede disease management and treatment efforts, further exacerbating poorer health outcomes.

2018 Age-Adjusted Adult (18+) Physical Health Outcomes

	Physical Health Not Good for 14 or More Days in Past 30 Days	No Leisure-Time Physical Activity in Past 30 Days
DeSoto County, MS	12.2%	27.7%
Fayette County, TN	14.4%	30.0%
Shelby County, TN	15.1%	31.3%
Tipton County, TN	15.1%	31.2%
Mississippi	14.5%	30.9%
Tennessee	14.9%	29.5%
United States	11.8%	23.6%

Source: Centers for Disease Control and Prevention, PLACES & BRFSS

2018 Age-Adjusted Adults (18+) Who Are Current Smokers*

	Percentage
DeSoto County, MS	18.4%
Fayette County, TN	23.0%
Shelby County, TN	21.2%
Tipton County, TN	25.0%
Mississippi	20.8%
Tennessee	20.8%
United States	15.9%

Source: Centers for Disease Control and Prevention, BRFSS
*A change in reporting methodology occurred in 2018 providing age-adjusted county percentages. Data prior to 2018 were reported as crude percentages and are not comparable.

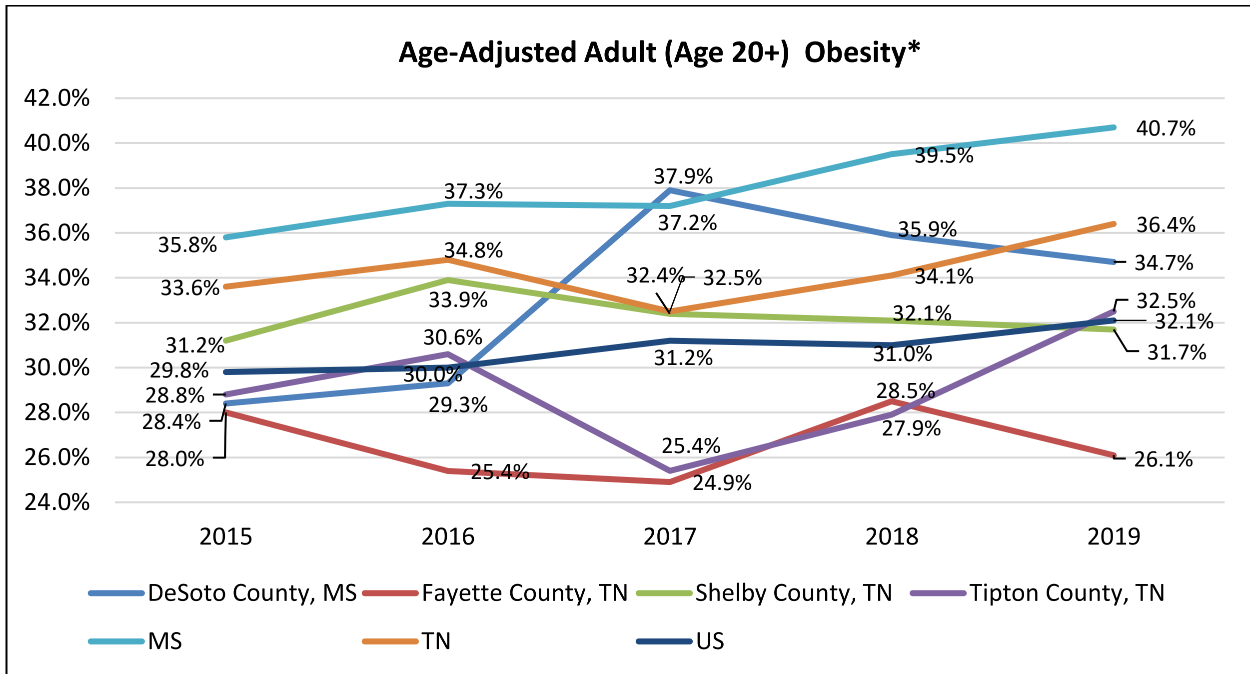
Obesity and Diabetes

Mississippi and Tennessee adults overall have historically higher prevalence of obesity and diabetes than the nation. In all Memphis metro service area counties except Fayette approximately 1 in 3 adults have obesity and more than 1 in 10 adults have diabetes. **Of note, DeSoto County saw notable increases in both adult obesity and diabetes from 2015 to 2019 and has the highest prevalence in the service area. DeSoto County has also historically had a high rate of death due to diabetes, although the death rate declined rapidly in recent years and is on par with the state.** Fayette County has lower prevalence of adult obesity and diabetes than the state and nation and saw a slight decline in obesity from 2015 to 2019. Fayette County also has a lower, declining rate of death due to diabetes.

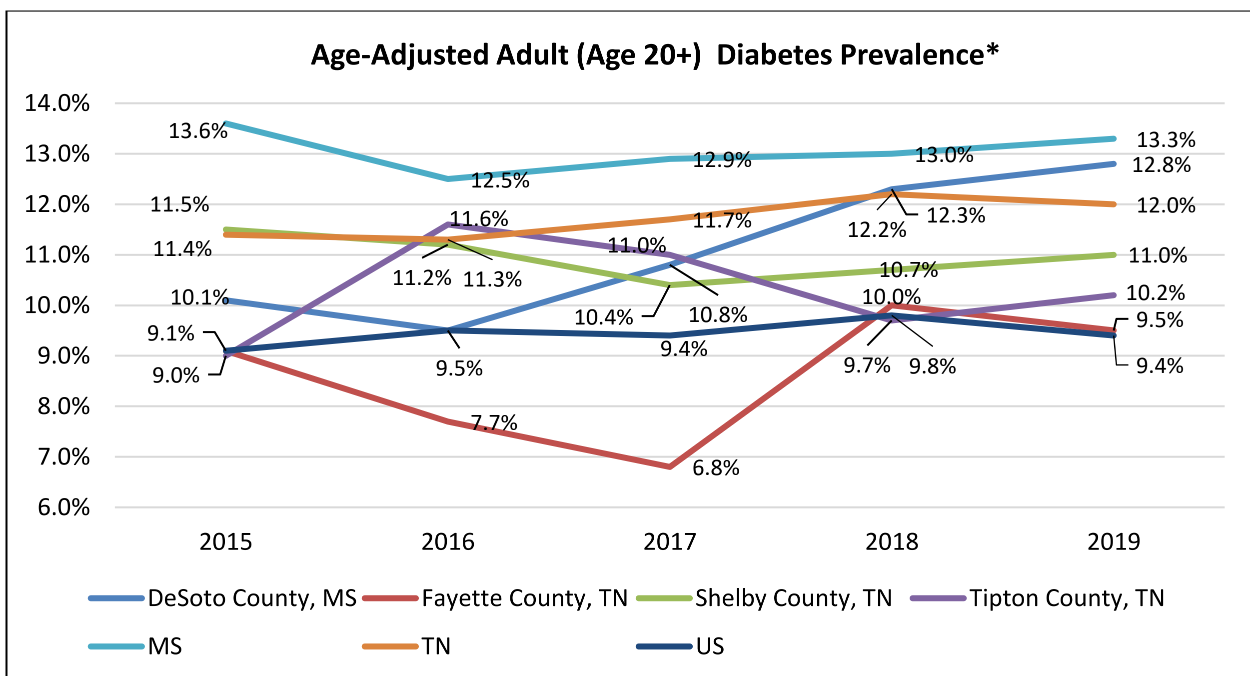
Note: State and national obesity and diabetes prevalence data are reported for adults age 18 or older, while county-level data are reported for adults age 20 or older, based on data availability. Comparisons between the counties, state and nation should be interpreted with caution.

Mississippi overall has a higher rate of death due to diabetes than the nation and Tennessee, largely due to disparities among Black/African American residents. **Across Mississippi, there is a more than 33-point difference in the death rate between white and Black/African American residents.** Across the

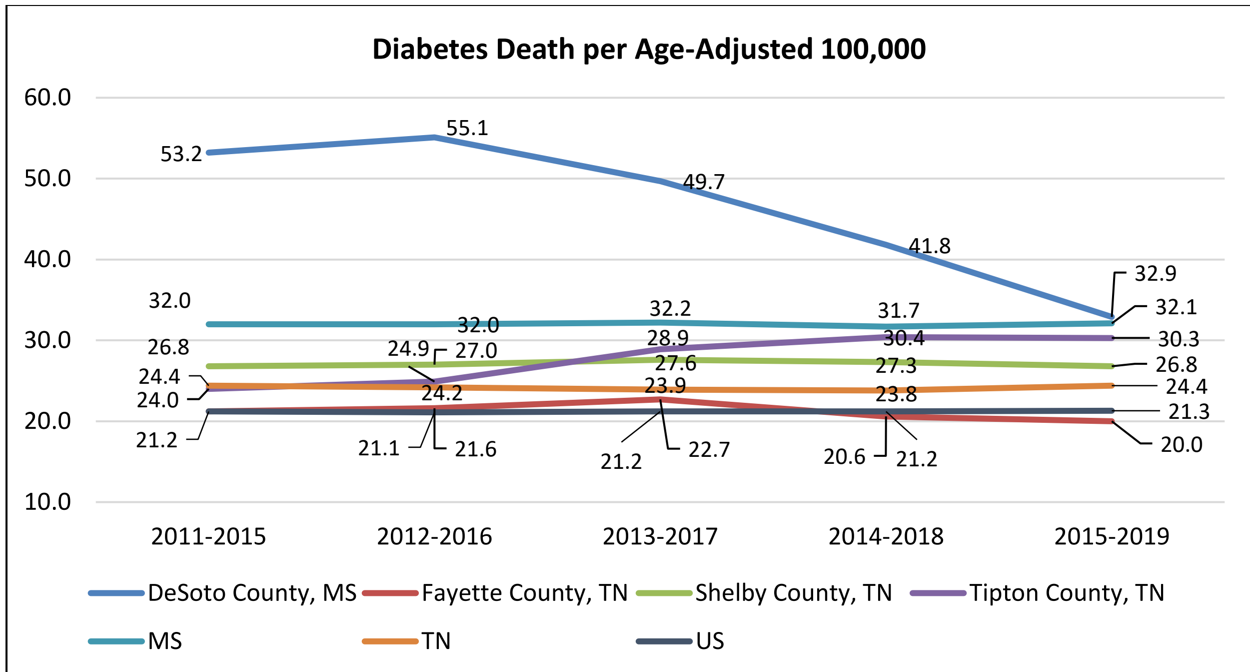
nation, Tennessee and the Memphis metro service area, the diabetes death rate among Black/African American residents is approximately 20 to 25 points higher than among white residents.



Source: Centers for Disease Control and Prevention, U.S. Diabetes Surveillance System & BRFSS
*State and national data are reported as a percentage of adults age 18+ based on data availability.



Source: Centers for Disease Control and Prevention, U.S. Diabetes Surveillance System & BRFSS
*State and national data are reported as a percentage of adults age 18+ based on data availability.



Source: Centers for Disease Control and Prevention

2015-2019 Diabetes Death Rate per Age-Adjusted 100,000 by Race and Ethnicity

	Total Population	White, Non-Hispanic	Black or African American, Non-Hispanic	Latinx origin (any race)
DeSoto County, MS	32.9	30.1	54.7	NA
Fayette County, TN	20.0	16.2	33.4	NA
Shelby County, TN	26.8	16.5	40.1	NA
Tipton County, TN	30.3	28.6	44.2	NA
Mississippi	32.1	22.6	55.8	NA
Tennessee	24.4	22.4	42.0	13.5
United States	21.3	18.8	38.3	25.1

Source: Centers for Disease Control and Prevention

Heart Disease

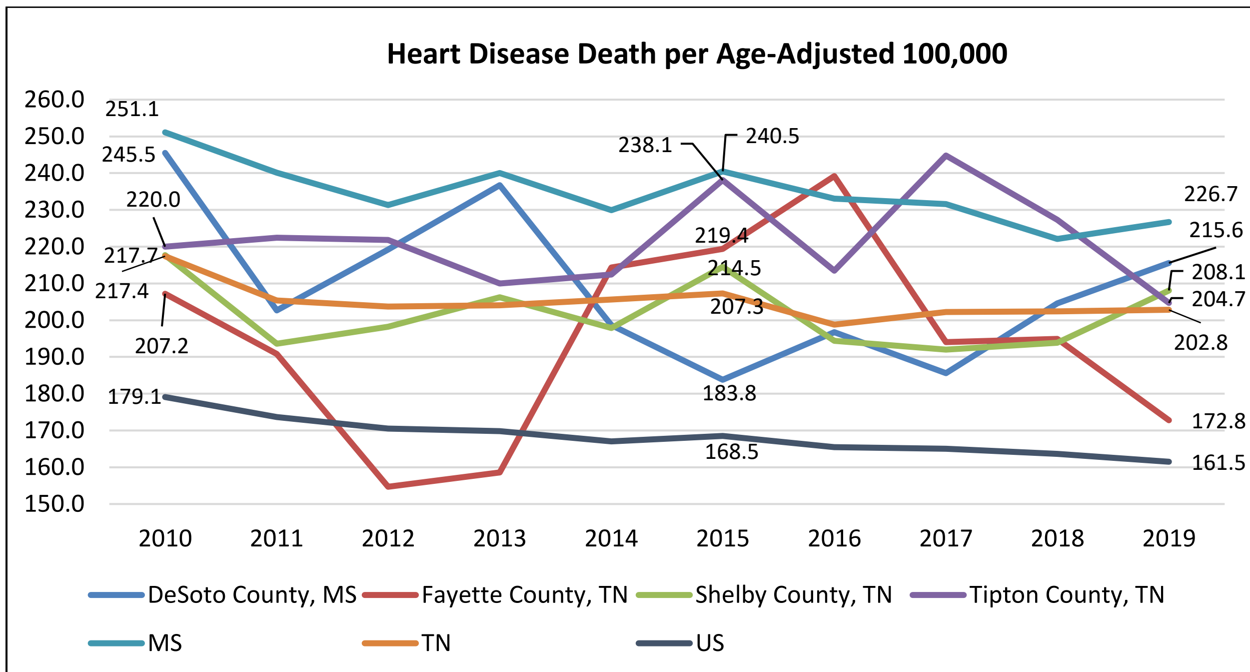
Heart disease is the leading cause of death nationally. High blood pressure and cholesterol are two of the primary causes of heart disease and can be preventable. **Mississippi, Tennessee and Memphis metro service area adults have a higher prevalence of high blood pressure and/or high cholesterol than the nation overall, and a higher rate of death due to heart disease.** Shelby and Tipton counties also slightly exceed Tennessee for high blood pressure prevalence and deaths due to heart disease.

Statewide, nationally and in all Memphis metro service area counties except DeSoto, heart disease death rates are higher among Black/African American people than other racial or ethnic groups. **While Fayette County has a lower rate of heart disease death overall compared to other service area counties, it has the largest disparity in death rates between Black/African American and white people.**

2017 Age-Adjusted Adult (Age 18+) Heart Disease Risk Factors Prevalence

	Adults with High Blood Pressure	Adults with High Cholesterol
DeSoto County, MS	34.1%	32.6%
Fayette County, TN	37.1%	31.5%
Shelby County, TN	37.9%	30.6%
Tipton County, TN	37.0%	32.1%
Mississippi	38.2%	33.5%
Tennessee	35.5%	32.1%
United States	29.7%	29.3%

Source: Centers for Disease Control and Prevention, PLACES & BRFSS



Source: Centers for Disease Control and Prevention

2015-2019 Heart Disease Death Rate per Age-Adjusted 100,000 by Race and Ethnicity

	Total Population	White, Non-Hispanic	Black or African American, Non-Hispanic	Latinx origin (any race)
DeSoto County, MS	197.7	204.5	176.1	NA
Fayette County, TN	203.3	190.0	258.6	NA
Shelby County, TN	200.3	175.4	228.3	67.6
Tipton County, TN	225.8	224.4	268.2	NA
Mississippi	230.7	223.8	250.2	51.8
Tennessee	202.7	201.9	231.5	78.2
United States	164.8	168.5	208.7	113.9

Source: Centers for Disease Control and Prevention

Cancer

Cancer is the second leading cause of death nationally. Mississippi and Tennessee overall report higher cancer incidence and death rates than the nation. This finding is likely reflective of both increased health risk factors and lower access to cancer screenings for early detection and treatment. Mississippi and Tennessee adults are generally less likely to receive cancer screenings compared to national benchmarks.

Cancer incidence rates increased in DeSoto, Fayette and Tipton counties in recent years and exceed state and/or national benchmarks. Cancer death rates in DeSoto and Tipton counties also exceed state and national benchmarks. High cancer incidence and death rates in both counties are largely due to disparities in lung cancer. **The lung cancer death rate in DeSoto and Tipton counties exceeds the national death rate by more than 20 points.**

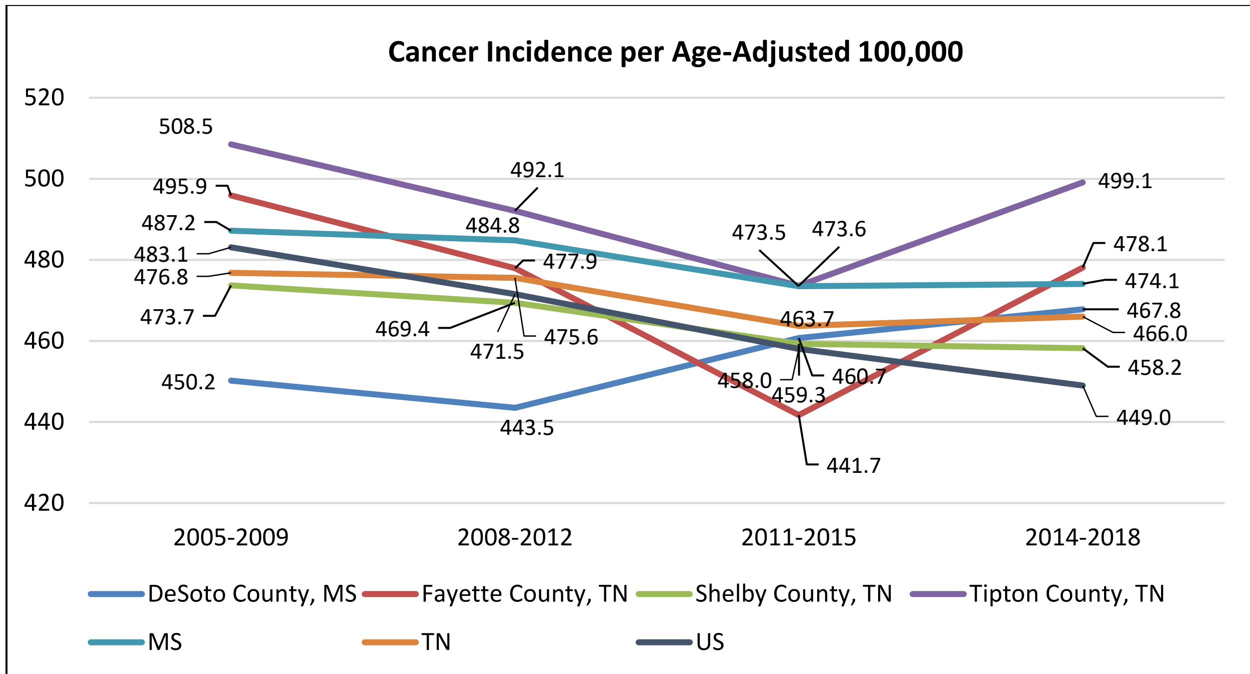
In Fayette County, the cancer death rate generally declined and is on par with the nation. Higher cancer incidence, coupled with a declining and lower cancer death rate, is typically indicative of better cancer screening for early detection and treatment. Fayette County has similar cancer screening rates as the nation, and among the highest screening rates in the service area. However, positive cancer outcomes in Fayette County are not shared equitably across population groups. **Fayette County has the largest disparity in both cancer incidence and death rates between white and Black/African American people, with Black/African American people reporting rates that are nearly 100 points higher.**

Cancer incidence and death rates in Shelby County generally declined over the past decade and are on par with Tennessee overall. Shelby County reports a similar cancer incidence rate among white and Black/African American residents, but a cancer death rate that is nearly 50 points higher for Black/African American residents. This disparity is due in part to differences in prostate cancer outcomes. **Shelby County has higher incidence and death rates due to prostate cancer than the state and nation. ZERO – The End of Prostate Cancer, the leading national nonprofit with the mission to end prostate cancer, reports that Black/African American men are 1.8 times more likely to be diagnosed with–and 2.2 times more likely to die from–prostate cancer than white men.**

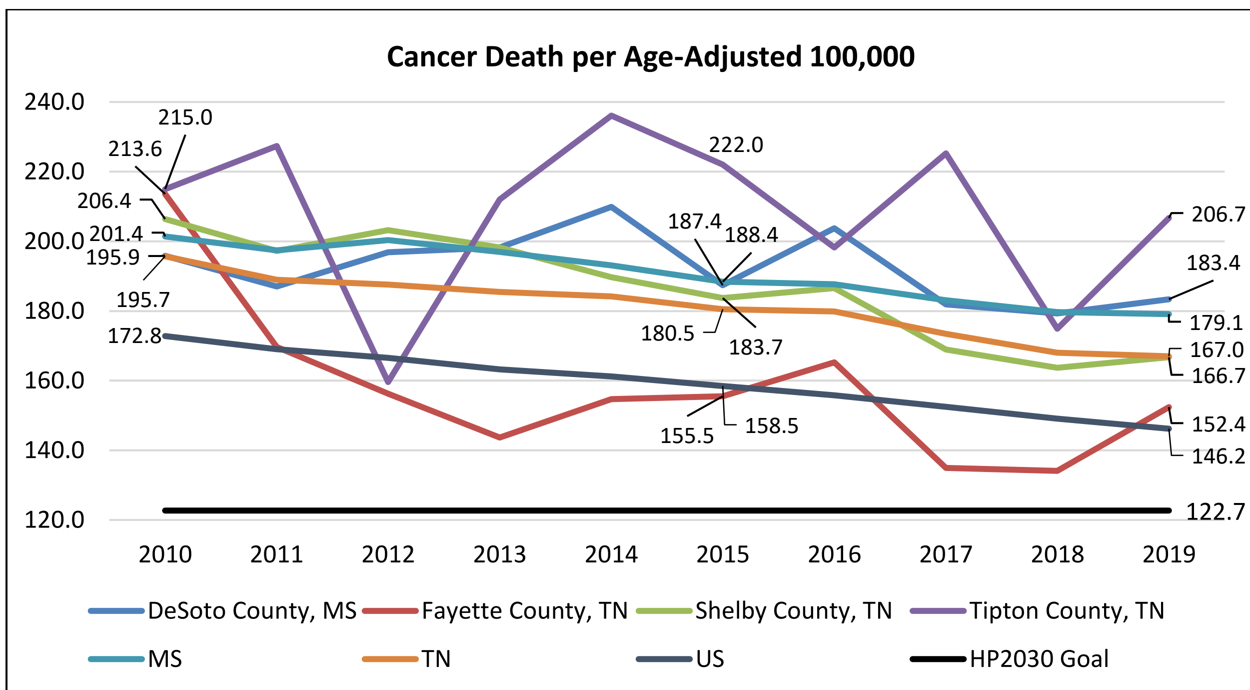
2018 Age-Adjusted Adult Cancer Screening Practices

	Mammogram in the Past 2 Years (50-74 years)	Cervical Cancer Screening (21-65 years)	Colon Cancer Screening (50-74 years)
DeSoto County, MS	67.3%	87.2%	63.1%
Fayette County, TN	73.0%	85.8%	65.6%
Shelby County, TN	73.5%	86.1%	62.7%
Tipton County, TN	72.2%	84.8%	64.5%
Mississippi	69.8%	75.2%	60.7%
Tennessee	76.2%	79.8%	66.9%
United States	77.8%	85.5%	65.0%

Source: Centers for Disease Control and Prevention, PLACES & BRFSS



Source: Mississippi Cancer Registry & Tennessee Cancer Registry & Centers for Disease Control and Prevention, United States Cancer Statistics

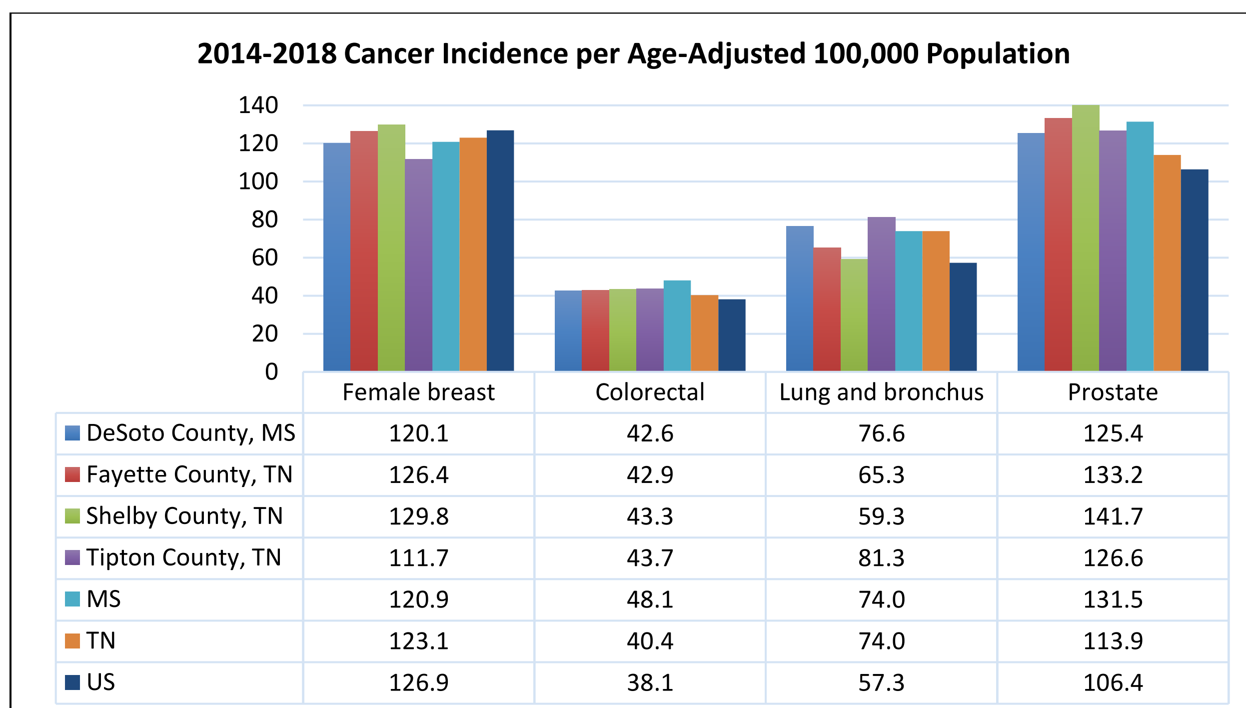


Source: Centers for Disease Control and Prevention

2014-2018 Age-Adjusted Cancer Incidence and Death per 100,000 Population by Race and Ethnicity

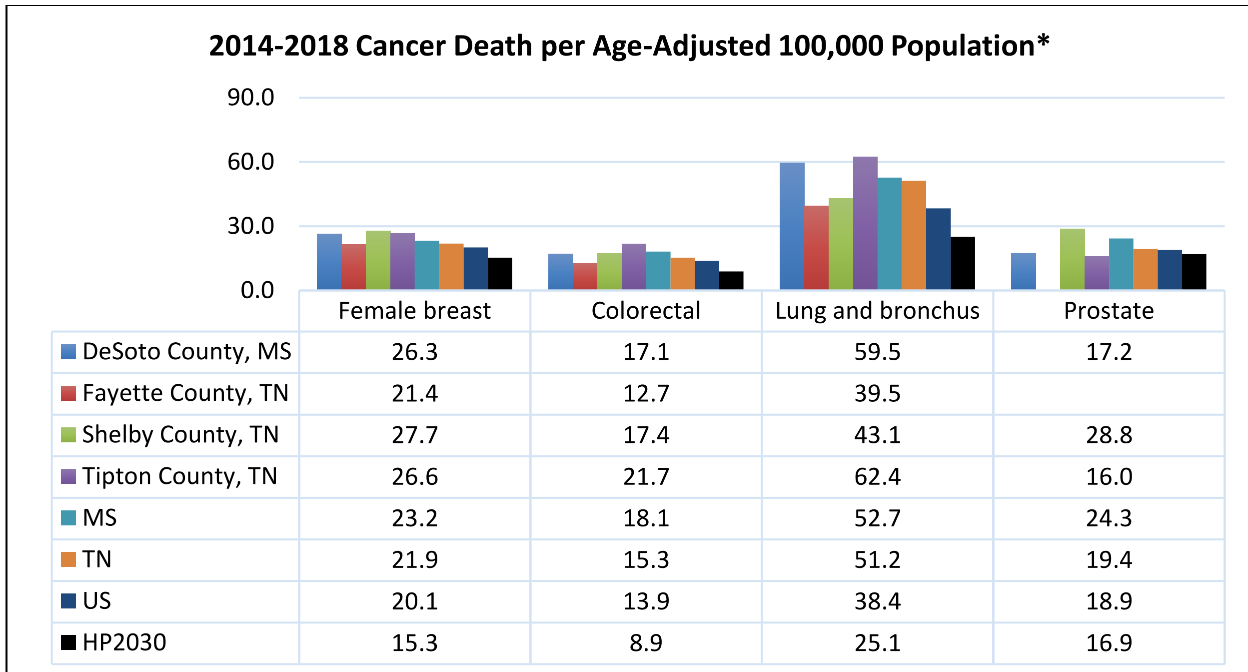
	DeSoto County, MS	Fayette County, TN	Shelby County, TN	Tipton County, TN	Mississippi	Tennessee	United States
Cancer Incidence							
Total Population	467.8	478.1	458.2	499.1	474.1	466.0	449.0
White	476.3	457.5	449.4	496.8	471.6	466.8	451.3
Black or African American	448.8	556.7	469.1	529.5	483.3	462.5	445.4
Latinx origin (any race)	NA	NA	305.3	NA	NA	317.0	345.5
Cancer Death							
Total Population	192.0	148.9	178.2	211.1	186.4	177.1	155.6
White	198.6	134.5	157.8	207.0	180.5	176.9	156.4
Black or African American	183.8	215.9	207.4	257.4	208.0	201.1	177.6
Latinx origin (any race)	NA	NA	86.4	NA	46.7	78.2	111.3

Source: Mississippi Cancer Registry & Tennessee Cancer Registry & Centers for Disease Control and Prevention



	Female breast	Colorectal	Lung and bronchus	Prostate
DeSoto County, MS	120.1	42.6	76.6	125.4
Fayette County, TN	126.4	42.9	65.3	133.2
Shelby County, TN	129.8	43.3	59.3	141.7
Tipton County, TN	111.7	43.7	81.3	126.6
MS	120.9	48.1	74.0	131.5
TN	123.1	40.4	74.0	113.9
US	126.9	38.1	57.3	106.4

Source: Mississippi Cancer Registry & Tennessee Cancer Registry & Centers for Disease Control and Prevention, United States Cancer Statistics



	Female breast	Colorectal	Lung and bronchus	Prostate
DeSoto County, MS	26.3	17.1	59.5	17.2
Fayette County, TN	21.4	12.7	39.5	
Shelby County, TN	27.7	17.4	43.1	28.8
Tipton County, TN	26.6	21.7	62.4	16.0
MS	23.2	18.1	52.7	24.3
TN	21.9	15.3	51.2	19.4
US	20.1	13.9	38.4	18.9
HP2030	15.3	8.9	25.1	16.9

Source: Centers for Disease Control and Prevention
*Data are reported by county as available.

Respiratory Disease

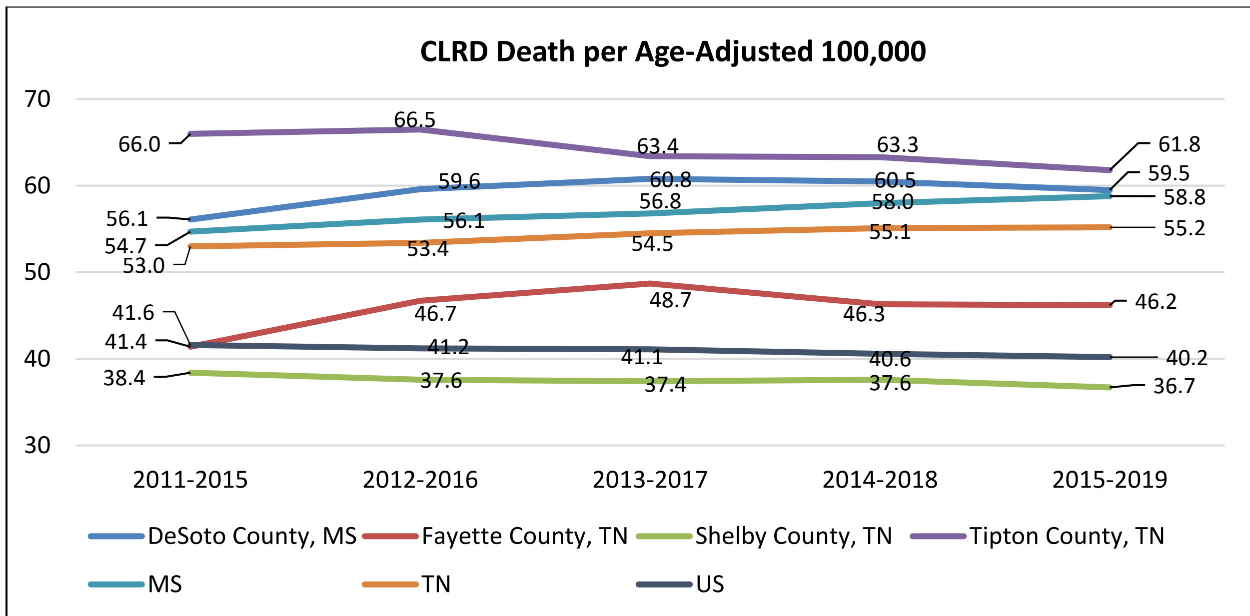
Chronic lower respiratory disease (CLRD) includes several chronic conditions of the respiratory tract, including asthma and chronic obstructive pulmonary disease (COPD). DeSoto County has a similar prevalence of adult asthma and COPD as the nation, and a lower prevalence than Mississippi. All other service area counties have a higher prevalence of both asthma and COPD than the nation and a higher prevalence of asthma than Tennessee. Respiratory disease disparities in Fayette, Shelby and Tipton counties are due in part to high smoking rates among adults. **Tipton County has the highest prevalence of adult smoking and COPD, and the highest death rate due to lung cancer, in the service area.**

Contrary to the nation, the CLRD death rate slowly increased in Mississippi and Tennessee over the past five years. Consistent with having a higher prevalence of respiratory disease, Tipton County reports a higher CLRD death rate than the state and nation, although the rate declined. **DeSoto County reports lower prevalence of respiratory disease compared to other service area counties, but a CLRD death rate that is similar to Tipton County.** This finding should be explored for potential care access and treatment barriers. Consistent with the nation, whites living in the Memphis metro service area have higher rates of CLRD death than other racial or ethnic groups.

2018 Age-Adjusted Adult (Age 18+) Respiratory Disease Prevalence

	Adults with Current Asthma Diagnosis	Adults with COPD
DeSoto County, MS	9.3%	6.7%
Fayette County, TN	10.6%	8.3%
Shelby County, TN	11.2%	8.1%
Tipton County, TN	10.5%	8.8%
Mississippi	9.5%	9.0%
Tennessee	9.6%	9.7%
United States	9.1%	6.2%

Source: Centers for Disease Control and Prevention, PLACES & BRFSS



Source: Centers for Disease Control and Prevention

2015-2019 CLRD Death Rate per Age-Adjusted 100,000 by Race and Ethnicity

	Total Population	White, Non-Hispanic	Black or African American, Non-Hispanic	Latinx origin (any race)
DeSoto County, MS	59.5	66.2	21.8	NA
Fayette County, TN	46.2	52.7	NA	NA
Shelby County, TN	36.7	42.7	28.2	NA
Tipton County, TN	61.8	68.5	NA	NA
Mississippi	58.8	67.7	38.5	NA
Tennessee	55.2	59.3	33.1	13.9
United States	40.2	45.5	29.8	17.0

Source: Centers for Disease Control and Prevention

Aging Population

Mississippi and Tennessee are aging states. From 2011-2015 to 2015-2019, the proportion of residents age 65 or older increased from 13.9% to 15.4% in Mississippi and from 14.6% to 16.0% in Tennessee, a similar rate of growth as the nation overall.

According to the Centers for Medicare & Medicaid Services, approximately 73% to 74% of Mississippi and Tennessee older adult Medicare beneficiaries have two or more chronic conditions, a higher proportion than the nation (70.3%). Within the Memphis metro service area, **DeSoto County has the highest proportion of beneficiaries with multiple chronic conditions and saw the largest increase in this population from the 2019 CHNA, from 73.7% to 75.3%.** It is worth noting that all service area counties except Fayette report a higher prevalence of comorbidities among older adults compared to the national benchmark.

Older adults in all Memphis metro service area counties except DeSoto are more likely to have a disability when compared to the nation. Of note, Tipton County also exceeds the Tennessee benchmark with more than 42% of older adults experiencing disability. The most common disability among service area older adults is ambulatory (walking), followed by independent living or hearing. Without appropriate support services, disabilities can impede disease management and treatment efforts and further exacerbate poorer health outcomes

2018 Chronic Condition Comorbidities among Medicare Beneficiaries 65 Years or Older

	0 to 1 Condition	2 to 3 Conditions	4 to 5 Conditions	6 or More Conditions
DeSoto County, MS	24.7%	29.4%	26.0%	19.9%
Fayette County, TN	29.3%	30.1%	24.5%	16.1%
Shelby County, TN	28.8%	30.5%	23.3%	17.4%
Tipton County, TN	25.8%	28.7%	25.2%	20.3%
Mississippi	25.9%	29.3%	24.7%	20.1%
Tennessee	27.4%	29.6%	23.9%	19.2%
United States	29.7%	29.4%	22.8%	18.2%

Source: Centers for Medicare & Medicaid Services

2015-2019 Older Adult Population by Disability Status

	DeSoto County, MS	Fayette County, TN	Shelby County, TN	Tipton County, TN	Mississippi	Tennessee	United States
Total population	11.5%	16.3%	12.5%	16.4%	16.4%	15.4%	12.6%
65 years or older	34.2%	36.5%	36.1%	42.4%	41.4%	38.5%	34.5%
Ambulatory	22.7%	22.3%	25.0%	29.2%	28.6%	24.9%	21.9%
Hearing	12.0%	15.0%	11.5%	17.3%	15.3%	16.3%	14.3%
Independent living	15.0%	13.9%	16.6%	18.3%	18.4%	16.0%	14.2%
Cognitive	8.9%	7.7%	10.0%	9.9%	11.5%	10.2%	8.6%
Vision	6.2%	6.5%	7.5%	9.6%	8.8%	7.6%	6.3%

Source: U.S. Census Bureau, American Community Survey

Across the Memphis metro service area there is opportunity to improve older adult health status through better access to preventive services, such as recommended vaccines and cancer screenings. **Approximately 1 in 4 to 1 in 5 older adult men and women in the service area are up to date on preventive services, a lower proportion than the states and nation overall.** Men are more likely than women to be up to date on preventive services. Consistent with having more SDoH barriers, Shelby County reports the lowest uptake of preventive care among older adults.

2018 Age-Adjusted Older Adult (65+) Clinical Preventive Services*

	Older Adult Men Who Are Up To Date On Clinical Preventive Services	Older Adult Women Who Are Up To Date On Clinical Preventive Services
DeSoto County, MS	29.0%	21.4%
Fayette County, TN	22.3%	19.9%
Shelby County, TN	19.9%	17.4%
Tipton County, TN	21.8%	19.2%
Mississippi	45.2%	43.0%
Tennessee	36.6%	34.5%
United States	42.4%	41.6%

Source: Centers for Disease Control and Prevention, PLACES & BRFSS
*Includes a flu vaccine in the past year, pneumococcal pneumonia vaccine ever, colorectal cancer screening and mammogram in the past two years (women).

Older adult health care utilization and costs increase significantly with a higher number of reported chronic diseases. Tracking these indicators helps plan allocation of resources to best anticipate and serve need in the community. **When compared to the nation, Mississippi overall has higher per capita spending among older adult Medicare beneficiaries, regardless of number of chronic conditions. Related to this finding, Mississippi also reports a higher number of emergency department (ED) visits among beneficiaries.** Tennessee generally has lower per capita spending and fewer ED visits than the nation.

Within the Memphis metro service area, all counties report similar or lower spending as the nation, with the exception of higher spending among beneficiaries with six or more chronic conditions in Shelby and Tipton counties. Both counties also report a higher rate of ED visits for beneficiaries with six or more conditions. This finding is of particular significance in Tipton County, where 20.3% of older adult Medicare beneficiaries have six or more chronic conditions.

2018 Per Capita Standardized Spending* for Medicare Beneficiaries Age 65 Years or Older

	0 to 1 Condition	2 to 3 Conditions	4 to 5 Conditions	6 or More Conditions
DeSoto County, MS	$2,107	$4,916	$9,729	$28,165
Fayette County, TN	$2,051	$5,216	$10,720	$29,093
Shelby County, TN	$1,859	$5,325	$10,747	$31,870
Tipton County, TN	$2,045	$5,080	$10,079	$30,731
Mississippi	$2,077	$5,727	$11,150	$31,143
Tennessee	$1,973	$5,343	$10,131	$28,470
United States	$1,944	$5,502	$10,509	$29,045

Source: Centers for Medicare & Medicaid Services
*Standardized spending takes into account payment factors that are unrelated to the care provided (e.g., geographic variation in Medicare payment amounts).

2018 ED Visits per 1,000 Medicare Beneficiaries Age 65 Years or Older

	0 to 1 Condition	2 to 3 Conditions	4 to 5 Conditions	6 or More Conditions
DeSoto County, MS	115.6	308.8	567.0	1,712.8
Fayette County, TN	114.2	259.9	509.7	1,610.7
Shelby County, TN	116.4	303.8	621.1	1,803.5
Tipton County, TN	125.9	311.0	556.8	1,877.0
Mississippi	138.6	350.5	686.5	1,885.5
Tennessee	114.6	297.0	582.7	1,693.8
United States	122.6	318.4	621.1	1,719.1

Source: Centers for Medicare & Medicaid Services

Nationally, the most common chronic conditions among older adult Medicare beneficiaries, in order of prevalence, are hypertension, high cholesterol and arthritis. This finding is consistent across Mississippi and Tennessee. In comparison to the nation, Mississippi and Tennessee older adult Medicare beneficiaries generally report a higher prevalence of chronic conditions, with the exception of asthma, cancer, high cholesterol and/or stroke.

Consistent with having the highest proportion of older adult Medicare beneficiaries with multiple chronic conditions, DeSoto County has a higher prevalence of nearly all reported conditions when compared to the nation. Shelby County also reports a higher prevalence of most chronic conditions. Tipton County reports the highest prevalence of COPD in the service area, a finding that is consistent with other respiratory disease disparities in the county. **All counties report a higher prevalence of both hypertension and stroke when compared to the states and nation.**

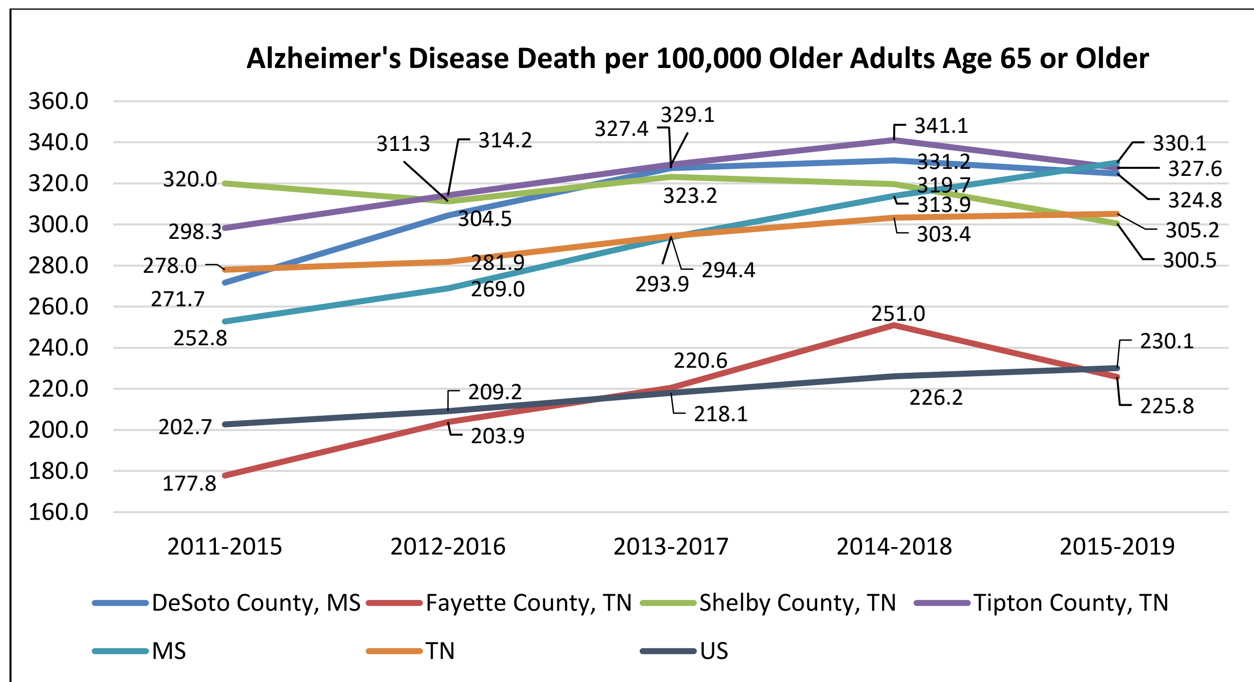
The Alzheimer's disease death rate among older adults in Mississippi and Tennessee is 75-100 points higher than the national death rate. **All Memphis metro service area counties except Fayette also report a higher Alzheimer's disease death rate than the nation, despite having a similar or lower**

prevalence of Alzheimer's disease among older adult Medicare beneficiaries. All counties except Shelby saw an increase in the Alzheimer's disease death rate from 2011-2015 to 2015-2019.

2018 Chronic Condition Prevalence among Medicare Beneficiaries Age 65 Years or Older

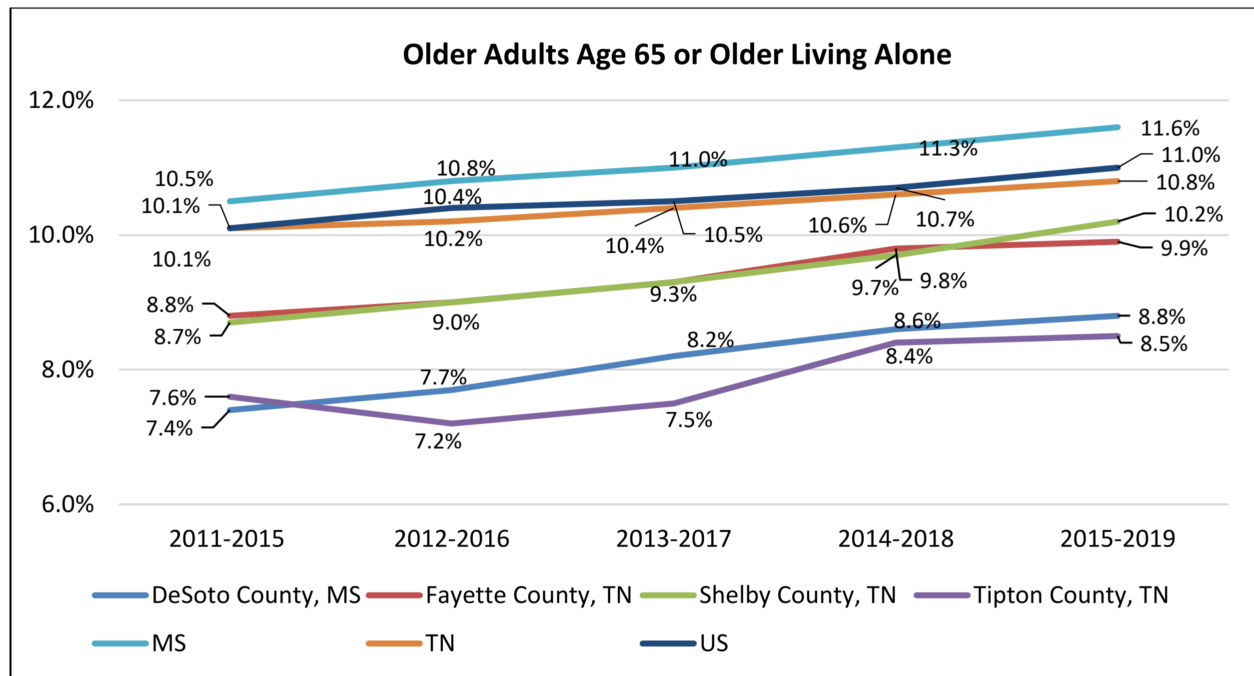
	DeSoto County, MS	Fayette County, TN	Shelby County, TN	Tipton County, TN	Mississippi	Tennessee	United States
Alzheimer's Disease	10.5%	10.3%	12.5%	11.4%	12.9%	11.9%	11.9%
Arthritis	36.8%	32.6%	35.0%	34.8%	39.8%	36.5%	34.6%
Asthma	3.0%	3.1%	3.6%	3.5%	3.7%	4.0%	4.5%
Cancer	9.8%	8.9%	10.2%	8.6%	8.8%	9.0%	9.3%
Chronic Kidney Disease	28.1%	24.0%	25.6%	28.5%	25.3%	27.0%	24.9%
COPD	12.3%	9.8%	9.3%	13.8%	12.6%	12.7%	11.4%
Depression	16.3%	12.7%	13.1%	15.2%	16.4%	17.4%	16.0%
Diabetes	29.1%	27.7%	27.6%	31.7%	30.7%	28.2%	27.1%
Heart Failure	15.6%	13.7%	15.3%	16.3%	16.1%	15.5%	14.6%
High Cholesterol	57.0%	51.4%	48.8%	52.3%	48.9%	50.2%	50.5%
Hypertension	67.1%	63.5%	64.4%	68.0%	67.9%	63.8%	59.8%
Ischemic Heart Disease	33.4%	30.6%	28.1%	35.9%	31.9%	30.2%	28.6%
Stroke	4.6%	4.1%	4.9%	4.4%	4.4%	3.7%	3.9%

Source: Centers for Medicare & Medicaid Services



Source: Centers for Disease Control and Prevention

In older adults, chronic illness often leads to diminished quality of life and increased social isolation. Social isolation may also impede effective chronic illness management and accelerate the negative impact of chronic diseases. One indicator of social isolation among older adults is the percentage of adults age 65 years or older who live alone. **Consistent with the nation, the proportion of older adults living alone increased across Mississippi, Tennessee and the Memphis metro service area, but service area counties have fewer older adults living alone when compared to state and national benchmarks.**



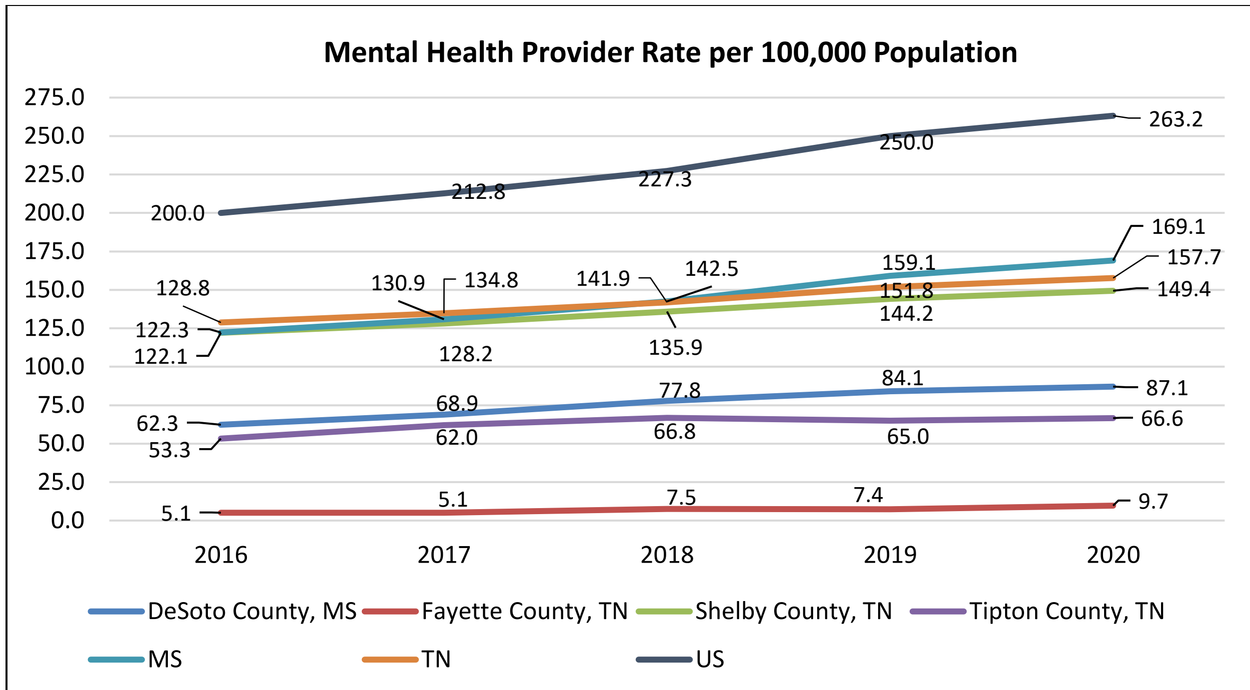
Source: U.S. Census Bureau, American Community Survey

Behavioral Health and Substance Use Disorder

Mississippi and Tennessee overall have similar, lower access to mental health providers than the nation, as indicated by the rate of mental health providers per 100,000 population. Within the Memphis metro service area, **mental health providers are concentrated in Shelby County, although the county rate of providers falls below state and national benchmarks, and the majority of the county is designated as a HPSA for low-income individuals**. All other Memphis metro service area counties have a mental health provider rate that is less than half the national rate; Fayette County is the most underserved with a total of four providers.

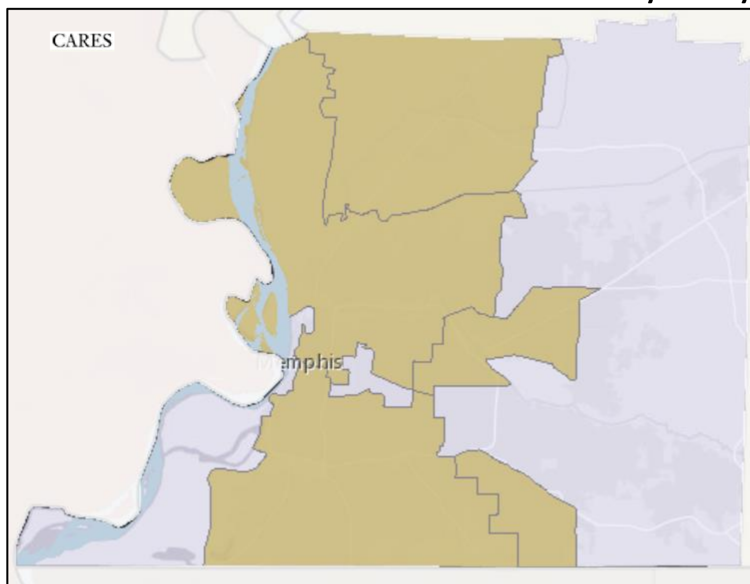
Access to mental health providers is improving nationally and across Mississippi and Tennessee. Within the Memphis metro service area, DeSoto and Shelby counties saw the largest increase in mental health providers from 2016 to 2020.

Note: The mental health provider rate includes psychiatrists, psychologists, licensed clinical social workers, counselors and mental health providers that treat alcohol and other drug abuse, among others. It does not account for potential shortages in specific provider types.



Source: Centers for Medicare and Medicaid Services

Low-Income Mental Health Care HPSAs within Shelby County



Nearly 1 in 5 adults across Mississippi, Tennessee and the Memphis metro service area report having poor mental health on 14 or more days during a 30-day period, a higher proportion than the nation overall. Frequent mental distress is an indicator of persistent, and likely severe, mental health issues, which may impact quality of life and overall wellness.

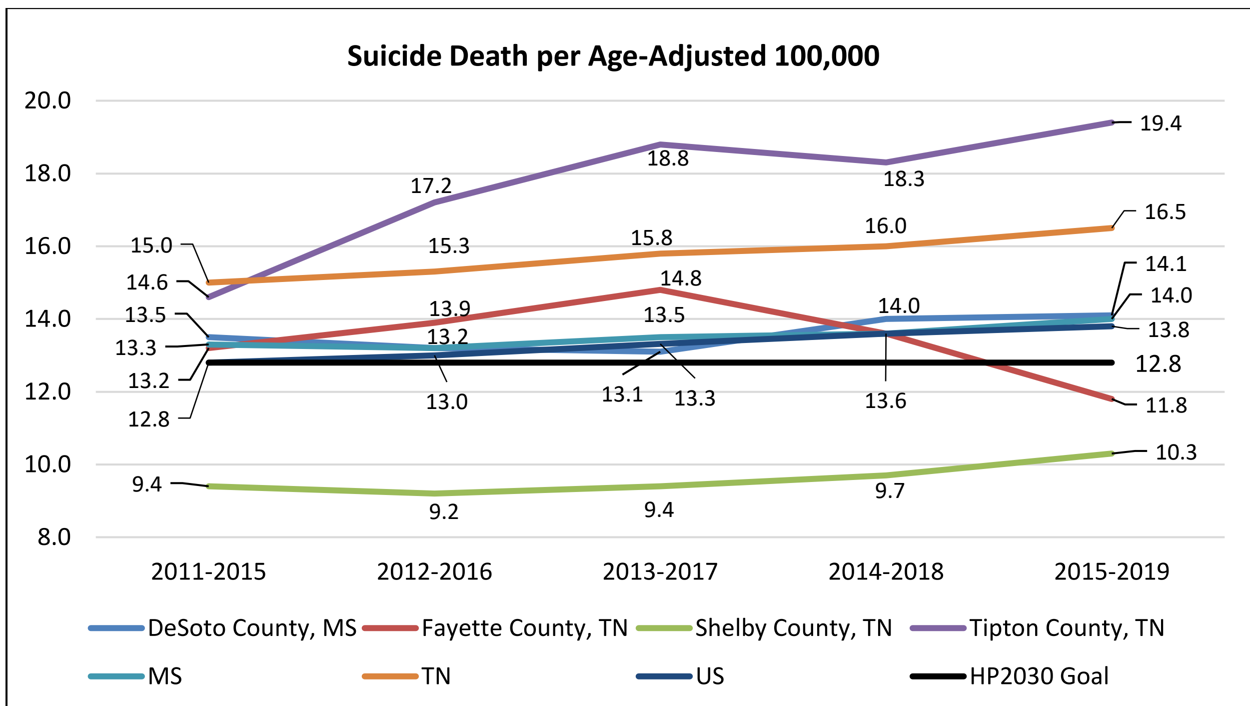
2018 Age-Adjusted Adult (Age 18+) Poor Mental Health Days

	Average Mentally Unhealthy Days per Month	Frequent Mental Distress: 14 or More Poor Mental Health Days per Month
DeSoto County, MS	4.5	14.6%
Fayette County, TN	5.1	16.3%
Shelby County, TN	5.1	16.1%
Tipton County, TN	5.4	17.0%
Mississippi	4.5	15.7%
Tennessee	5.2	16.4%
United States	4.1	12.9%

Source: Centers for Disease Control and Prevention, BRFSS

Frequent mental distress is a risk factor for suicide. Suicide deaths steadily increased across the U.S., Mississippi and Tennessee over the past decade. The suicide death rate for Mississippi has largely mirrored the nation, but Tennessee continues to have a higher rate of death. Within the Memphis metro service area, **Tipton County has a higher prevalence of frequent mental distress and a suicide death rate that is nearly 50% higher than the national rate.** Shelby County meets the HP2030 goal for suicide deaths, but the death rate increased in recent years. Fayette County also meets the HP2030 goal and saw a declining death rate in recent years.

Suicide death rates should continue to be monitored as deaths reflect pre-COVID-19 pandemic rates. An analysis of demographic characteristics for suicide deaths occurring from 2015 to 2019 suggests that deaths are more prominent among males, middle-aged adults and white residents.



Source: Centers for Disease Control and Prevention

2015-2019 Mississippi and Tennessee Suicide Deaths, Demographic Characteristics

	Mississippi		Tennessee	
	Suicide Deaths	Age-Adjusted Rate per 100,000	Suicide Deaths	Age-Adjusted Rate per 100,000
Gender				
Female	417	5.3	1,292	7.3
Male	1,699	23.6	4,433	26.6
Age*				
5-14	30	1.5	64	1.5
15-24	283	13.6	632	14.5
25-34	347	17.6	929	20.4
35-44	359	19.6	958	22.9
45-54	343	18.3	1070	24.1
55-64	354	18.5	961	21.9
65-74	224	16.4	613	19
75-84	130	18.9	363	23
85+	46	17.9	135	22.9
Race and Ethnicity				
White, Non-Hispanic	1,779	20.1	5,118	19.2
Black/African American, Non-Hispanic	300	5.4	409	7.0
Latinx origin (any race)	17	NA	111	7.1

Source: Centers for Disease Control and Prevention
*Rates are not age-adjusted.

Substance use disorder affects a person's brain and behaviors and leads to an inability to control the use of substances which include alcohol, marijuana and opioids, among others. Alcohol is the most prevalent addictive substance used among adults.

When compared to the nation, **fewer adults across Mississippi, Tennessee and the Memphis metro service area report excessive drinking.** Excessive drinking includes heavy and/or binge drinking. All counties except Fayette and Tipton also report a lower percentage of driving deaths due to alcohol impairment than the state and nation. Approximately 1 in 4 driving deaths in Fayette and Tipton counties are due to alcohol impairment.

Alcohol Use Disorder Indicators

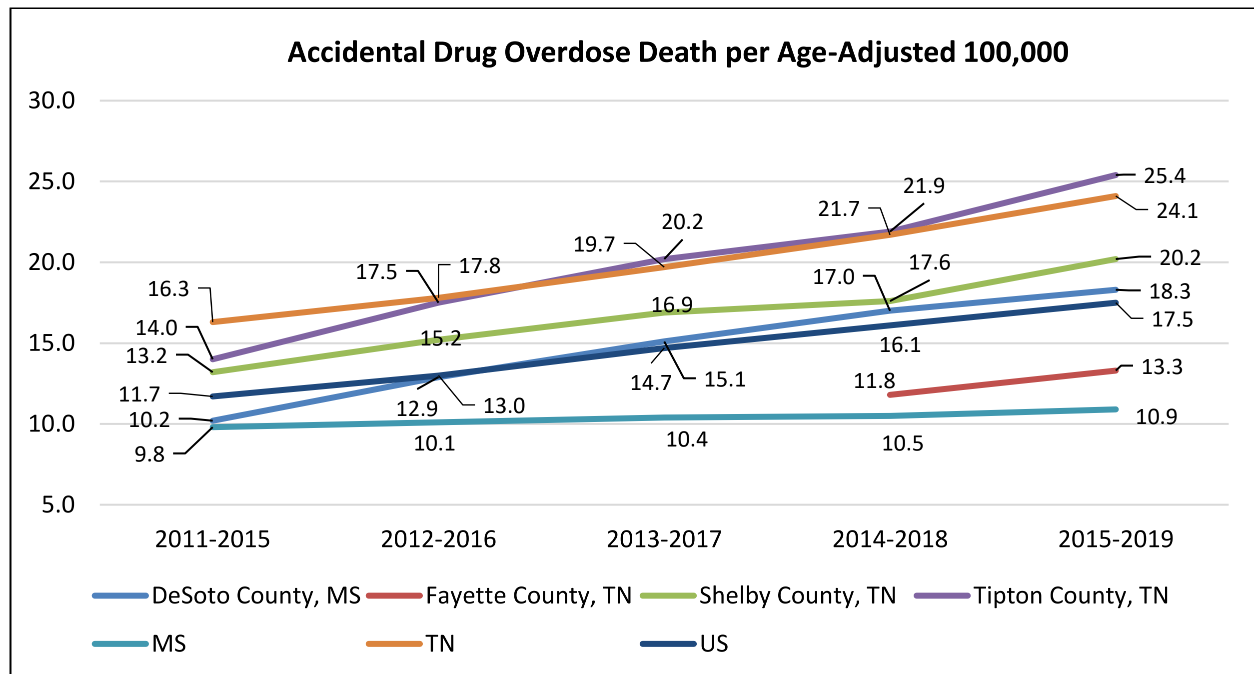
	2018 Adults Reporting Excessive Drinking (age-adjusted)	2015-2019 Driving Deaths due to Alcohol Impairment (%, count)
DeSoto County, MS	15.1%	17.1%, n=20
Fayette County, TN	16.5%	28.9%, n=11
Shelby County, TN	15.1%	17.1%, n=117
Tipton County, TN	16.2%	25.7%, n=9
Mississippi	14.8%	19.6%
Tennessee	17.1%	24.6%
United States	19.0%	27.0%

Source: Centers for Disease Control and Prevention, BRFSS

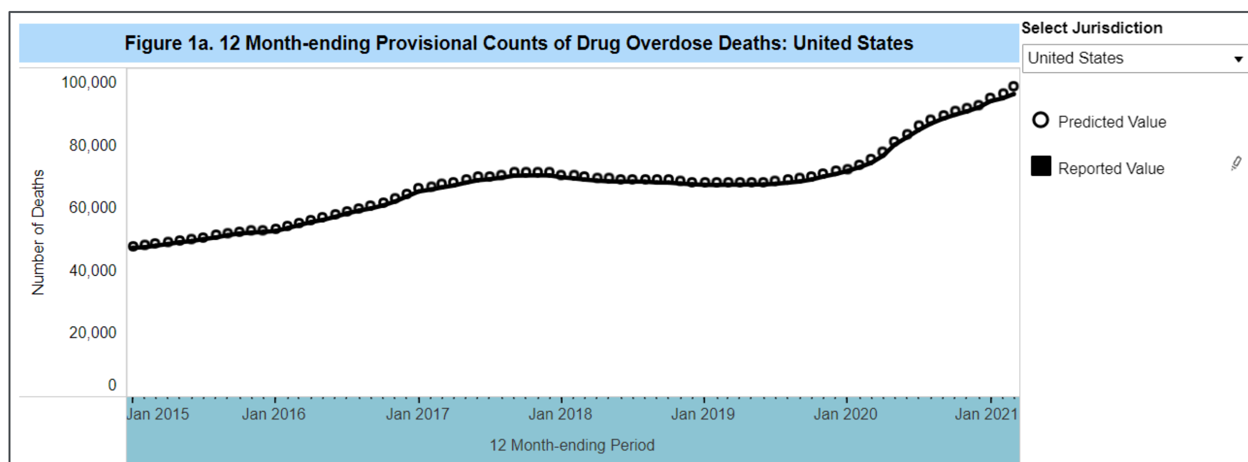
The CDC reports that the number of accidental drug overdose deaths nationwide increased by nearly 5% from 2018 to 2019 and has quadrupled since 1999. Over 70% of the 70,630 overdose deaths in 2019 involved an opioid. Nationally, heroin- and prescription opioid-involved deaths are declining, while synthetic opioid-involved deaths are increasing. Synthetic opioids such as fentanyl are laboratory produced and have similar effects as natural opioids, but can have far greater potency, increasing the risk for overdose and death.

The Memphis metro service area as a whole has experienced more accidental drug overdose deaths than the nation. All counties except Fayette exceed the national rate for overdose deaths. All counties saw an increase in overdose deaths over the past decade, but Tipton County saw the most significant increase and currently has a rate of death that exceeds both Tennessee and the nation. It is worth noting that DeSoto County differs from Mississippi overall with a higher and increasing rate of death that mirrors the nation.

Accidental drug overdose death rates should continue to be monitored in light of the COVID-19 pandemic. Provisional data released by the CDC predicts that 2020 and 2021 brought the highest number of overdose deaths ever in the U.S. **Based on a rolling 12-month count from March 2020 to March 2021, the number of drug overdose deaths is predicted to have increased 48.3% in Mississippi and 50.8% in Tennessee, compared with a national increase of 30.8%.**



Source: Centers for Disease Control and Prevention
*Data are not reportable for Fayette County prior to 2014-2018 due to low death counts.



Source: Centers for Disease Control and Prevention

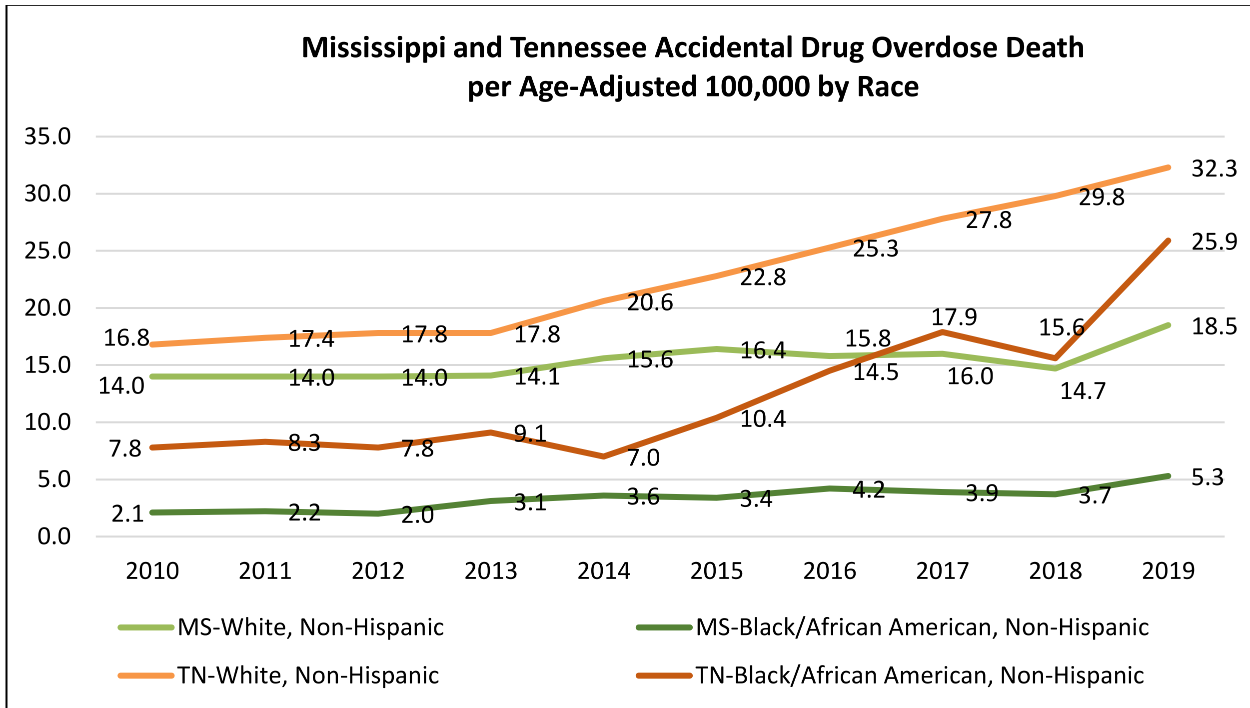
While the opioid epidemic has affected all genders and age groups, the largest proportion of accidental overdose deaths has historically been among males and young to middle-aged adults. From 2015 to 2019, males accounted for 63% of overdose deaths in Mississippi and 61.5% of overdose deaths in Tennessee. When considered by age, adults age 35-44 accounted for the largest proportion of overdose deaths in Mississippi (26%), while adults age 45 to 54 accounted for the largest proportion in Tennessee (25%).

2015-2019 Mississippi and Tennessee Accidental Overdose Deaths, Demographic Characteristics

	Mississippi		Tennessee	
	Accidental Overdose Deaths	Age-Adjusted Rate per 100,000	Accidental Overdose Deaths	Age-Adjusted Rate per 100,000
Gender				
Female	576	7.7	3,065	18.0
Male	987	14.3	4,905	30.4
Age*				
15-24	92	4.4	555	12.7
25-34	366	18.6	1,819	39.9
35-44	401	21.9	1,931	46.1
45-54	361	19.3	1,988	44.8
55-64	252	13.2	1,306	29.8
65-74	67	4.9	273	8.5
75-84	12	NA	59	3.7
85+	11	NA	30	5.1
Race and Ethnicity				
White, Non-Hispanic	1,325	16.3	6,794	27.6
Black/African American, Non-Hispanic	212	4.1	967	16.9
Latinx origin (any race)	14	NA	139	8.1

Source: Centers for Disease Control and Prevention
*Rates are not age-adjusted.

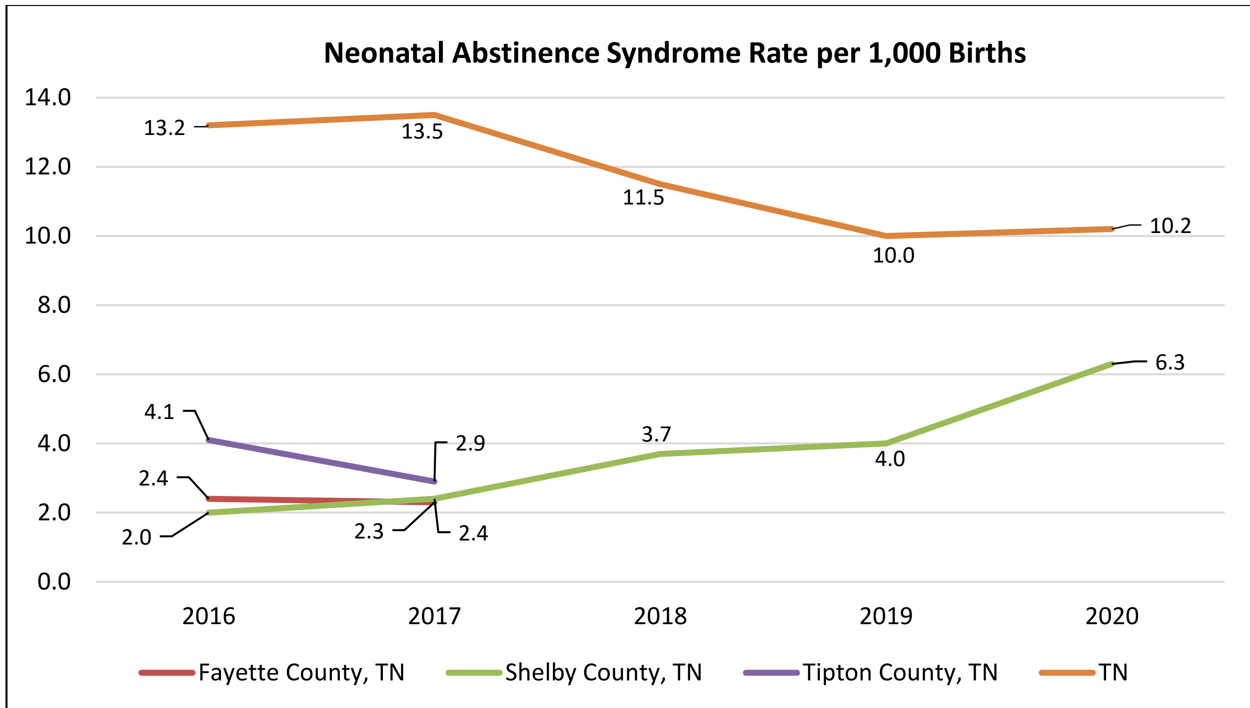
In Tennessee, the accidental overdose death rate increased gradually among white people since 2013, but nearly tripled among Black/African American people. This trend is occurring nationally and is rooted in inequities in addiction treatment and prevention efforts. Studies conducted by the National Institutes of Health have found that Black/African American people are less likely to be prescribed medications for opioid use disorder, or to have access to life saving antidote drugs like naloxone.



Source: Centers for Disease Control and Prevention
*Latinx death rate data are not trended due to low death counts.

Neonatal abstinence syndrome (NAS) is defined as an array of withdrawal symptoms that develop soon after birth in newborns exposed to addictive drugs while in the mother's womb. Although most commonly associated with opioid exposure, other substances, including antidepressants and benzodiazepines, can also cause NAS. In addition to difficulties of withdrawal after birth, problems in the baby may include premature birth, seizures, respiratory distress, birth defects, poor growth and other developmental problems.

The following graph trends NAS rates per 1,000 live births among Tennessee counties in the Memphis metro service area. **Contrary to the state overall, NAS rates increased in Shelby County from 2016 to 2020, although the 2020 rate falls below the state rate.** Other Tennessee counties in the Memphis metro service area saw fewer than five NAS cases annually.

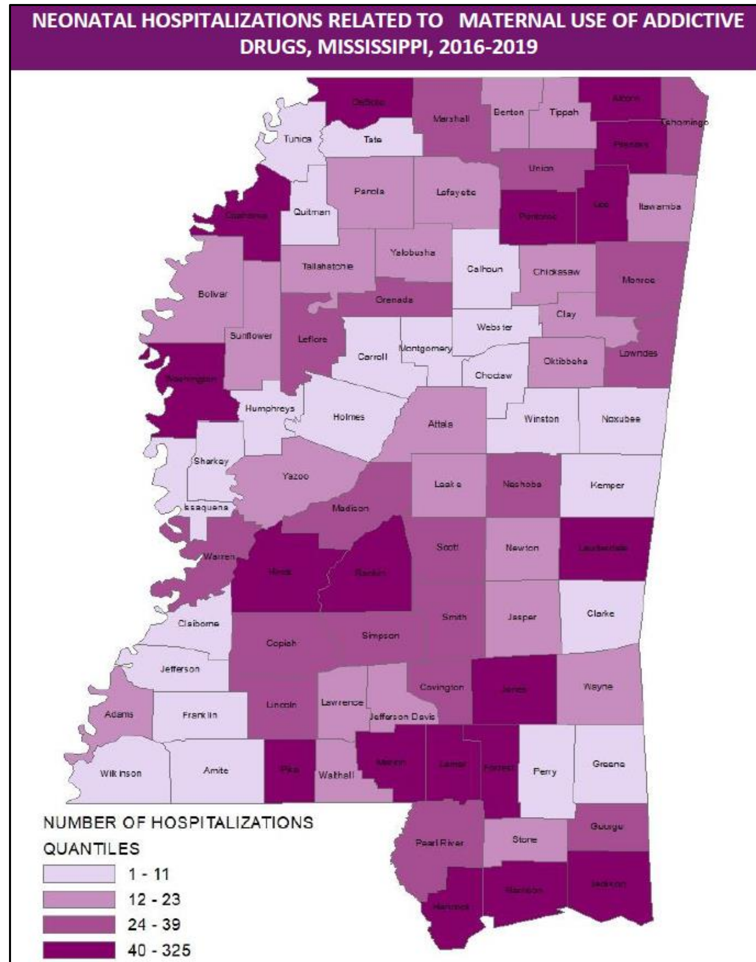


Source: Annie E. Casey Foundation, Kids Count Data Center

*Data are provided by county as available. Fayette County had zero NAS cases in 2020 and less than five cases annually from 2016 to 2019. Tipton County also had less than five cases annually from 2016 to 2020.

According to the most recent report on NAS by the Mississippi State Department of Health, the number of NAS cases increased statewide from 113 in 2010 to 854 in 2019. Among infant stays related to NAS, comorbidities were highly prevalent: 26.4% were born prematurely, 25.6% had a coexisting low birth weight, 25.7% had coexisting respiratory conditions and 13.9% had a coexisting congenital disease. Among the 854 hospitalizations in 2019, 85.5% were covered by Medicaid and 8.1% were uninsured.

Neonatal abstinence syndrome rates across Mississippi were nearly identical for Black/African American and white newborns. Infants residing in rural areas had slightly higher hospitalization rates than infants residing in urban areas; rates were highest in the northeastern corner of the state and in south Mississippi. **DeSoto County had a higher number of neonatal hospitalizations relative to other Mississippi counties falling within the highest quintile of 40 to 325 hospitalizations.**



Source: Mississippi State Department of Health

Youth Health

Overweight and Obesity

Childhood obesity is a persistent and significant threat to the long-term health of today's youth. The CDC reports that children who have obesity are more likely to have high blood pressure and high cholesterol; glucose intolerance, insulin resistance and Type 2 diabetes; breathing problems like asthma and sleep apnea; joint and musculoskeletal problems; psychological and social problems, such as anxiety, depression, low self-esteem and bullying; among other concerns.

A higher proportion of Mississippi and Tennessee high school students have obesity compared to the nation overall, and the proportion is increasing. **Of note, the proportion of Mississippi high school students with obesity increased 8 percentage points from 2013 to 2019, compared to a national average increase of 1.8 points.** Consistent with the nation, the most at-risk populations for youth obesity in Mississippi and Tennessee are males, Black/African American and Latinx individuals and/or lesbian, gay or bisexual (LGB) students.

High School Students with Obesity

	2013	2015	2017	2019
Mississippi	15.4%	18.9%	NA	23.4%
Tennessee	16.9%	18.6%	20.5%	20.9%
United States	13.7%	13.9%	14.8%	15.5%

Source: Centers for Disease Control and Prevention, YRBS

2019 High School Students with Obesity

	Mississippi	Tennessee	United States
Gender			
Female	21.1%	17.3%	11.9%
Male	25.8%	24.3%	18.9%
Race and Ethnicity			
White	20.6%	19.9%	13.1%
Black or African American	25.5%	23.6%	21.1%
Latinx origin (any race)	28.9%	23.8%	19.2%
Sexual Identity			
Lesbian, Gay, Bisexual (LGB)	25.3%	NA	21.0%
Straight	22.4%	NA	14.4%

Source: Centers for Disease Control and Prevention, YRBS

Behavioral Health and Substance Use Disorder

Tennessee and Mississippi have historically reported a higher percentage of youth attempting suicide than the nation. **Mississippi reports a higher percentage of youth attempting suicide than Tennessee, at nearly 13% in 2019 compared with 11% across Tennessee and 9% nationwide.** When considered by subgroup, attempted suicides were highest among students identifying as LGB, followed by Black/African American people, Latinx people and/or females. Of note, **nearly 30% of LGB students in Mississippi reported an attempted suicide compared with 23.4% nationwide.**

Contributing to acute psychiatric distress among Mississippi and Tennessee youth is an overall increasing percentage of school students who report feeling consistently sad or hopeless. Incidence of violence, including fighting, bullying and dating violence, has generally been stagnant or declining, with the exception of an increasing prevalence of dating violence in Tennessee.

High School Students Reporting an Attempted Suicide

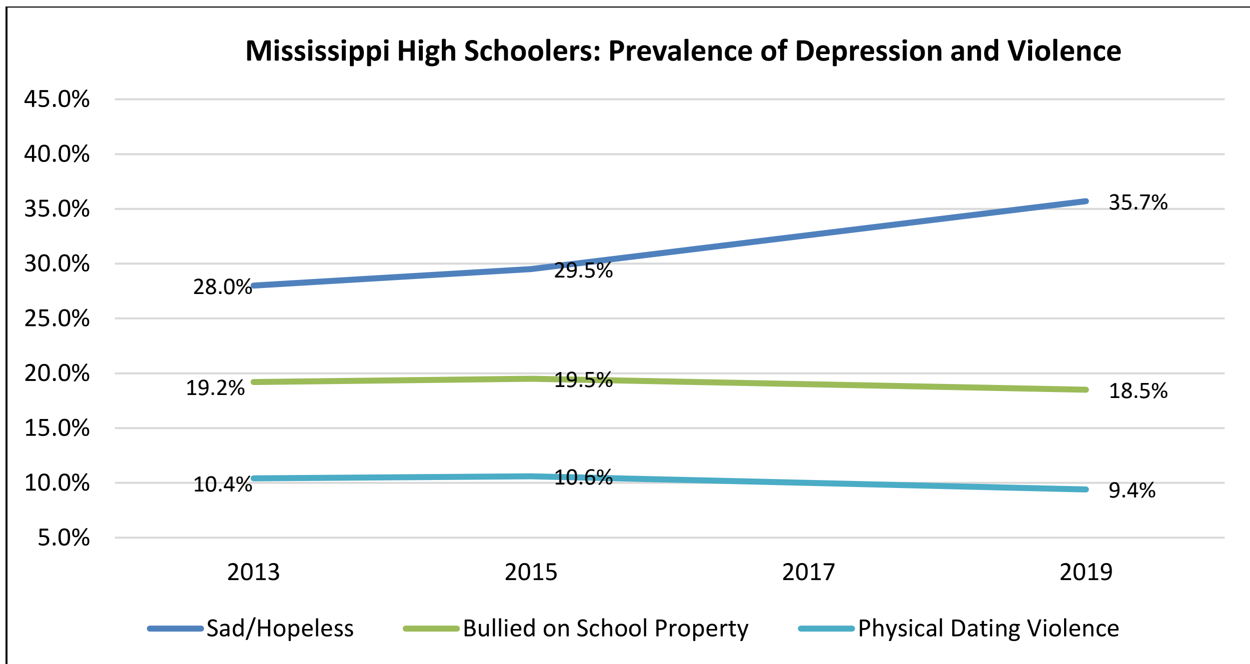
	2013	2015	2017	2019
Mississippi	10.9%	12.7%	NA	12.7%
Tennessee	9.0%	9.9%	8.3%	10.6%
United States	8.0%	8.6%	7.4%	8.9%

Source: Centers for Disease Control and Prevention, YRBS

2019 High School Students Reporting an Attempted Suicide

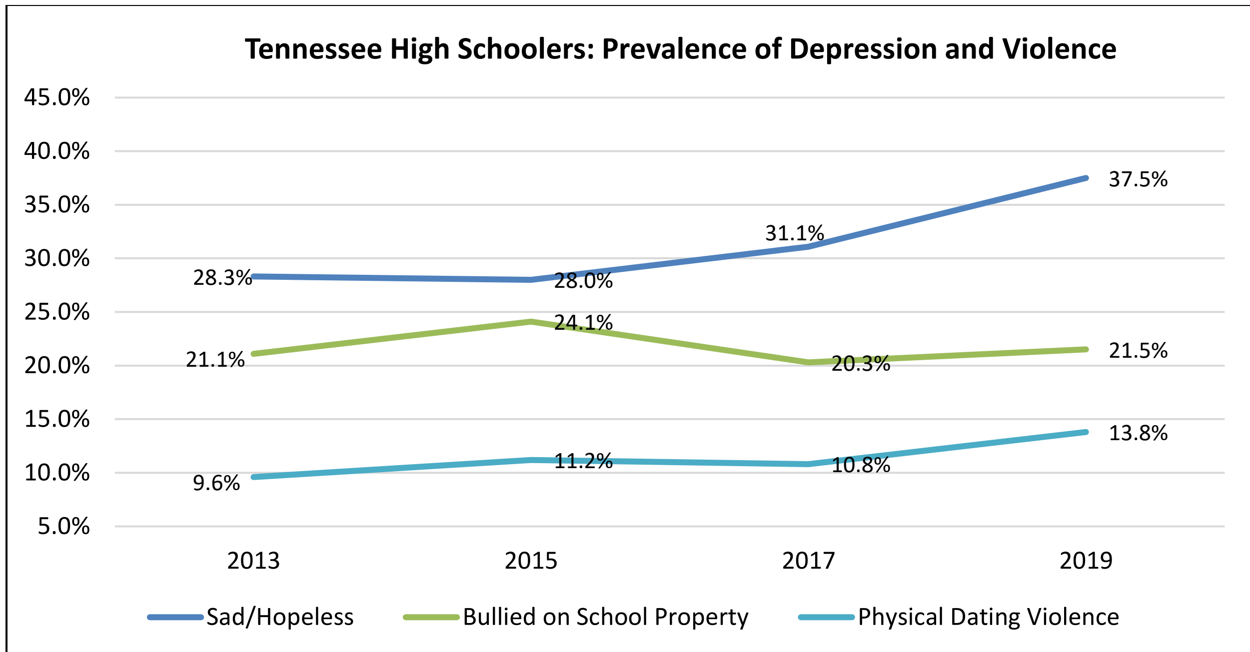
	Mississippi	Tennessee	United States
Gender			
Female	14.7%	11.8%	11.0%
Male	10.2%	9.2%	6.6%
Race and Ethnicity			
White	10.0%	9.1%	7.9%
Black or African American	14.8%	14.0%	11.8%
Latinx origin (any race)	13.3%	15.8%	8.9%
Sexual Identity			
Lesbian, Gay, Bisexual (LGB)	29.6%	NA	23.4%
Straight	9.8%	NA	6.4%

Source: Centers for Disease Control and Prevention, YRBS



Source: Centers for Disease Control and Prevention, YRBS

*2017 data are not available for Mississippi.



Source: Centers for Disease Control and Prevention, YRBS

The use of e-cigarettes among high school students continues to rise nationally, while the use of traditional cigarettes is declining. Within Mississippi and Tennessee, the use of traditional cigarettes is also declining. As of 2019, approximately 7% of high school students in Mississippi and Tennessee reported smoking compared to 6% nationally. **Both Mississippi and Tennessee report a lower proportion of students using e-cigarettes than the nation, but more than 20% of students still report current use.** Students who report current e-cigarette use are more likely to be male, white and/or LGB.

High School Students Reporting Current (within past 30 days) E-Cigarette Use

	2015	2017	2019
Mississippi	22.9%	NA	21.4%
Tennessee	21.7%	11.5%	22.1%
United States	24.1%	13.2%	32.7%

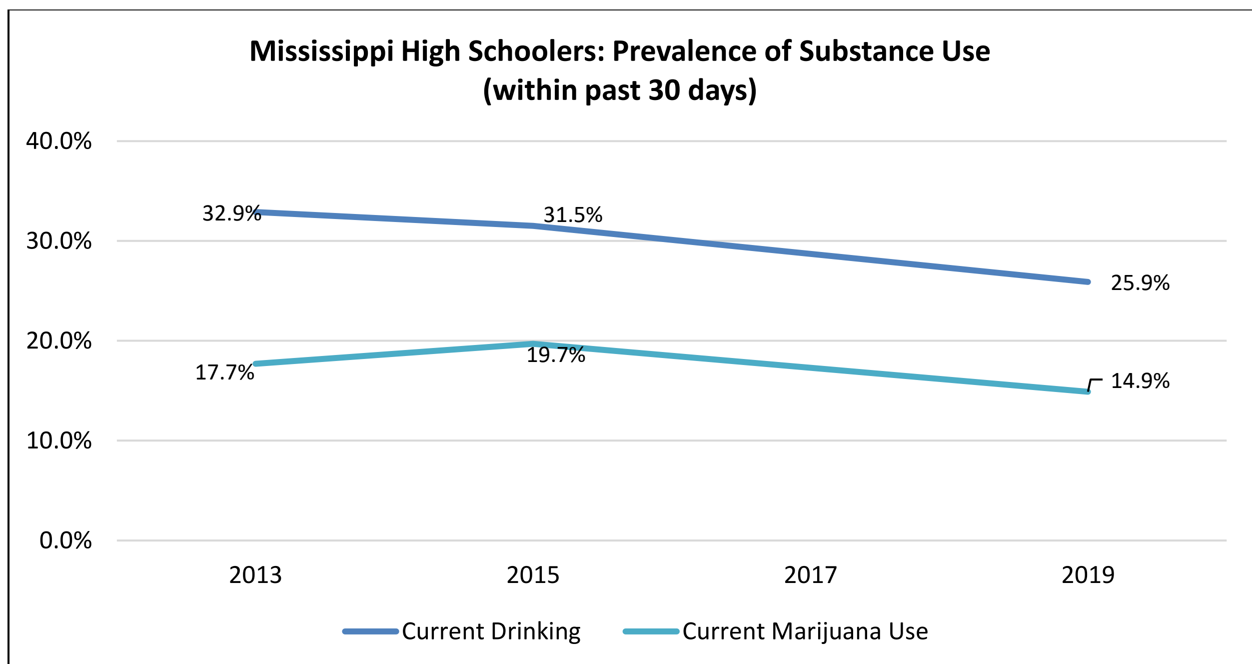
Source: Centers for Disease Control and Prevention, YRBS

2019 High School Students Reporting Current (within past 30 days) E-Cigarette Use

	Mississippi	Tennessee	United States
Gender			
Female	19.0%	21.7%	33.5%
Male	23.6%	22.4%	32.0%
Race and Ethnicity			
White	30.9%	25.7%	38.3%
Black or African American	12.3%	12.4%	19.7%
Latinx origin (any race)	22.0%	21.2%	31.2%
Sexual Identity			
Lesbian, Gay, Bisexual (LGB)	31.3%	NA	34.1%
Straight	19.7%	NA	32.8%

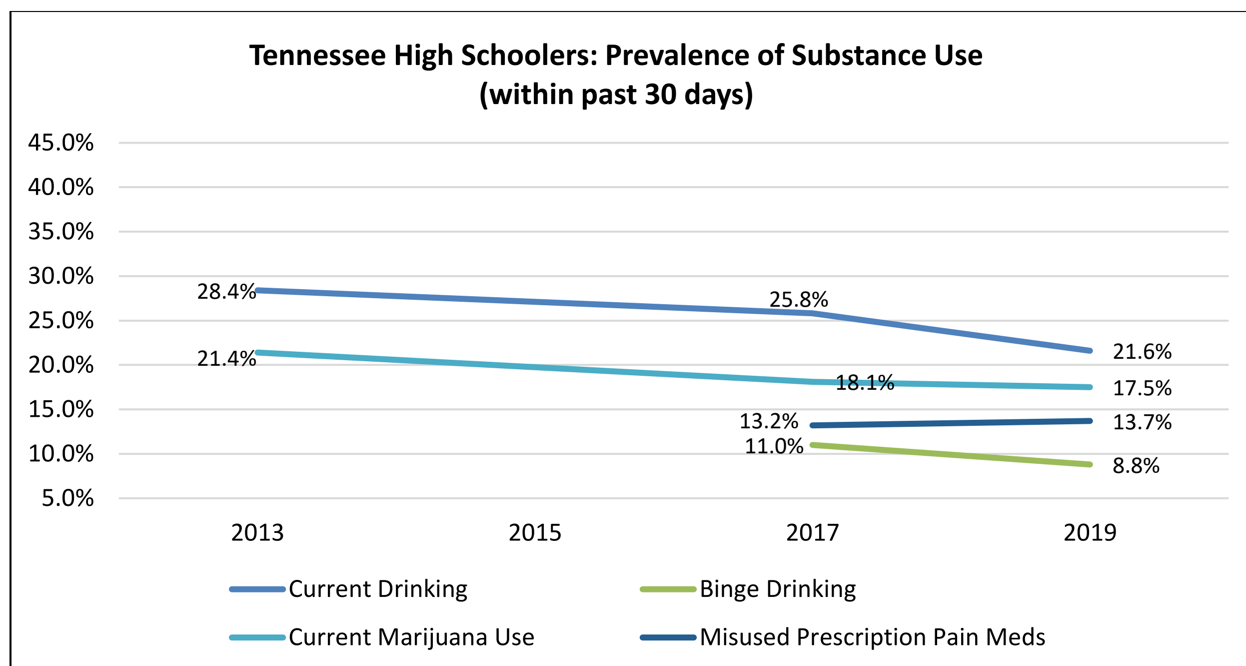
Source: Centers for Disease Control and Prevention, YRBS

Consistent with the nation, substance use among Mississippi and Tennessee high school students is generally declining, however, approximately 1 in 4 students report current alcohol use and more than 1 in 10 students report current marijuana use and/or misuse of prescription pain medications. Mississippi youth generally report higher use of alcohol than Tennessee youth; Tennessee youth generally report higher use of marijuana.



Source: Centers for Disease Control and Prevention, YRBS

*Mississippi data are provided as available. Data on the misuse of prescription pain meds are not reported and binge drinking is not trended prior to 2019. As of 2019, 10.1% of Mississippi youth reported binge drinking. 2017 data are not available for Mississippi.



Source: Centers for Disease Control and Prevention, YRBS
*Tennessee data are provided as available. Data on the misuse of prescription pain meds and binge drinking is not trended prior to 2017. 2015 data are not available for Tennessee.

High School Students Reporting Current (within past 30 days) Alcohol Use

	2013	2015	2017	2019
Mississippi	32.9%	31.5%	NA	25.9%
Tennessee	28.4%	NA	25.8%	21.6%
United States	34.9%	32.8%	29.8%	29.1%

Source: Centers for Disease Control and Prevention, YRBS

2019 High School Students Reporting Current (within past 30 days) Alcohol Use

	Mississippi	Tennessee	United States
Gender			
Female	26.0%	22.7%	31.9%
Male	25.9%	20.3%	26.4%
Race and Ethnicity			
White	34.6%	24.1%	34.2%
Black or African American	18.2%	14.8%	16.8%
Latinx origin (any race)	18.6%	23.5%	28.4%
Sexual Identity			
Lesbian, Gay, Bisexual (LGB)	37.3%	NA	33.9%
Straight	24.0%	NA	28.8%

Source: Centers for Disease Control and Prevention, YRBS

Maternal and Infant Health

All Memphis metro service area counties except Fayette have a higher rate of birth than the nation. Fayette County's low birth rate is consistent with having an older population overall. From the 2019 CHNA, the birth rate declined in DeSoto and Shelby counties, but increased slightly in Tipton County. Consistent with racial and ethnic population trends, Black/African American and Latinx people generally have a higher rate of birth than white people, when reported.

2019 Births and Birth Rate per 1,000 Population by Race and Ethnicity

	Total Births	Birth Rate per 1,000	White, Non-Hispanic Birth Rate	Black/African American, Non-Hispanic Birth Rate	Latinx Birth Rate
DeSoto County, MS	2,124	11.5	11.0	12.6	NA
Fayette County, TN	385	9.4	9.2	9.7	11.2
Shelby County, TN	12,802	13.7	12.1	15.0	25.1
Tipton County, TN	738	12.0	11.6	14.9	9.0
Mississippi	36,634	12.3	11.3	14.0	NA
Tennessee	80,431	11.8	11.4	14.4	21.4
United States	3,747,540	11.4	9.8	13.4	14.6

Source: Mississippi State Department of Health & Tennessee Department of Health & Centers for Disease Control and Prevention

Mississippi and Tennessee overall report poorer birth outcomes than the nation, including fewer pregnant people receiving early or adequate prenatal care, a higher proportion of low birth weight and premature births and higher infant death rates. These disparities are more pronounced in the Memphis metro service area, particularly in Shelby County, where approximately 60% of pregnant people receive adequate prenatal care, nearly 12% of babies are born with low birth weight and the infant mortality rate exceeds state and national rates. It is worth noting that all Memphis metro service area counties report fewer pregnant people receiving early or adequate prenatal care compared to their respective state and the nation. Additionally, the proportion of low birth weight and premature births increased in DeSoto County and has been stagnant in other counties.

While both white and Black/African American people residing in Mississippi and Tennessee report notable birth disparities compared to the nation overall, these disparities disproportionately impact Black/African American people. In both states, there is a more than 10-point deficit in the percentage of Black/African American pregnant people receiving early or adequate prenatal care compared to white pregnant people. Nearly 1 in 5 babies born to Black/African American people are born premature and/or with low birth weight compared to 1 in 10 white babies. **In both states, the infant mortality rate for Black/African American infants is nearly double the white infant mortality rate**. These disparities are consistent across Memphis metro service area counties.

Positive birth outcomes for the Memphis metro service area include an overall declining percentage of births to teens and increasing prenatal care access. Additionally, all counties except Tipton report a lower proportion of pregnant people who smoke during pregnancy when compared to their respective

state and/or the nation. The proportion of pregnant people who smoke during pregnancy declined in all counties except Fayette. Consistent with past needs assessment findings, Black/African American people are generally less likely to smoke during pregnancy compared to white people.

2019 DeSoto County Maternal and Infant Health Indicators by Race*

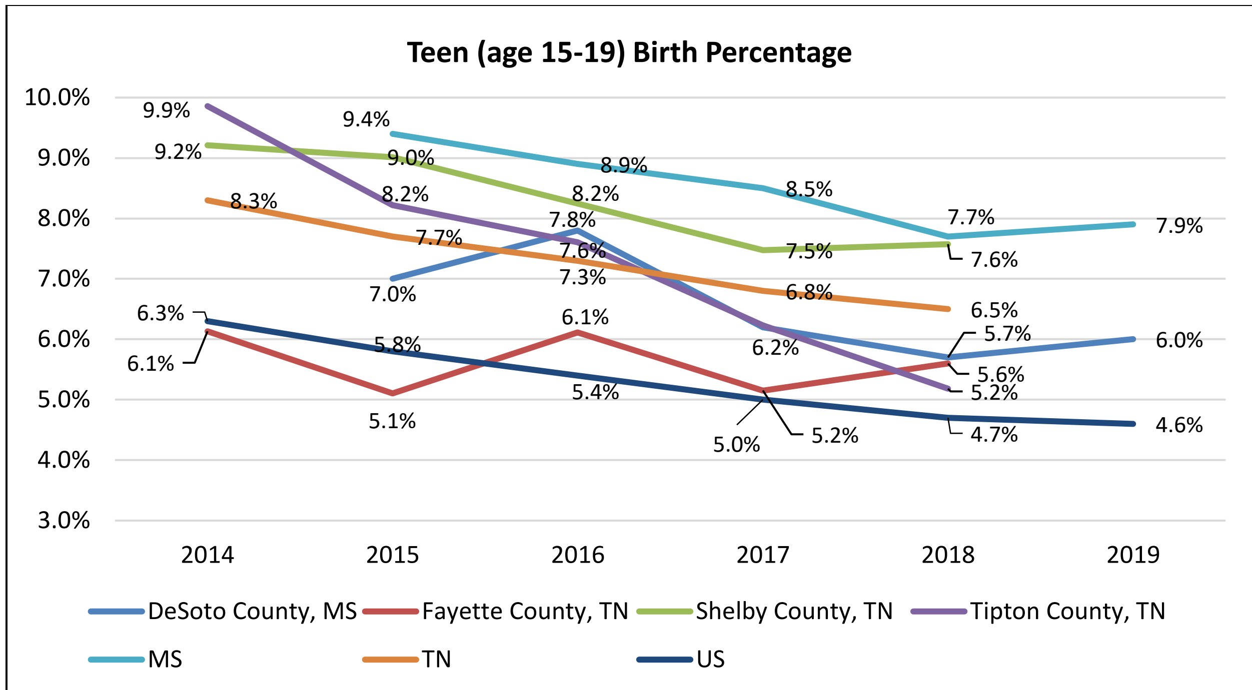
	Teen (15-19) Birth Percentage	First Trimester Prenatal Care	Premature Births	Low Birth Weight Births	Non-Smoking during Pregnancy
DeSoto County, MS	5.9%	70.3%	12.6%	10.1%	93.4%
White	5.3%	74.5%	11.5%	7.5%	91.5%
Black/African American	6.9%	62.2%	15.2%	15.2%	98.3% (n=12)
Mississippi	7.9%	75.9%	14.6%	12.3%	91.4%
White	6.6%	80.6%	12.2%	8.6%	88.7%
Black/African American	9.4%	69.9%	17.8%	17.3%	94.7%
United States	4.6%	77.6%	10.2%	8.3%	94.0%
HP2030 Goal	NA	80.5%	9.4%	NA	95.7%

Source: Mississippi State Department of Health & Centers for Disease Control and Prevention
*Mississippi does not report Latinx birth data.

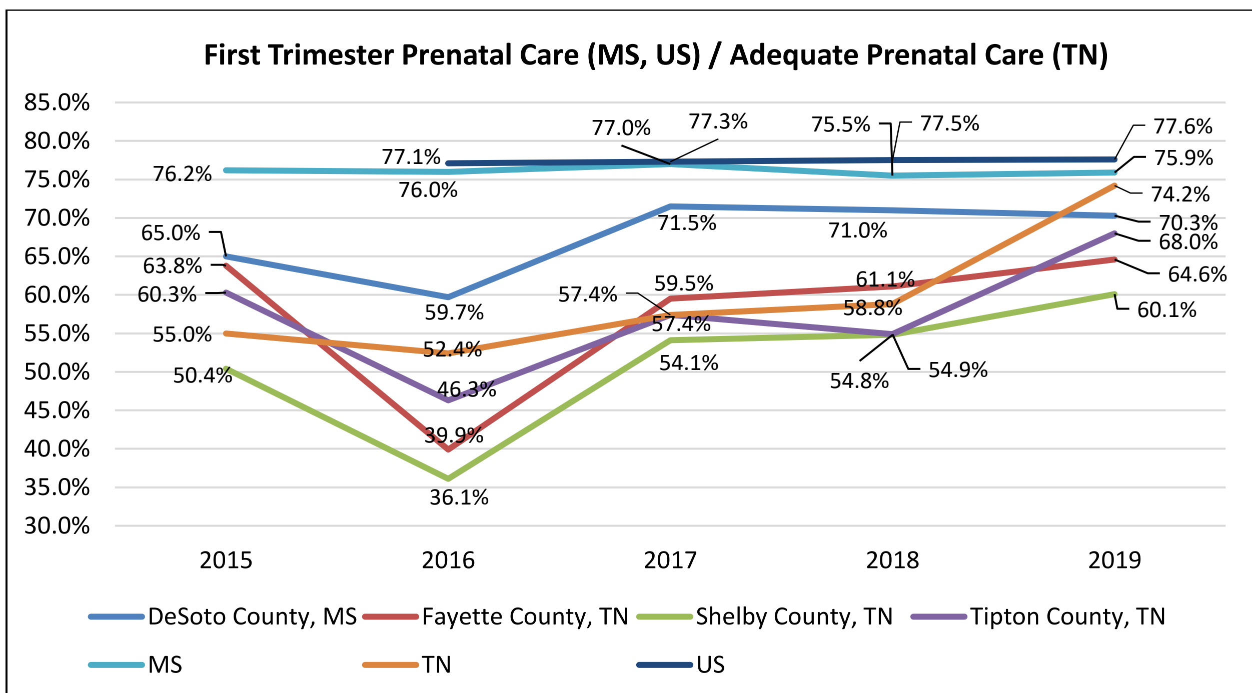
2018/2019 Tennessee Maternal and Infant Health Indicators by Race*

	Teen (15-19) Birth Percentage	Adequate Prenatal Care**	Premature Births	Low Birth Weight Births	Non-Smoking during Pregnancy
Fayette County, TN	5.6%	64.6%	10.4%	13.0%	92.4%
White	2.7%	67.6%	NA	9.7%	92.4%
Black/African American	11.5%	56.2%	NA	19.1%	NA
Shelby County, TN	7.6%	60.1%	12.4%	12.2%	96.3%
White	4.6%	63.1%	NA	7.3%	96.4%
Black/African American	9.8%	57.7%	NA	15.5%	95.9%
Tipton County, TN	5.2%	68.0%	14.4%	8.4%	86.4%
White	3.9%	69.0%	NA	6.5%	84.6%
Black/African American	9.9%	65.2%	NA	15.6%	92.4%
Tennessee	6.5%	74.2%	11.2%	9.3%	88.5%
White	6.0%	77.0%	NA	7.7%	86.7%
Black/African American	9.0%	65.0%	NA	14.9%	93.5%
United States	4.7%	NA	10.2%	8.3%	94.0%
HP2030 Goal	NA	NA	9.4%	NA	95.7%

Source: Tennessee Department of Health & Centers for Disease Control and Prevention
*Latinx data are not reported by county. Teen birth and low birth weight percentages are reported for 2018 based on data availability by race; all other data are reported for 2019.
**Adequate prenatal care, as defined by the Kessner Index, is prenatal care that begins in the first trimester and includes nine or more visits for a pregnancy of 36 or more weeks.



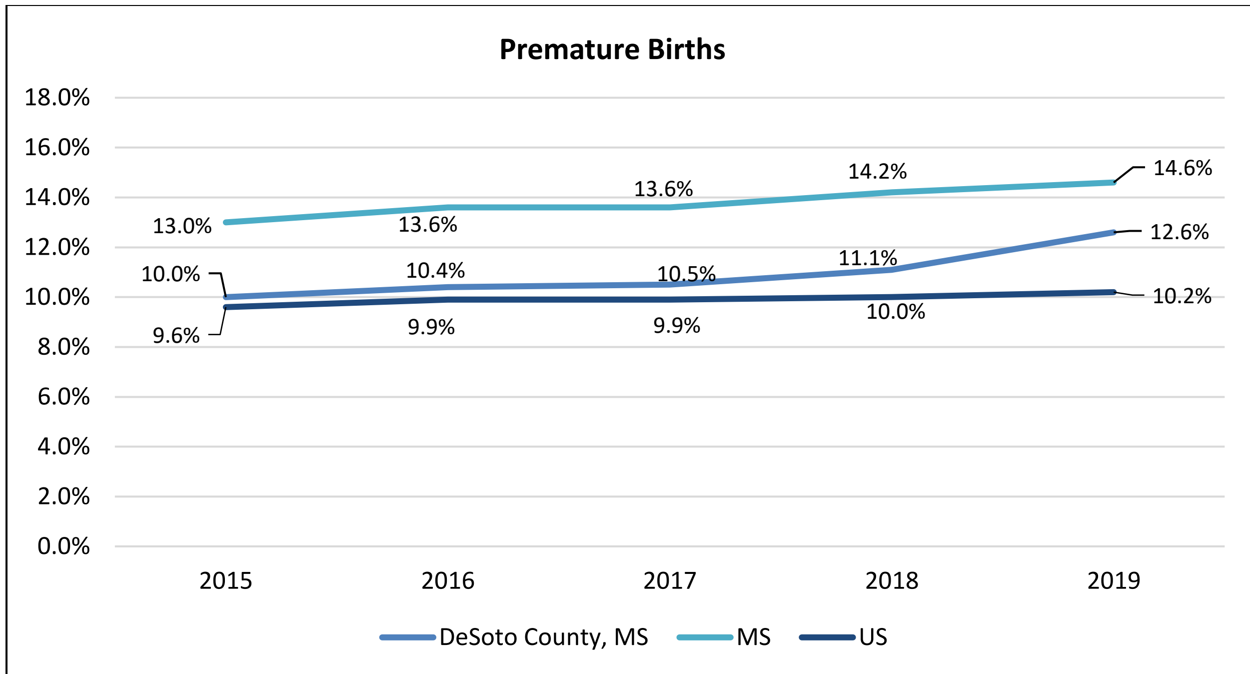
Source: Mississippi State Department of Health & Tennessee Department of Health & Centers for Disease Control and Prevention



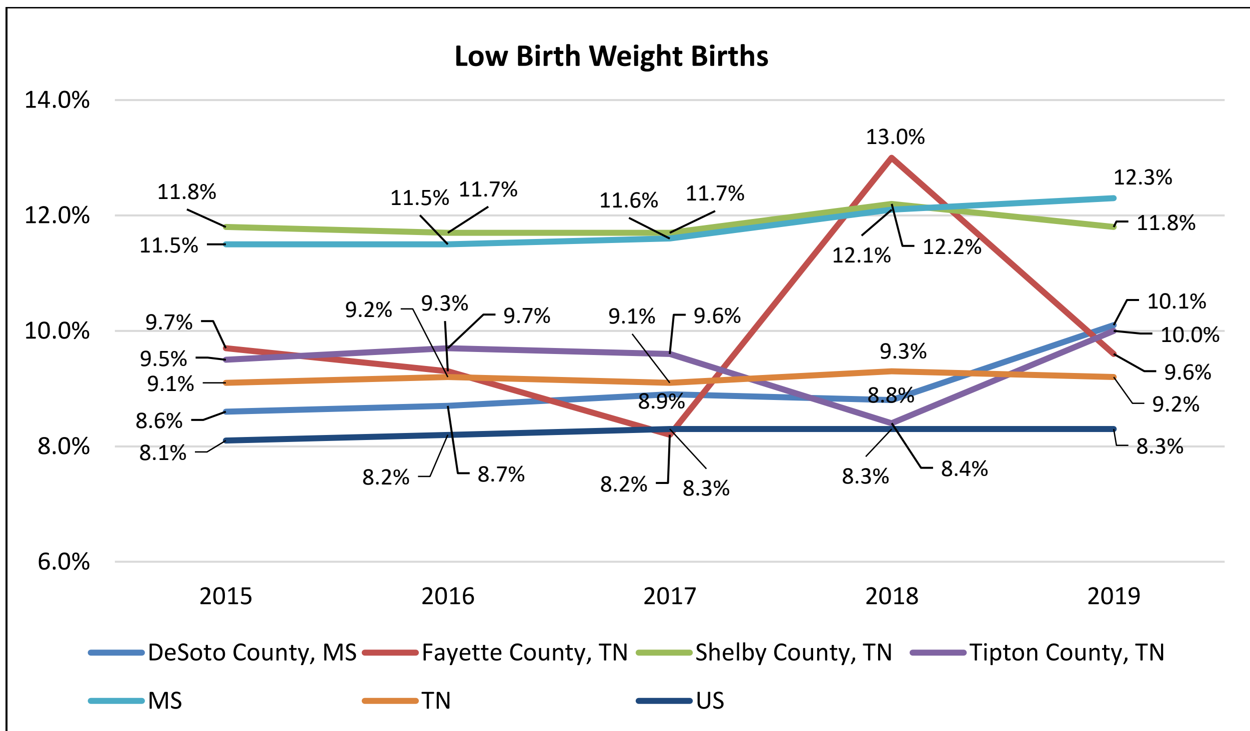
Source: Mississippi State Department of Health & Tennessee Department of Health & Centers for Disease Control and Prevention

*Adequate prenatal care, as defined by the Kessner Index, is prenatal care that begins in the first trimester and includes nine or more visits for a pregnancy of 36 or more weeks.

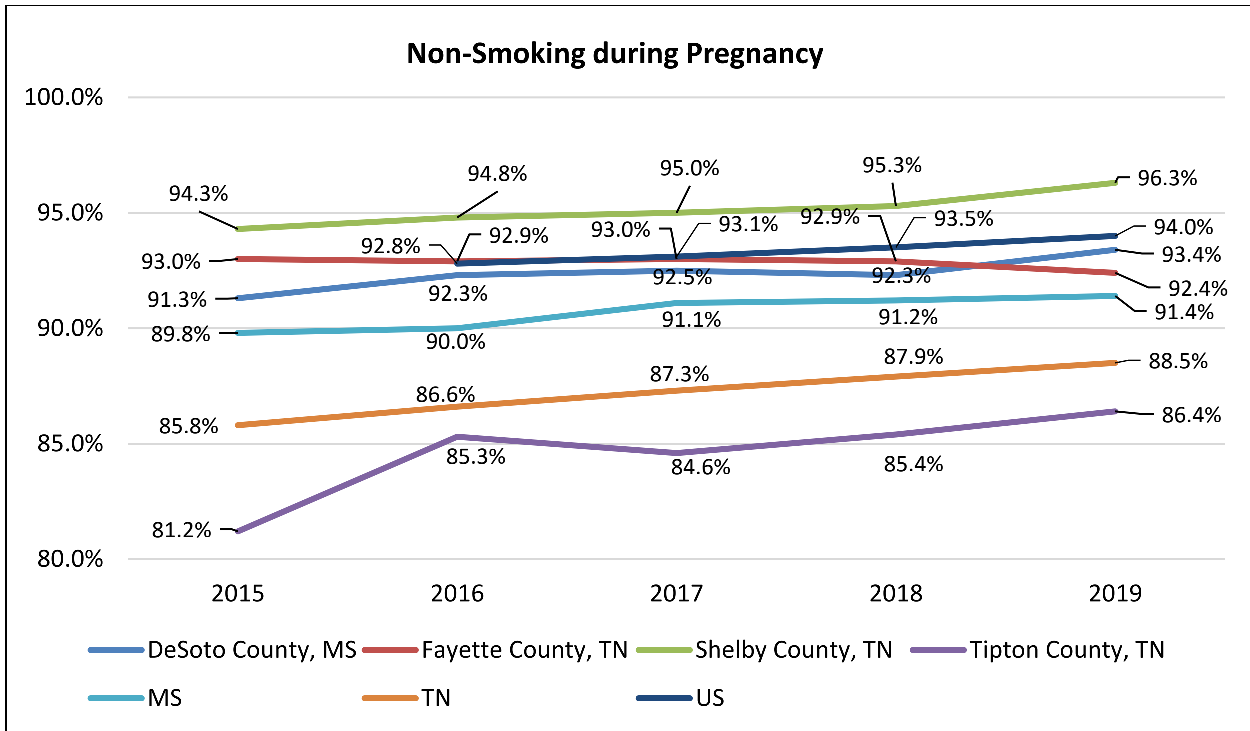
**In 2016, the U.S. universally adopted the 2003 U.S. Certificate of Live Birth, providing national indicators for first trimester prenatal care access.



Source: Mississippi State Department of Health & Centers for Disease Control and Prevention
*Trended data for Tennessee are not available.



Source: Mississippi State Department of Health & Tennessee Department of Health & Centers for Disease Control and Prevention



Source: Mississippi State Department of Health & Tennessee Department of Health & Centers for Disease Control and Prevention
*In 2016, the U.S. universally adopted the 2003 U.S. Certificate of Live Birth, providing national indicators.

From 2015 to 2019, infant deaths totaled 1,631 in Mississippi and 2,887 in Tennessee. **In both states, the infant rate death rate among Black/African American people was nearly double the death rate for white people.** Within the Memphis metro service area, Shelby County has higher rate of infant death than both states and the nation, a finding that is consistent with existing SDoH barriers and inequities among Black/African American people.

Similar disparities are seen in the maternal death rate. From 2017 to 2019, Tennessee reported a total of 222 maternal deaths, and Black/African American individuals were 1.5 times as likely to die during or within a year of pregnancy as white individuals. In Mississippi between 2013 and 2016, there was a total of 136 maternal deaths occurring during pregnancy or within one year of the end of pregnancy. The pregnancy-related death rate for Black/African American individuals in Mississippi was 51.9 per 100,000 live births, nearly three times the white maternal death rate of 18.9.

2015-2019 Infant Deaths per 1,000 Live Births

	Infant Deaths per 1,000 Live Births
DeSoto County, MS	7.0
Fayette County, TN	NA (n=13)
Shelby County, TN	9.3
Tipton County, TN	6.9
Mississippi	8.9
White, Non-Hispanic	7.0
Black/African American, Non-Hispanic	11.4
Latinx (any origin)	3.3
Tennessee	7.2
White, Non-Hispanic	6.0
Black/African American, Non-Hispanic	11.8
Latinx (any origin)	5.5
United States	5.7
White, Non-Hispanic	4.8
Black/African American, Non-Hispanic	10.5
Latinx (any origin)	4.6
HP2030 Goal	5.0

Source: Mississippi State Department of Health & Tennessee Department of Health & Centers for Disease Control and Prevention

Research findings from secondary data analysis were compared to qualitative research findings to compare perceptions to statistical data, identify root causes and contextualize data trends and contributing factors for identified health needs.

Key Informant Survey

An online Key Informant Survey was conducted with community representatives within Baptist's Memphis Metro Service Area to solicit information about local health needs and opportunities for improvement. Community representatives included health care and social service providers; public health experts; civic, social and faith-based organizations; policy makers and elected officials; and others representing diverse community populations.

A total of 109 individuals responded to the survey. A list of the represented community organizations and the participants' respective titles, as provided, is included in Appendix B. Key informant's names are withheld for confidentiality.

More than 60% of key informants served all populations across the Memphis metro service area. A breakdown of other specific populations served by informants is provided below.

Primary Populations Served by Key Informant Survey Participants

	Number of Participants	Percent of Total
No specific focus/serve all people	67	61.5%
African American/Black	26	23.9%
Adolescents (age 12-18)	25	22.9%
Low Income/poor individuals or families	25	22.9%
Children (age 0-11)	23	21.1%
Young adults (age 19-24)	23	21.1%
Older adults/elderly	21	19.3%
Uninsured/underinsured individuals or families	21	19.3%
Hispanic/Latinx	13	11.9%
Homeless individuals or families	10	9.2%
People with disabilities	9	8.3%
Other*	9	8.3%
Religious community	8	7.3%
Immigrant/refugee populations	7	6.4%
LGBTQ+ community	5	4.6%
American Indian/Alaska Native	2	1.8%
Asian/South Asian	2	1.8%
Pacific Islander/Native Hawaiian	1	0.9%

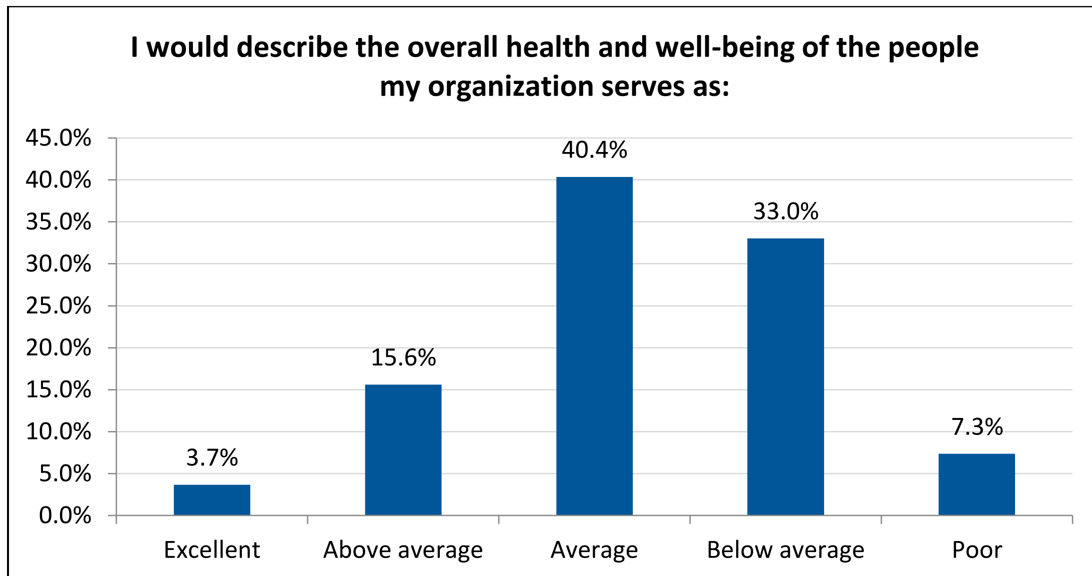
*Responses included women, parents and intimate partners; cancer patients/families; veterans; neighborhoods facing displacement due to gentrification; business community and city of Millington and surrounding communities.

Key informants were asked a series of questions about perceived health priorities, perspectives on emerging health trends, including COVID-19, and recommendations to advance community and population health management strategies. A summary of their responses follows.

Health and Well-being

Thinking about the people their organization serves, key informants were asked to describe the overall health and well-being of individuals and the most pressing concerns affecting them. Key informants were instructed to select up to five pressing concerns from a wide-ranging list of health and social issues. Respondents were also given an option to "write in" a custom response.

Approximately 73% of survey respondents described the overall health and well-being of the people their organization serves as "average" or "below average."



Nearly 58% of the key informants selected the "ability to afford health care" among the top five concerns for the people their organization serves. One-third of respondents acknowledged "economic stability" (33.9%) as a top concern. "Mental health conditions" (27.5%), "overweight/obesity" (27.5%) and "diabetes" (23.9%) were also selected within the top five concerns. About 25% of respondents indicated "community crime/violence (including gun violence)" as a top concern.

Collectively, survey responses indicated a strong awareness of underlying SDoH as drivers for optimal health and well-being. In addition to "economic stability," informants identified "availability of healthy food options," "health literacy," "housing" and "lack of transportation" among the top concerns for the people their organization serves.

In your opinion, what are the top five most pressing concerns affecting the population(s) that your organization serves? Top Key Informant Selections

	Number of Participants	Percent of Total
Ability to afford health care (doctor visits, prescriptions, etc.)	63	57.8%
Economic stability (employment, poverty, cost of living)	37	33.9%
Mental health conditions	30	27.5%
Overweight/obesity	30	27.5%
Community crime/violence (including gun violence)	27	24.8%
Diabetes	26	23.9%
Cancers	22	20.2%
Availability of healthy food options	20	18.4%
Health literacy (ability to understand health information)	17	15.6%
Housing (affordable, quality)	17	15.6%
Lack of transportation	17	15.6%

Social Determinants of Health

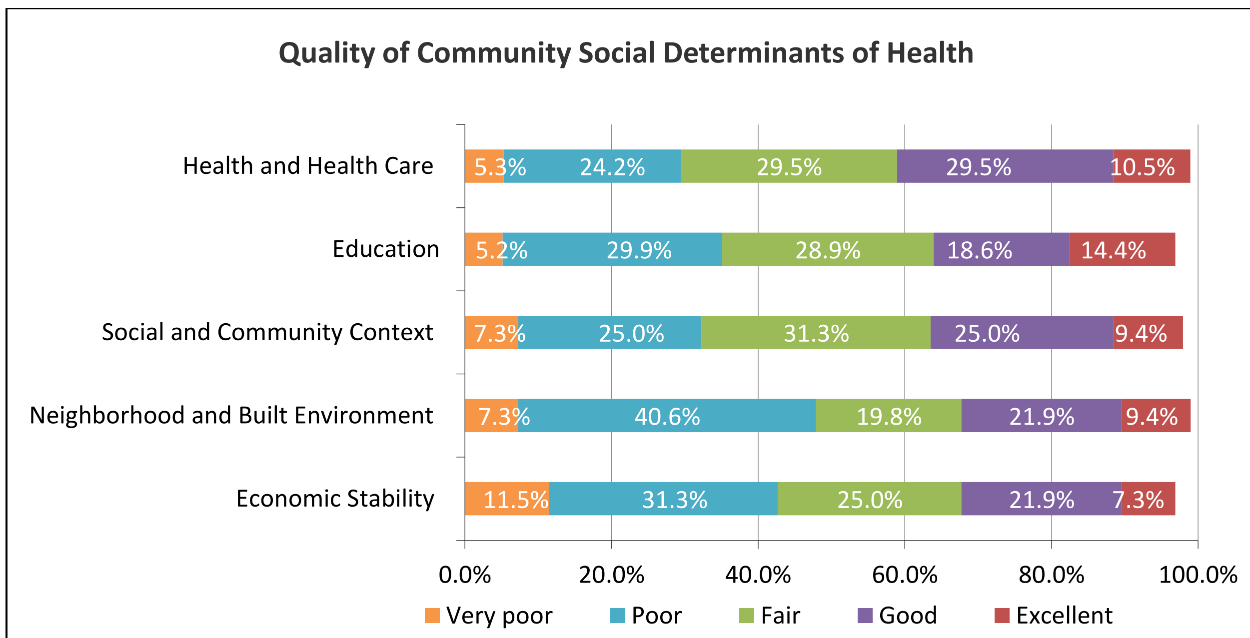
Social determinants of health are the conditions in the environments where people are born, live, learn, work, play, worship and age that affect a wide range of health risks and outcomes. Healthy People 2030 outlines five key areas of SDoH: economic stability, education access and quality, health care access and quality, neighborhood and built environment and social and community context. Approximately 33% (n=32) of informants indicated that their organization currently screens clients, patients, constituents, etc. for needs related to SDoH.

Survey respondents were asked to rate the quality of SDoH in the community their organization serves using a scale of (1) “very poor” to (5) “excellent.” The mean score for each key SDoH area is listed in the table below in rank order, followed by a graph showing the scoring frequency. Mean scores were between 2.82 and 3.16, with most respondents rating the listed areas as “poor,” “fair” or “good.” Health and health care was seen as the strongest community SDoH factors.

Results from the prior CHNAs in 2016 and 2019 are compared to 2022 results in the table below. While rankings based on mean score generally did not change, mean scores were higher for each SDoH area, potentially indicating more positive perception of these areas. Given these results are not statistically representative, these data should be further explored through qualitative research.

Ranking of Social Determinants of Health in Descending Order by Mean Score

	2022 CHNA Results	2019 CHNA Results	2016 CHNA Results
Health and health care (e.g., access to health care, access to primary care, health literacy)	3.16	2.68	2.93
Education (e.g., high school graduation, enrollment in higher education, language and literacy, early childhood education and development)	3.07	2.81	2.93
Social and community context (e.g., sense of community, civic participation, perceptions of discrimination and equity, incarceration/institutionalization)	3.04	2.59	2.84
Neighborhood and built environment (e.g., access to healthy foods, quality of housing, crime and violence, environmental conditions, transportation)	2.85	2.37	2.71
Economic stability (e.g., poverty, employment, food security, housing stability)	2.82	2.39	2.47



COVID-19 Insights and Perspectives

Key informants were asked to identify the most likely sources of COVID-19 information for the people their organization serves. Key informants were instructed to select up to three sources from a wide-ranging list of options. An option was provided to choose “other” and add a source not included on the list.

Where were the people your organization serves most likely to get information about COVID-19?

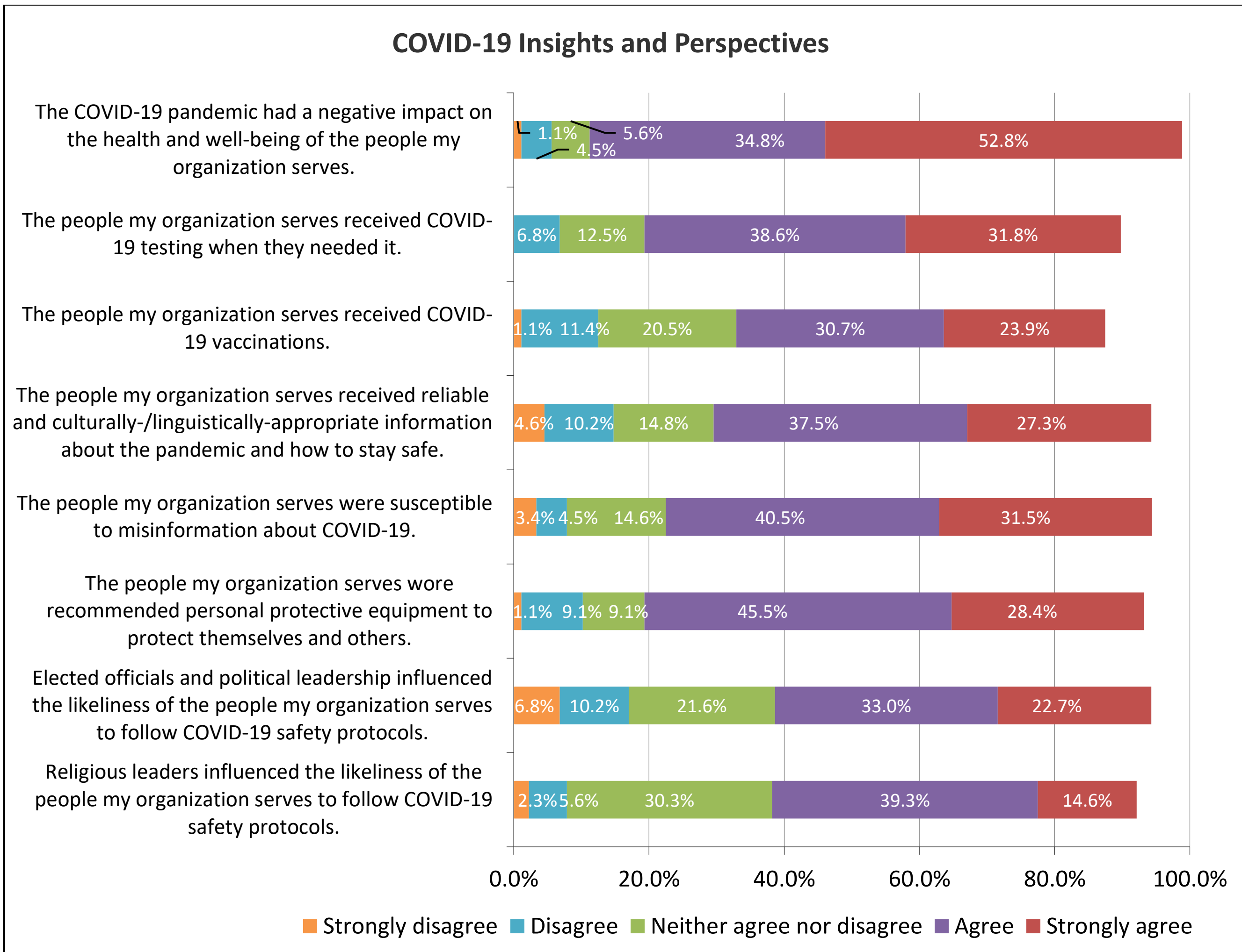
	Number of Participants	Percent of Total
Friends/family	46	51.7%
Social media	46	51.7%
Local news source/media	42	47.2%
Local or state health department	26	29.2%
Church/religious leaders	22	24.7%
Health care providers	17	19.1%
Centers for Disease Control and Prevention (CDC)	16	18.0%
National news source/media	16	18.0%
Political leadership	9	10.1%
Health insurance providers	3	3.4%
Other*	3	3.4%
Don't know	2	2.3%

*Responses included company leadership, informant’s organization and national media.

Thinking about the people their organization serves, survey respondents were asked to rate the following statements about COVID-19 impact, availability of testing and vaccination, availability of reliable information, susceptibility to misinformation and likeliness to follow recommended safety protocols.

Nearly 90% of respondents agreed or strongly agreed that COVID-19 had a negative impact on the health and well-being of the people their organization served. About 70% of respondents agreed that people were mostly able to receive COVID-19 testing when they needed it and 74% agreed that the people they served wore recommended Personal Protective Equipment (PPE). Just over 50% of respondents believed their constituents were vaccinated; about 20% were not sure; and 12% did not think their populations were vaccinated.

About 55% of respondents agreed that people received reliable, culturally and linguistically appropriate information, and 72% said they were also susceptible to misinformation. About half of respondents thought that their constituents were influenced by political leaders (55.7%) and religious leaders (54.9%).



Community Resources That Impact Health

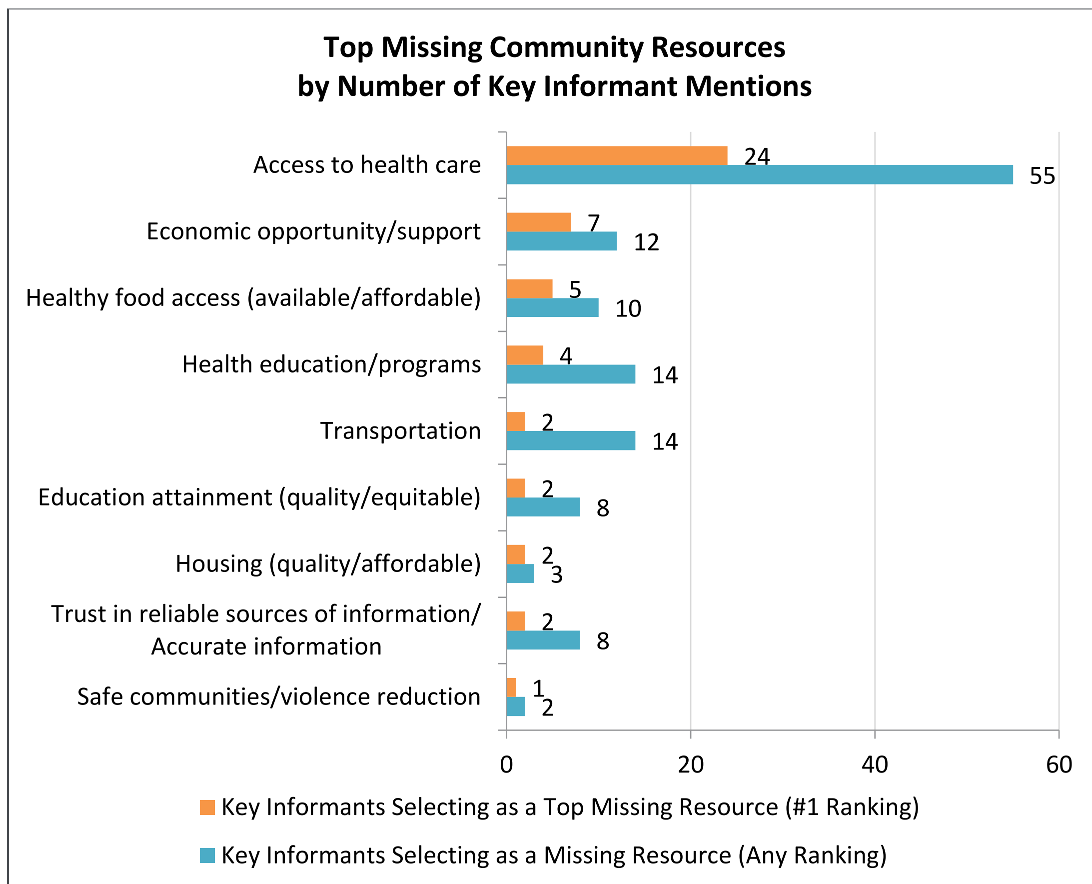
Key informants were asked to identify missing resources in the community that would help residents optimize their health. Informants were instructed to rank up to three write-in responses with No. 1 as their perceived top missing resource. The following graph summarizes identified missing resources by category and number of mentions by key informants.

Key informant responses reflected the theme of *access to health care* as the top missing resource. Specific concerns were increasing the availability of health care services through additional hours of operation; medical transportation; expanded Medicare benefits; more providers, telehealth and, vaccine availability and neighborhood free health clinics. Improving affordability of health care, through access to quality, affordable health insurance; Medicare for all; affordable prescription drugs; and assistance for high deductible health plans were also mentioned to increase access to health care. Availability of specialty care, including mental health and primary and preventive care were also noted.

Transportation and *health education programs* were among the top identified missing resources. Specific education needs included general health education, lifestyle improvement and COVID-19

vaccine information. *Economic opportunity and support* including reducing poverty and promoting career opportunities that provide health insurance and higher incomes were among the top five common concerns and noted as the second highest concern. *Availability and affordability of healthy foods* and *education attainment* were also among the top five mentioned missing resources.

Some key informants also spoke to the need for *accurate community health information from trusted resources*. Informants acknowledged inconsistent and mixed messaging, particularly related to COVID-19. One informant recommended to leverage "public role models who are active on social media to constantly reinforce healthy behaviors."



Health Equity

Key informants were asked how community organizations, including Baptist, better serve minority populations including Black, African American, Indigenous, immigrant, people of color, LGBTQ+ and others, to achieve health and social equity. Informants were invited to provide free-form comments about the topics. Verbatim comments are included below.

- *"Advocate at the policy level to increase access to quality, equitable service for all, increase access to financial resources, create an atmosphere in organizations that embrace culture."*
- *"Be open to learn and listen."*

- *"Breaking down barriers so we move from a blaming negative perception/attitude (reality) to a united positive perception (reality). This has to stem from equal education for all, high standards of excellence for our schools and programs that truly fight the growth of gangs and violence."*
- *"Community input into programming and services, i.e., 'nothing about us without us.'"*
- *"Community-based preventative services; deeper relations with community and faith-based organizations; sponsored child grief counseling services."*
- *"Review barriers created in registration processes for various services to take the undocumented population into consideration. Hire more Spanish speaking community outreach and engagement specialists to assist at events and be present in the community. Consider hiring more interpreters for all departments (in conjunction with the language line you all already have). Develop a clear procedure for employees detailing what to do when native Spanish speakers call and how to communicate with them in the most effective way."*
- *"Meet them where they are struggling. Go to the communities."*
- *"Openly engage those groups and leadership on community boards; make sure your organization of employees is a part of those groups."*
- *"Through supporting non-profits in our neighborhoods and using those non-profits as the extension of Baptist in our communities."*
- *"Have community liaisons lead more conversations regarding health. Make the conversation a priority in communities; include holistic medicine, modern medicine, physical movement, knowing your physical stats. Good health is an individual's future physical savings account."*
- *"Through changes in policies, systems and environmental factors, community organizations can shift the paradigm towards achieving health and social equity. By understanding the historical legacies that have created the social and health inequities of today, we can best create the policies that support positive health behaviors like safer sidewalks to walk on and more availability of health food stores. Creating systems that speak to each other and reduce the time individuals wait to receive social services. Lastly, using the curb cut effect of equitable city planning that provides economic growth to existing social networks with communities that have been historically marginalized in the development of their built environment. In order to achieve racial, health and social equity, we need to give the decision-making power to the people."*
- *"Ensure racial and health disparities are widely discussed within the medical profession (nurses, doctors, aids, assistants) and equity is instilled in every component of caregiving."*
- *"Hear the voice of the people within the community and be attuned to their needs."*
- *"Help with better coordination of care, access to pharmaceuticals, good housing, better transportation, reliable internet access, mental health services."*
- *"Make a conscientious effort to be inclusive and educate yourself and your staff about cultural differences and unconscious biases."*

Community Collaboration

Nearly three-quarters of the organizations represented by survey respondents currently collaborate with Baptist on local efforts to improve health. Respondents were asked for recommendations on how Baptist can better collaborate in the community to improve the health and well-being of residents. Verbatim comments are included below by overarching theme.

Access to Health Care

- *“Addition of extended hour minor/urgent med to reduce inappropriate ED visits.”*
- *“Be open to serving all groups; make access to care attainable for everyone regardless of income/insurance/ESL/preferences.”*
- *“More support in preventive health areas—treating the core issues not just the symptoms.”*
- *“Partner with city for transportation.”*
- *“Provide social determinants of health 'response' services.”*
- *“Recommend a standard "social determinants of health" screening for all United Way agencies to use (would be a good starting place).”*
- *“Pop-up screening locations in underserved communities.”*
- *“Update all forms to be available in Spanish.”*

Community Outreach

- *“Ask organizations what Baptist can do to help (not funding, but resources).”*
- *“Bring specific literature to educate our staff and clients on what services Baptist can offer us.”*
- *“Community Town Halls, outreach.”*
- *“Create awareness among Baptist employees of community partnerships.”*
- *“Expand community outreach, and tie employees with that mission.”*
- *“Have your speakers talk to our staff about health programs that are available to our clients.”*
- *“Serve as an advisor on key community non-profit boards.”*
- *“Visit minority areas and hold forums or open houses with help of ministers.”*

Equity

- *“Initiate organizational racial equity self-audit and encourage partners to complete similar.”*
- *“More diverse leadership.”*

Health Programming

- *“Adopt upstream approaches (e.g., policy systems environment).”*
- *“Collaborate to create action plans to decrease cancer disparity.”*
- *“Continue (and grow) virtual health education programs so participants/patients don't have to drive to a location—for those without transportation or seniors who can't drive after dark, etc.”*
- *“Continue to fund and support organizations that align with your health care mission.”*
- *“Continue to partner with the YMCA for larger community impact with their programs.”*
- *“Create health information video content that we could co-brand and share on social channels.”*
- *“Use internal community health influencers to build healthy neighborhoods.”*

Patient Access to Care and Services Survey

An online Patient Access to Care and Services Survey was conducted with health care providers, leadership and staff employed by Baptist and representatives of community partner agencies. The survey was conducted to support Baptist's ongoing efforts to improve access to care, reduce health disparities and address the underlying inequities and SDoH that perpetuate disparate health outcomes.

A total of 436 individuals responded to the survey, representing communities across Baptist's tri-state service area. *Survey results are reported in aggregate to support systemwide planning efforts. Unique findings and trends are presented for each of the five Baptist CHNA service areas, as applicable.*

More than 40% of all survey participants worked in a hospital setting and 27.3% worked in a primary care office or clinic. The largest proportion of survey participants identified as physicians (57.9%), followed by nurse practitioners (20.3%). The most represented age groups were 55 to 64 (26.9%) and 45 to 54 (26.6%). Nearly 47% of participants identified as female, 43% as male and 0.9% as non-binary.

Geographic Areas Served by Survey Participants (as provided)

	Number of Participants	Percent
All Baptist service counties	46	10.6%
Central Mississippi (Attala, Hinds, Leake, Madison, Rankin, Yazoo counties)	59	17.9%
Memphis Metro (DeSoto County, MS; Fayette, Shelby, Tipton counties, TN)	115	34.8%
North Mississippi (Benton, Calhoun, Lafayette, Lowndes, Panola, Prentiss, Union)	85	25.8%
Northeast Arkansas (Craighead, Crittenden, Poinsett counties)	37	11.2%
West Tennessee (Carroll, Obion counties)	25	7.6%
Other*	26	7.9%

*Responses included surrounding counties in Arkansas, Mississippi and Tennessee, all patients regardless of location and select cities such as Memphis and Columbus.

Primary Work Setting of Participants Across the Tri-State Region (as provided)

	Number of Participants	Percent
Hospital	143	43.3%
Primary care office or clinic	90	27.3%
Other outpatient care setting (urgent care, specialty practice, surgery, imaging)	51	15.5%
Other*	36	10.9%
Federally qualified health center/community health center	6	1.8%
Academic institution	4	1.2%

*Responses included behavioral health, cancer center, administration, private practice, dental office, emergency department, hospice, non-profit clinic, OB/GYN, multiple locations, remote/virtual and state facility settings.

Role of Survey Participants Across the Tri-State Region (as provided)

	Number of Participants	Percent
Physician	191	57.9%
Nurse practitioner	67	20.3%
Other*	32	9.7%
Nurse	11	3.3%
Physician associate (physician assistant)	9	2.7%
Nurse navigator	5	1.5%
Behavioral health provider	2	0.6%
Chaplain	2	0.6%
Community health worker	2	0.6%
Site or shift manager	2	0.6%
Social worker	2	0.6%
Case manager	1	0.3%
Patient navigator/outreach specialist	1	0.3%
Doula/other birthing assistant	1	0.3%
Medical educator/preceptor	1	0.3%
Medical or nursing resident	1	0.3%

*Responses included administration, advocate, certified nurse anesthetist, CEO, dentist, health educator, HR, marketing, non-profit and therapist participants.

Age Group of Survey Participants Across the Tri-State Region (as provided)

	Number of Participants	Percent
25-34 years	31	10.4%
35-44 years	59	19.9%
45-54 years	79	26.6%
55-64 years	80	26.9%
65 years or more	48	16.2%

Survey participants were asked a series of questions about access to care and social services, perspectives on the impact of COVID-19 and SDoH on patient outcomes and opportunities to promote health and well-being and inclusive care environments. A summary of their responses follows.

Access to Care & Services

Thinking about the people their care site serves, survey participants were asked to rate access to the full continuum of care, the impact of SDoH and COVID-19 on health outcomes and perceptions of SDoH training needs. Ratings were provided using a scale of (1) "strongly disagree" to (5) "strongly agree," with an option for "don't know" or "not applicable (NA)."

Nearly 57% of all survey participants "agreed" or "strongly agreed" that their patients had access to the full continuum of care from conception to death. This finding varied by Baptist service area with higher perceived access in the Central Mississippi, North Mississippi and Northeast Arkansas service areas. Of note, 24% of participants serving the West Tennessee service area "agreed" or "strongly agreed" that patients had access to the full continuum of care.

More than half of all survey participants "agreed" or "strongly agreed" that SDoH negatively impacted the health of patients and their families, and nearly 70% "agreed" or "strongly agreed" that the COVID-19 pandemic negatively impacted health due to delayed preventive or maintenance care. Similarly, approximately 61% of participants "agreed" or "strongly agreed" that the pandemic exacerbated the negative impact of SDoH.

When viewed by service area, participants serving the North Mississippi service area were slightly less likely to perceive negative impact of SDoH and the pandemic on health relative to other service areas. It is worth noting that the North Mississippi service area had the highest proportion of participants who "agreed" or "strongly agreed" (54.1%) that their care site had the right amount of training and resources to address patient/family needs related to SDoH.

Please rate the following statements (Includes Participants Across the Tri-State Region):

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Don't Know/ NA
The patients my care site serves have access to the full continuum of care from conception to death.	7.1%	18.1%	8.0%	31.7%	25.2%	9.9%
The SDoH negatively impact the health of the patients and families my care site serves.	6.4%	10.3%	17.2%	34.7%	21.4%	9.9%
My care site has the right amount of training and resources to address patient/family needs related to SDoH.	5.7%	16.3%	22.5%	32.8%	12.6%	10.1%
The COVID-19 pandemic negatively impacted the health of the patients my care site serves due to delayed preventive or maintenance care.	3.9%	8.0%	10.6%	32.3%	37.2%	8.0%
The COVID-19 pandemic has had a negative impact on my care site's patients because it exacerbated various SDoH.	4.4%	8.3%	16.6%	34.3%	26.3%	10.1%

Please rate the following statements:
Percent Agree/Strongly Agree by Baptist Service Area

	Central Mississippi	Memphis Metro	North Mississippi	Northeast Arkansas	West Tennessee
The patients my care site serves have access to the full continuum of care from conception to death.	55.9%	48.7%	61.2%	56.8%	24.0%
The SDoH negatively impact the health of the patients and families my care site serves.	57.6%	63.2%	52.9%	64.9%	64.0%
My care site has the right amount of training and resources to address patient/family needs related to SDoH.	44.1%	37.4%	54.1%	37.8%	36.0%
The COVID-19 pandemic negatively impacted the health of the patients my care site serves due to delayed preventive or maintenance care.	74.6%	74.8%	62.4%	73.0%	68.0%
The COVID-19 pandemic has had a negative impact on my care site's patients because it exacerbated various SDoH.	62.7%	61.7%	58.3%	56.8%	60.0%

Thinking about the continuum of care and SDoH, survey participants were asked to identify the top three clinical service gaps and top three needed social services for patients. Participants rank ordered up to three free-form responses with No. 1 as the top clinical service gap or needed social service. The following tables summarize identified needs by category and number of mentions by participants.

Participant responses to the top clinical service gaps indicated strong awareness of the impact of SDoH on health and well-being. Collectively, SDoH were the top identified clinical service gap, identified by 51 participants as the No. 1 service gap and by 140 participants as a top three service gap. Among the top identified SDoH needs was transportation, followed by insurance coverage and economic security. Insurance coverage included both access or insured status and affordable coverage (e.g., copays). Economic security included income or financial support and job opportunities.

Other top identified clinical service gaps were mental health services, with a focus on psychiatry and psychology and services that are covered by insurance; primary and preventive care, with a focus on access to timely appointments and providers accepting new patients and/or patients with Medicaid; adequate medical staffing, particularly in light of COVID-19 and primarily affecting nursing availability and emergency department capacity; and health education services, with a focus on chronic diseases like diabetes and preventive care practices.

The top identified social service gaps closely aligned with the top identified clinical service gaps. Transportation was the top identified service gap, with a focus on accessible and reliable public transportation and assistance for patients to get to their medical appointments. Other top identified service gaps were health education and programs, with a focus on chronic disease, preventive care and parenting/infant care and staff support to identify patients with SDoH barriers, help patients navigate the health care and social service systems and coordinate hospital discharge and follow-up care.

What are the top three clinical service gaps experienced by the patients you serve?
Top Service Gaps Based on Number of Participant Mentions
(Includes Participants Across the Tri-State Region)

	No. 1 Clinical Service Gap	Top 3 Clinical Service Gap
	Number of Mentions	Number of Mentions
Social Determinants of Health (top needs listed below)	51	140
Transportation	18	52
Insurance coverage	13	25
Economic security	11	27
Mental health services (e.g., psychiatry/psychology, insurance covered services)	30	53
Primary/preventive care (e.g., timely appointments, accepting new patients, accepting Medicaid)	21	35
Adequate medical staffing (e.g., nursing staff, emergency department capacity)	15	36
Health education (e.g., chronic disease, preventative care/screenings)	15	35
Medication cost assistance	13	29
Continuity of care (e.g., communication and coordination between providers, integrated HER, coordination of follow-up visits and patient placement)	11	26
Specialty care (e.g., timely appointments)	10	25
Women's health (e.g., OB/GYN, high risk OB, doula services, screenings, particularly mammograms)	7	24

What are the top three social services or external community factors that would help improve SDoH for patients and residents? Top Services Based on Number of Participant Mentions
(Includes Participants Across the Tri-State Region)

	No. 1 Social Service Gap	Top 3 Social Service Gap
	Number of Mentions	Number of Mentions
Transportation	29	91
Health education/programs (e.g., diabetes, asthma, preventive care, parenting/infant care)	26	59
Social workers/case managers (e.g., assistance with health care navigation, discharge support, social service awareness)	24	45
Mental health services	20	36
Insurance coverage (e.g., access, Medicaid expansion, universal coverage)	13	29
Affordable medications	12	24
Financial support and/or expanded health care options for un-/under-insured and individuals with low-income	11	17
Primary care (e.g., accepting Medicaid, rural availability)	10	14
Health foods (e.g., accessible, affordable)	9	37
Affordable, safe housing	8	18

Social Determinants of Health Impact

Survey participants were asked to rate their level of comfort in performing tasks related to SDoH, including identifying and discussing SDoH with patients and referring patients to available resources to address needs. Overall, 61%-67% of participants were “comfortable” or “very comfortable” identifying and discussing SDoH that impact optimal health care for patients. Participants were slightly less “comfortable” or “very comfortable” referring patients to available community resources to address identified SDoH needs (58.5%).

Survey participants that served Northeast Arkansas and West Tennessee were less likely than other participants to report being “comfortable” or “very comfortable” identifying and discussing SDoH and/or referring patients to available SDoH resources. Of note, approximately 44% of participants serving West Tennessee reported being “comfortable” or “very comfortable” discussing SDoH with patients and 36% reported being “comfortable” or “very comfortable” referring patients for services.

Please rate your level of comfort in performing the following tasks related to SDoH (Includes Participants Across the Tri-State Region)

	Very Uncomfortable	Uncomfortable	Neither Uncomfortable nor Comfortable	Comfortable	Very Comfortable	NA
Identifying SDoH that impact optimal health care for patients	1.8%	2.9%	19.9%	40.8%	26.1%	8.5%
Discussing SDoH that impact health during your patients’ office visits	1.8%	2.7%	18.5%	37.4%	24.1%	15.6%
Referring patients to available community/ external resources to address the SDoH that are affecting their health	2.1%	7.9%	22.4%	32.9%	25.6%	9.1%

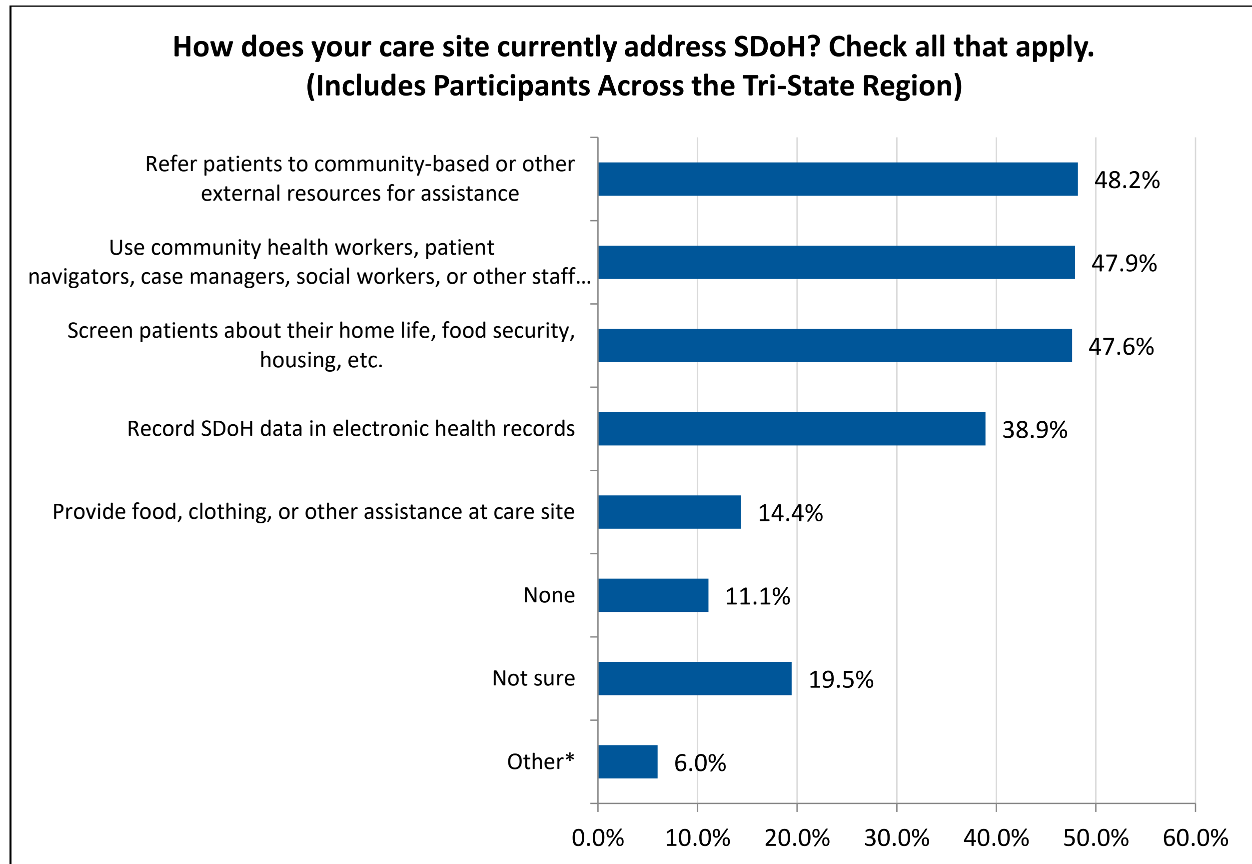
Please rate your level of comfort in performing the following tasks related to SDoH
Percent Comfortable/Very Comfortable by Baptist Service Area

	Central Mississippi	Memphis Metro	North Mississippi	Northeast Arkansas	West Tennessee
Identifying SDoH that impact optimal health care for patients	69.0%	67.0%	66.3%	58.3%	52.0%
Discussing SDoH that impact health during your patients’ office visits	58.6%	67.8%	57.8%	54.3%	44.0%
Referring patients to available community/external resources to address the SDoH that are affecting their health	62.1%	54.8%	60.2%	47.2%	36.0%

Approximately 48% of survey participants indicated that their care site actively screens patients for SDoH, including home life, food security, housing, etc. When SDoH needs are identified among patient

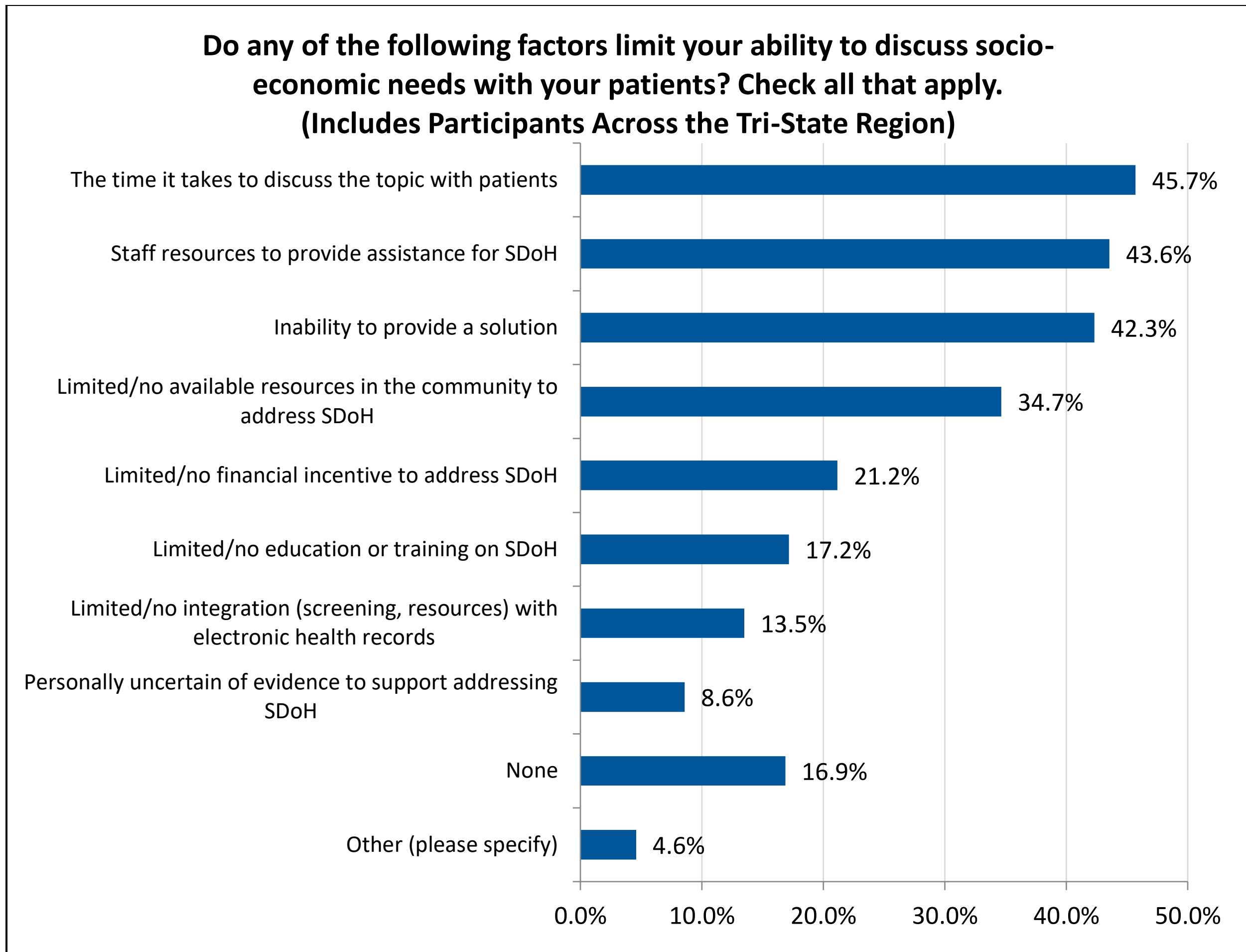
populations, a similar proportion of survey participants (48%) indicated that their care site refers them to community-based or other external resources for assistance and/or uses community health workers or other staff to assist them. Approximately 1 in 10 survey participants indicated that their care site does not address SDoH needs, and 1 in 5 participants were unsure of their care site's response.

The top barriers to discussing SDoH needs with patients, as identified by survey participants, were lack of care site resources (e.g., time and staffing to provide assistance) and inability to provide a solution to identified needs.



*Other responses by survey participants:

- *"An effort is made to enlist help for patient needs post D/C. But little follow up due to lack of staff."*
- *"Could use additional assistance in the specialty area--not just internal medicine."*
- *"Not aware of the community resources."*
- *"Provide samples of meds."*
- *"Provide upstream health education."*
- *"The questions are in the EMR with no follow through."*
- *"We do not screen because we do not currently have resources to refer and follow up with patients. However, we GREATLY need to implement screening and referral practices in our specialty clinic. SDoH impacts our patients in all aspects of life and chronic illness management."*
- *"We have very scarce resources to help our very underserved patients."*



*Other responses by survey participants:

- *"Case management and availability of resources."*
- *"I discuss health care issues with my patient. I'm not a social worker with 2 hours to spend with any patient. Whether they live in a tent or a 30,000 sq ft mansion, my care is the same."*
- *"Need a dedicated social service staff to come in to discuss patient's needs."*
- *"No nurses, so other life-saving tasks rank higher on the "to do" list."*
- *"Rural site, very limited resources."*
- *"We cannot impact the patients' socio-economic status, nor provide transportation when they have none. All we can do is treat them with respect and dignity while we have them here."*

Survey participants were asked to share a specific incident or common experience of how SDoH affect their patients' health. Select verbatim comments from participants serving the Memphis metro service area are included below. Across the service areas, participant comments spoke to diverse SDoH needs, including social isolation, illiteracy, unsafe living conditions, discrimination and financial barriers, among others.

Survey Participant Stories: Memphis Metro Service Area
Please share a specific incident or common experience of how SDoH affect your patients' health.

- *"A common scenario is a patient being admitted for hyperemesis because she either does not have the money or the transportation to obtain the medications prescribed. An easy solution for it would be an in-house pharmacy at Baptist Women's to fill antepartum and post-partum scripts."*
- *"Although patient had a "smart phone" they were unable to confidently & successfully use offered online tools as their knowledge of such is limited."*
- *"As a pediatrician I see children with mental health concern that no doubt have roots in more complex problems within the unit as well as extended family. Getting individual help for the child is challenging; getting parents to recognize that they themselves need help us hugely difficult."*
- *"Currently I have a patient that can no longer afford to pay for his Entresto for CHF/ cardiomyopathy. His insurance will no longer cover it. He has had improvement in his functional status, and actual LVEF on this medication, but has now had to discontinue it. Likely his EF will decline again. We have tried will no success to get enough samples, or assistance. This will likely we life limiting unfortunately."*
- *"Due to COVID, food from the cafeteria may not be available for a family depending on delivery time of the baby. If a family has no means to order in food or outside support to bring food, they would be starved until food options were made available from hospital. A mother I supported was not served lunch or dinner by the hospital due to closures of the cafeteria and told to "uber eats or door dash something" as if everyone has this luxury and/or ability. Due to restrictions and staff shortages lactation counselors on staff are less available for mothers in need and many families go unsupported in early breastfeeding efforts which impacts long-term breastfeeding outcomes most times."*
- *"I had a patient who had difficulty adhering to a treatment plan due to personal financial strain, transportation issues and home issues. Their rental unit had a hole in the roof of their kitchen that the landlord was unable to repair for an extended amount of time. Also, due to COVID, the children in the home were also remote schooling without the resources they needed and adults unable to tend to their remote schooling. This increased stress as well as ability to come to the clinic when the patient needed to. The whole situation just broke our hearts, but there were limited resources to be able to connect and provide to assist the patient in meeting treatment goals while undergoing all the life stress on top of health stress."*
- *"I have a patient with a spinal cord injury and ambulatory by wheelchair. His "transportation" company has failed to bring him to 3 consecutive appointments. He keeps changing to another transportation company, but they do the same thing."*

- *"I saw a 37 yo gentleman in clinic today who had significantly elevated liver function tests. He had the same elevation 10 years ago when we 1st saw him in clinic. He was lost to follow-up and further evaluation due to a lack of insurance and the high cost of further testing. The gap in care may have resulted in him developing cirrhosis secondary to not being treated and evaluated 10 years ago."*
- *"Many patients on Medicaid seen regularly for dental problems because they cannot afford dental insurance or to pay out of pocket for dentist."*
- *"Patient unable to afford visits and medications related to alcohol abuse. Next opportunity for inpatient treatment for an uninsured patient at facility was 30+ days away." (Participant also served Central Mississippi, North Mississippi service areas)*
- *"Patients that are medically stable but staying longer in the hospital due to lack of support at home but not qualifying for post-acute care."*
- *"Some patients have written and verbalized how they do not want me seeing them or being at this clinic because I look Asian or look Mexican, but I am actually a Pacific Islander. They then right hateful surveys against me and they refuse to be seen if I am the provider."*
- *"Teenagers living under a bridge without parents. At least one parent in jail. At least one parent that has been murdered. These are all not rare."*
- *"Type 1 diabetics being readmitted to the ICU in DKA because they cannot afford insulin, do not have an outpatient provider, and lack any community support in housing, education and employment."*

Survey participants were asked to imagine that their care site is successful in doing everything possible to address SDoH and to describe what that looks like. Select verbatim comments from participants serving the Memphis metro service area are included below. Across the service areas, participant comments overwhelmingly spoke to the need for onsite social worker or case management services, robust community services that are connected with the clinical setting, comprehensive health and care management education and inclusive care practices.

Survey Participant Recommendations: Memphis Metro Service Area
Imagine that your care site is successful in doing everything possible to address SDoH.
What would that look like?

- *"Be aware of bias. Make time to address complex health and social needs beginning at the first encounter, possibly using clinical decision tools when completing HPI. Education and support for staff to be more aware of available resources."*
- *"Gather stories of the people and translate stories into marketing campaigns and cultural organizing strategies that mobilize the community, from inside out, to creating their own solutions to the problem. Giving communities where there is organized infrastructure the resources to self-address the challenges. Then create learning community infrastructure where neighborhoods can adapt best practices from their sister neighborhood to implement in their own. Different communities can take on transportation solutions, others can take on nutritional solutions - and through social innovation modeling, and on-the-ground (OTG) investments in people and infrastructure, communities can be centered in the solution-design of system level strategies."*
- *"Having a social resource and disease planning navigator to ensure gaps are closed with social barriers and access; to ensure education on condition/disease process is clear enough for patients to be their own advocates and make their own appropriate arrangements."*
- *"Homeless shelter with patient assistance with meds."*
- *"Increasing collaboration with treatment facilities caring for low SES individuals and improved funding to increase the number of these facilities."*
- *"Our patients would come in and be seen by any provider despite the provider race and the patients would feel comfortable coming in from all types of races because we are then accommodating of all races and languages."*
- *"Partnerships with local doula organizations and support groups for families across our city."*
- *"Previously, partnerships with organizations such as Church Health would facilitate learning opportunities for patients and families to gain knowledge on community resources to obtain nutritious foods; cooking classes; age-appropriate activities in a safe environment for patients. A minimum of one on-site social worker per physician to assist patients and their families accessing community resources. On-site pharmacy students who could explain to patients what each medication was treating, the correct way to take the medications and potential drug-drug and drug-food/beverage interactions. Recreation centers and gymnasiums which provide low cost or free classes for obese or otherwise physically impaired individuals. Access to alternative medicine modalities such as acupuncture, yoga, Pilates and mindfulness training as methods of pain and stress relief."*

Survey participants were asked to share any suggestions to address SDoH affecting their patients. Select verbatim comments from participants serving the Memphis Metro Service Area are included below. Across the service areas, participant comments included addressing patient financial barriers (e.g., free or reduced cost health care and medications, health insurance enrollment and expansion of benefits), expanding health care access (e.g., satellite clinics, telehealth, mental health services) and increasing awareness and connectivity to available community resources for both patients and providers.

Survey Participant Recommendations: Memphis Metro Service Area
What suggestions would you like to share with Baptist that will address SDoH that affect your patients?

- *“Build up local housing (hope house) and transportation (cab/uber vouchers, care vans).”*
- *“Create a clinic through grant funding to offer preventative care outreach and timely referrals. This should include dental and vision.”*
- *“Develop a community alliance through our government relations department.”*
- *“Efforts need to be made to reach persons where they are. Example: social media educational campaigns which emphasize the importance of health maintenance, diet, exercise, knowledge of one's family history, when to attempt to engage with the health care system. The intersection of mental, physical, spiritual and behavioral health while engaging the wider religious community to promote healthful habits and making space available for congregants to be educated on key health practices and outcomes affecting the populations they serve.”*
- *“Encourage the development of multilingual providers (much better / time expedient than a language line interaction).”*
- *“Establishing relationships with other services or providers who will help a patient in need who does not have insurance or limited resources. And making these relationships known system wide.”*
- *“Focus on creating primary care offices in Orange Mound, Frayser, Downtown, Millington, etc. to ensure there is an accessible home base for patients. This will decrease on inappropriate use of EMS and transport to Baptist Memphis ER for care. Developing a food pharmacy in food deserts where PCP or specialists could prescribe diet plans for patients that are heavily subsidized and accessible to patient's homes.”*
- *“More involvement with social worker to help patients with referrals for outside sources of help.”*
- *“Need better collaboration with sources with addiction clinics for patients without insurance, homeless patients who are too unstable for shelters and have no family but can’t go to facility, alignment to prevent bounce back to hospital due to social issues requires social intervention.”*
- *“Partner with Baptist in residential engagement campaigns and building community-based infrastructure.”*
- *“Use data on patients’ burden of chronic illnesses, especially mental health and addiction combined with the SDoH to target help to the vulnerable and HIGH-COST people in the community.”*
- *“With the new cultural norms now in society, training and updated policies to address. For example, transgender employees and/or patients.”*

Diversity, Equity and Inclusion

Lastly, survey participants were asked to share policies and practices that would help create an organizational culture that reflects diversity, equity and inclusion (DEI) and initiatives and programs that would help in the delivery of more culturally competent care at their site. Participants rank ordered up to three responses with No. 1 as the top need. An option to "write in" any need not included on the list was provided.

The top policy or practice recommended by survey participants to help create an organizational culture that reflects DEI was cultural competence training (e.g., intracultural or cross-cultural education), followed by diverse workforce development and retention. Approximately 1 in 5 survey participants selected these items as the top need and more than 40% selected them as top three needs. Approximately 30% of participants also recommended DEI training for all staff as a top three need, and 25% recommended regular employee forums to discuss DEI practices and initiatives.

It is worth noting that 12% of participants indicated there is no need for policies and practices to promote DEI. This finding will be further explored in small group discussions with providers and community partner agencies to better understand perceptions of DEI and existing policies and practices already in place at care sites.

Please select the policies and practices you think would help create an organizational culture that reflects Diversity, Equity and Inclusion. Rank up to three items, with No. 1 as the most important. (Includes Participants Across the Tri-State Region)

	No. 1 Policy/Practice		Top 3 Policy/Practice	
	Number of Participants	Percent	Number of Participants	Percent
Cultural competence training (e.g., intracultural or cross-cultural education)	55	22.7%	100	41.3%
Diverse workforce development and retention	47	19.4%	105	43.4%
None	29	12.0%	53	21.9%
DEI training for all staff	28	11.6%	73	30.2%
Other*	22	9.1%	38	15.7%
Regular employee forums to discuss DEI practices and initiatives	20	8.3%	60	24.8%
Formal system for tracking and measuring DEI improvements	9	3.7%	47	19.4%
Systemwide policy for DEI practices that you can implement at your care site	9	3.7%	42	17.4%
DEI skills for managers and leaders	9	3.7%	39	16.1%
DEI training for new employees	8	3.3%	30	12.4%
DEI staff leaders as resources at each care site	6	2.5%	30	12.4%

*Select other responses by survey participants:

- *"A discussion of how race relations in Memphis have improved over the last 60 years."*
- *"Day care and after school care for staff and providers. Shift flexibility and job-sharing options when possible. Fewer white men at the top."*

- *"I do not think there is a pervasive problem or lack of DEI principles of behavior in organization."*
- *"In my experience, we are a very diverse workplace with respect for all individuals. Baptist should support initiatives at the high school and college level to encourage minorities to pursue health care professions."*
- *"It is necessary to involve the people who are being served. It would help to have community input, and to give a platform to those who have a testimony regarding their experiences."*
- *"Leadership comprised of ethnically, socially diverse group of individuals."*
- *"Study the Date of the Medicos group proving bilingual family medicine obstetrics 24/7/365 since 1999. The model has incorporated team care involving OB, MFM, VFOC, nursing and administration without external funding."*

The top initiative or program recommended by survey participants to enhance delivery of culturally competent care was a website or other central place with an inventory of community-based social services for patient referral, followed by training on SDoH. Approximately 1 in 10 survey participants selected these items as the top need and 35% selected them as top three needs. Approximately one-quarter of participants also recommended electronic medical record optimization for collecting patient information, networking events to share best practices for addressing SDoH in care sites and/or language translation for patient signage and promotional and educational materials.

Please select the initiatives and programs that would help you deliver more culturally competent care at your site. Rank up to three items, with #1 as the most important.
(Includes Participants Across the Tri-State Region)

	No. 1 Initiative/Program		Top 3 Initiative/Program	
	Number of Participants	Percent	Number of Participants	Percent
Website or other central place with inventory of community-based social services for patient referral	35	15.8%	77	34.7%
Training on SDoH	30	13.5%	79	35.6%
Electronic medical record optimization for collecting patient information (e.g., identity, pronouns, race, ethnicity)	28	12.6%	58	26.1%
Networking events to share best practices for addressing SDoH in care sites	23	10.4%	66	29.7%
Language translation for patient signage and promotional and educational materials	21	9.5%	52	23.4%
None	21	9.5%	36	16.2%
Training on unconscious bias	17	7.7%	68	30.6%
Training on antiracism	14	6.3%	31	14.0%
Other*	11	5.0%	25	11.3%
Increased diversity in patient signage and promotional and educational materials	9	4.1%	33	14.9%
Training on trauma informed care	7	3.2%	29	13.1%
Training on LGBTQ+ gender identity and affirming	6	2.7%	20	9.0%

*Select other responses by survey participants:

- *"Collaboration with local doulas and lactation counselors to establish allyship."*
- *"Implementation of routine SDoH screening with concrete referral/follow up avenues if positive (i.e., we can immediately refer patients if the screen is positive)."*
- *"More languages available for Epic discharge instructions."*
- *"Open access to family physicians with hospital privileges 24/7/365. A community based medical facility providing point of care services which deflect patient from automatic ER referral. Services are bilingual and incorporate services for the uninsured and the poorly insured patients of a low resource community."*
- *"Time to provide adequate care. Don't rush quality care."*
- *"Training on social determinants of health, LBGTQ+, & social bias (all)."*
- *"Training on who we are at Baptist, and who we treat, from an intersectional point of view."*
- *"Translator services, especially for ASL (American Sign Language)."*

The results of the Patient Access to Care and Services Survey were compared to secondary data research findings to compare perceptions to socio-economic and access to care statistical data. Interviews with Baptist health care providers, community agency partners and other key stakeholders were conducted as follow up to the survey to further illuminate opportunities for improving health and the health care experience.

Evaluation of Health Impact: 2019-2022 Community Health Improvement Plan Progress

In 2019, Baptist completed a CHNA and developed a supporting three-year implementation plan for community health improvement for each of its hospitals. The implementation plan outlined our strategies for measurable impact on identified priority health needs, including behavioral health, cancer, chronic disease and maternal and child health. Within six months of the release of the 2019 implementation plan, the COVID-19 pandemic shifted the priorities of our community and Baptist adapted our work to respond to the emergent needs of residents.

The following sections outline our work to impact the priority health needs and respond to COVID-19 in our communities.

Priority – Behavioral Health

Behavioral health strategies implemented by Baptist addressed the overarching goal to increase behavioral health screenings to initiate early treatment and improved outcomes for residents at all stages of life. As part of the 2019 to 2022 implementation plan, Baptist conducted the following programs and initiatives within the Memphis metro service area:

- Collaborated with the local drug free coalition and law enforcement to host a National Drug Take Back Day at Baptist Tipton; these events allow for community members to safely dispose of unwanted/unused prescription drugs to keep them out of the hands of youth
- Helped establish the West Tennessee Addiction Network (WTAN)* to serve as a regional consortium to identify shared regional opioid use disorder (OUD) priorities; develop a strategic plan that establishes one actionable intervention within prevention, treatment, recovery support services and workforce development related to OUD and create an infrastructure for implementing and evaluating interventions
- In partnership with WTAN, conducted a needs assessment across rural West Tennessee to evaluate substance use needs
- In partnership with WTAN, partnered with prevention coalitions across rural West Tennessee to address stigma related to substance use disorder
- Partnered to host a “hidden in plain sight” room to educate parents on substance abuse awareness
- Provided education to Baptist Children’s Hospital emergency department physicians about behavioral health screenings
- Provided information about postpartum depression and promoted awareness of signs, symptoms and treatment resources at Baptist Memorial Hospital for Women
- Provided support groups and resources for new moms struggling with behavioral health issues
- Supported Drug Free Tipton by serving on their executive board 2020 – present

***West Tennessee Addiction Network (WTAN)**
Baptist was a FY2021 Health Resources and Services Administration (HRSA) grant recipient as part of the Rural Communities Opioid Response Program (RCORP). With grant funding, Baptist helped establish the West Tennessee Addiction Network (WTAN), consisting of 16 consortium members, including regional Baptist hospitals, Carroll County Prevention Coalition, Drug Free Tipton, Integrated Addiction Care, Milan Prevention Coalition, Obion County Prevention Coalition, Pathways, Priority Ambulance, Restore Corps, Weakley County Prevention Coalition, Rhodes College, Mitch Kilgore and Nick Phillips.

The WTAN serves as a regional consortium to respond to the continuing opioid crisis throughout rural West Tennessee. It focuses primarily on capacity building by expanding the regional assets for substance use disorder (SUD) and OUD screening, resources for navigating treatment and recovery services and expanding the availability and acceptance of evidence-based SUD/OUD educational programming. The consortium will seek to implement and create activities and programs that focus on stigma reduction, increased SUD/OUD screening, increased availability of SUD treatment and stigma free resources for navigating a fragmented service landscape.

The WTAN Consortium includes organizations working in six different counties, as well as those that serve the entire 17-county rural area of the Tennessee Region 6 Health District. WTAN is a network with strengths amongst both evidence-based practices, data collection and analysis, as well as robust local connections and relationships through which it will continue to recruit other partners and stakeholders and blend best practices with local context.

Priority – Cancer

Cancer strategies implemented by Baptist addressed the overarching goal to provide early detection and treatment to reduce death from breast, colorectal and lung cancers, and improve quality of life for patients. As part of the 2019 to 2022 implementation plan, Baptist conducted the following programs and initiatives within the Memphis metro service area:

- As part of the Baptist Cancer Center, provided *Thrivership**, a free comprehensive program to support patients from the moment of diagnosis through treatment and beyond
- Deployed primary care physician protocols and automatic screening reminders for improved lung cancer detection and care
- Developed the Mid-South Miracle**, a multifaceted approach to preventing and treating lung cancer, with the goal of reducing lung cancer deaths by 25% by 2030
- In partnership with community agencies, offered the Breathe Better event, a free family event to increase lung cancer awareness
- Increased the number of nurse navigators available to assist patients in navigating their cancer care and related social needs
- Launched breast and lung cancer screening campaigns (e.g., social media, in-person events, mailers) in all Baptist service areas
- Offered a mobile mammography unit to help address screening barriers and increase annual screenings for breast cancer

- Offered free support groups for individuals with cancer and their families; events were conducted virtually during the pandemic
- Provided free or reduced cost breast cancer screening services in partnership with Susan G. Komen, Christ Community Health Centers, Church Health Center and other local community groups and churches; conducted follow up communication to ensure care service were provided as needed
- Provided online and in-person breast, colorectal and lung cancer education events, including health fairs, educational sessions, media appearances and speaking engagements, among others
- Sponsored the American Cancer Society Harrah's Hope Lodge to provide needed patient transportation services

***Thrivership**
The Baptist Cancer Center *Thrivership* program exists to support patients and their families – physically, emotionally and spiritually. It is a comprehensive program that includes free classes, seminars and support groups that address nutrition, fitness, mental well-being and spirituality, as well as seminars to increase understanding of cancer genetics and help patients manage the financial aspects of care.

****Mid-South Miracle**
Lung cancer is one of the leading causes of death in the Mid-South. In fact, the rate of lung cancer deaths in Tennessee, Arkansas and Mississippi is nearly double that of the rest of the United States. To change the trajectory of this disease in the region, Baptist Cancer Center has developed the Mid-South Miracle, a multifaceted approach to preventing and treating lung cancer. This initiative leverages the extensive resources of Baptist Cancer Center along with the collective knowledge and expertise of our oncologists, surgeons, radiologists and pathologists to achieve prevention, early detection and faster treatments.

By mobilizing the Mid-South Miracle initiative and extending its reach to rural communities of the Mid-South, Baptist Cancer Center aims to increase lung cancer survival rates in the region and redefine lung cancer as a preventable, curable form of cancer. Through seven program components, Baptist Cancer Center physicians believe they can achieve a Mid-South Miracle and reduce lung cancer deaths in the region by 25% by 2030. The seven program components include effective and accessible smoking cessation programs, regular low-dose CT scans, incidental lung nodule screening, multidisciplinary care, high-quality surgical care, accessible clinical trials and coordinated clinical and community efforts.

Priority – Chronic Disease

Chronic disease strategies implemented by Baptist addressed the overarching goal to promote health as a community priority and increase healthy lifestyle choices. As part of the 2019 to 2022 implementation plan, Baptist conducted the following programs and initiatives within the Memphis metro service area:

- In partnership with Christ Community Health Services, provided free health care to Memphis' homeless community through Baptist Operation Outreach* mobile clinic and new primary health care clinic location inside of Memphis Catholic Charities

- Maintained a diabetes program recognized by the American Diabetes Association; programs are renewed annually based on standards of care
- Maintained Chest Pain Center accreditation at Baptist DeSoto, Baptist Memphis and Baptist Tipton
- Offered the free Choose to Be** women's mobile health app to foster healthy lifestyles
- Offered the National Diabetes Prevention Program***, a CDC recognized and evidence-based lifestyle change program
- Provided leadership support and sponsorship for the Women's Foundation for a Greater Memphis**** to improve economic and social outcomes for women and their families, targeting ZIP Code 38126
- Provider leadership and sponsorship support for various community organizations, including Shelby County Schools, Shelby County Coordinated Community Response Team for Elder Abuse and Maltreatment, United Way, Memphis Library Association, Common Table Health Alliance, White Coats for Black Lives, Brown Baptist Church, Healthy Kids & Teens and Camp Day2Day, among others
- Sponsored the Shelby Farms Park Conservancy for Get Outside Fitness Programming
- Worked with the Baptist Cancer Center to establish blood sugar monitoring and treatment protocols for dually diagnosed diabetic and cancer patients

***Baptist Operation Outreach**
Baptist has been providing free health care to Memphis' homeless community since 1997 when it opened the HOPE Health Center for the Homeless. In 2005, Baptist partnered with Christ Community Health Services to officially start the Baptist Operation Outreach mobile clinic for individuals experiencing homelessness. When the program first started, the mobile clinic had about 500 patient encounters a year. Today, Baptist Operation Outreach is Memphis' largest health care provider for the homeless, and the clinic has more than 3,000 patient encounters a year.

In 2019, Baptist Operation Outreach expanded the mobile clinic to include a primary health care clinic location inside of Memphis Catholic Charities at 1325 Jefferson Ave. This location is open three days a week — Tuesdays, Wednesdays and Thursdays — from 8 a.m. to 5 p.m. The Baptist Operation Outreach mobile clinic continues to visit churches and other areas with large homeless populations upon request.

****Choose to Be Mobile App**
The Baptist Choose to Be mobile app gives women the knowledge and power to make the right choices for a healthy, active and productive lifestyle for every stage of life. The stresses women face from school, work, family responsibilities and physical and mental health issues are unique to women, and their remedies must be as well. The information in this app comes directly from the experienced team of obstetricians and gynecologists at Baptist Women's Hospital.

Using plain language and helpful graphics, the app is a definitive source of accurate information to help women navigate health issues and learn about their bodies from pre-adolescence through menopause,

and beyond. From helping young girls learn what is happening in their first menstruation to understanding the relationships between lifelong women's health and heart disease (the silent killer among women), breast cancer and osteoporosis.

The app also provides fun insight on what women can do to feel healthier, more energetic and mentally sharper. Women receive dietary tips, stress management tools and ideas, self-breast care examination education, preventative care ideas including vaccines and screenings and fertility guidance and enhancement techniques. The information is arranged intuitively so finding topics of concern is as easy as a couple of taps.

*****National Diabetes Prevention Program**
Baptist offers the largest diabetes and pre-diabetes program in the region and is a regular contributor to national public health conferences and studies. Most recently, Baptist was included in an Academy of Nutrition and Dietetics national study on gestational diabetes. The study will help set national standards for medical nutrition therapy.

Baptist offers the National Diabetes Prevention Program (National DPP) among other prevention and management programs. The National DPP is a partnership of public and private organizations working to prevent or delay Type 2 diabetes. Partners make it easier for people at risk for Type 2 diabetes to participate in evidence-based lifestyle change programs to reduce their risk of Type 2 diabetes.

One key feature of the National DPP is the CDC-recognized lifestyle change program, a research-based program focusing on healthy eating and physical activity which showed that people with prediabetes who take part in a structured lifestyle change program can cut their risk of developing Type 2 diabetes by 58% (71% for people over 60 years old).

The National DPP is a year-long program. From 2018 to 2020, Baptist provided 22 classes serving 231 participants at the Baptist Medical Group Outpatient Care Center and at Baptist Memorial Hospital-Carroll County.

******Women's Foundation for a Greater Memphis (WFGM)**
Baptist is a funder and strategic partner for WFGM. The vision for WFGM, as outlined in their 2020 strategic plan, is to reduce poverty by five percent over five years in one of the most impoverished areas of Memphis, ZIP Code 38126, also known as South City. WFGM has invested $4.7 million in grants to provide direct services in ZIP Code 38126 to reach this goal. Outcomes have included 1,084 individuals placed in jobs; 76 individuals starting business or micro enterprise; 10 residents who purchased homes; 49% increase in average household income; 115 programs supported; 1,250 girls participated in Girls Summit celebrating the anniversary of Title IX; 706 children enrolled in early education and childcare programs; 768 caregivers and parents engaged in early childhood development and parenting education and 2,702 young people participated in programs supporting positive youth development.

Priority – Maternal and Child Health

Maternal and child health strategies implemented by Baptist addressed the overarching goal to improve birth outcomes for women and infants. As part of the 2019 to 2022 implementation plan, Baptist conducted the following programs and initiatives within the Memphis metro service area:

- Offered breastfeeding education and lactation support programs to increase the proportion of infants who are breastfed during the first six months
- Participated in community events to provide education and resources for prenatal care, breastfeeding and new baby education; events were conducted virtually during the pandemic
- Provided Rattled and Beautiful Bundles support groups and parenting education resources
- Offered the free Beautiful Beginnings* maternity mobile app
- Offered YoMingo®, providing on-demand evidence-based information on prenatal care, labor and birth, postpartum, breastfeeding and newborn care in multiple languages
- Partnered with Families Matter and other community agencies to provide behavioral health screening and counseling for new mothers and Dynamic Dads programming for fathers-to-be
- Partnered with the Tennessee Initiative for Perinatal Quality Care to improve health outcomes for mothers and infants through data-driven provider- and community-based performance improvement initiatives

***Beautiful Beginnings Mobile App**

Beautiful Beginnings - the free pregnancy app from Baptist Memorial Hospital for Women - is a wonderful tool to help achieve a healthier pregnancy. Users enter their due date to receive week-by-week alerts about their baby's growth. The app keeps track of important events leading up to birth, such as how many times the baby kicks, appointments, contractions and information on maintaining personal health. Users can also access important resources at Baptist Women's Hospital, pregnancy support groups and information about infant health and safety.

COVID-19 Response

Baptist has supported the community throughout the pandemic, providing financial assistance, education and social and emotional support, among other items. The following is a list of services provided by the hospital in response to COVID-19:

- Provided oversight of community personal protective equipment (PPE), temporal thermometers, face shields and orders for community partners
- Provided outreach and curbside relief, targeting residents of ZIP code 38126
- Supported COVID-19 community-wide testing and vaccination efforts
- Supported COVID-19 disease and vaccination education in partnership with community agencies

Baptist welcomes your partnership to meet the health and medical needs of our community. We know we cannot do this work alone and that sustained, meaningful health improvement will require collaboration to bring the best that each of community organizations has to offer. To learn more about

Baptist's community health improvement work or to discuss partnership opportunities, please visit our website at baptistonline.org/about/chna.

Appendix A: Public Health Secondary Data References

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Appendix B: Key Informant Survey Participants

- Adams Patterson Gynecology & Obstetrics, MD
- ALSAC / St Jude Children's Research Hospital, Sr. Advisor Corporate Social Responsibility
- Alzheimer's Association, Regional Leader
- American Cancer Society, Executive Director
- BancorpSouth, Senior Vice-President/Retail Manager/DeSoto Market
- Baptist Medical Group, Manager
- Baptist Memorial Health Care Corp, EVP & CSO
- Baptist Memorial Health Care, Director
- Baptist Memorial Health Care, Director of Wellbeing
- Baptist Memorial Health Care, System Director
- Baptist Memorial Hospital-Collierville, CEO/Administrator
- Baptist Memorial Hospital-Memphis, Stroke Coordinator
- Baptist Memorial Hospital-Tipton, Admin
- Baptist Memorial Hospital-Tipton, Administrative Assistant
- Baptist Women's Hospital, RN
- Children's Advocacy Centers of Mississippi, Community Outreach
- Christ Community Health Services, Director Baptist Operation Outreach
- Church Health, Director of Research
- City of Bartlett, Mayor
- City of Covington, Alderman
- City of Covington, Alderman
- City of Germantown, Mayor
- City of Hernando, Community Development Director
- City of Millington Government, Alderman
- Collierville Fire and Rescue, Chief
- Compassion Neighborhood Clinic, Founder
- Covington - Tipton County Chamber of Commerce, Executive Director
- Eastside Church of the Nazarene, Pastor
- First Baptist Church Horn Lake, Senior Pastor
- Germantown Board of Education, Chairman
- Hope House of Hospitality, Inc, Executive Director
- House of Grace, Domestic Violence Center, Executive Director
- In The Arms of an Angel, President and Founder
- Journey2 Well, Preventive Health Facilitator, Support Group Organizer, Program Operator
- Kindred Place Inc., Executive Director
- Knowledge Quest, CEO
- Latino Memphis, Project Manager
- Leadership Memphis and Volunteer Memphis, President and CEO
- Leadership Memphis/Volunteer Memphis, Interim Director
- Library, Manager
- Longview Heights Baptist Church, Senior Pastor
- Memphis City Council, Councilwoman

- Memphis Internal Medicine and Pediatrics, MD
- Memphis Public Library, Librarian 1
- Methodist Healthcare, Community Development
- Mississippi State Department of Health, Community Health Director
- MSDH/MCCCP, Program Coordinator
- Olive Branch Family YMCA, Branch Director
- Omega Church/Omega Ministry, Co-Pastor/ Administration
- Perisco Wofford, MD PLLC, MD
- Phlebotomy Solutions LLC, Owner
- Rhodes College/Center for Transforming Communities, Visiting Instructor in Health Equity & Urban Studies
- Shelby County Schools, Community Engagement Specialist
- Shelby County Schools, Dr Althea E. Greene
- Shrine School, School Counselor
- St. Jude Children's Research Hospital, Director of Managed Care
- Susan G. Komen Memphis-MidSouth Mississippi, CEO
- Temple of Deliverance COGIC Health and Healing Ministry, Coordinator
- TK Elevator North America Supply Chain and Manufacturing, Community Relations Partner
- TN General Assembly, House District 95
- United Way of the Mid-South, Director, Community Impact
- West Memphis Chamber, Executive Director