2022 Community Health Needs Assessment

West Tennessee

Baptist Memorial Hospital–Carroll County
Baptist Memorial Hospital–Union City

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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

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

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).

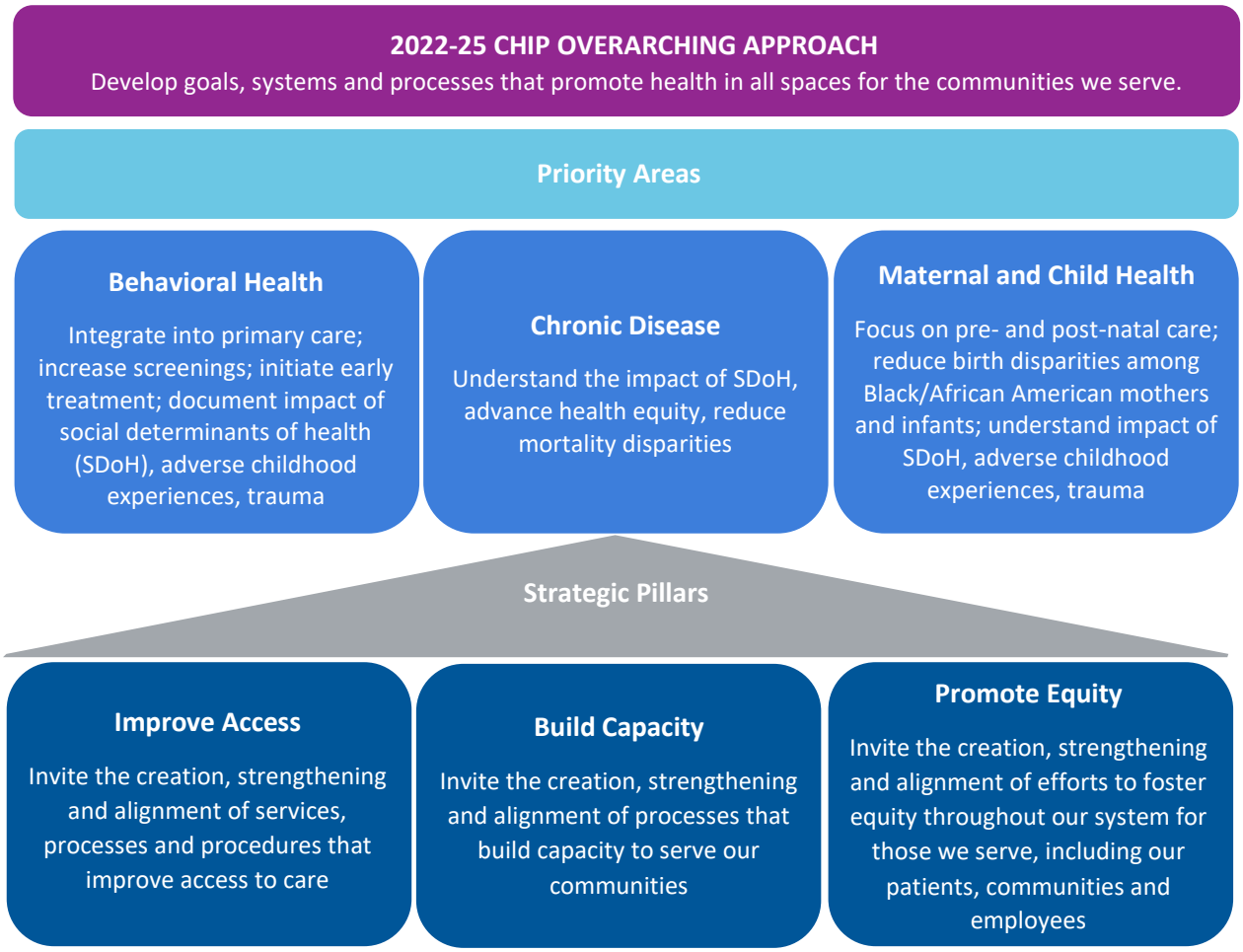
The following research methods were used to determine community health needs:

- 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 2022-25 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 West Tennessee Service Area Description

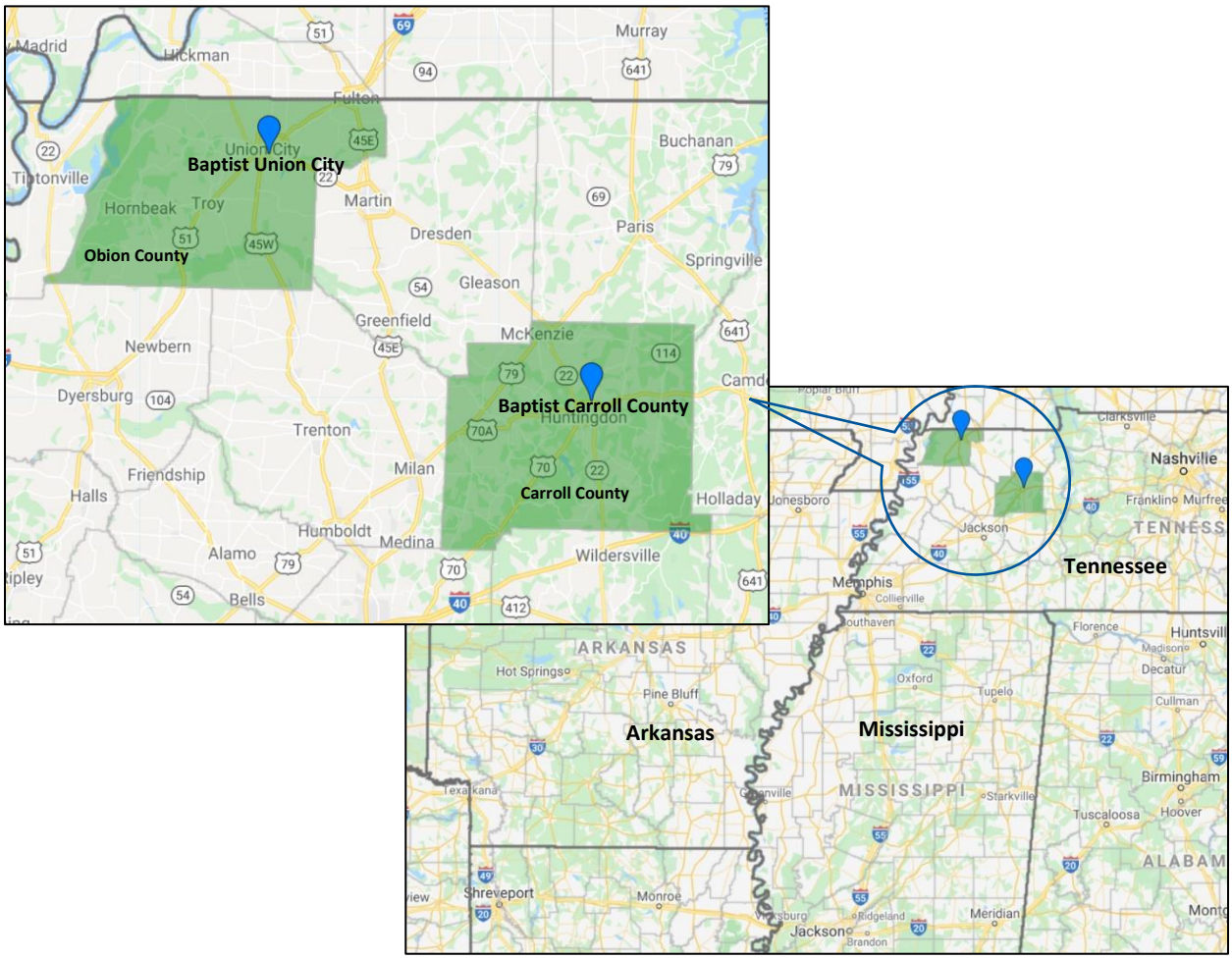
Baptist has 22 affiliate hospitals serving residents in three states. For purposes of the CHNA, Baptist focused on the primary service county(ies) of each of its not-for-profit hospitals to identify health trends and unique disparities within these communities. Hospitals with overlapping service areas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

Baptist Memorial Health Care has two hospitals in the West Tennessee service area, which collaborated on the 2022 CHNA. The study encompassed Carroll and Obion counties in Tennessee. Select data for service area ZIP codes are also shown throughout the report.

The following hospitals participated in the 2022 CHNA for the West Tennessee service area.

- Baptist Memorial Hospital-Carroll County (Baptist Carroll County)
- Baptist Memorial Hospital-Union City (Baptist Union City)

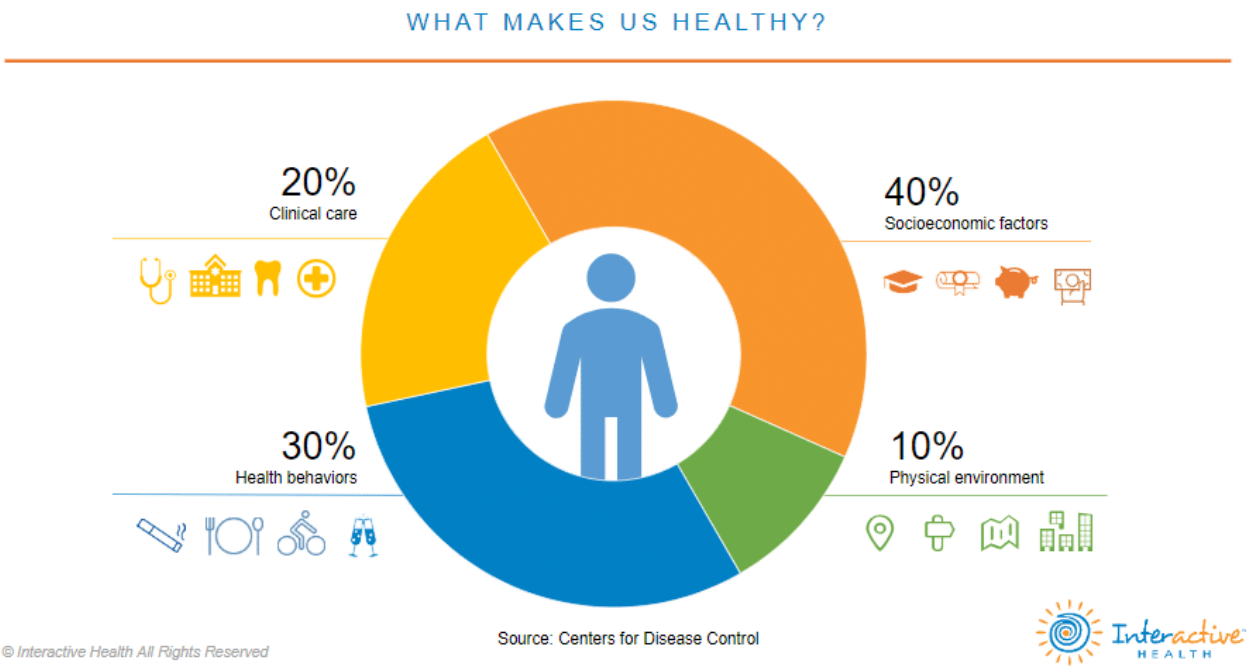
Baptist West Tennessee Service Area



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 (U.S.) 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 West Tennessee 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. Across Tennessee and the nation, poverty declined for all reported racial and ethnic groups from the 2019 CHNA, but people of color continue to be disproportionately impacted. Statewide, approximately one-quarter of Black/African American, Latinx, multiracial and other race populations live in poverty compared to 13% of the white population. Within the West Tennessee service area, wide disparities in wealth also exist among racial and ethnic groups. In Obion County, nearly 40% of Black/African American residents live in poverty compared to 18% of white residents. In Carroll County, poverty levels increased among the fastest growing population groups, including Asian, multiracial and other race populations.

Socio-economic differences within the West Tennessee service area correlate with differences in life expectancy. In Obion County, where the most significant socio-economic differences exist between white and Black/African American residents, there is a more than four-year difference in life expectancy between these populations. Looking at the area through census tract data further illuminates community inequities. Census tracts are subdivisions of a county that have roughly 4,000 inhabitants.

Census tract 9656, located in the northeast portion of Union City ZIP code 38261 in Obion County, has an elevated poverty rate that is nearly double that of the surrounding area. Average life expectancy for residents of census tract 9656 is 70.8 years, the lowest in the region and as much as 5.6 years lower than neighboring communities in the county. While Black/African American residents represent 16% of the total population in ZIP code 38261, they represent nearly 40% of the total population in census tract 9656. This alignment of increased poverty, decreased life expectancy and population trends demonstrates how inequities perpetuate persistent disparities.

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
Carroll County	16.9%	25.5%	18.8%	10.4%	7.8%	19.1%
Obion County	17.9%	39.2%	16.4%	6.6%	9.1%	6.7%

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)
Carroll County	74.1	74.1	73.8	-0.3
Obion County	75.5	75.8	71.3	-4.5

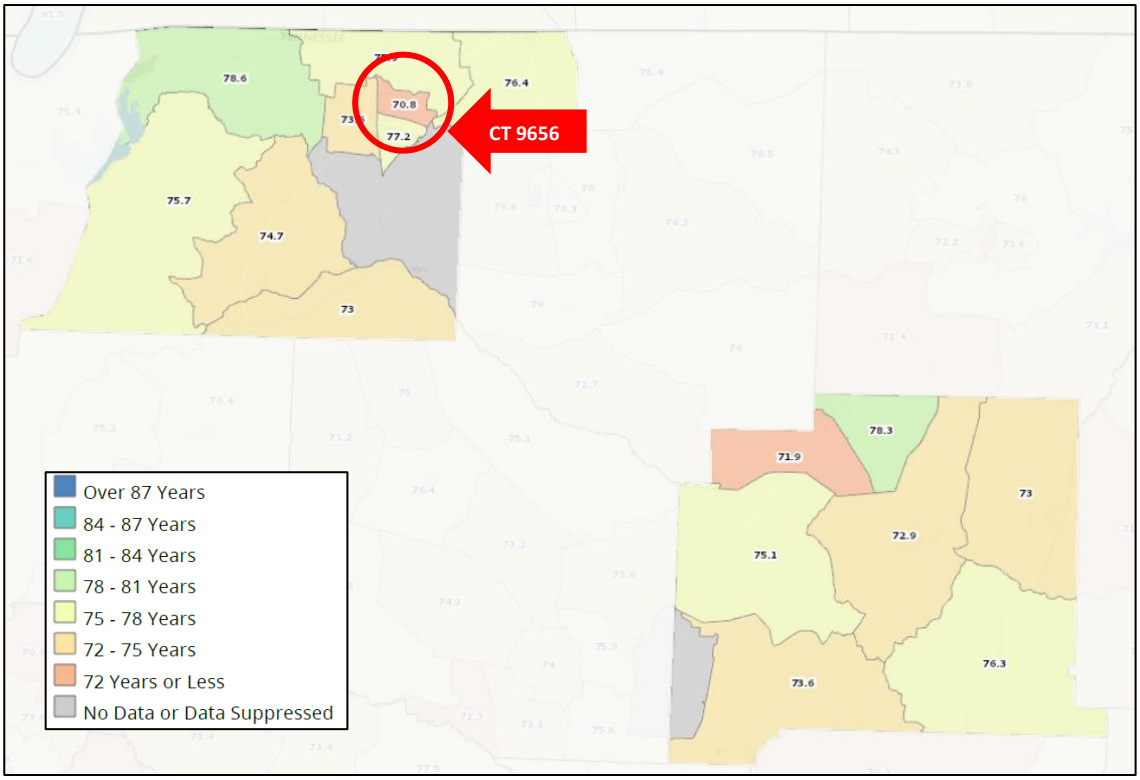
Source: National Vital Statistics System, 2017-2019

Areas of Socio-Economic Disparity within the West Tennessee 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
38258, Trezevant	26.8%	19.9%	18.5%	18.7%	80.0%
38261, Union City	24.1%	16.3%	9.5%	16.4%	78.0%
Census Tract 9656	43.2%	19.8%	11.0%	48.9%	39.7%
38201, McKenzie	20.6%	16.9%	11.0%	7.0%	90.9%
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 West Tennessee service area, 64% "agreed" or "strongly agreed" that SDoH negatively impacted the health of patients and families they serve, and 68% "agreed" or "strongly agreed" that the COVID-19 pandemic negatively impacted health due to delayed preventive or maintenance care. Similarly, approximately 60% 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 West Tennessee service area providers shared specific cases in which the SDoH impacted patients. For example:

> *"A very common problem that my entity faces is how expensive employer-based health insurance can be, and how limited enrollment periods are, which results in less access to health care insurance. Our patients experience higher rates of ER utilization and urgent care utilization since they are unable to get preventative care without coming out of pocket for all medical expenses. Patients have such a hard time affording medical care that they often forgo medical care in efforts to save money for everyday expenses such as gas, groceries and housing. While patients may have access to healthy foods, it is neither affordable nor is it local. Transportation is another huge issue and remains an obstacle to our patients."*
>
> *"High levels of malnutrition in West Tennessee (resulting in obesity, diabetes, vascular disease) account for most of the chronic disease in my geographic area. Instead of applying resources to the cause of disease, we throw untold riches into treating the end result, often in the last few years of life. Most of the disease we see is a result of these lifestyle issues."*
>
> *"I very commonly run into patients who need meal replacements. Sometimes they are easy to obtain, sometimes not. Even more often, I find patients interested in quitting smoking who can't afford nicotine replacement therapy. The state supplies NRT for only 2 weeks. That is not nearly enough to help people quit smoking."*

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 West Tennessee service area was considered more vulnerable to COVID-19 than other parts of the U.S. Among the factors impacting this finding were older age and underlying health issues, crowded living and working areas (e.g., nursing homes, factories), unemployment and financial insecurity. Of note, Obion County was considered more vulnerable to COVID-19 than 81% of other U.S. counties.

By the end of 2020, average national unemployment was double what it was at the beginning of the year. Carroll and Obion counties had higher unemployment than the nation before the pandemic, although they saw a smaller increase for 2020 (approximately 7%) than the national average (8%). While unemployment has since declined, pandemic-level rates will likely have a lasting economic and social impact on the community.

As of Sept. 22, 2021, the West Tennessee service area had a combined 12,216 COVID-19 cases and 188 related deaths. Nationally, COVID-19 cases and deaths have been disproportionately higher among Black/African American and Latinx residents. 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, 28 community representatives serving the West Tennessee 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:

> *"Availability of services, personnel and outreach to affected communities."*
>
> *"Find key influencers within those communities and educate them on the services available so they can provide information to those that need it. Our county is very rural and geographically distanced. To reach people that need services, it will take more than just sending out flyers."*
>
> *"Get more involved in the community—not through handouts, but true education that will make long lasting change."*
>
> *"Help with better coordination of care, access to pharmaceuticals, good housing, better transportation, reliable internet access, mental health services."*
>
> *"Partner with local civic organizations and hold workshops that are specific to the issues that apply to the intended audience."*
>
> *"We need more informative public forums to spread knowledge of growing health concerns."*

Our Community

Population Trends/Changes

Since 2010, Tennessee saw a similar increase in population as the U.S. overall (+7.4%). Within the West Tennessee service area, the population declined from 2010, most notably in Obion County (-3.2%). Both Carroll and Obion counties comprise primarily rural areas with a smaller total population overall.

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 Tennessee is consistent with the nation and aging, with an increasing proportion of adults age 65 or older. Within the West Tennessee service area, Carroll and Obion counties have a historically older demographic, with proportionately more adults age 55 or older compared with the state and nation, and a median age of nearly 43 years.

The proportion of older adult residents increased across Tennessee and the nation, and in both West Tennessee service area counties. In Obion County, the proportion of older adults increased nearly 2 percentage points from 2011-2015 to 2015-2019. This finding suggests health needs and support services for older adults will likely continue to grow in coming years.

West Tennessee service area counties have a similar racial and ethnic makeup that is less diverse than the state and nation. Approximately 8 in 10 residents identify as white and 1 in 10 residents identify as Black/African American. Five percent or fewer of residents identify as Latinx compared to nearly 19% nationwide. Diversity is largely centered in the northern portion of Obion County and eastern portion of Carroll County, including Union City ZIP code 38261, where 22% of residents identify as non-white, and Buena Vista ZIP code 38318, where 29.6% of residents identify as non-white.

Racial and ethnic diversity is increasing statewide and nationally and across the West Tennessee service area, particularly for Asian, other race, multiracial and Latinx groups. The multiracial population increased more than 200% from the 2010 Census in both counties, Tennessee 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

Carroll and Obion counties have lower median household incomes and higher poverty than the state and nation. Overall poverty declined across the nation, Tennessee and Carroll County since the 2019 CHNA, but was generally stable in Obion County. Children are disproportionately affected by poverty, and nearly 25% of children in Carroll County and 30% of children in Obion County live in poverty compared with 22% statewide and 18.5% nationally. Approximately 1 in 10 older adults also live in poverty, a finding of concern due to the large and growing proportion of residents age 65 or older.

The West Tennessee service area has an average Community Need Index (CNI) score of 3.8, a consistent finding with the 2019 CHNA and indicating higher community need overall. 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 with the U.S. national average of 3.0.

Trezevant ZIP code 38258 in Carroll County and Union City ZIP code 38261 in Obion County continue to have the highest CNI scores in the West Tennessee service area, a finding that is rooted in higher socio-economic need that disproportionately impacts people of color. Residents of Trezevant ZIP code 38258 and Union City ZIP code 38261 are among the most diverse populations in the service area, with approximately 1 in 5 residents identifying as Black/African American and 5% to 7% identifying as Latinx.

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 4 percentage points across Tennessee. Consistent with higher poverty levels within Carroll and Obion counties, a higher proportion of all residents and children were food insecure before the pandemic. In 2020, approximately 1 in 5 residents and 1 in 4 children were projected to be food insecure in either county. Projected food insecurity declined in 2021 but continues to be higher than pre-pandemic years and exceeds state and national benchmarks.

Rural Health Challenges

Carroll and Obion counties comprise primarily rural areas, and 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 20% of adults across the West Tennessee service area report having frequent mental distress, a higher proportion than the state (16.4%) and nation (12.9%) overall. Frequent mental distress is defined as having poor mental health on 14 or more days during a 30-day period. Carroll and Obion counties have also historically had higher suicide death rates than the state and nation. While the suicide rate declined in Carroll County in recent years, it steadily increased in Obion County.

Tennessee has historically reported a higher percentage of youth attempting suicide than the nation. As of 2019, 10.6% of Tennessee high school students reported an attempted suicide compared with 8.9% nationally. When considered by subgroup, attempted suicides were highest among Tennessee students identifying as Latinx, Black/African American and/or female. Contributing to acute psychiatric distress among Tennessee youth is an overall increasing percentage of school students who report feeling consistently sad or hopeless, estimated at 37.5% in 2019.

Tennessee as a whole has experienced more accidental drug overdose deaths than the nation. Death rates are not reported for West Tennessee service area counties after 2011-2015 due to low death counts. From 2011 to 2015, Carroll County had a similar rate of death per 100,000 (15.9) as the state and Obion County had a similar rate of death (13.1) as 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 50.8% in Tennessee, compared to a national increase of 30.8%.

In Tennessee, the accidental overdose death rate increased gradually among whites 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.

Feedback from Key Informant Survey participants reinforced behavioral health needs in the West Tennessee service area. More than half of key informants selected substance use disorder among the top five concerns for the people their organization serves. This finding differed from other Baptist CHNA service area regions, where ability to afford health care was consistently identified as the top pressing concern. Mental health conditions also fell within the most selected concerns, selected by 42.9% of informants.

Key informants provided the following recommendations for improving mental health and substance use disorder within the West Tennessee service area:

> *"Collaborate with local agencies on illegal drug use and provide consistent professional help."*
>
> *"Mental Health—there is a great need in our county for mental health programs. Expand on what is currently available and possibly work with the schools to help erase the stigma of mental health issues and provide needed services for students/families and educators."*

Chronic Disease

Tennessee adults overall have increased risk factors for chronic disease, including physical inactivity and tobacco use. West Tennessee service area counties exceed both state and national benchmarks for these indicators. Approximately one-third of adults in both counties report no regular physical activity and one-quarter of adults use tobacco. Consistent with existing SDoH barriers, Obion County adults generally have poorer health outcomes than Carroll County adults.

Consistent with reporting more health risk factors, Tennessee adults have historically higher prevalence of obesity and diabetes compared to the nation, as well as a slightly higher diabetes death rate. In the West Tennessee service area, obesity and diabetes prevalence is lower in Carroll County than the state and nation, but generally increased since 2017. Obesity and diabetes prevalence in Obion County has historically exceeded national benchmarks, although the county saw declines in both metrics in 2019 that should continue to be monitored. The Obion County diabetes death rate is nearly double state and national rates and increased in recent years.

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. Tennessee adults have a higher prevalence of high blood pressure and high cholesterol than the nation overall and a higher rate of death due to heart disease. West Tennessee service area adults have higher heart disease prevalence and death rates than the state. Carroll County exceeds the statewide heart disease death rate by nearly 120 points. Obion County has a heart disease death rate that is more similar to the statewide rate, but wide disparities among racial groups. In Obion County, the heart disease death rate is more than 100 points higher for Black/African American residents than white residents.

Cancer is the second leading cause of death nationally. Carroll and Obion counties have historically higher cancer death rates than the state and nation. Obion County also had historically lower cancer incidence, a finding that is indicative of delayed screening and later stage diagnosis. However, recent cancer incidence and death rate trends for both counties indicate improved screening practices. Both counties saw notable increases in cancer incidence and general declines in cancer death rates.

Consistent with disparities in heart disease death, Black/African Americans living in Obion County are disproportionately burdened by cancer, including both higher incidence and death rates than white residents. Cancer incidence and death rates for Black/African American residents living in Obion County also exceed rates for their peers across Tennessee and the nation.

Chronic lower respiratory disease (CLRD) includes several chronic conditions of the respiratory tract, including asthma and chronic obstructive pulmonary disease (COPD). Consistent with having higher smoking rates and environmental barriers like older housing, Carroll and Obion counties report a higher prevalence of both adult asthma and COPD than the state and nation. Contrary to the nation, the CLRD death rate increased in Tennessee and Carroll County over the past five years. While the death rate declined in Obion County, it exceeds state and national benchmarks.

The West Tennessee service area is aging, and older adults in this area experience more health disparities. Approximately 73% of Tennessee older adult Medicare beneficiaries have two or more chronic conditions, a higher proportion than the nation (70.3%). Carroll and Obion counties have a higher proportion of beneficiaries with multiple chronic conditions than the state and nation, estimated at 75.8% and 77.1% respectively, and the proportion increased from the 2019 CHNA. Older adults in Carroll and Obion counties are also more likely to have a disability when compared with the state and nation, potentially challenging disease management efforts.

The Alzheimer's disease death rate is higher for older adults in Tennessee than the nation and increased from prior years. Within the West Tennessee service area, Obion County saw a decline in Alzheimer's disease deaths, although the current rate of death is similar to the state overall. Carroll County has a historically higher rate of death due to Alzheimer's disease that exceeds the statewide rate by more than 125 points.

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 West Tennessee service area and between whites and Black/African Americans. 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 West Tennessee service area provided the following select comments:

"Economic resources to place patients in the right level of care with medical resources to improve episodic exacerbation of disease."

"Grants that provide resources for education, nutrition and training to those effected by the SDoH."

"More expanded resources and infrastructure for serving resource needy patients, having a food pantry at our sites to address food insecurity in real time."

"We need staff buy in. We need staff to recognize their unconscious bias and be willing to go out of their comfort zone. We also need empathy training. This biggest issue for cancer treatment patients is transportation. I wish we could find reliable options to get patients to and from their appointments that don't cost the Foundation an arm and a leg and/or are reliable and the patient doesn't have to wait an exorbitant amount of time."

Maternal and Child Health

West Tennessee service area counties have a comparable rate of birth as the state and nation, and contrary to state and national trends, the birth rate has been stable (Obion) or increased (Carroll) since the 2019 CHNA. Despite this finding, the population of Carroll and Obion counties declined. This trend is consistent with lower overall life expectancy and disparities among growing populations of color. It may also indicate an out-migration of residents.

Tennessee overall reports poorer birth outcomes than the nation, including a higher proportion of teen, low birth weight and premature births, a high prevalence of smoking during pregnancy and a higher infant death rate. These negative outcomes are more pronounced in Carroll County, where approximately 9% of births are to teens, fewer than 70% of pregnant people receive adequate prenatal care, nearly 12% of babies are born with low birth weight or premature and 23% of people smoke during pregnancy. Obion County also reports a high prevalence of smoking during pregnancy, estimated at 22% in 2019.

While both white and Black/African American people residing in Tennessee experience birth disparities compared with the nation overall, these disparities disproportionately impact Black/African Americans. There is a more than 10-point deficit in the percentage of Black/African American pregnant people receiving early or adequate prenatal care compared with pregnant white 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. The Black/African American infant mortality rate is nearly double the white infant mortality rate. These disparities are consistent across West Tennessee service area counties.

Positive birth outcomes for the West Tennessee service area include an overall declining percentage of births to teens in Obion County and increasing prenatal care access in both counties. Of note, the proportion of pregnant people receiving adequate prenatal care increased nearly 10 percentage points in both counties from 2018 to 2019. Adequate prenatal care is defined as prenatal care that begins in the first trimester and includes nine or more visits for a pregnancy of 36 or more weeks

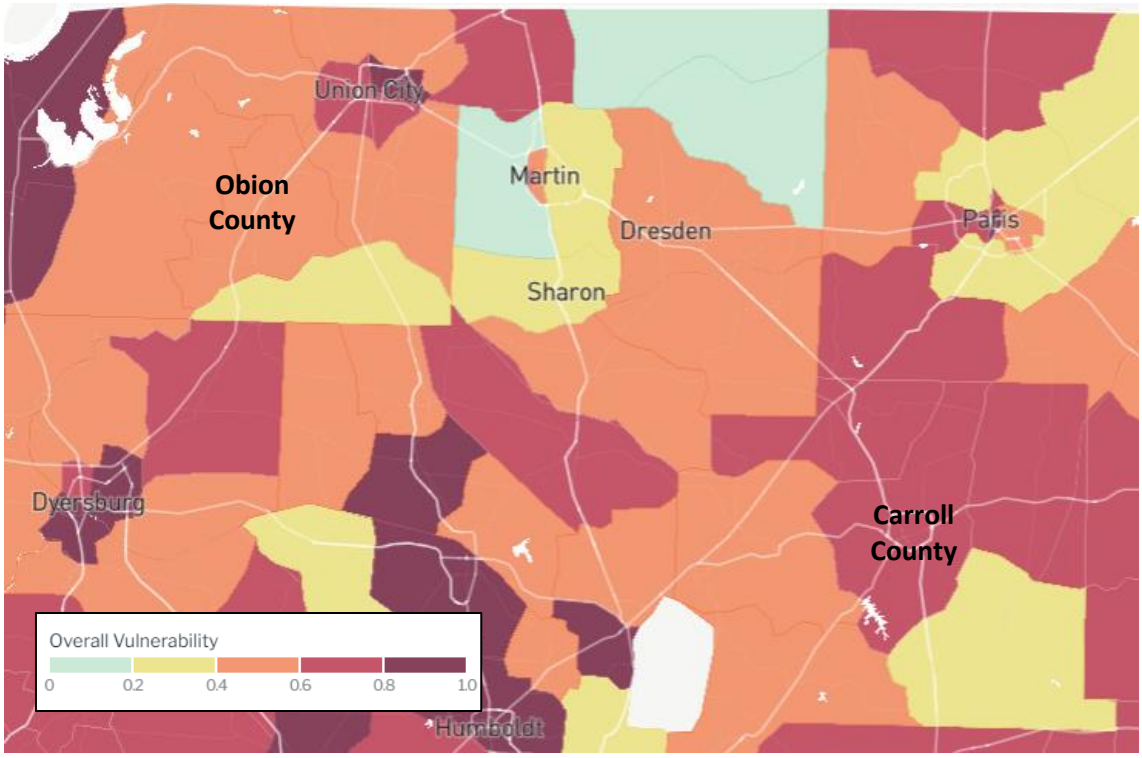
A full summary of CHNA findings for the West Tennessee service area follows.

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, West Tennessee service area counties have "high" or "very high" vulnerability compared to other parts of the U.S. Among the factors impacting this score are older age and underlying health issues, crowded living and working areas (e.g., nursing homes, factories), unemployment and financial insecurity. Communities with higher vulnerability have pre-existing economic, social and physical conditions that may make it hard to respond to and recover from a COVID-19 outbreak.

COVID-19 Community Vulnerability Index



	Vulnerability Level	Description
Carroll County	High	More vulnerable than 78% of US counties
Obion County	Very High	More vulnerable than 81% of US 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 West Tennessee service area, as well as by age group and race and ethnicity.

As of Sept. 22, 2021, the West Tennessee service area had a combined 12,216 COVID-19 cases and 188 related deaths. COVID-19 has affected all age groups, but COVID-19 deaths have been concentrated among older adults.

Despite having a similar age composition as Obion County, Carroll County had higher COVID-19 case and death rates that exceeded statewide benchmarks. This finding should be further explored for potentially more severe disease incidence and/or delayed detection or treatment barriers.

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

	Cases		Deaths	
	Total Cases	Cases per 100,000*	Total Deaths	Deaths per 100,000*
Carroll County	5,299	18,632.2	94	330.5
Obion County	6,917	16,473.0	94	223.9
West Tennessee Service Area Total	12,216	--	188	--
Tennessee	1,199,956	17,363.4	14,677	212.4

Source: Tennessee Department of Health

*Rates calculated based on 2020 population counts.

Tennessee 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 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 Americans and Latinx. **In Tennessee, both white and Black African American residents reported a**

higher 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.

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. **Tennessee had lower vaccine coverage than the nation; Carroll and Obion counties had lower vaccine coverage than the state.**

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

	Fully Vaccinated
Carroll County	39.8%
Obion County	32.0%
Tennessee	44.9%
United States	64.3%

Source: 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 and Latinx. Black/African Americans in Tennessee were the least likely to be vaccinated, reported at 38%.

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

	Tennessee
White	42%
Black or African American	38%
Asian	54%
Latinx (any race)	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%). Within the West Tennessee service area, the population declined from 2010, most notably in Obion County. Both Carroll and Obion counties comprise primarily rural areas with a smaller total population overall.

2020 Total Population

	Total Population	Percent Change Since 2010
Carroll County	28,440	-0.3% ↓
Obion County	30,787	-3.2% ↓
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 Tennessee is consistent with the nation. Within the West Tennessee service area, **Carroll and Obion counties have a historically older demographic, with proportionately more adults age 55 or older compared with the state and nation, and a median age of nearly 43 years.** Approximately 1 in 5 residents in either county is age 65 or older.

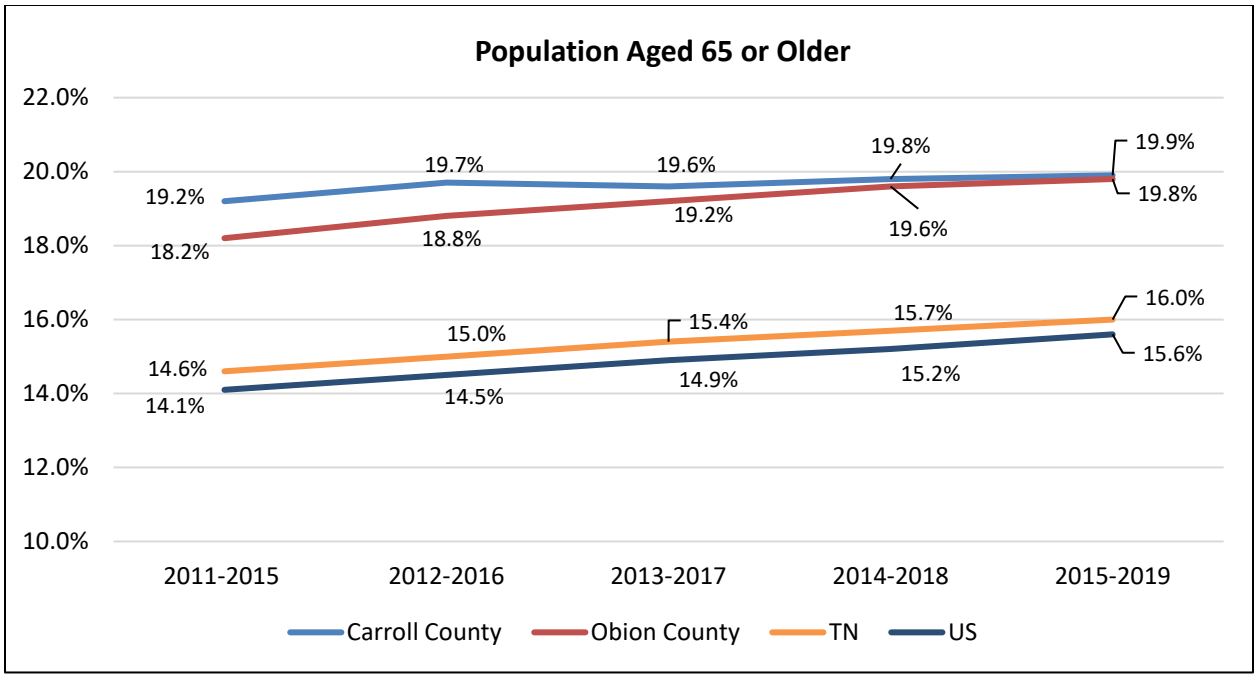
The proportion of older adult residents increased across Tennessee and the nation and in both West Tennessee service area counties. **In Obion County, the proportion of older adults increased nearly 2 percentage points from 2011-2015 to 2015-2019.** Nationally, among older adults age 65 or older, the 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 West Tennessee service area, youth under age 18 comprise nearly 1 in 4 residents.

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	
Carroll County	21.4%	9.5%	11.4%	10.2%	13.8%	13.8%	19.9%	42.5
Obion County	21.9%	8.0%	10.8%	12.2%	13.0%	14.2%	19.8%	42.6
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

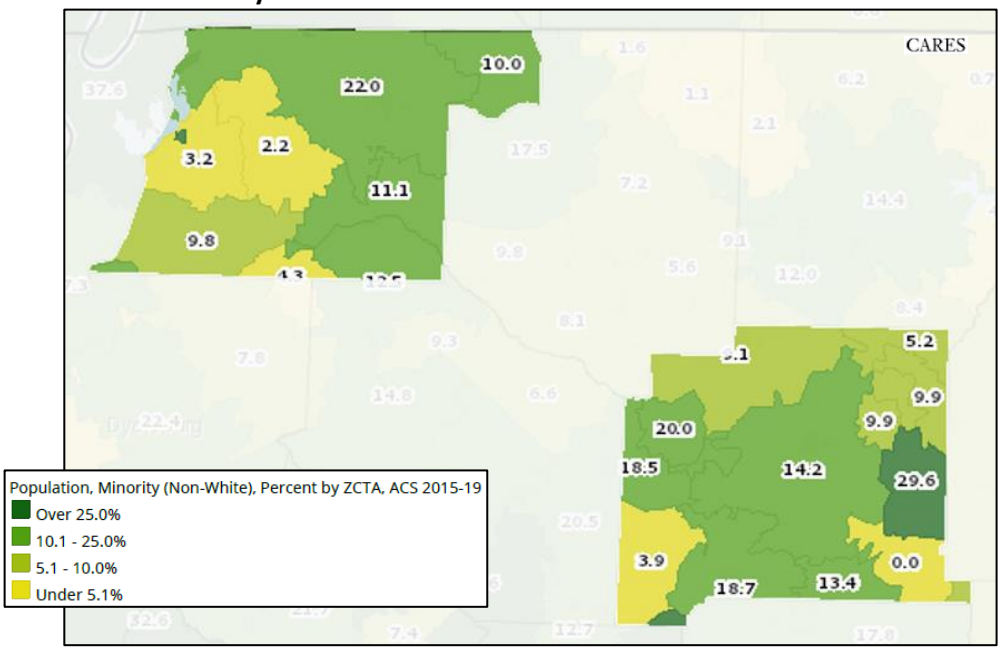
West Tennessee service area counties have a similar racial and ethnic makeup that is less diverse than the state and nation. Approximately 8 in 10 residents identify as white and 1 in 10 residents identify as Black/African American. Five percent or fewer of residents identify as Latinx compared with nearly 19% nationwide. **Diversity is largely centered in the northern portion of Obion County and eastern portion of Carroll County, including in the Union City ZIP code 38261, where 22% of residents identify as non-white and 16.5% of residents identify as Black/African American, and in the Buena Vista ZIP code 38318, where 29.6% of residents identify as non-white and Black/African American.**

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)
Carroll County	84.4%	8.6%	0.4%	0.3%	0.0%	1.2%	5.0%	2.7%
Obion County	81.2%	10.3%	0.3%	0.2%	0.0%	2.8%	5.1%	5.1%
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 West Tennessee Service Area



Racial and ethnic diversity is increasing nationally and across the West Tennessee service area, particularly for Asian, other race, multiracial and Latinx groups. **The multiracial population increased more than 200% from the 2010 Census in both counties, Tennessee 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 decline within Carroll and Obion counties, both counties saw declines in the racial groups comprising the majority of their population. While both counties saw significant percentage growth among other racial and ethnic groups, growth in numbers was generally small. For example, Carroll County saw growth of +121.4% among Asians, equating to an additional 68 people.

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)
Carroll County	-3.1%	-14.7%	+121.4%	+41.6%	+205.8%	+29.2%
Obion County	-8.5%	-6.2%	+33.8%	+45.9%	+330.7%	+57.6%
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: U.S. Census Bureau, Decennial Census

Many Roads Lead to Home

The West Tennessee service area is home to proportionately fewer immigrants than the state and nation overall. **More than 97% of residents were born in the U.S. compared to a national average of 85%.** Consistent with this finding, fewer than 2.6% of residents in Carroll County and 4.1% of residents in Obion County speak a primary language other than English, compared with 21.6% nationally.

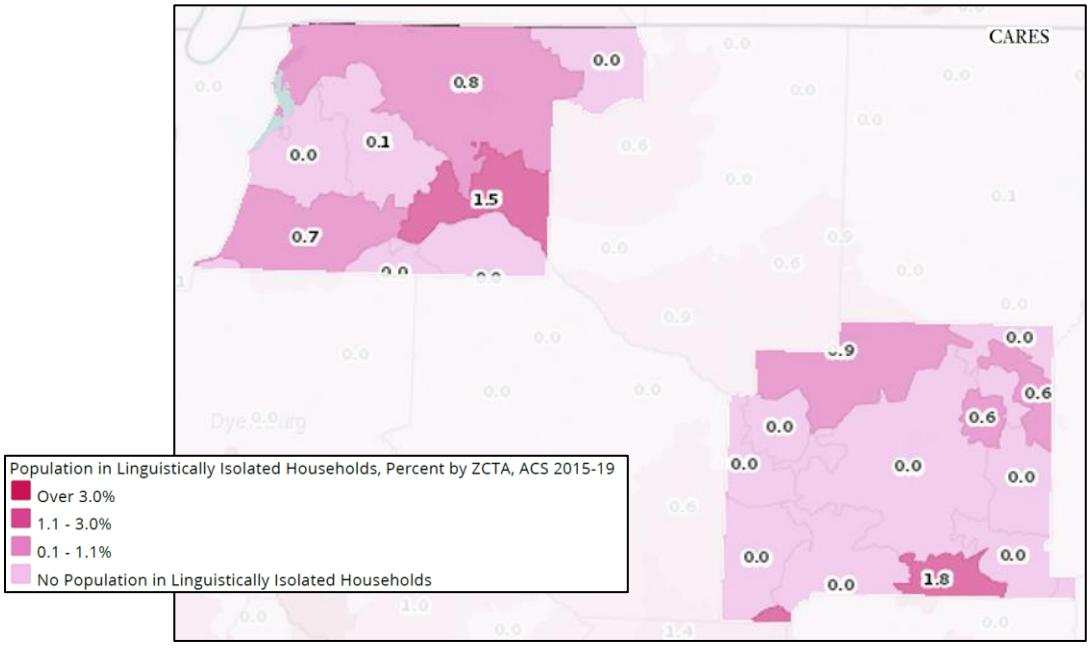
The largest proportions of linguistically isolated households are located in Rives ZIP code 38253 (Obion County) and Yuma ZIP code 38390 (Carroll County), although both percentages fall below 2%. Linguistically isolated households, defined as persons who cannot speak English at least "very well" or who do not live in a household where an adult speaks English "very well."

2015-2019 Nativity and Citizenship Status

	U.S. citizen, born in the U.S.	U.S. citizen, born in Puerto Rico or US 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
Carroll County	98.3%	0.1%	0.4%	0.6%	0.6%	2.6%
Obion County	97.4%	0.1%	0.5%	0.6%	1.3%	4.1%
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 West Tennessee Service Area



Poverty

Carroll and Obion counties have lower median household incomes and higher poverty than the state and nation. Overall poverty declined across the nation, Tennessee and Carroll County since the 2019 CHNA, but was generally stable in Obion County. Children are disproportionately affected by poverty, and nearly 25% of children in Carroll County and 30% of children in Obion County live in poverty, compared with 22% statewide and 18.5% nationally. Approximately 1 in 10 older adults also live in poverty, a finding of concern due to the large and growing proportion of residents age 65 or older.

When viewed at the ZIP code-level, nearly all ZIP codes in Carroll and Obion counties have higher poverty levels than the nation. Areas of concentrated poverty include Union City ZIP code 38261 and Obion ZIP code 38240 in Obion County and Huntingdon ZIP code 38344 and Trezevant ZIP code 38258 in Carroll County. Within Union City ZIP code 38261 and Trezevant ZIP code 38258 wealth disparities are more prevalent among people of color.

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 Tennessee, approximately one-quarter of Black/African American, Latinx, multiracial and other race populations live in poverty compared with 13% of the white population.** Within the West Tennessee service area, wide disparities in wealth also exist among racial and ethnic groups. **In Obion County, nearly 40% of Black/African American residents live in poverty compared with 18% of white residents.** In Carroll County, poverty levels increased among the fastest growing population groups, including Asian, multiracial and other race populations.

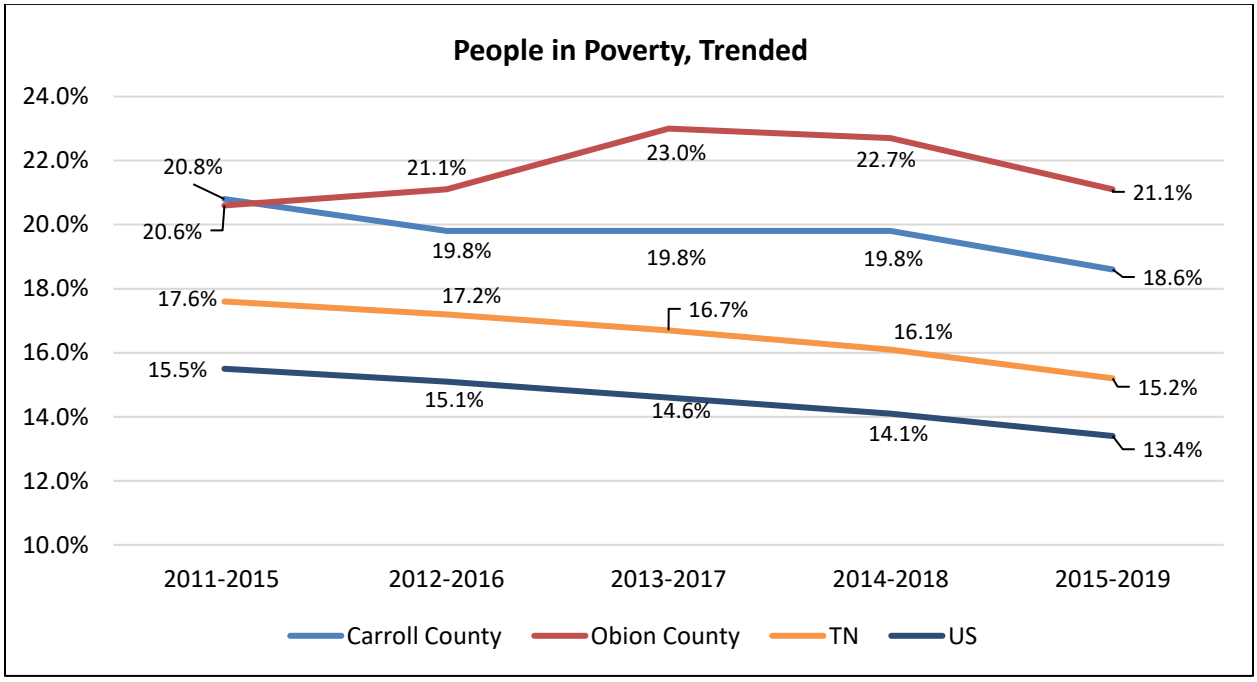
Note, income and poverty data reflect pre-COVID-19 findings and likely do not demonstrate economic hardship experienced by individuals and families during the pandemic. Unemployment and food insecurity data for 2020 and 2021 provide insight into the economic impact of the pandemic.

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. **Carroll and Obion counties had higher unemployment than the state and nation before the pandemic, although similar average unemployment for 2020.** While unemployment has since declined, pandemic-level rates will likely have a lasting economic and social impact on the community.

Economic Indicators

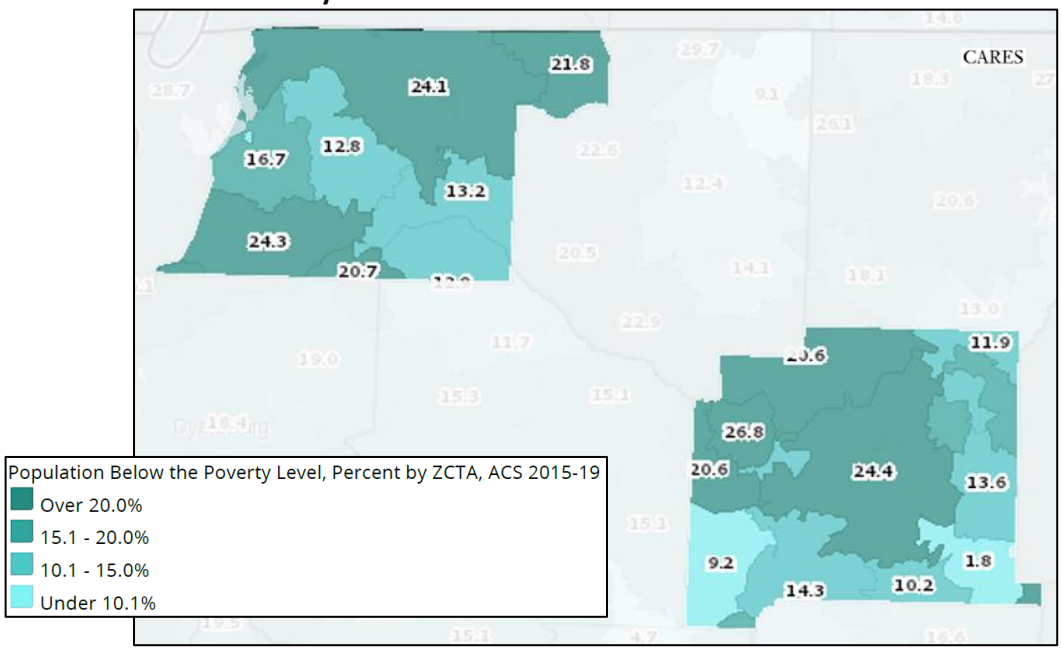
	Carroll County	Obion County	Tennessee	United States
Income and Poverty (2015-2019)				
Median household income	$42,637	$39,615	$53,320	$62,843
People in poverty	18.6%	21.1%	15.2%	13.4%
Children in poverty	24.8%	30.3%	21.9%	18.5%
Older adults (65+) in poverty	10.4%	12.8%	9.4%	9.3%
Households with SNAP* benefits	18.1%	16.6%	13.6%	11.7%
Unemployment				
January 2020	6.0%	5.3%	4.0%	4.0%
2020 average	7.4%	7.0%	7.5%	8.1%
July 2021	5.0%	5.8%	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 West Tennessee 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)
Carroll County	**16.9%**	**25.5%** ↓	**33.6%** ↑ **(n=36)**	**77.3%** ↑ **(n=17)**	**48.0%** ↑	**31.3%** ↓
2019 CHNA	16.9%	42.3%	21.2% (n=18)	11.5% (n=7)	37.6%	33.3%
Obion County	**17.9%**	**39.2%** ↓	**23.6%** ↓	**28.5%** ↓	**46.7%** ↓	**26.5%** ↓
2019 CHNA	17.6%	40.3%	31.8%	32.8%	57.6%	35.1%
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. Low population counts are noted in parentheses and should be interpreted with caution.

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 4 percentage points across Tennessee.**

Consistent with higher poverty levels within Carroll and Obion counties, a higher proportion of all residents and children were food insecure before the pandemic, and more than 50% of children participated in the free or reduced-price school lunch program compared with 47% statewide. **In 2020, approximately 1 in 5 residents and 1 in 4 children were projected to be food insecure in either county.** Projected food insecurity declined in 2021 but continues to be higher than pre-pandemic years and exceeds state and national benchmarks.

Trended and Projected Food Insecurity

	Carroll County	Obion County	Tennessee	United States
All Residents				
2021 (projected)	**17.1%**	**18.5%**	**14.0%**	**12.9%**
2020 (projected)	**18.4%**	**19.4%**	**15.6%**	**13.9%**
2019	16.3%	17.6%	13.3%	10.9%
2018	16.2%	17.0%	14.0%	11.5%
2017	14.7%	15.9%	13.9%	12.5%
Children				
2021 (projected)	**21.0%**	**23.1%**	**16.6%**	**17.9%**
2020 (projected)	**23.6%**	**24.9%**	**19.8%**	**19.9%**
2019	19.9%	21.9%	15.7%	14.6%
2018	20.6%	22.8%	17.7%	15.2%
2017	20.5%	23.3%	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
Carroll County	2,338	54.0%	2,281	52.6%	2,180	50.4%
Obion County	2,454	50.7%	2,447	50.9%	2,377	50.5%
Tennessee	485,279	51.3%	477,849	49.5%	451,452	46.7%

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

Education

High school graduation is one of the strongest predictors of longevity and economic stability. **Consistent with having higher poverty levels, residents of the West Tennessee service area generally attain lower levels of education when compared to the state and nation.** Nearly 1 in 5 residents in Carroll and Obion counties have not completed high school, and fewer than 20% residents have a bachelor's degree, compared with 27% statewide and 32% nationally.

When viewed at the ZIP code-level, areas of low educational attainment do not consistently align with areas of high poverty. For example, while residents of Huntingdon ZIP code 38344 have one of the highest poverty levels in the service area (24.4%), 15.3% of residents have not completed high school, compared with 20% or more in neighboring ZIP codes. This finding may indicate a need for living wage jobs, regardless of education levels.

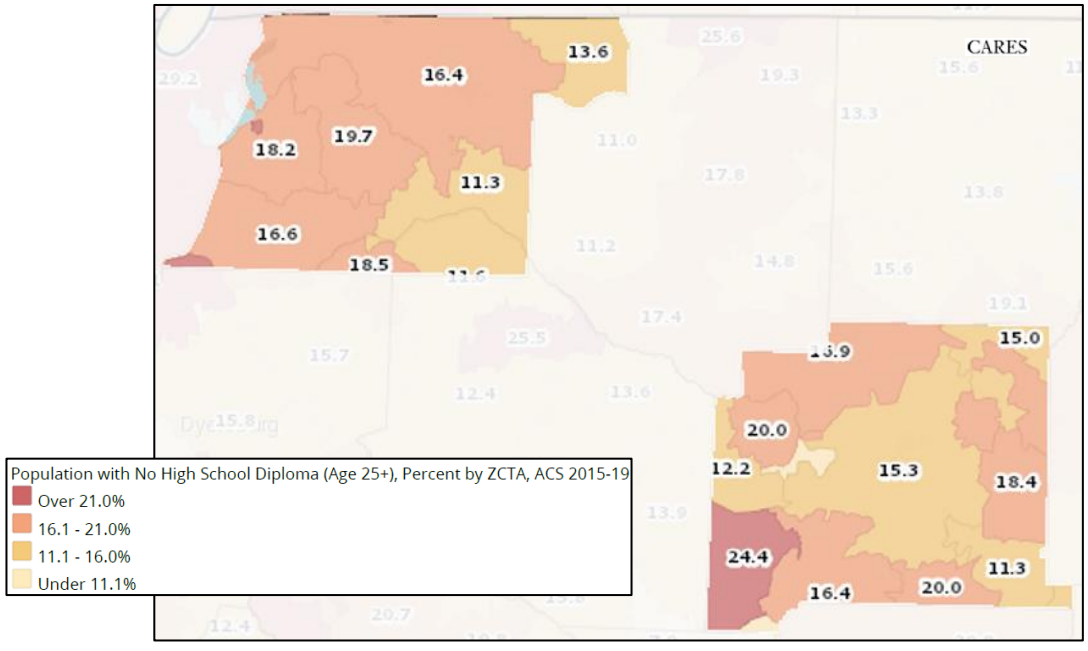
Consistent with state and national trends, West Tennessee service area adults of Asian descent are the most likely of any other population group to attain higher education, while Black/African American, Latinx and other race adults are the least likely to attain higher education. **In Obion County, higher education attainment declined among white, Black/African American and Latinx residents from the 2019 CHNA.** Carroll County saw improved educational attainment across racial and ethnic groups.

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
Carroll County	15.9%	42.2%	23.9%	11.0%	7.0%
Obion County	16.5%	44.8%	23.5%	10.3%	5.1%
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 West Tennessee 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)
Carroll County	**18.8%** ↑	**10.4%** ↑	**35.7%** ↑ **(n=20)**	**0.0%**	**18.0%** ↑ **(n=40)**	**15.0%** ↑ **(n=43)**
2019 CHNA	16.2%	6.2%	22.2% (n=12)	0.0%	1.3% (n=2)	4.9% (n=18)
Obion County	**16.4%** ↓	**6.6%** ↓	**34.5%** ↑ **(n=30)**	**0.0%**	**19.0%** ↑ **(n=20)**	**7.8%** ↓
2019 CHNA	17.8%	8.4%	8.6% (n=6)	0.0%	3.1% (n=4)	9.4%
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 and monthly rent for Tennessee is less expensive than the nation overall, and fewer homeowners and renters are considered housing cost burdened compared to the U.S. benchmarks. **Within the West Tennessee service area, the median home value is nearly half the statewide median, and median rent is approximately 40% lower. Fewer homeowners and renters in the service area are considered housing cost burdened when compared with the state and nation.** Consistent with having higher poverty levels, Obion County residents are less likely to own their own home and more likely to be cost burdened by mortgage or rent expenses than Carroll County residents.

2015-2019 Housing Indicators

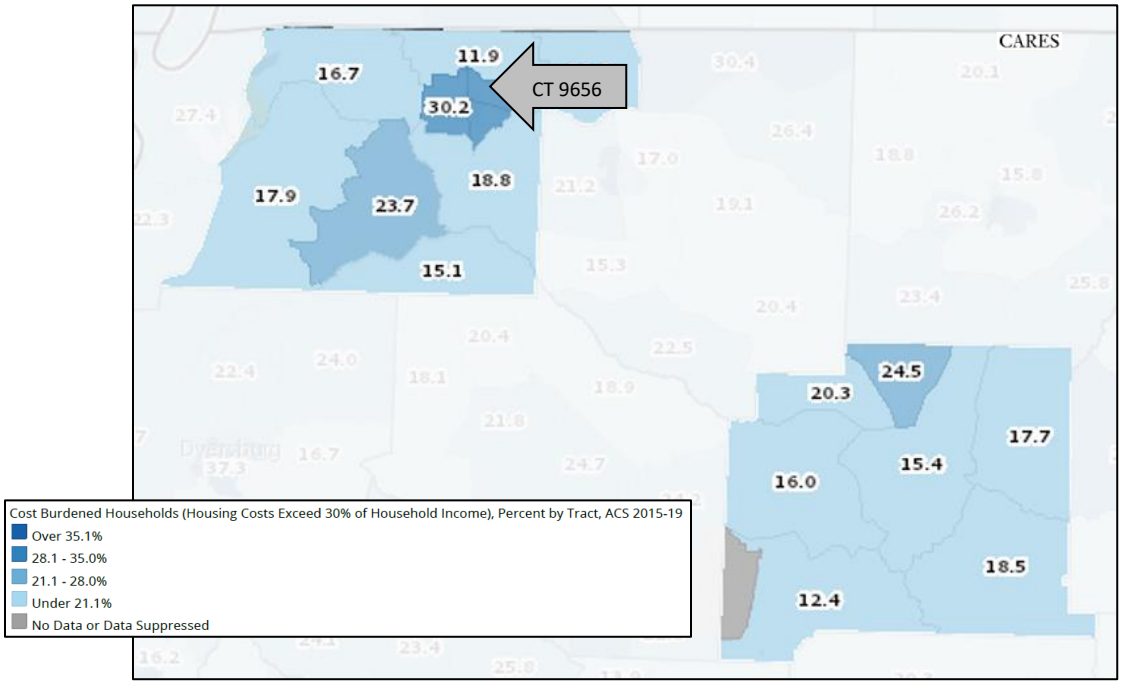
	Owners			Renters		
	Occupied Units	Median Home Value	Cost-Burdened*	Occupied Units	Median Rent	Cost-Burdened*
Carroll County	73.1%	$88,300	15.7%	26.9%	$622	38.2%
Obion County	64.9%	$91,500	20.8%	35.1%	$621	46.6%
Tennessee	66.3%	$167,200	24.4%	33.7%	$869	47.3%
United States	64.0%	$217,500	27.8%	36.0%	$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, most notably in Union City in Obion County. **In census tract 9656 in Union City, 33% of households are housing cost burdened, and 43% of residents live in poverty. The census tract is also home to the county's most diverse population with 40% of residents identifying as Black/African American.**

2015-2019 Cost Burdened Households
by Census Tract in the West Tennessee Service Area



Tennessee overall has 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 West Tennessee service area, housing is older than both the state and nation. Approximately 60% of housing units were built before 1980, and less than 2% of units were built after 2013.**

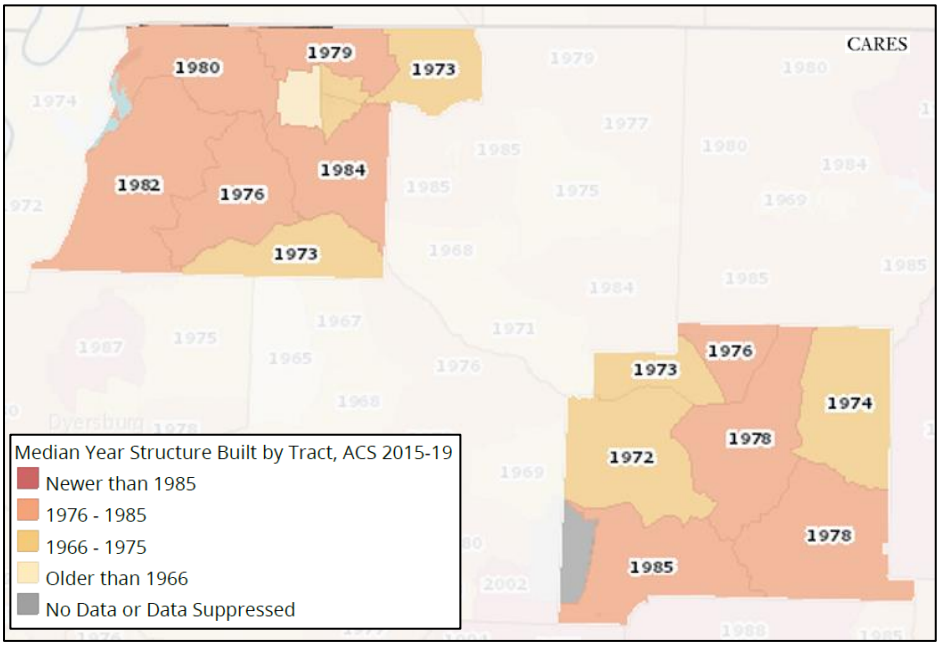
2015-2019 Housing by Year Built

	Before 1980	1980-1999	2000-2009	2010-2013	2014 or Later
Carroll County	56.8%	30.2%	9.6%	2.0%	1.3%
Obion County	60.0%	27.1%	9.1%	2.3%	1.5%
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. While older housing is prevalent across the counties, the western portion of Union City in Obion County has the oldest housing stock, predating 1966.

2015-2019 Median Year of Housing Build
by Census Tract in the West Tennessee 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.

Tennessee residents have a slightly higher prevalence of asthma than their peers nationwide. As of 2018, nearly 10% of Tennessee adults reported having a current asthma diagnosis, compared with 9% nationally. **Within the West Tennessee service area, a consistent proportion of adults have an asthma diagnosis, estimated at approximately 11% across ZIP codes.**

Asthma is the most common chronic condition among children, and a leading cause of school absenteeism and hospitalization. In 2019, nearly 1 in 4 children in 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. **In Tennessee, 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

	Tennessee	United States
Total	23.4%	21.8%
Race and Ethnicity		
Black or African American	31.6%	29.2%
White	20.9%	19.8%
Latinx origin (any race)	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. Tennessee has 10 CoCs throughout the state, covering urban, suburban and rural settings. The following data, provided by Tennessee CoCs, provide insight into the homeless population and service gaps.

As of 2020, a total of 7,256 people in Tennessee were experiencing homelessness. 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, and 8% were veterans. Black/African American residents were disproportionately represented among individuals experiencing homelessness. **In Tennessee, Black/African American residents represent 15.8% of the total population, but 39.3% of individuals experiencing homelessness in 2020.**

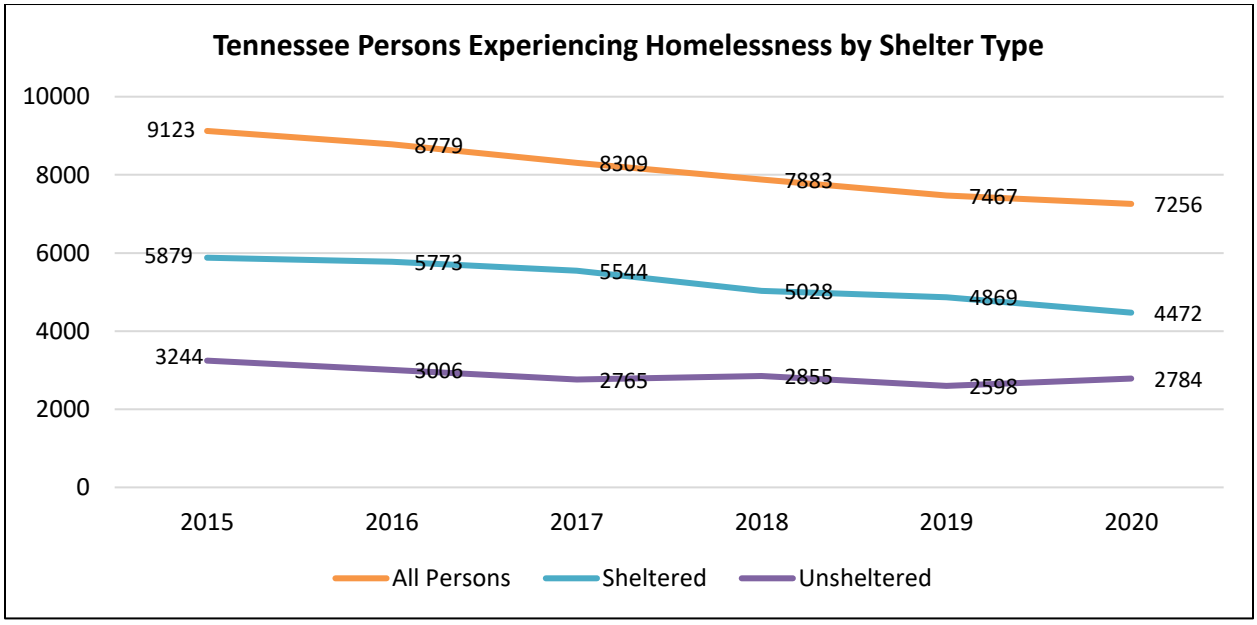
The number of people experiencing homelessness declined in Tennessee through 2020, but it may have increased in 2021 due to economic hardships for individuals and families resulting from the COVID-19 pandemic. The 2021 PIT count is pending release and results should be interpreted with caution as many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

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

	Jackson / West Tennessee CoC	Tennessee Statewide
Total	861	7,256
Individuals	493	5,673
Families	368	1,583
Chronically homeless	71	1,153
Under age 18	210	998
Veterans	10	570
White	481	4,091
Black/African American	340	2,849
Other race	40	316
Hispanic/Latinx	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 the Jackson/West Tennessee CoC, serving the West Tennessee 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.

Tennessee overall has lower digital access than the nation. West Tennessee service area counties have lower digital access than the state. **In Carroll County, approximately 69% of households have internet access, compared with 79% statewide and 83% nationally.**

2015-2019 Households by Digital Access

	With Computer Access			With Internet Access	
	Computer Device	Desktop / Laptop	Smartphone	Internet Subscription	Broadband Internet
Carroll County	77.5%	60.6%	66.6%	69.1%	69.0%
Obion County	84.7%	62.3%	72.0%	76.0%	75.5%
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 West Tennessee service area communities fare compared to state and national benchmarks.

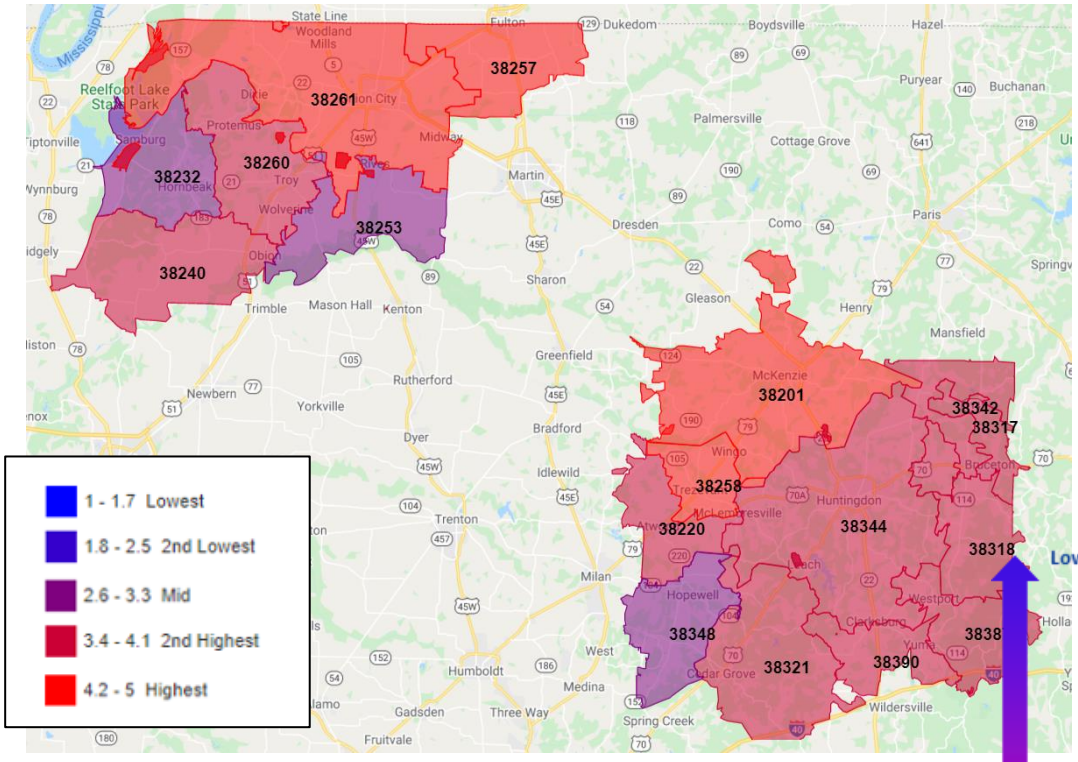
Tools for Identifying Disparity

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.

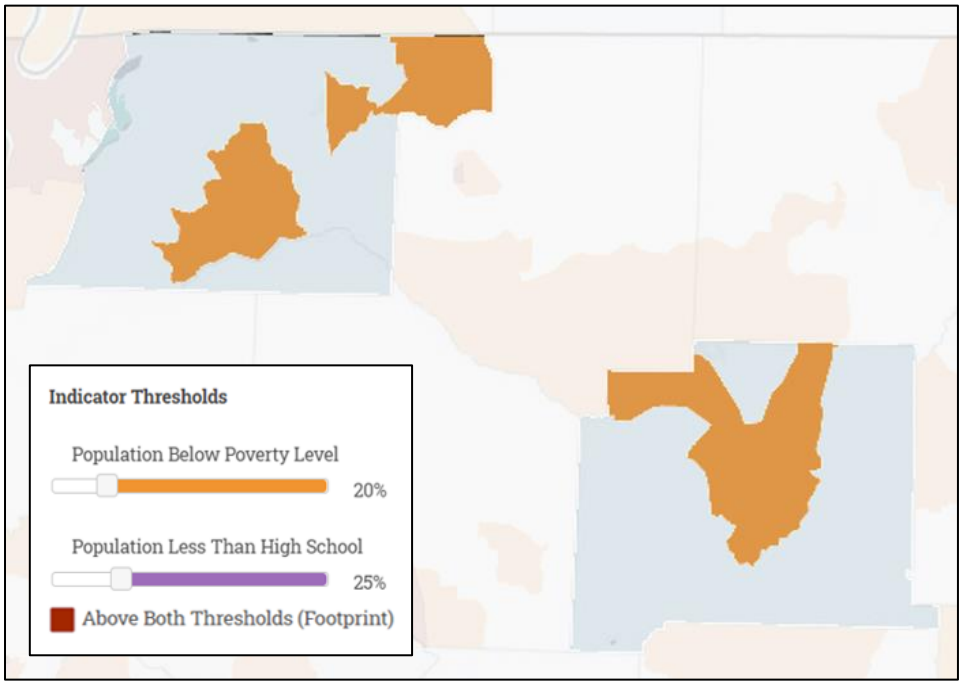
- **Racial Disparities and Disproportionality Index (RDDI):** The RDDI was developed by the Corporation for Supportive Housing (CSH) to assess unique systems and measure whether a racial and/or ethnic group's representation in a particular public system is proportionate to, over or below their representation 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

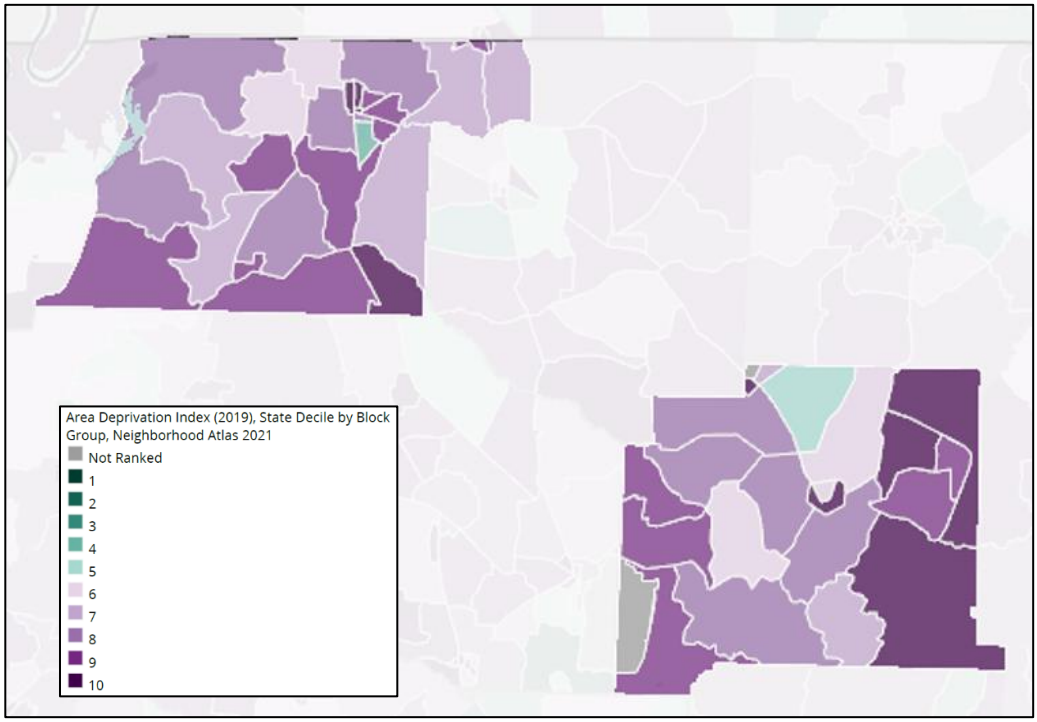


ZIP Code	Town	CNI Score
38232	Hombeak	3.0
38253	Rives	3.0
38348	Lavinia	3.0
38387	Westport	3.4
38390	Yuma	3.4
38260	Troy	3.6
38318	Buena Vista	3.6
38342	Hollow Rock	3.6
38317	Bruceton	3.8
38321	Cedar Grove	3.8
38220	Atwood	4.0
38240	Obion	4.0
38344	Huntingdon	4.0
38201	McKenzie	4.2
38257	South Fulton	4.2
38258	Trezevant	4.4
38261	Union City	4.4

Vulnerable Population Footprint



Area Deprivation Index



The West Tennessee service area has an average CNI score of 3.8, a consistent finding with the 2019 CHNA report of 3.9 and indicating higher community need overall. **All but three ZIP codes in the service area score in high need categories. Of the ZIP codes scoring in the highest CNI category of 3.4 or higher, half saw an increase in their score from the 2019 CHNA.**

Trezevant ZIP code 38258 in Carroll County and Union City ZIP code 38261 in Obion County continue to have the highest CNI scores in the West Tennessee service area, a finding that is rooted in higher socio-economic need that disproportionately impacts people of color. Residents of Trezevant ZIP code 38258 and Union City ZIP code 38261 and are among the most diverse populations in the service area, with approximately 1 in 5 residents identifying as Black/African American and 5% to 7% identifying as Latinx.

Within Union City ZIP code 38261, census tract 9656, located in downtown Union City, is an area of heightened socio-economic disparity, scoring between 9 and 10 on the Area Deprivation Index. Approximately 43% of residents in this census tract live in poverty, and consistent with existing racial inequities, 40% of residents identify as Black/African American.

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
38258, Trezevant (Carroll)	26.8%	42.0%	4.5%	19.9%	18.5%	4.4	4.4
38261, Union City (Obion)	24.1%	35.9%	5.9%	16.3%	9.5%	4.4	4.4
38201, McKenzie (Carroll)	20.6%	26.1%	1.2%	16.9%	11.0%	4.2	4.0
38257, South Fulton (Obion)	21.8%	30.4%	2.0%	13.5%	5.7%	4.2	4.0
38220, Atwood (Carroll)	20.6%	27.4%	1.2%	12.2%	11.2%	4.0	3.8
38240, Obion (Obion)	24.3%	46.0%	3.9%	16.6%	9.4%	4.0	4.0
38344, Huntingdon (Carroll)	24.4%	40.8%	3.4%	15.3%	8.0%	4.0	3.8
38317, Bruceton (Carroll)	19.1%	24.1%	1.1%	19.0%	10.8%	3.8	4.0
38321, Cedar Grove (Carroll)	14.3%	11.7%	4.6%	16.4%	15.3%	3.8	3.6
38260, Troy (Obion)	12.8%	7.1%	1.1%	19.7%	11.4%	3.6	3.2
38318, Buena Vista (Carroll)	13.6%	0.0%	0.0%	18.4%	20.3%	3.6	3.6
38342, Hollow Rock (Carroll)	11.9%	10.7%	1.4%	15.0%	9.9%	3.6	3.6
38387, Westport (Carroll)	1.8% (n=4)	0.0%	0.0%	11.4%	2.3% (n=5)	3.4	3.0
38390, Yuma (Carroll)	10.2%	4.6% (n=9)	1.7%	20.1%	2.1% (n=21)	3.4	3.4
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

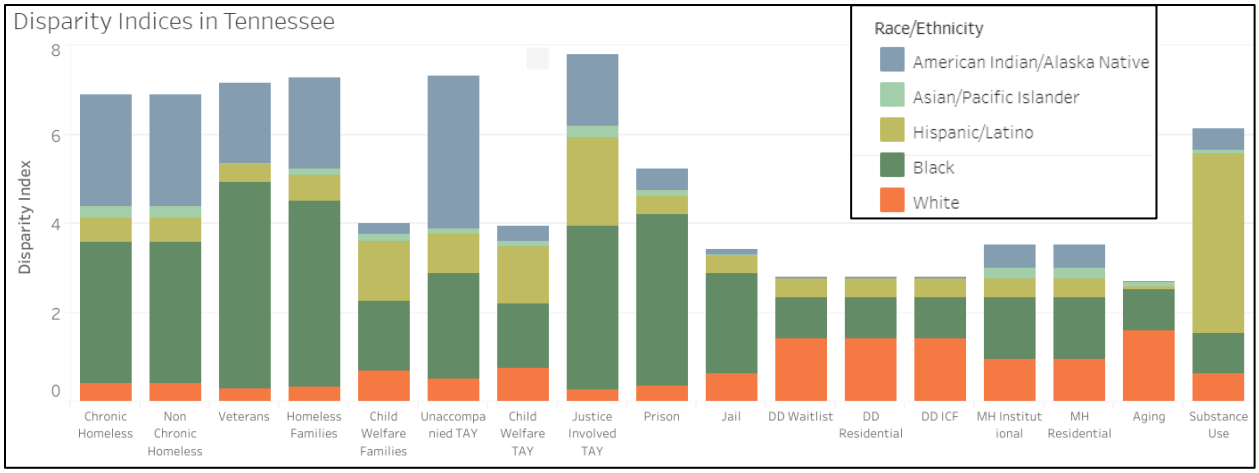
2015-2019 Population (Pop.) by Prominent Racial and Ethnic Groups

ZIP Code (County)	Total Pop.	White	Black or African American	Two or More Races	Latinx origin (any race)
38258, Trezevant (Carroll)	1,441	80.0%	18.7%	1.0%	6.7%
38261, Union City (Obion)	15,475	78.0%	16.4%	2.8%	4.8%
38201, McKenzie (Carroll)	10,947	90.9%	7.0%	1.3%	1.1%
38257, South Fulton (Obion)	4,506	90.0%	7.7%	1.0%	3.7%
38220, Atwood (Carroll)	1,656	81.5%	12.4%	5.5%	3.0%
38240, Obion (Obion)	2,472	90.2%	3.0%	1.2%	5.3%
38344, Huntingdon (Carroll)	7,860	85.8%	10.8%	3.1%	2.9%
38317, Bruceton (Carroll)	2,331	90.1%	6.1%	2.7%	3.7%
38321, Cedar Grove (Carroll)	2,300	81.3%	18.7%	0.0%	1.2%
38260, Troy (Obion)	3,713	97.8%	0.8%	0.4%	1.9%
38318, Buena Vista (Carroll)	463	70.4%	29.6%	0.0%	0.0%
38342, Hollow Rock (Carroll)	1,450	94.8%	4.1%	0.0%	1.2%
38387, Westport (Carroll)	222	100.0%	0.0%	0.0%	0.0%
38390, Yuma (Carroll)	1,016	86.6%	9.4%	1.6%	0.6%
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 Tennessee, Black/African American people have the highest index score of 3.18, indicating overrepresentation in public systems. Black/African American people are overrepresented in prison and justice systems, a finding that is consistent with systemic issues of racism within the nation's criminal justice system and that leads to disproportionate incarceration and sentencing among people of color. Black/African American people also have high representation among individuals experiencing homelessness and veterans.



Source: Corporation for Supportive Housing

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

Life expectancy is another measure of adverse SDoH. Across 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 Obion County, Black/African American residents have an all-cause death rate that is nearly 250 points higher than the death rate among white residents. Carroll County reports a similar all-cause death rate and life expectancy among white and Black/African American residents.

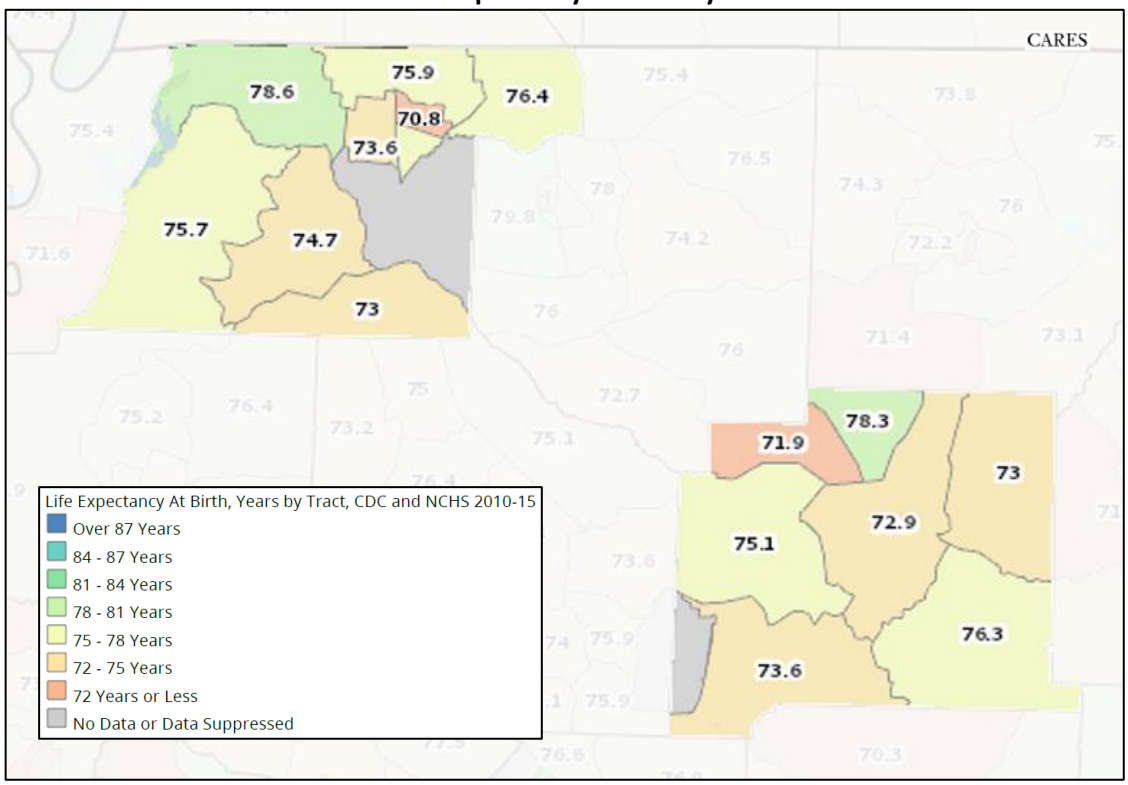
At the census tract-level, areas of lower life expectancy largely align with areas of more socio-economic barriers and racial inequities. **In census tract 9656 in Union City, where 43% of residents live in poverty and 40% identify as Black/African American, life expectancy is 70.8 years, the lowest in the service area.** Residents of census tract 9622.01 in McKenzie ZIP code 38201 also have low life expectancy of 71.9 years and among the highest poverty in the service area at 25.8%.

2017-2019 Life Expectancy by Race and Ethnicity

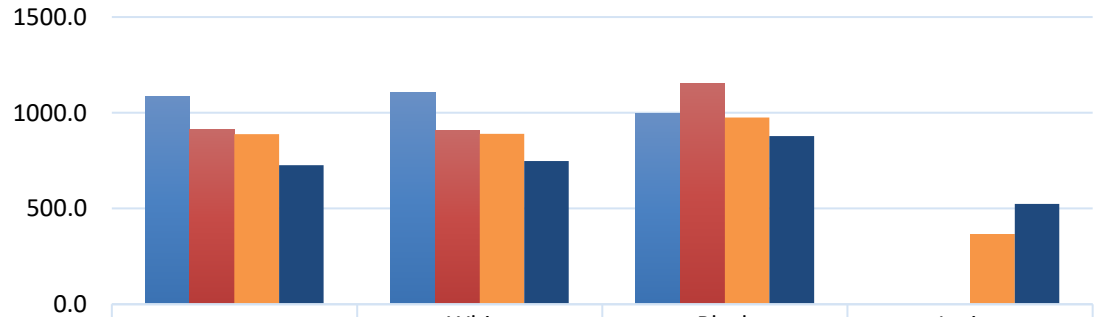
	Overall Life Expectancy	White	Black	Asian	Latinx origin (any race)
Carroll County	74.1	74.1	73.8	NA	NA
Obion County	75.5	75.8	71.3	NA	NA
Tennessee	76.0	76.1	73.6	87.0	91.0

Source: National Vital Statistics System

2010-2015 Life Expectancy at Birth by Census Tract



2015-2019 All Cause Death Rate by Race/Ethnicity per Age-Adjusted 100,000



	Total population	White (Non-Hispanic)	Black (Non-Hispanic)	Latinx (any race)
Carroll County	1086.8	1105.5	998.7	
Obion County	915.4	909.9	1150.7	
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 by county are not available.

A Closer Look at Health Statistics

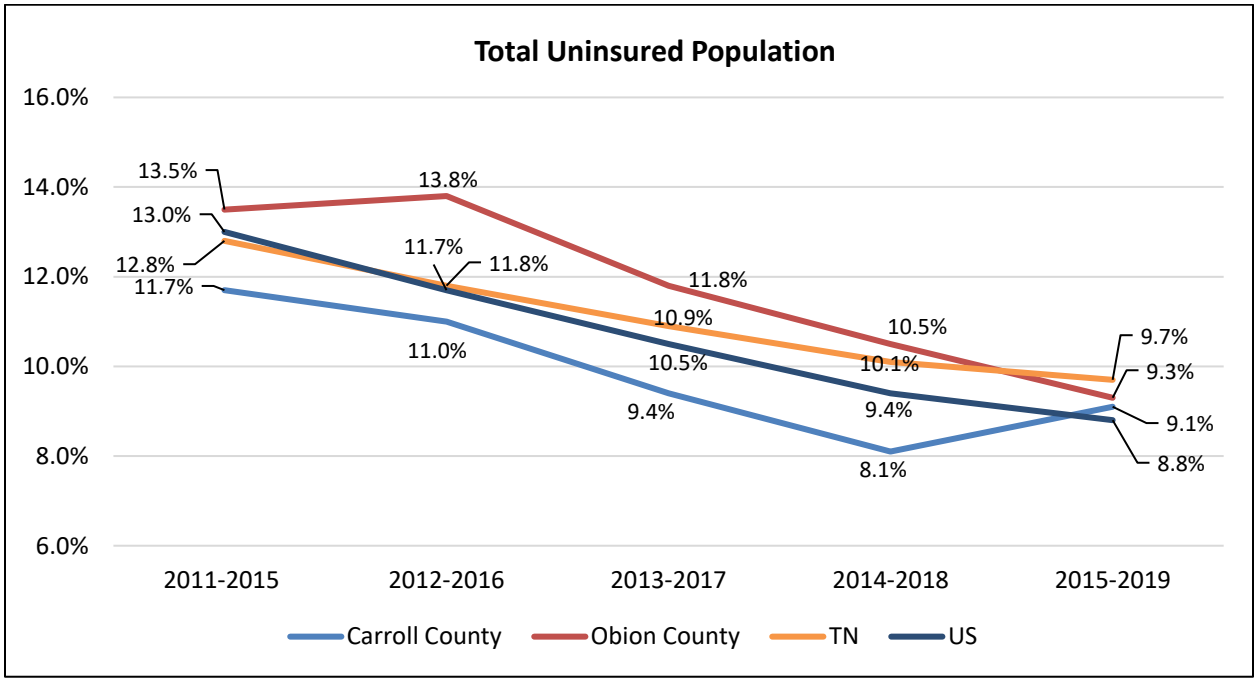
Access to Health Care

The percentage of uninsured residents in Carroll and Obion counties declined from the 2019 CHNA. Both counties have fewer uninsured than the state overall and nearly meet the HP2030 goal of 92.1% insured residents. From 2012-2016 to 2015-2019, the percent uninsured declined 4.5 percentage points in Obion County. This finding is consistent with a higher Medicaid insured population that also increased during the same time span. Despite overall improvement in health insurance coverage in Obion County, 21% of young adults age 19 to 25 are uninsured, a higher percentage than the state and nation.

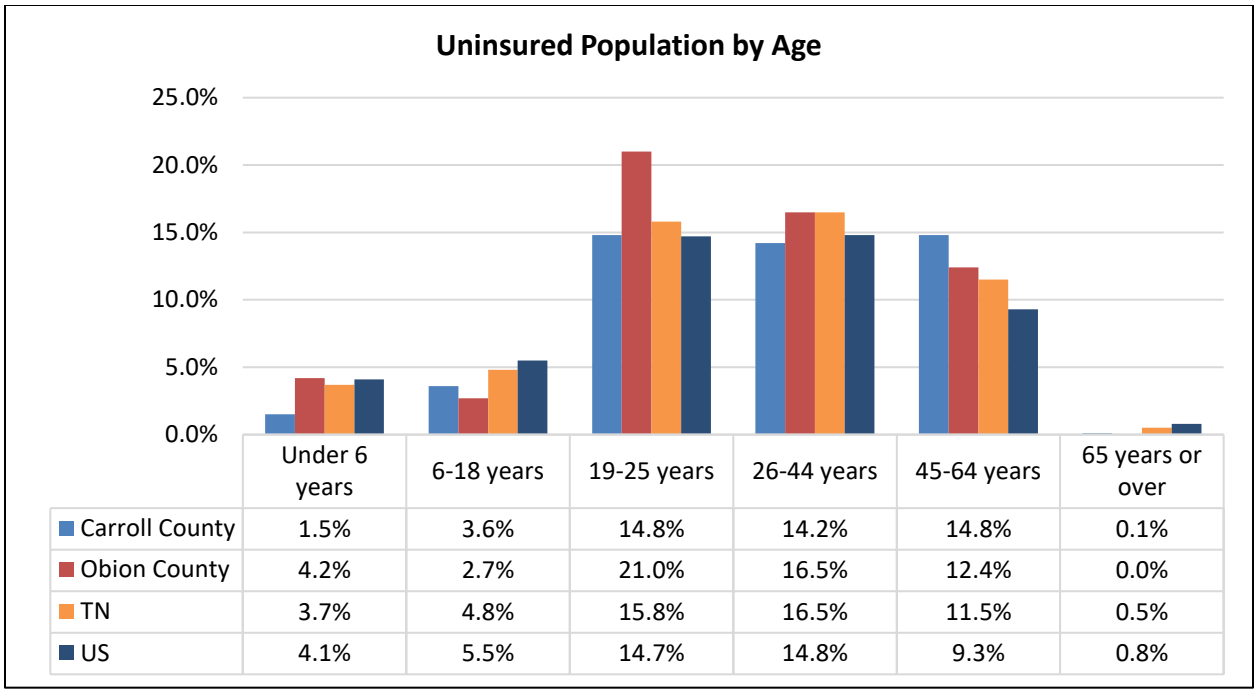
In Carroll County, the percent uninsured declined 2.9 percentage points from 2012 to 2016, although the county saw a small increase in 2015 to 2019 that should be explored. Carroll County working-age adults 45 to 64 years old are more likely to be uninsured in when compared to state and national benchmarks.

Consistent with age and socio-economic factors for Carroll and Obion counties, a higher proportion of residents are insured by Medicare and/or Medicaid. **As of 2015 to 2019, approximately half of residents in either county had Medicare and/or Medicaid compared to 38.9% statewide.**

The uninsured percentage declined for all racial and ethnic groups across Tennessee, but individuals of color continue to be disproportionately uninsured compared to white residents. Approximately 1 in 3 "other race" residents and Latinx are uninsured compared to 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.

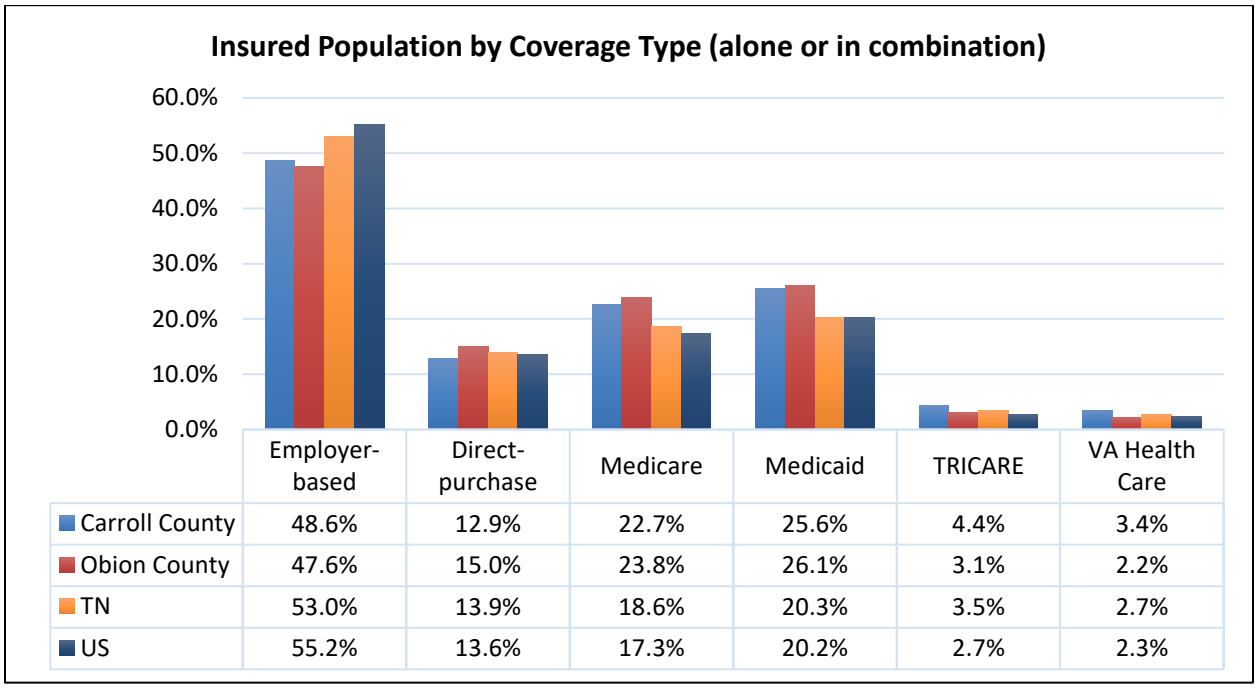


Source: U.S. Census Bureau, American Community Survey



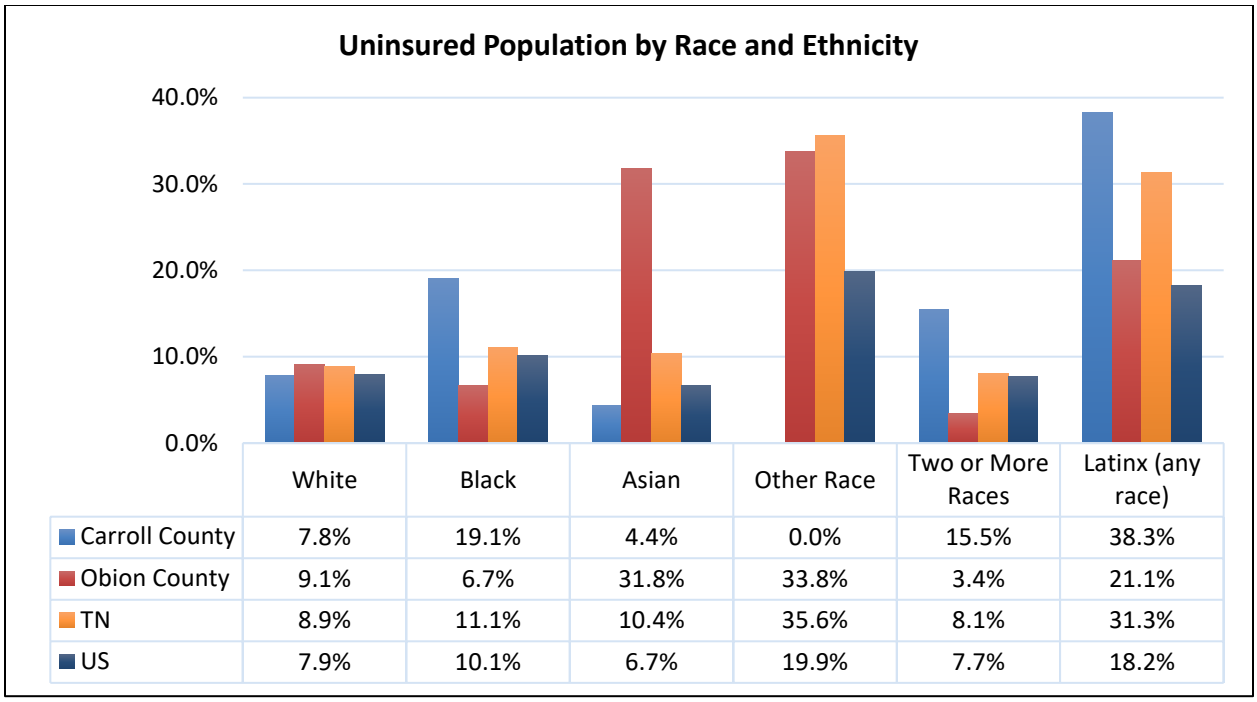
	Under 6 years	6-18 years	19-25 years	26-44 years	45-64 years	65 years or over
Carroll County	1.5%	3.6%	14.8%	14.2%	14.8%	0.1%
Obion County	4.2%	2.7%	21.0%	16.5%	12.4%	0.0%
TN	3.7%	4.8%	15.8%	16.5%	11.5%	0.5%
US	4.1%	5.5%	14.7%	14.8%	9.3%	0.8%

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



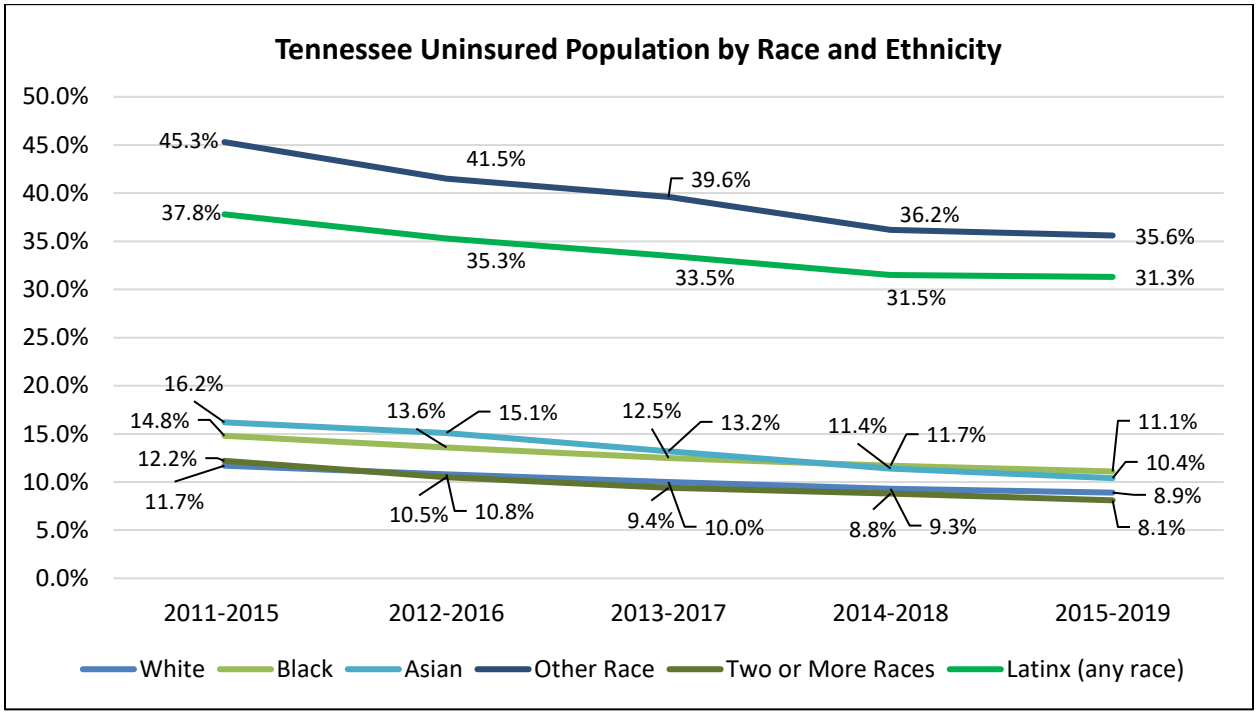
	Employer-based	Direct-purchase	Medicare	Medicaid	TRICARE	VA Health Care
Carroll County	48.6%	12.9%	22.7%	25.6%	4.4%	3.4%
Obion County	47.6%	15.0%	23.8%	26.1%	3.1%	2.2%
TN	53.0%	13.9%	18.6%	20.3%	3.5%	2.7%
US	55.2%	13.6%	17.3%	20.2%	2.7%	2.3%

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



	White	Black	Asian	Other Race	Two or More Races	Latinx (any race)
Carroll County	7.8%	19.1%	4.4%	0.0%	15.5%	38.3%
Obion County	9.1%	6.7%	31.8%	33.8%	3.4%	21.1%
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

Availability of health care providers also impacts access to care and health outcomes. Tennessee overall has similar primary care provider availability as the nation and a consistent rate of primary care providers per 100,000 from the 2019 CHNA. **Within the West Tennessee service area, primary care provider availability declined in both counties from the 2019 CHNA. In Carroll County, the provider rate declined nearly 10 points from 50.2 to 42.8 per 100,000.** Both counties have fewer primary care providers than the state and nation, and Obion County is designated by the Federal Department of Health and Human Services as a Health Professional Shortage Area (HPSA) for low-income individuals. Despite differences in access to primary care, a similar proportion of service area adults have received a recent physical checkup in comparison to the state and nation.

Tennessee overall has lower dental provider access than the nation and fewer adults receiving regular dental care. **The West Tennessee service area has lower dental provider access and fewer adults receiving dental care than the state.** Approximately half of West Tennessee service area adults received dental care within the past year compared with 58% statewide and 66% nationally. It is worth noting that a similar proportion of adults in Carroll and Obion counties access dental care despite wide differences in provider availability. The Obion County dental provider rate increased from the 2019 CHNA, from a rate of 39.2 to 53.2 per 100,000, and is nearly double the Carroll County provider rate.

When viewed at the ZIP code-level, adult dental care access is low across the West Tennessee service area. Consistent with having low provider availability, the largest dental care access disparities exist in Carroll County, particularly affecting residents in the northeast portion of the county.

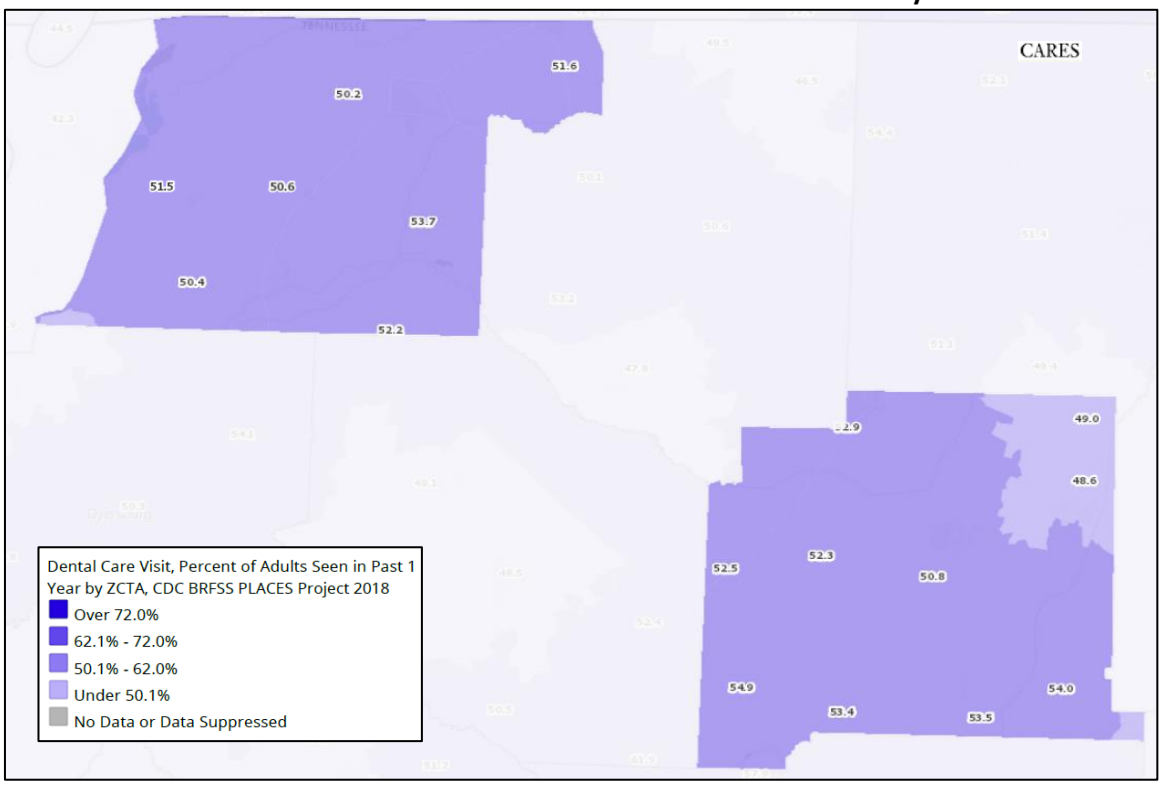
COVID-19 had a significant impact on access to care. Individuals nationwide delayed regular preventive and maintenance care due to fear of contracting COVID-19 in a health care setting and new financial constraints, among other concerns. **Nationally, the percentage of adults receiving a routine physical 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.** 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)*
Carroll County	42.8	74.9%	28.8	51.2%
Obion County	46.3	74.9%	53.2	50.0%
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.

West Tennessee 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 West Tennessee 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.

Tennessee adults overall have increased risk factors for chronic disease, including lack of physical activity and tobacco use. **West Tennessee service area counties exceed both state and national benchmarks for poor physical health and smoking.** Approximately one-third of adults in both counties report no regular physical activity and one-quarter of adults use tobacco. Consistent with experiencing more socio-economic barriers, Obion County adults generally have poorer health outcomes than Carroll County adults.

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
Carroll County	16.6%	32.7%
Obion County	17.6%	35.1%
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
Carroll County	25.8%
Obion County	27.6%
Tennessee	20.8%
United States	15.9%

Source: Centers for Disease Control and Prevention, BRFSS

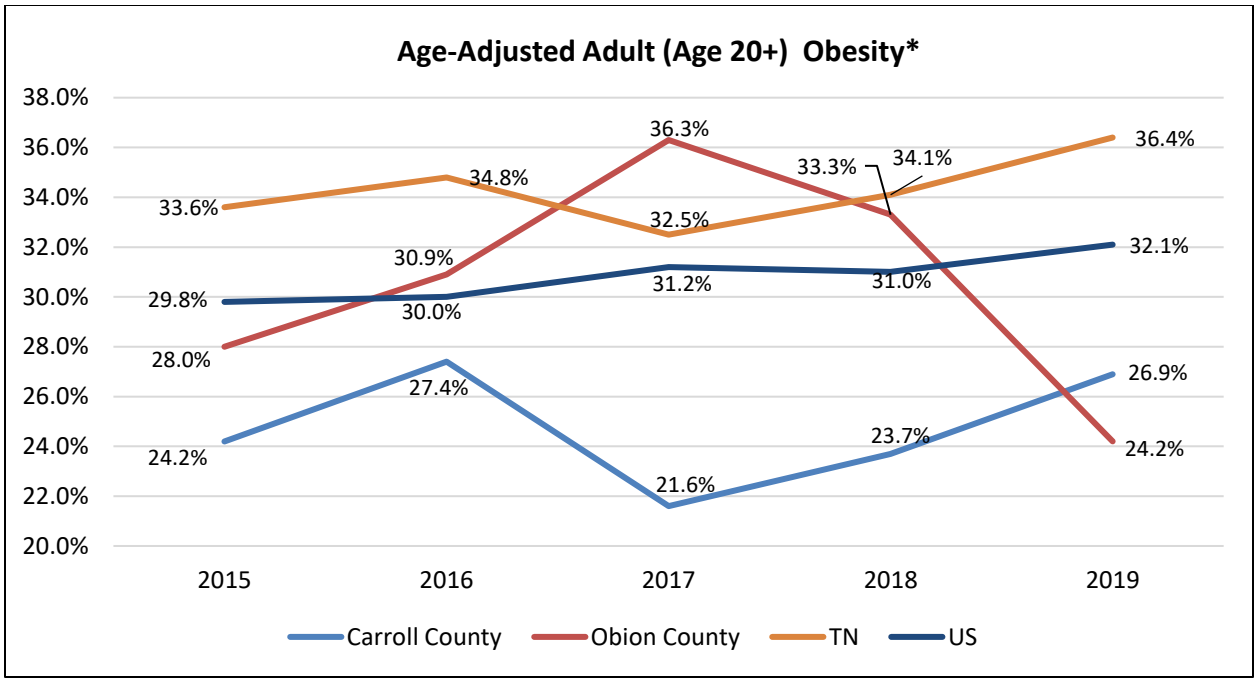
*A change in reporting methodology occurred in 2018 providing age-adjusted county percentages. Data prior to 2018 were reported as crude percentages and are not comparable.

Obesity and Diabetes

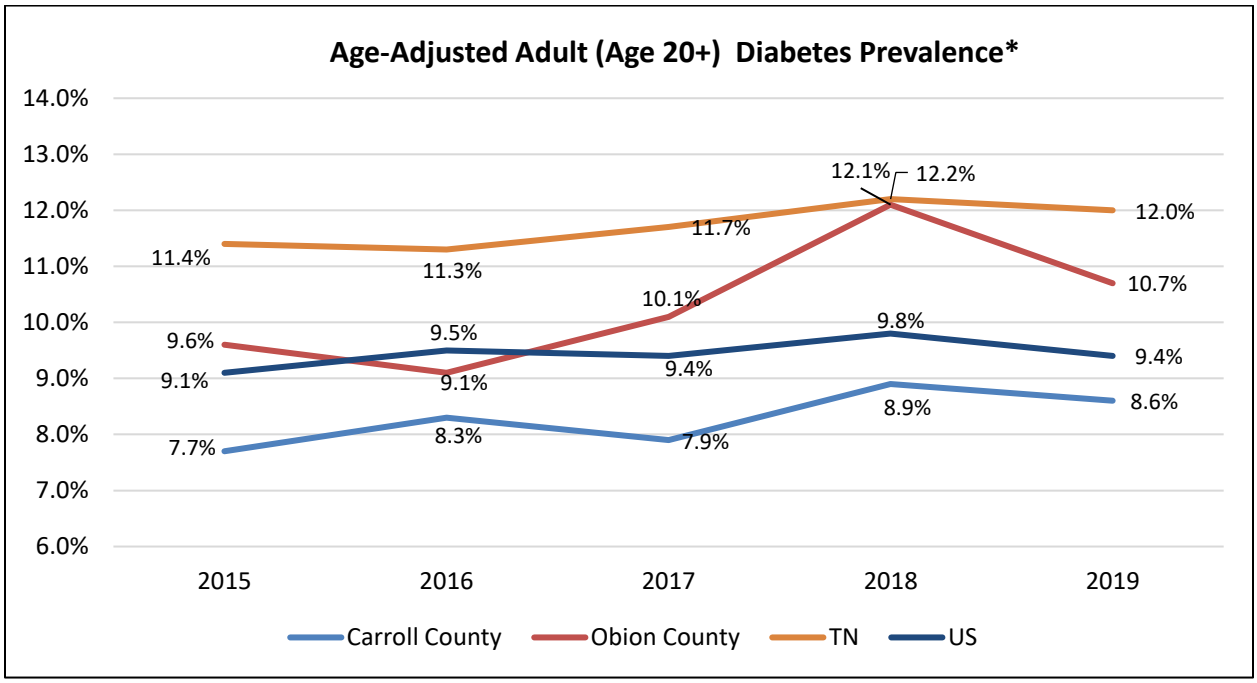
Tennessee adults overall have historically higher prevalence of obesity and diabetes compared with the nation, as well as a slightly higher diabetes death rate. In the West Tennessee service area, obesity and diabetes prevalence is lower in Carroll County than the state and nation, but has generally increased since 2017. Consistent with this finding, Carroll County also has a lower diabetes death rate than both Tennessee and the U.S., although the death rate increased slightly in recent years. Obesity and diabetes prevalence in Obion County has historically exceeded national benchmarks, although the county saw a decline in both factors in 2019 that should continue to be monitored. **The Obion County diabetes death rate is nearly double state and national rates, and contrary to state and national trends, has increased in recent years.**

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.

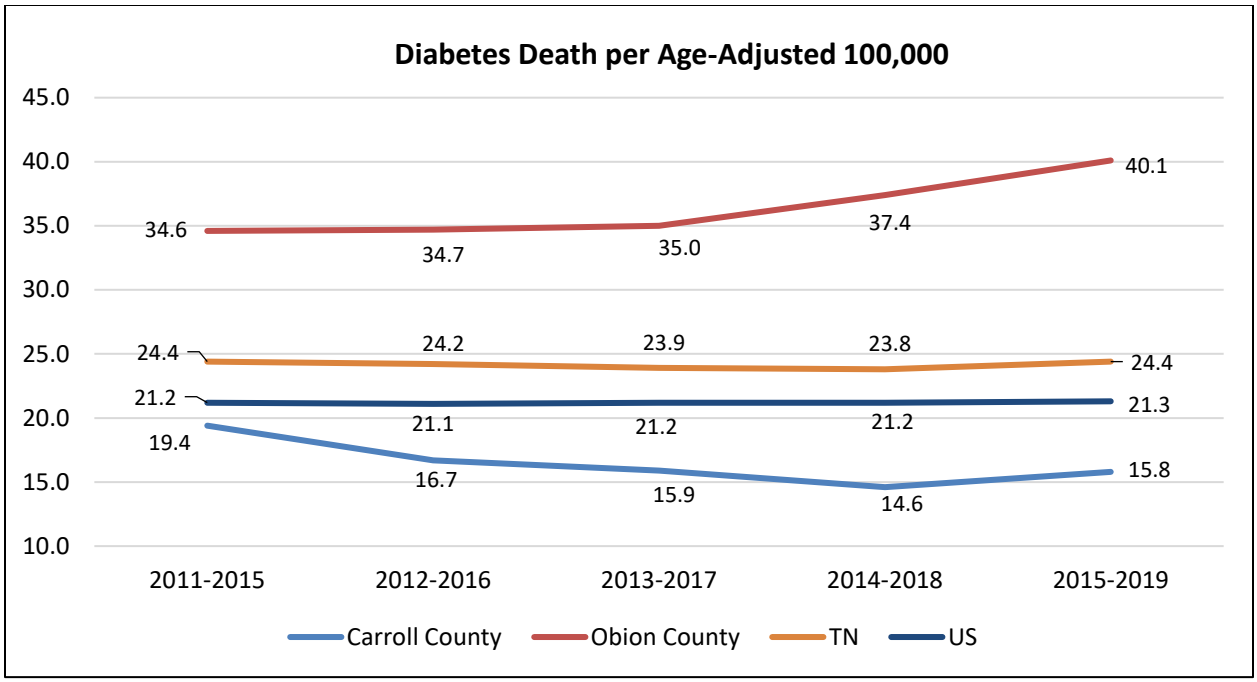
Across Tennessee and the nation, there is wide disparity in death due to diabetes between white and Black/African American residents. In both geographies, **the rate of diabetes death is approximately 20 points higher for Black/African American people than white people. This finding is unchanged from the 2019 CHNA.** County-level data are not reported due to low death counts.



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)
Carroll County	15.8	17.2	NA	NA
Obion County	40.1	37.4	NA	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

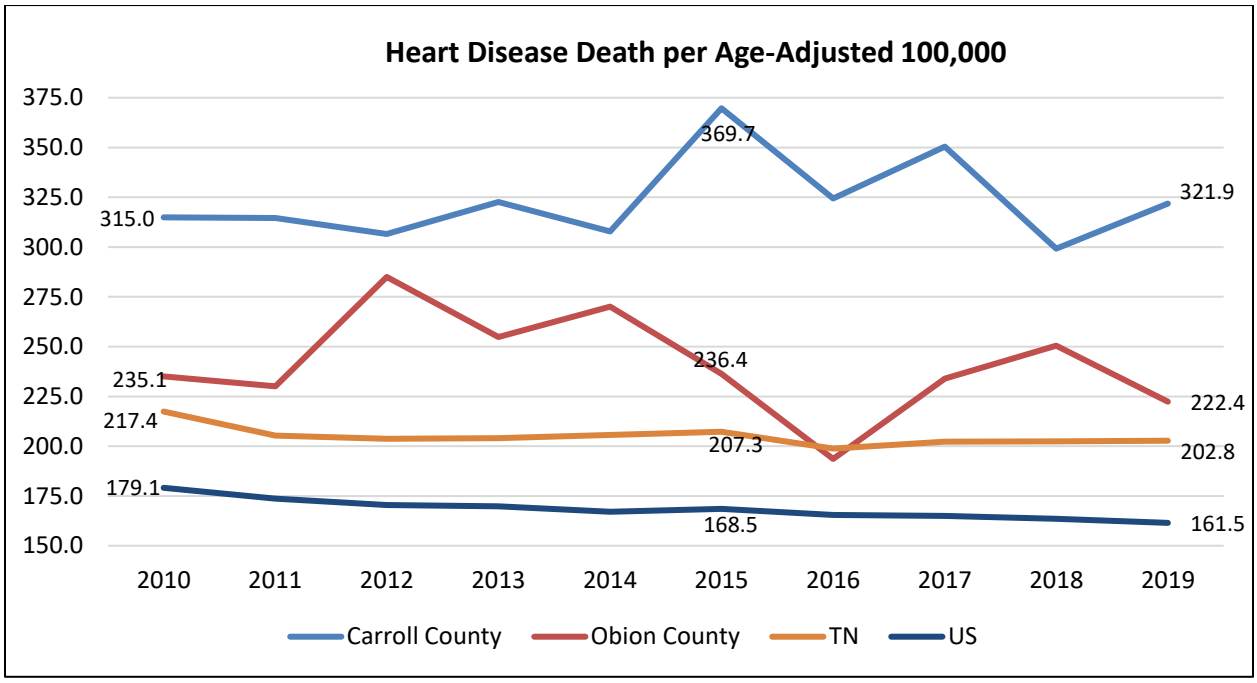
Heart disease is the leading cause of death nationally. High blood pressure and cholesterol are two of the primary causes of heart disease and can be preventable. **Tennessee adults have a higher prevalence of high blood pressure and high cholesterol than the nation overall, and a higher rate of death due to heart disease. West Tennessee service area adults have higher heart disease prevalence and death rates than the state.** Carroll County exceeds the statewide heart disease death rate by nearly 120 points. Obion County has a heart disease death rate that is more similar to the statewide rate, but has wide disparities among racial groups. In Obion County, the heart disease death rate is more than 100 points higher for Black/African American residents than for white residents.

Contrary to state and national declines in heart disease death, the death rate has been variable in Carroll and Obion counties over the past decade. Both counties report a similar or higher rate of death as that reported at the time of the 2019 CHNA.

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

	Adults with High Blood Pressure	Adults with High Cholesterol
Carroll County	36.9%	32.8%
Obion County	38.5%	33.2%
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)
Carroll County	332.7	338.3	322.0	NA
Obion County	227.1	226.7	353.3	NA
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. Tennessee overall reports 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. Tennessee adults are generally less likely to receive cancer screenings compared to national benchmarks.

Carroll and Obion counties have historically higher cancer death rates than the state and nation. Obion County also had historically lower cancer incidence, a finding that is indicative of delayed screening and later stage diagnosis. However, **recent cancer incidence and death rate trends in both counties indicate improved screening prevalence. Both counties saw notable increases in cancer incidence and general declines in cancer death rates.** The 2019 cancer death rate for Obion County was on par with the state overall. While Carroll County continues to have a higher cancer death rate than the state and nation, the rate declined 62 points from 2015 to 2019.

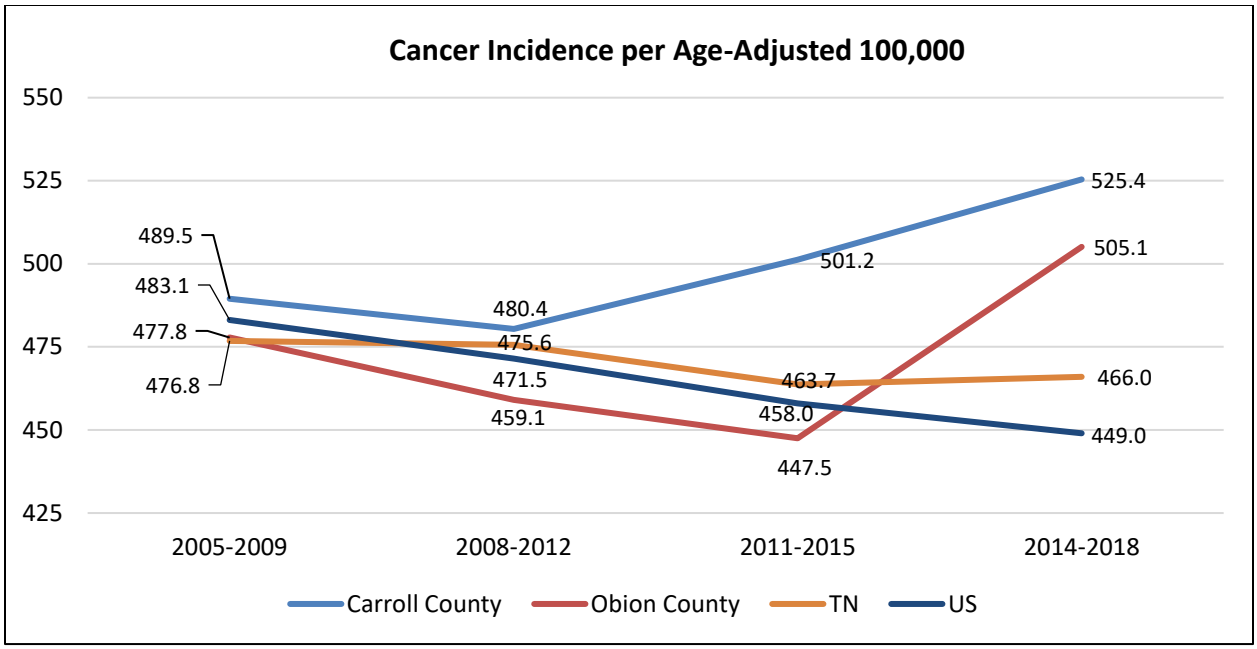
Across Tennessee and the nation, white and Black/African American residents report similar cancer incidence, but disproportionate death rates that negatively impact Black/African Americans. Carroll and Obion counties differ from state and national trends in unique ways. In Carroll County, white and Black/African American residents have a similar cancer incidence rate, but white residents have a higher death rate. In Obion County, Black/African American residents are disproportionately burdened by cancer, including both higher incidence and death rates than white residents.

High cancer incidence and death rates in Carroll and Obion counties are largely due to disparities in lung cancer. **The lung cancer death rate is more than triple the national death rate in Carroll County and more than double the national death rate in Obion County.** Other notable disparities include a higher rate of female breast cancer death in Obion County and a higher rate of colorectal cancer death in Carroll County. Both counties, particularly Obion County, report lower cancer screenings for both breast and colorectal cancers.

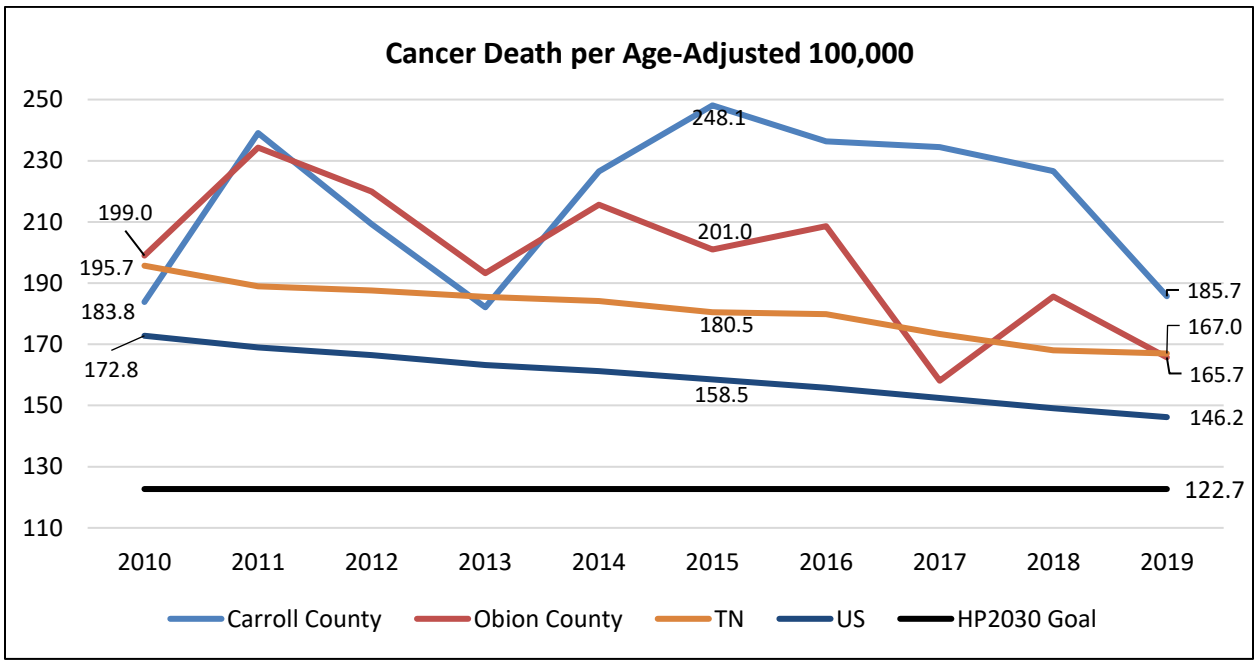
2018 Age-Adjusted Adult Cancer Screening Practices

	Mammogram in the Past 2 Years (50-74 years)	Cervical Cancer Screening (21-65 years)	Colon Cancer Screening (50-74 years)
Carroll County	70.0%	83.3%	62.1%
Obion County	67.6%	82.7%	59.2%
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: Tennessee Cancer Registry & Centers for Disease Control and Prevention, United States Cancer Statistics

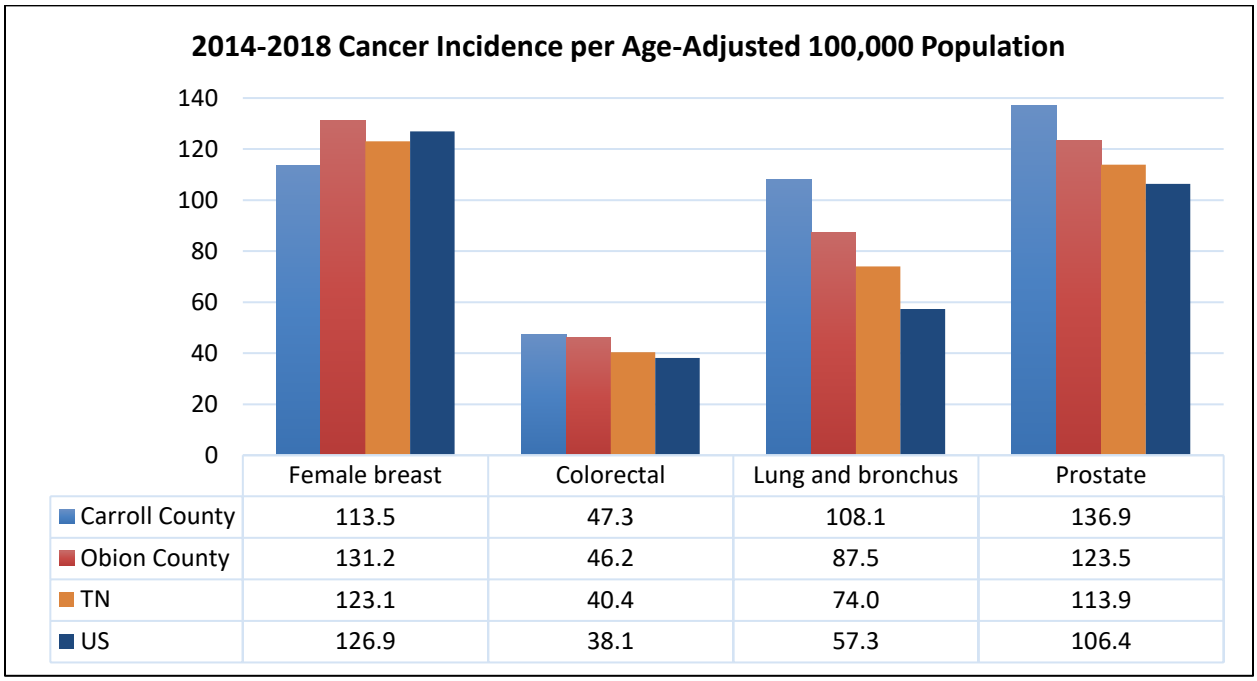


Source: Centers for Disease Control and Prevention

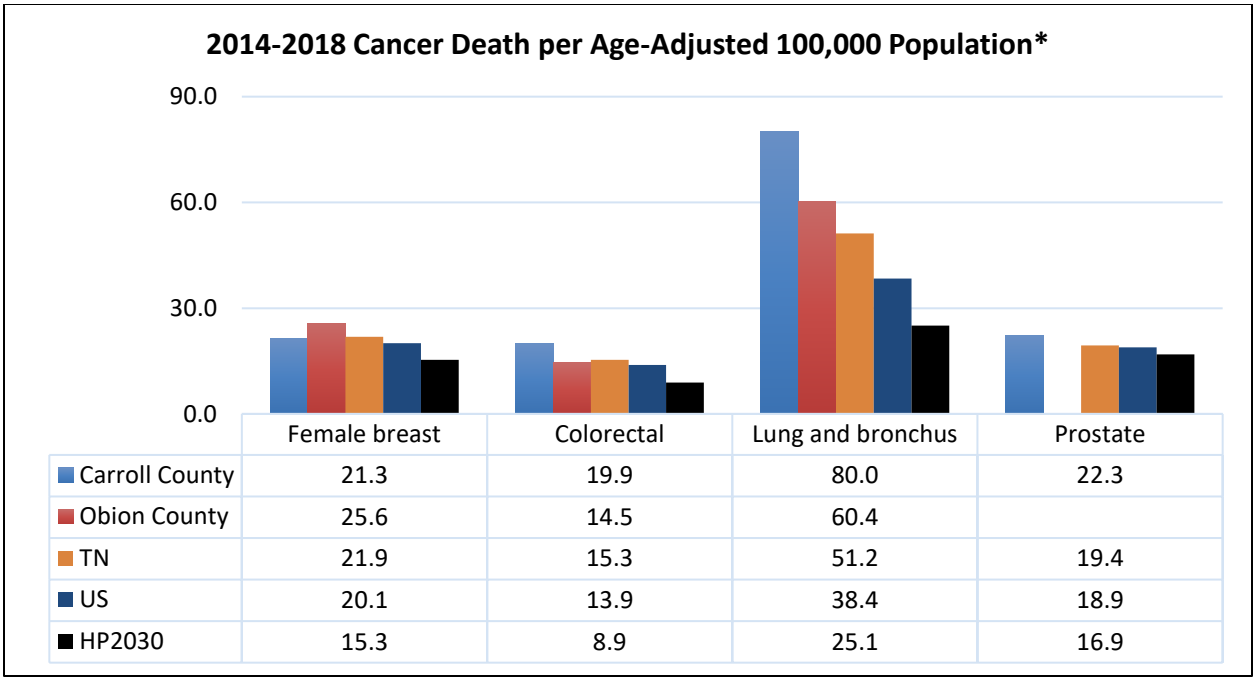
2014-2018 Age-Adjusted Cancer Incidence and Death per 100,000 Population by Race and Ethnicity

	Carroll County	Obion County	Tennessee	United States
Cancer Incidence				
Total Population	525.4	505.1	466.0	449.0
White	523.5	495.9	466.8	451.3
Black or African American	528.8	582.8	462.5	445.4
Latinx origin (any race)	NA	NA	317.0	345.5
Cancer Death				
Total Population	234.5	193.6	177.1	155.6
White	240.4	202.1	176.9	156.4
Black or African American	192.8	246.9	201.1	177.6
Latinx origin (any race)	NA	NA	78.2	111.3

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



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



	Female breast	Colorectal	Lung and bronchus	Prostate
Carroll County	21.3	19.9	80.0	22.3
Obion County	25.6	14.5	60.4	
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

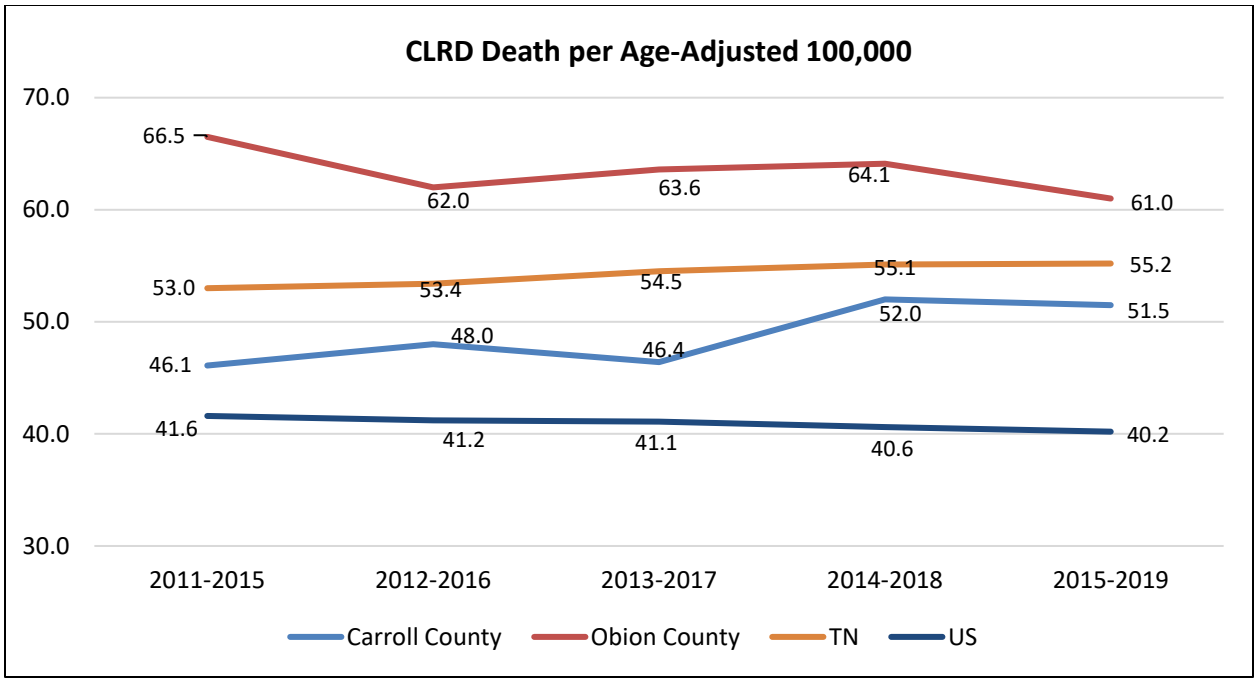
Chronic lower respiratory disease (CLRD) includes several chronic conditions of the respiratory tract, including asthma and chronic obstructive pulmonary disease (COPD). **Consistent with having higher smoking rates and environmental barriers like older housing, Carroll and Obion counties report a higher prevalence of both adult asthma and COPD than the state and nation.**

Contrary to the nation, the CLRD death rate increased in Tennessee and Carroll County over the past five years. While the death rate declined in Obion County, it exceeds state and national benchmarks. Statewide and nationally, white people 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
Carroll County	11.0%	10.2%
Obion County	11.1%	10.8%
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)
Carroll County	51.5	54.1	NA	NA
Obion County	61.0	64.3	NA	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

Tennessee is an aging state. From 2011-2015 to 2015-2019, the proportion of residents age 65 or older increased from 14.6% to 16.0%, a similar rate of growth as the nation overall.

According to the Centers for Medicare & Medicaid Services, approximately 73% of Tennessee older adult Medicare beneficiaries have two or more chronic conditions, a higher proportion than the nation (70.3%). **Carroll and Obion counties have a higher proportion of beneficiaries with multiple chronic conditions than the state and nation, and the proportion increased from the 2019 CHNA.** Obion County saw the largest increase in beneficiaries with comorbidities from 72.4% to 77.1%.

Older adults in Carroll and Obion counties are also more likely to have a disability when compared to the state and nation. More than 43% of adults in either county experience disability compared to 38.5% statewide and 34.5% nationally. 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
Carroll County	24.2%	29.0%	23.8%	23.0%
Obion County	22.9%	30.7%	25.4%	21.0%
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

	Carroll County	Obion County	Tennessee	United States
Total population	22.4%	22.1%	15.4%	12.6%
65 years or older	43.4%	44.7%	38.5%	34.5%
Ambulatory	29.9%	31.1%	24.9%	21.9%
Hearing	18.8%	20.6%	16.3%	14.3%
Independent living	20.5%	18.8%	16.0%	14.2%
Cognitive	15.1%	11.6%	10.2%	8.6%
Vision	6.5%	8.1%	7.6%	6.3%

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

Across the West Tennessee 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 5 older adult men and women in the service area are up to date on preventive services, a lower proportion than the state and nation overall.** Men are slightly more likely than women to be up to date on preventive services.

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
Carroll County	21.1%	19.2%
Obion County	19.0%	18.4%
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, Tennessee generally has lower per capita spending and fewer emergency department (ED) visits among beneficiaries. Notable differences in the West Tennessee service area include higher spending in Obion County among beneficiaries with six or more chronic conditions, a finding that is due in part to higher ED utilization.** Carroll County also reports higher ED utilization among beneficiaries with six or more conditions, although spending is consistent with the state.

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
Carroll County	$1,723	$4,925	$10,769	$28,923
Obion County	$1,708	$5,397	$9,076	$32,428
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
Carroll County	125.1	270.4	590.9	1,912.4
Obion County	133.8	370.8	638.4	2,001.1
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 Tennessee. In comparison to the nation, Tennessee older adult Medicare beneficiaries generally report a higher prevalence of chronic conditions, with the exception of Alzheimer's disease, asthma, cancer, high cholesterol and stroke.

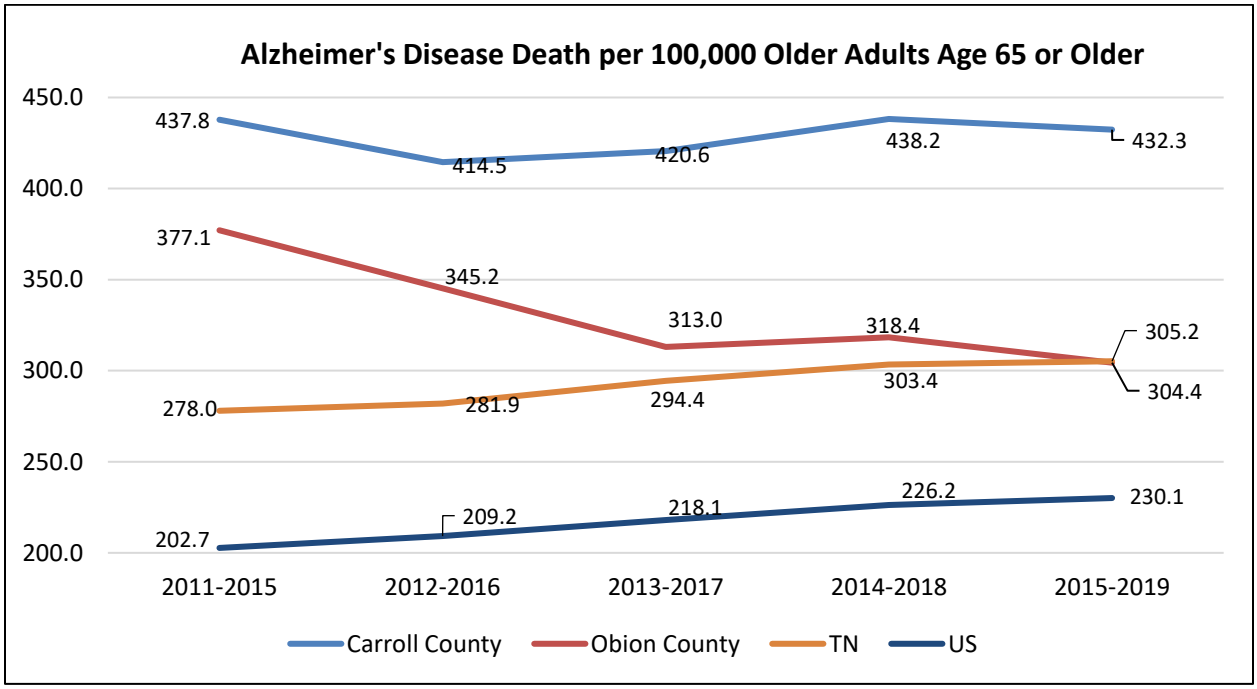
Consistent with having a higher proportion of older adult Medicare beneficiaries with multiple chronic conditions, Carroll and Obion counties have a higher prevalence of all reported conditions except asthma and cancer when compared to the nation. **Disease prevalence is particularly high in comparison to the nation for COPD, depression, diabetes, heart failure, hypertension and ischemic heart disease.**

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

	Carroll County	Obion County	Tennessee	United States
Alzheimer's Disease	12.2%	12.2%	11.9%	11.9%
Arthritis	38.8%	36.7%	36.5%	34.6%
Asthma	3.1%	3.3%	4.0%	4.5%
Cancer	8.5%	9.0%	9.0%	9.3%
Chronic Kidney Disease	27.4%	29.4%	27.0%	24.9%
COPD	16.1%	15.2%	12.7%	11.4%
Depression	19.6%	17.9%	17.4%	16.0%
Diabetes	31.7%	30.5%	28.2%	27.1%
Heart Failure	20.2%	17.4%	15.5%	14.6%
High Cholesterol	51.0%	55.1%	50.2%	50.5%
Hypertension	69.3%	68.8%	63.8%	59.8%
Ischemic Heart Disease	34.9%	34.6%	30.2%	28.6%
Stroke	3.8%	4.5%	3.7%	3.9%

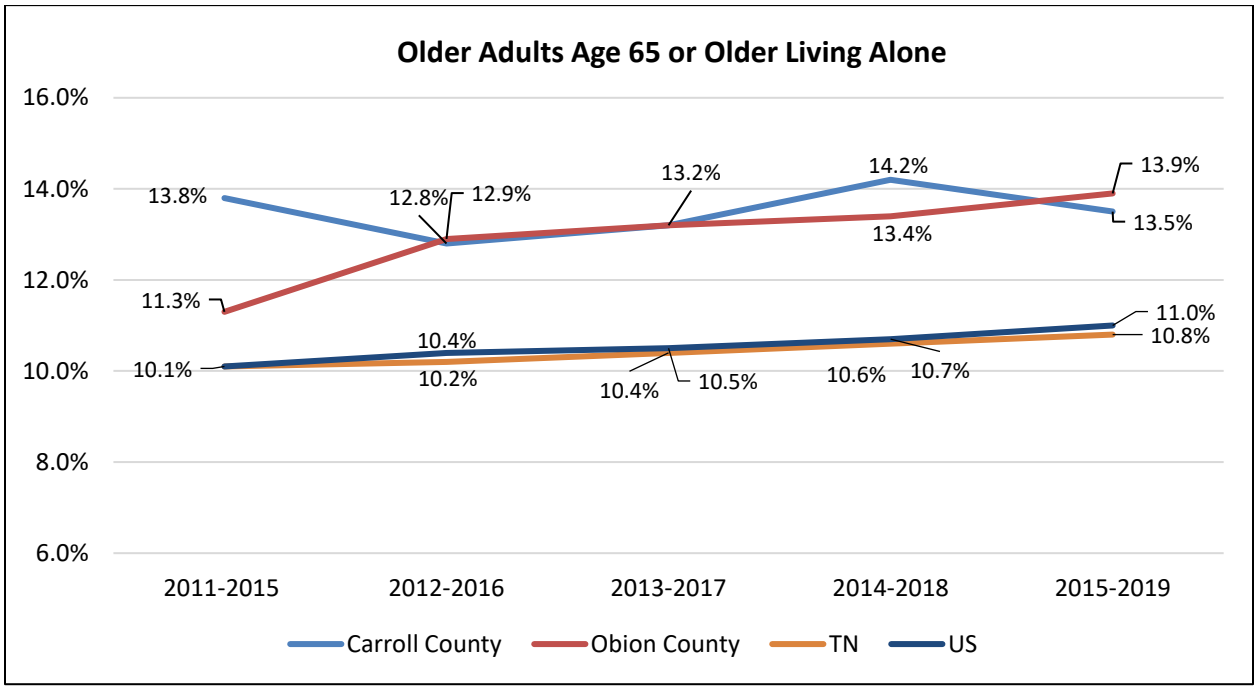
Source: Centers for Medicare & Medicaid Services

The Alzheimer's disease death rate increased statewide and nationally over the past decade. Tennessee has a higher rate of death than the nation by 75 points. Obion County reports a similar death rate as the state, while Carroll County reports a death rate that is more than 125 points higher. The death rate generally declined in Obion County and has been stable in Carroll County.



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 Tennessee and Obion County. Both Carroll and Obion counties have a higher proportion of older adults living alone when compared with state and national benchmarks.**

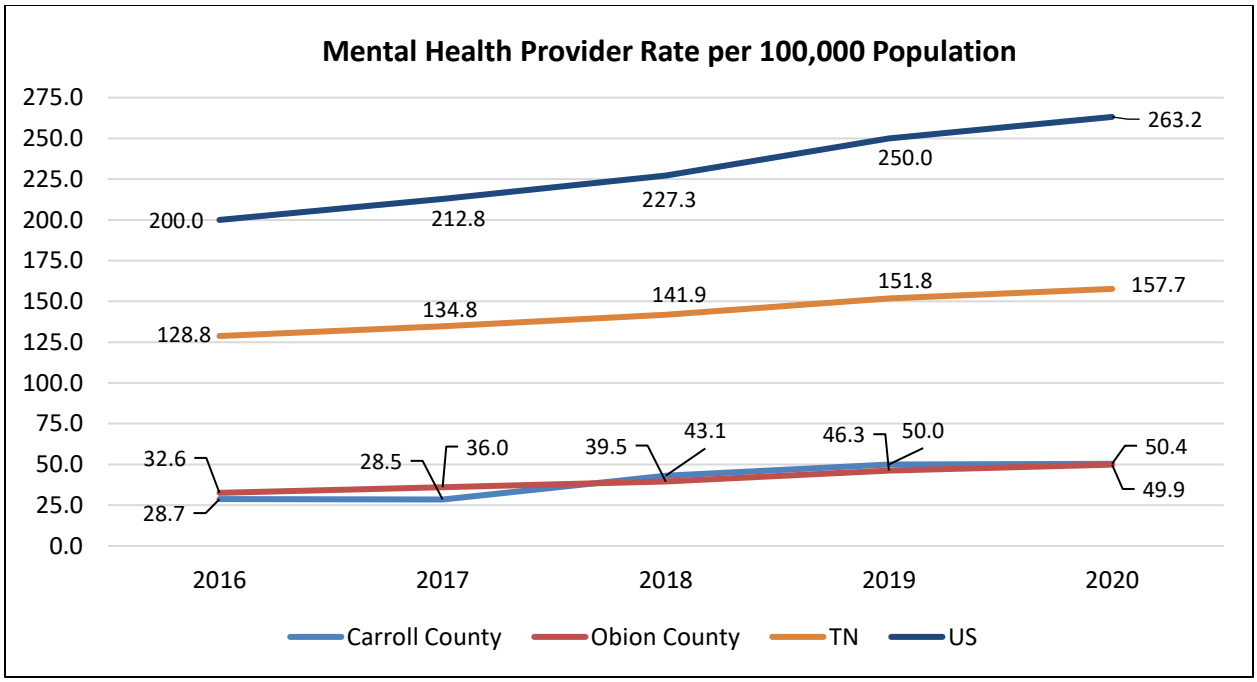


Source: U.S. Census Bureau, American Community Survey

Behavioral Health and Substance Use Disorder

Access to mental health providers is improving nationally and across Tennessee, but Tennessee has lower provider access than the nation, as indicated by the rate of providers per 100,000 population. **Mental health provider availability also increased in the West Tennessee service area, nearly doubling in Carroll County, but remains lower than state and national benchmarks.** The total number of mental health providers is 14 in Carroll County and 15 in Obion County.

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

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

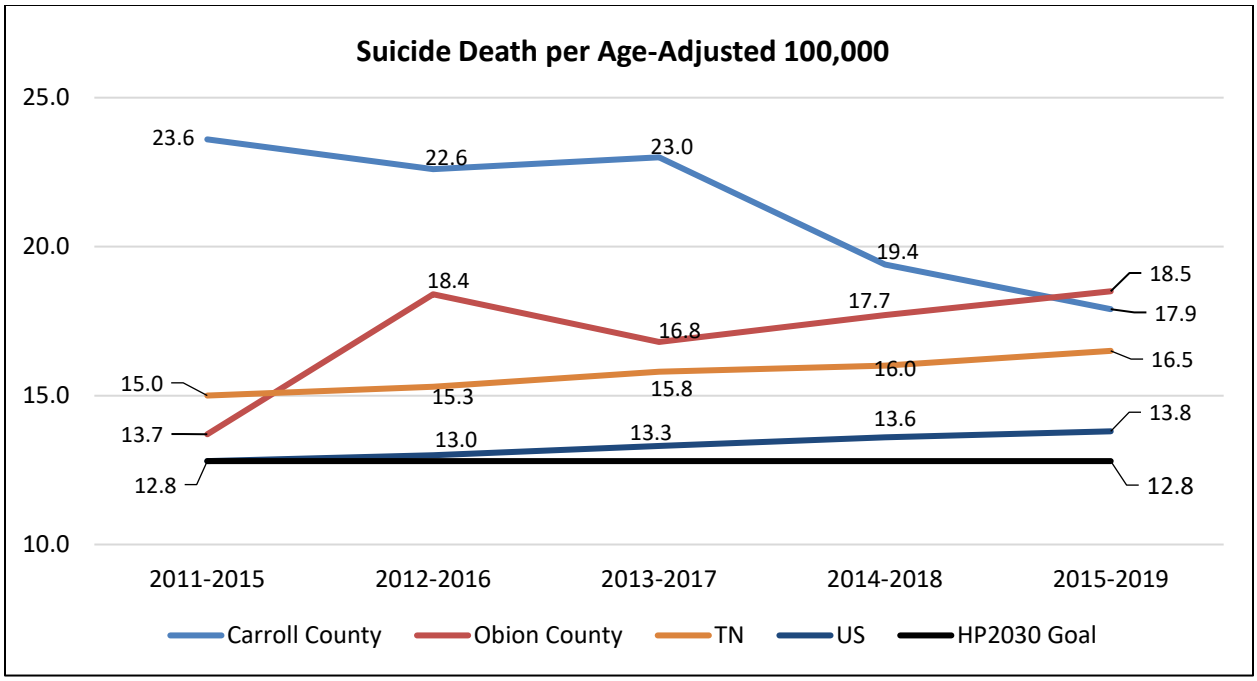
2018 Age-Adjusted Adult (Age 18+) Poor Mental Health Days

	Average Mentally Unhealthy Days per Month	Frequent Mental Distress: 14 or More Poor Mental Health Days per Month
Carroll County	5.7	18.4%
Obion County	6.1	19.2%
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. and Tennessee over the past decade, and Tennessee continues to have a higher rate of death than the nation. Within the West Tennessee service area, **Carroll and Obion counties have a higher prevalence of frequent mental distress and higher suicide death rates than the state and nation.** The suicide rate declined in Carroll County in recent years, but steadily increased in Obion County.

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 Tennessee Suicide Deaths, Demographic Characteristics

	Suicide Deaths	Age-Adjusted Rate per 100,000
Gender		
Female	1,292	7.3
Male	4,433	26.6
Age*		
5-14	64	1.5
15-24	632	14.5
25-34	929	20.4
35-44	958	22.9
45-54	1070	24.1
55-64	961	21.9
65-74	613	19
75-84	363	23
85+	135	22.9
Race and Ethnicity		
White, Non-Hispanic	5,118	19.2
Black/African American, Non-Hispanic	409	7.0
Latinx origin (any race)	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 Tennessee and the West Tennessee service area report excessive drinking.** Excessive drinking includes heavy and/or binge drinking. Carroll and Obion counties also report a lower percentage of driving deaths due to alcohol impairment than the state and nation.

Alcohol Use Disorder Indicators

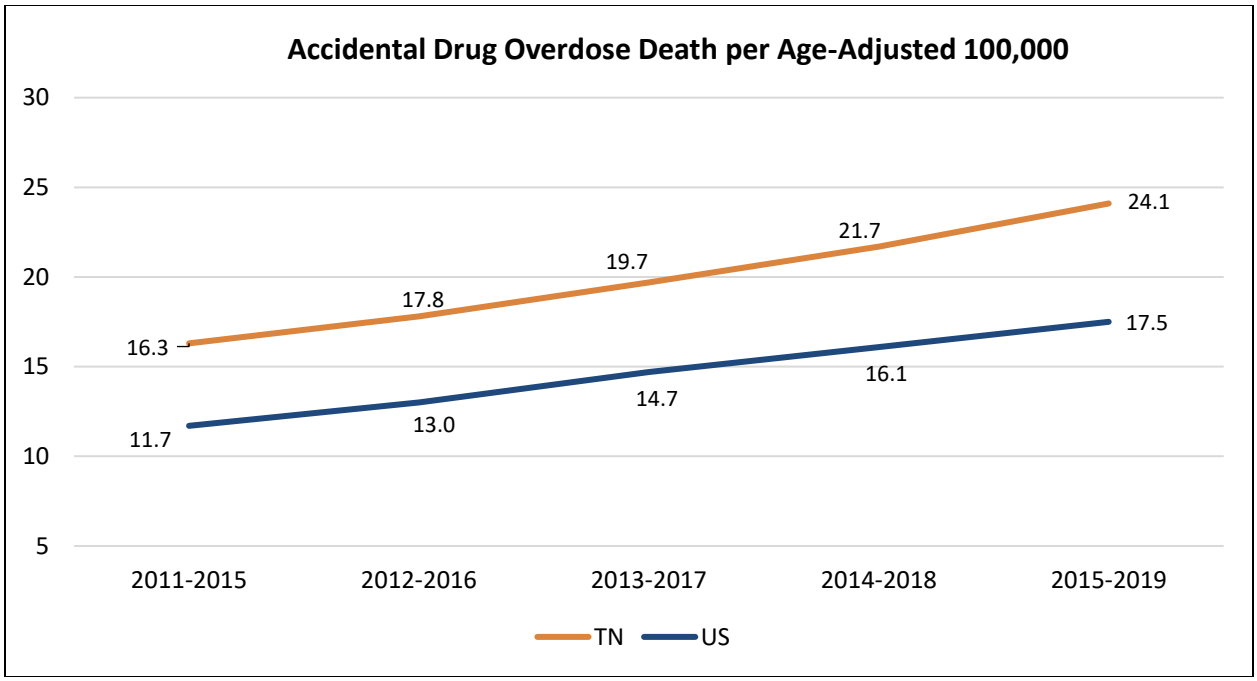
	2018 Adults Reporting Excessive Drinking (age-adjusted)	2015-2019 Driving Deaths due to Alcohol Impairment (%, count)
Carroll County	15.2%	15.0%, n=3
Obion County	15.4%	22.2%, n=4
Tennessee	17.1%	24.6%
United States	19.0%	27.0%

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.

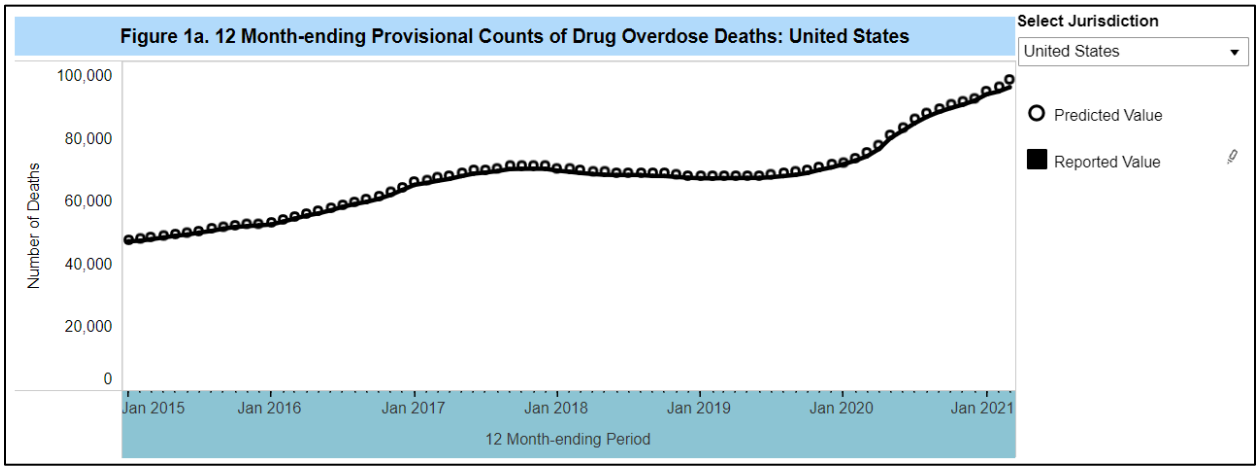
Tennessee as a whole has experienced more accidental drug overdose deaths than the nation, but death rates are not reported for West Tennessee service area counties after 2011 to 2015 due to low death counts. As of 2011 to 2015, Carroll County had a similar rate of death per 100,000 (15.9) as the state and Obion County had a similar rate of death (13.1) as 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 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 50.8% in Tennessee, compared with a national increase of 30.8%.**



Source: Centers for Disease Control and Prevention

*Data are not reportable for Carroll and Obion counties due to low death counts. Deaths in 2015 to 2019 totaled 12 in Carroll County and 10 in Obion County.



Source: Centers for Disease Control and Prevention

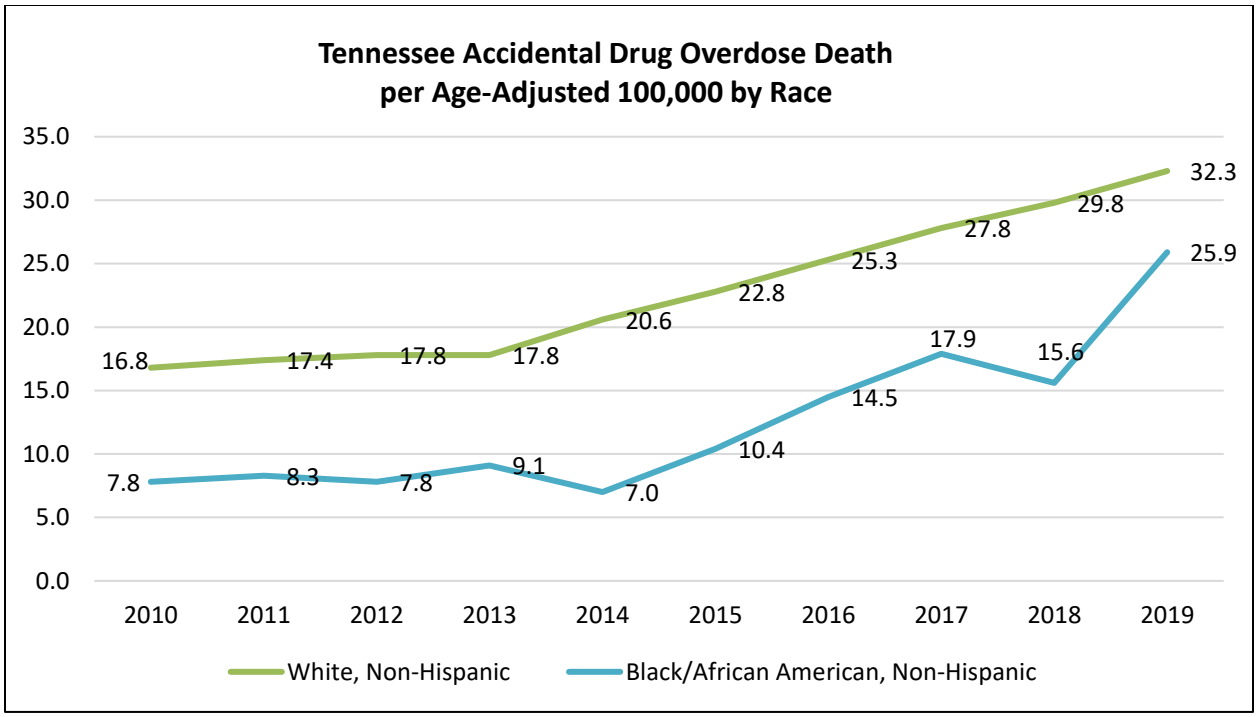
While the opioid epidemic has affected all genders and age groups, the largest proportion of accidental overdose deaths has historically been among males and young to middle-aged adults. From 2015 to 2019, males accounted for 61.5% of overdose deaths in Tennessee. When considered by age, adults age 45 to 54 accounted for the largest proportion of overdose deaths (25%), followed by adults age 35 to 44 (24%) and 25 to 34 (23%).

2015-2019 Tennessee Accidental Overdose Deaths, Demographic Characteristics

	Accidental Overdose Deaths	Age-Adjusted Rate per 100,000
Gender		
Female	3,065	18.0
Male	4,905	30.4
Age*		
5-14	555	12.7
15-24	1,819	39.9
25-34	1,931	46.1
35-44	1,988	44.8
45-54	1,306	29.8
55-64	273	8.5
65-74	59	3.7
75-84	30	5.1
85+	135	22.9
Race and Ethnicity		
White, Non-Hispanic	6,794	27.6
Black/African American, Non-Hispanic	967	16.9
Latinx origin (any race)	139	8.1

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

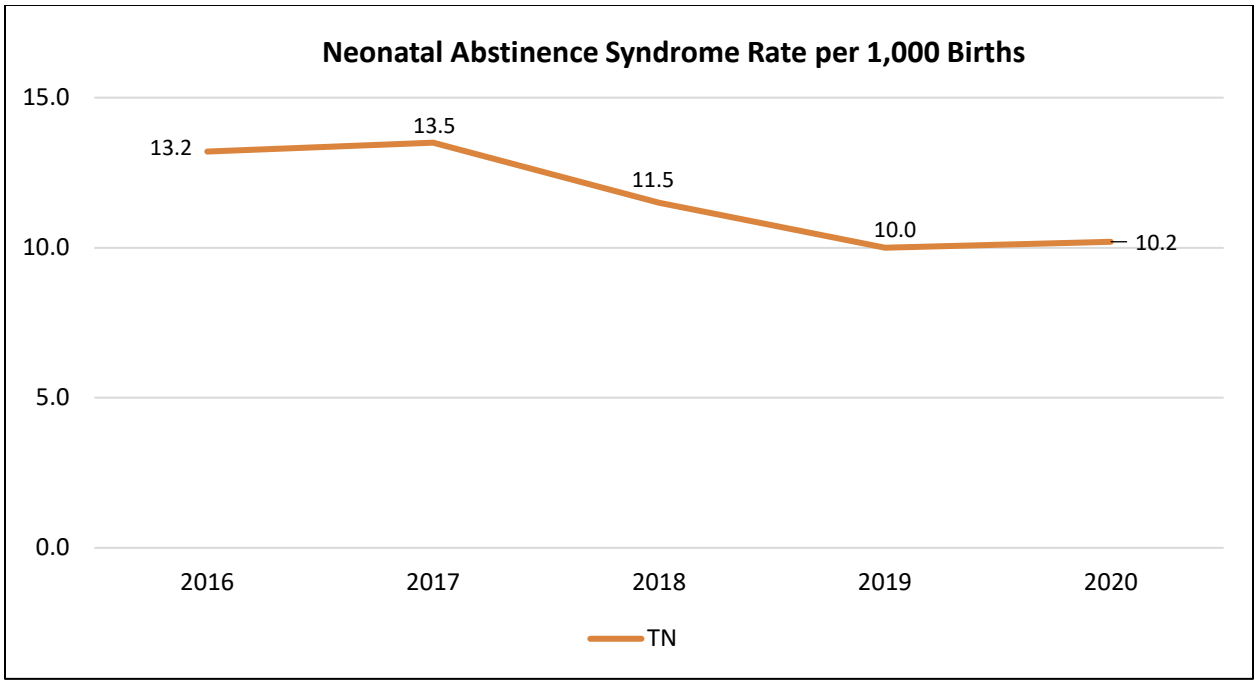
In Tennessee, the accidental overdose death rate increased gradually among white people since 2013, but nearly tripled among Black/African American people. This trend is occurring nationally and is rooted in inequities in addiction treatment and prevention efforts. Studies conducted by the National Institutes of Health found that Black/African American people are less likely to be prescribed medications for opioid use disorder or 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 across Tennessee. Rates are not reported for Carroll and Obion counties due to low counts. Obion County had zero cases of NAS in 2019 and 2020. Carroll County had fewer than five NAS cases in 2019 and fewer than 10 cases in 2020.



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

*Data are not reported by West Tennessee service area county due to low death counts.

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 Tennessee high school students have obesity compared to the nation overall, and the proportion is increasing. **The proportion of Tennessee high school students with obesity increased 4 percentage points from 2013 to 2019, compared with a national average increase of 1.8 points.** Consistent with the nation, the most at-risk populations for youth obesity in Tennessee are males and Black/African American and Latinx residents.

High School Students with Obesity

	2013	2015	2017	2019
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

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

Source: Centers for Disease Control and Prevention, YRBS

Behavioral Health and Substance Use Disorder

Tennessee has historically reported a higher percentage of youth attempting suicide than the nation. **As of 2019, 10.6% of Tennessee high school students reported an attempted suicide compared with 8.9% nationally.** When considered by subgroup, attempted suicides were highest among Tennessee students identifying as Latinx, Black/African American and/or female. Nationally, students identifying as lesbian, gay or bisexual (LGB) are the most at risk for attempted suicide.

Contributing to acute psychiatric distress among Tennessee youth is an overall increasing percentage of school students who report feeling consistently sad or hopeless. The incidence of dating violence also increased from 2013 to 2019.

High School Students Reporting an Attempted Suicide

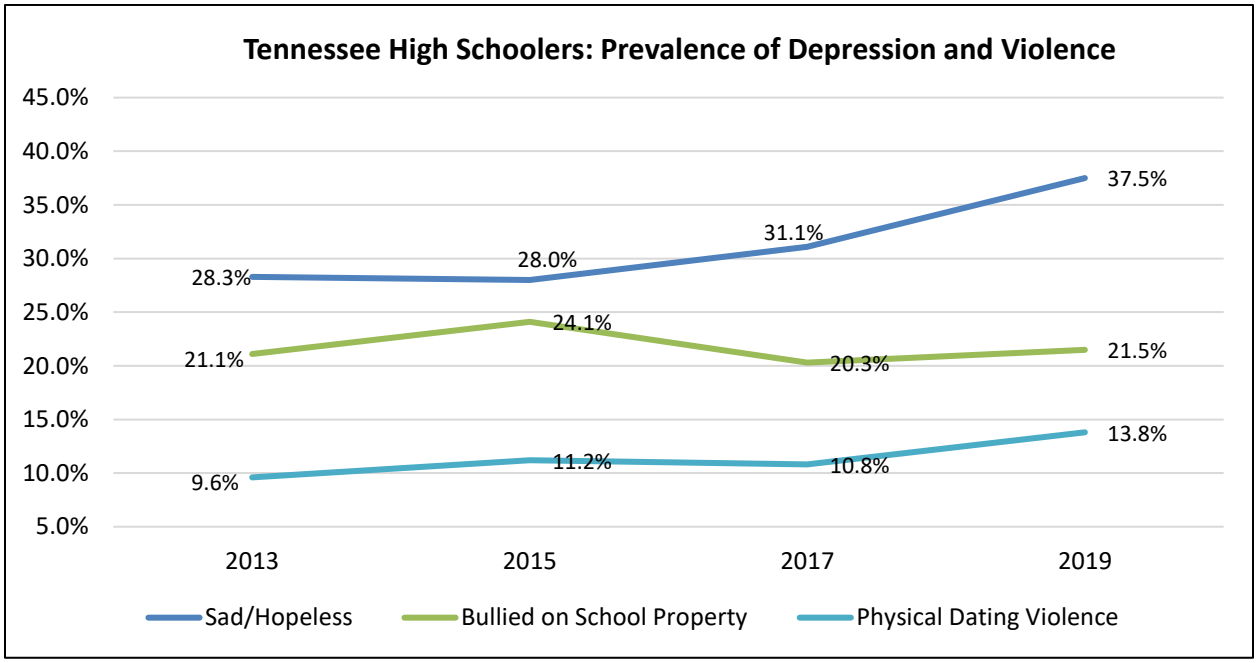
	2013	2015	2017	2019
Tennessee	9.0%	9.9%	8.3%	10.6%
United States	8.0%	8.6%	7.4%	8.9%

Source: Centers for Disease Control and Prevention, YRBS

2019 High School Students Reporting an Attempted Suicide

	Tennessee	United States
Gender		
Female	11.8%	11.0%
Male	9.2%	6.6%
Race and Ethnicity		
White	9.1%	7.9%
Black or African American	14.0%	11.8%
Latinx origin (any race)	15.8%	8.9%
Race and Ethnicity		
Lesbian, Gay, Bisexual (LGB)	NA	23.4%
Straight	NA	6.4%

Source: Centers for Disease Control and Prevention, YRBS



Source: Centers for Disease Control and Prevention, YRBS

The use of e-cigarettes among high school students continues to rise nationally and in Tennessee, while the use of traditional cigarettes is declining. As of 2019, approximately 7% of high school students in Tennessee reported smoking traditional cigarettes compared to 6% nationally. **Tennessee reports 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 and/or white.

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

	2015	2017	2019
Tennessee	21.7%	11.5%	22.1%
United States	24.1%	13.2%	32.7%

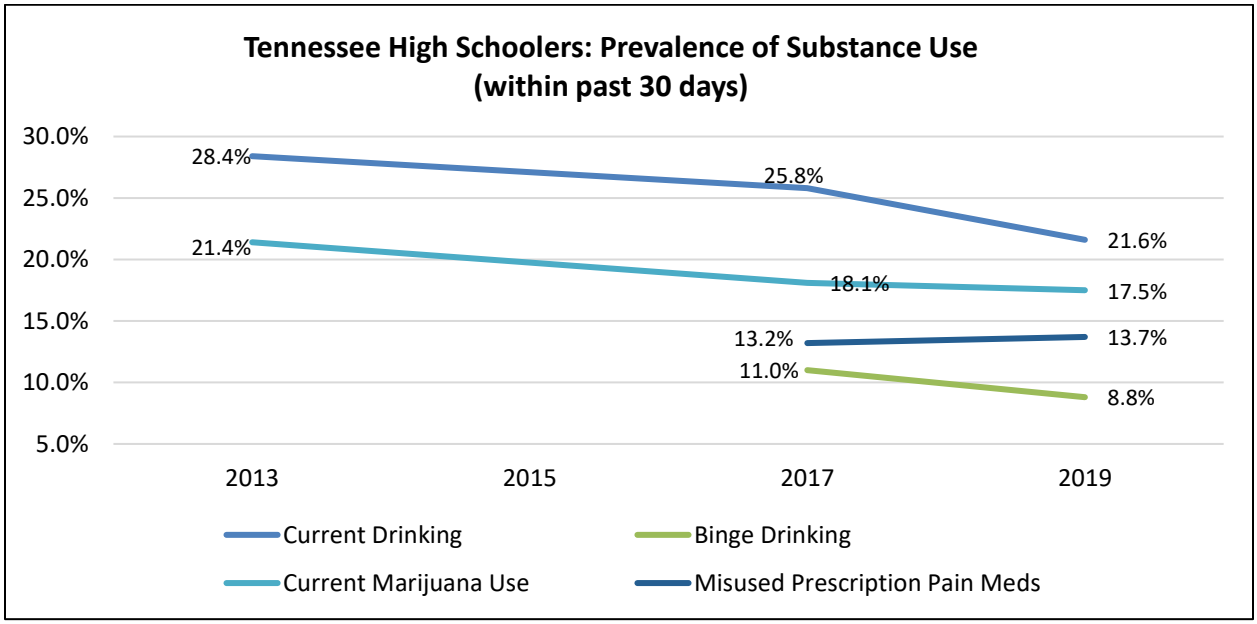
Source: Centers for Disease Control and Prevention, YRBS

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

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

Source: Centers for Disease Control and Prevention, YRBS

Consistent with the nation, substance use among 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.



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
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

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

Source: Centers for Disease Control and Prevention, YRBS

Maternal and Infant Health

West Tennessee service area counties have a comparable rate of birth as the state and nation, and contrary to state and national trends, the birth rate has been stable (Obion) or increased (Carroll) since the 2019 CHNA. However, despite these trends, both counties saw overall population decline from 2010 to 2020. This finding is consistent with lower overall life expectancy and racial disparities within the service area.

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
Carroll County	336	12.1	12.7	10.0	NA
Obion County	354	11.8	11.4	16.3	23.7
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: Tennessee Department of Health & Centers for Disease Control and Prevention

Tennessee overall reports poorer birth outcomes than the nation, including a higher proportion of teen, low birth weight and premature births, a high prevalence of smoking during pregnancy and a higher infant death rate. These negative outcomes are more pronounced in Carroll County, where

approximately 9% of births are to teens, fewer than 70% of pregnant people receive adequate prenatal care, nearly 12% of babies are born with low birth weight or premature and 23% of people smoke during pregnancy. It is worth noting that Obion County also reports a high prevalence of smoking during pregnancy, estimated at 22% in 2019.

While both white and Black/African American people residing in Tennessee report notable birth disparities compared to the nation overall, these disparities disproportionately impact Black/African American residents. There is a more than 10-point deficit in the percentage of Black/African American pregnant people receiving adequate prenatal care compared to white pregnant people. Approximately 15% of babies born to Black/African American people are born with low birth weight compared to 7.7% of babies born to white people. **The Black/African American infant mortality rate is nearly double the white infant mortality rate**. These disparities are consistent across West Tennessee service area counties.

Maternal and infant health outcomes have been variable in the West Tennessee service area with largely inconsistent annual trends. Positive outcomes include an overall declining percentage of births to teens and increasing prenatal care access in both counties. Trends that should continue to be monitored include the low birth weight percentage in Carroll County, which increased nearly 4 percentage points from 2018 to 2019.

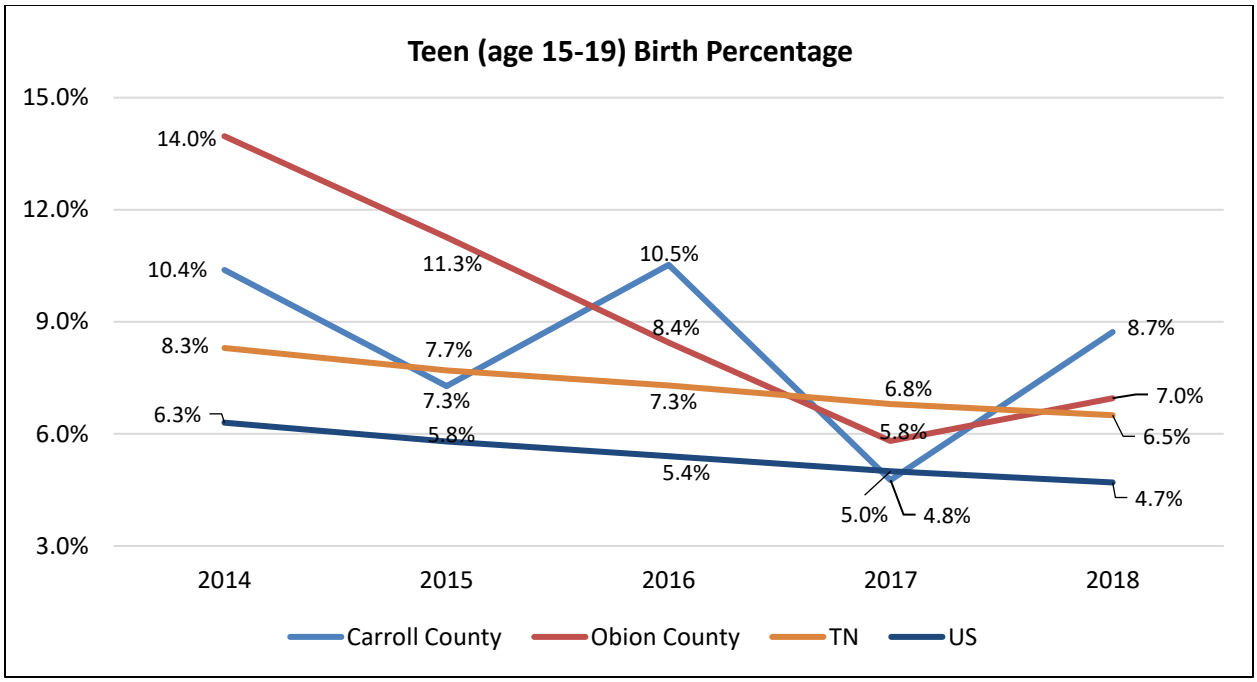
2018/2019 Maternal and Infant Health Indicators by Race*

	Teen (15-19) Birth Percentage	Adequate Prenatal Care**	Premature Births	Low Birth Weight Births	Non-Smoking during Pregnancy
Carroll County	8.7%	68.8%	11.3%	11.6%	76.7%
White	8.8%	69.9%	NA	6.4%	77.4%
Black/African American	8.3%	64.3%	NA	16.7%	NA
Obion County	7.0%	81.0%	10.2%	8.8%	77.7%
White	NA	83.4%	NA	7.3%	78.7%
Black/African American	NA	69.8%	NA	9.3%	71.7%
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%

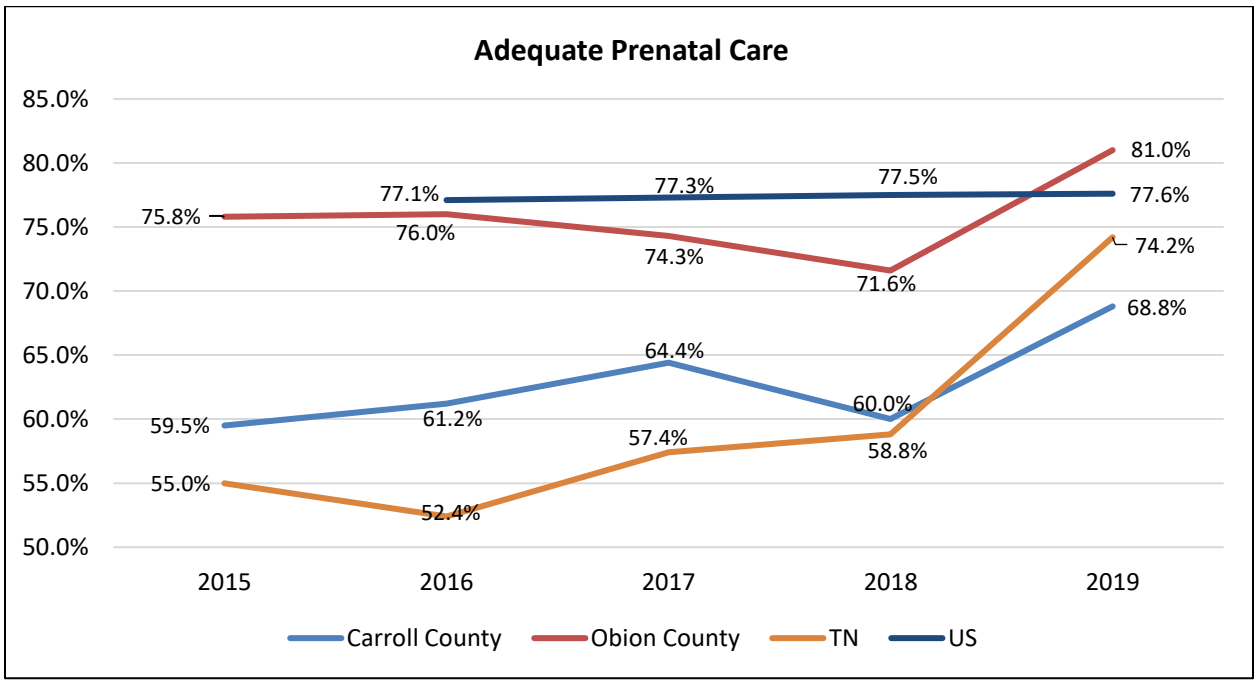
Source: Tennessee Department of Health & Centers for Disease Control and Prevention

*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.



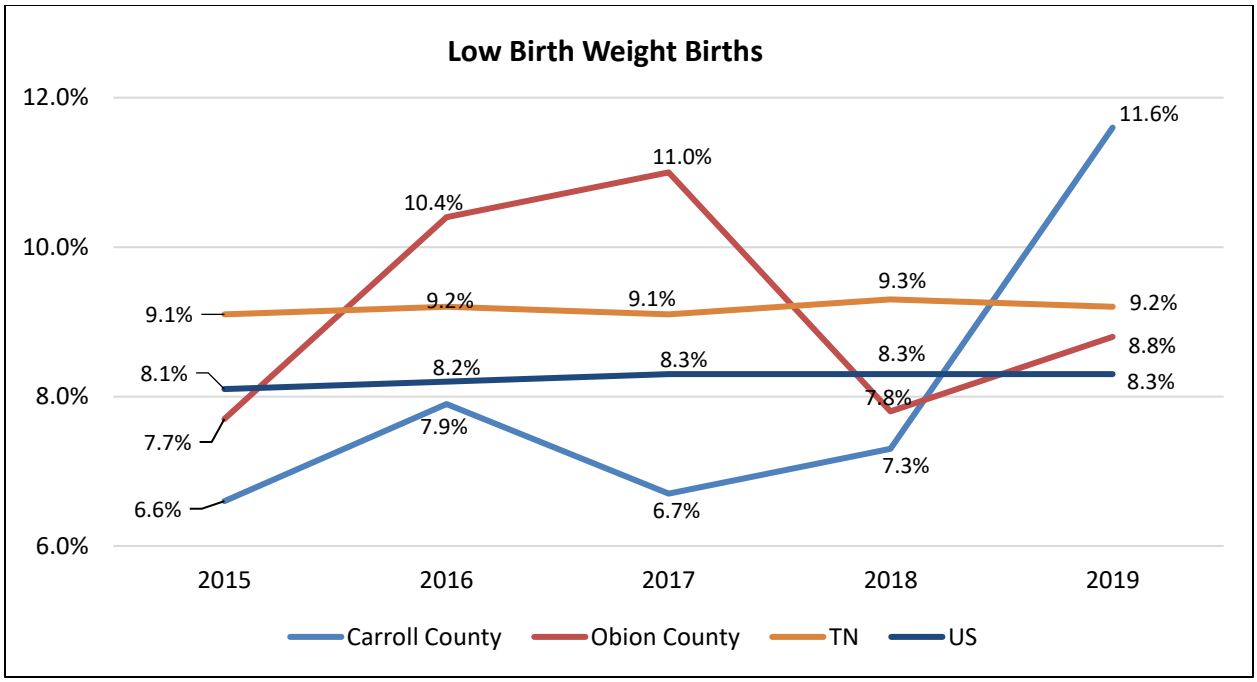
Source: Tennessee Department of Health & Centers for Disease Control and Prevention



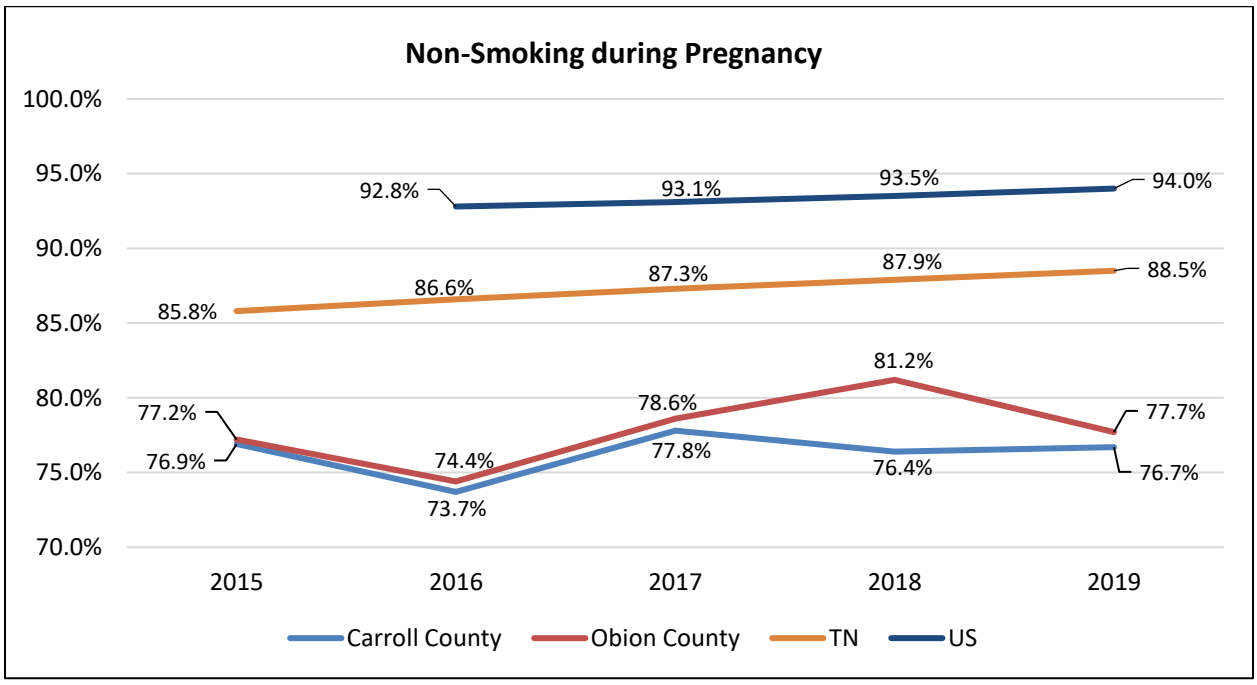
Source: Tennessee Department of Health & Centers for Disease Control and Prevention

*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.



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



Source: 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 2,887 in Tennessee. **Across the state, the infant rate death rate among Black/African American residents was nearly double the rate among white residents.** 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 mothers were 1.5 times as likely to die during or within a year of pregnancy as white mothers.

Infant death rates are not reportable for West Tennessee service area counties due to low counts. In total, the counties had a combined 23 infant deaths from 2015 to 2019.

2015-2019 Infant Deaths per 1,000 Live Births

	Infant Deaths per 1,000 Live Births
Carroll County	NA (n=10)
Obion County	NA (n=13)
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: 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 West Tennessee 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 28 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 West Tennessee service area. A breakdown of other specific populations served by informants is provided below.

Primary Populations Served by Key Informant Survey Participants

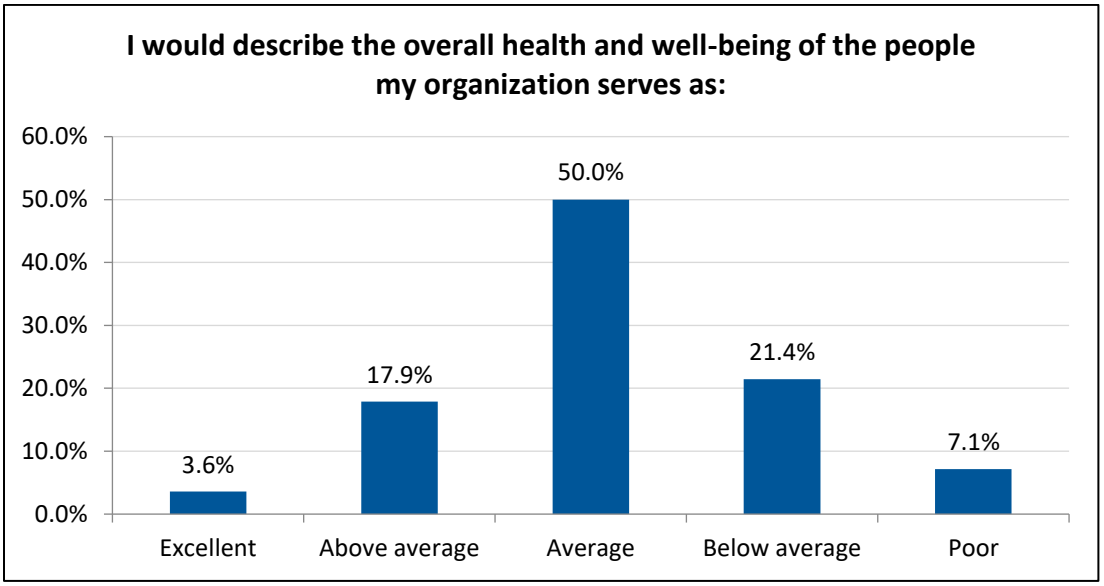
	Number of Participants	Percent of Total
No specific focus/serve all people	18	64.3%
Older adults/elderly	8	28.6%
Young adults (age 19-24)	7	25.0%
Adolescents (age 12-18)	5	17.9%
Children (age 0-11)	4	14.3%
African American/Black	3	10.7%
Hispanic/Latinx	3	10.7%
People with disabilities	3	10.7%
Low Income/poor individuals or families	3	10.7%
LGBTQ+ community	2	7.1%
American Indian/Alaska Native	1	3.6%
Asian/South Asian	1	3.6%
Pacific Islander/Native Hawaiian	1	3.6%
Homeless individuals or families	1	3.6%
Uninsured/underinsured individuals or families	1	3.6%
Religious community	1	3.6%

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.

Half of key informants described the overall health and well-being of the people their organization serves as average. Approximately 21% of informants described overall health and well-being as "excellent" or "above average," while 28.5% rated health as "below average" or "poor."



More than half of key informants selected "substance use disorder (dependence/misuse of opiates, heroin, etc.)" among the top five concerns for the people their organization serves. This finding differed from other Baptist CHNA service area regions, where ability to afford health care was consistently identified as the top pressing concern. "Mental health conditions" (42.9%) also fell within the top three most commonly selected concerns, further reinforcing the emphasis on behavioral health needs within this community. The "ability to afford health care" selected by 46.4% of informants in the West Tennessee service area.

Overweight/obesity (42.9%) and cancers (35.7%) were also among the top five most common selections. Economic stability (28.6%) ranked lower on the list in this community compared with other Baptist service areas.

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
Substance use disorder (dependence/ misuse of opiates, heroin, etc.)	15	53.6%
Ability to afford health care (doctor visits, prescriptions, etc.)	13	46.4%
Mental health conditions	12	42.9%
Overweight/obesity	12	42.9%
Cancers	10	35.7%
Economic stability (employment, poverty, cost of living)	8	28.6%
Diabetes	7	25.0%
Heart disease and stroke	7	25.0%
Older adult health concerns	6	21.4%
Lack of transportation	5	17.9%

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.

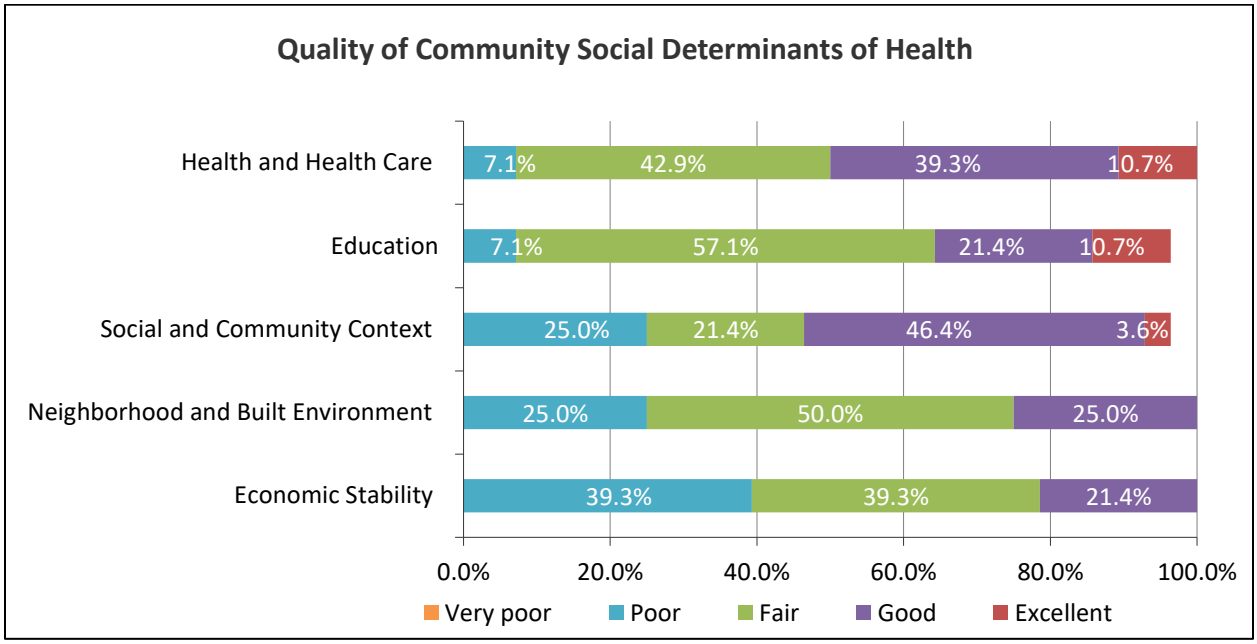
Approximately 42.9% (n=12) of informants stated that their organization currently screens clients, patients, constituents, etc. for the needs related to SDoH.

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 3.54, with most respondents rating the SDoH dimensions as “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 stayed the same, 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)	3.54	2.97	3.23
Education (e.g., high school graduation, enrollment in higher education, language and literacy, early childhood education and development)	3.37	3.12	3.00
Social and community context (e.g., sense of community, civic participation, perceptions of discrimination and equity, incarceration/institutionalization)	3.30	2.73	3.15
Neighborhood and built environment (e.g., access to healthy foods, quality of housing, crime and violence, environmental conditions, transportation)	3.00	2.67	2.85
Economic stability (e.g., poverty, employment, food security, housing stability)	2.82	2.58	2.56



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?

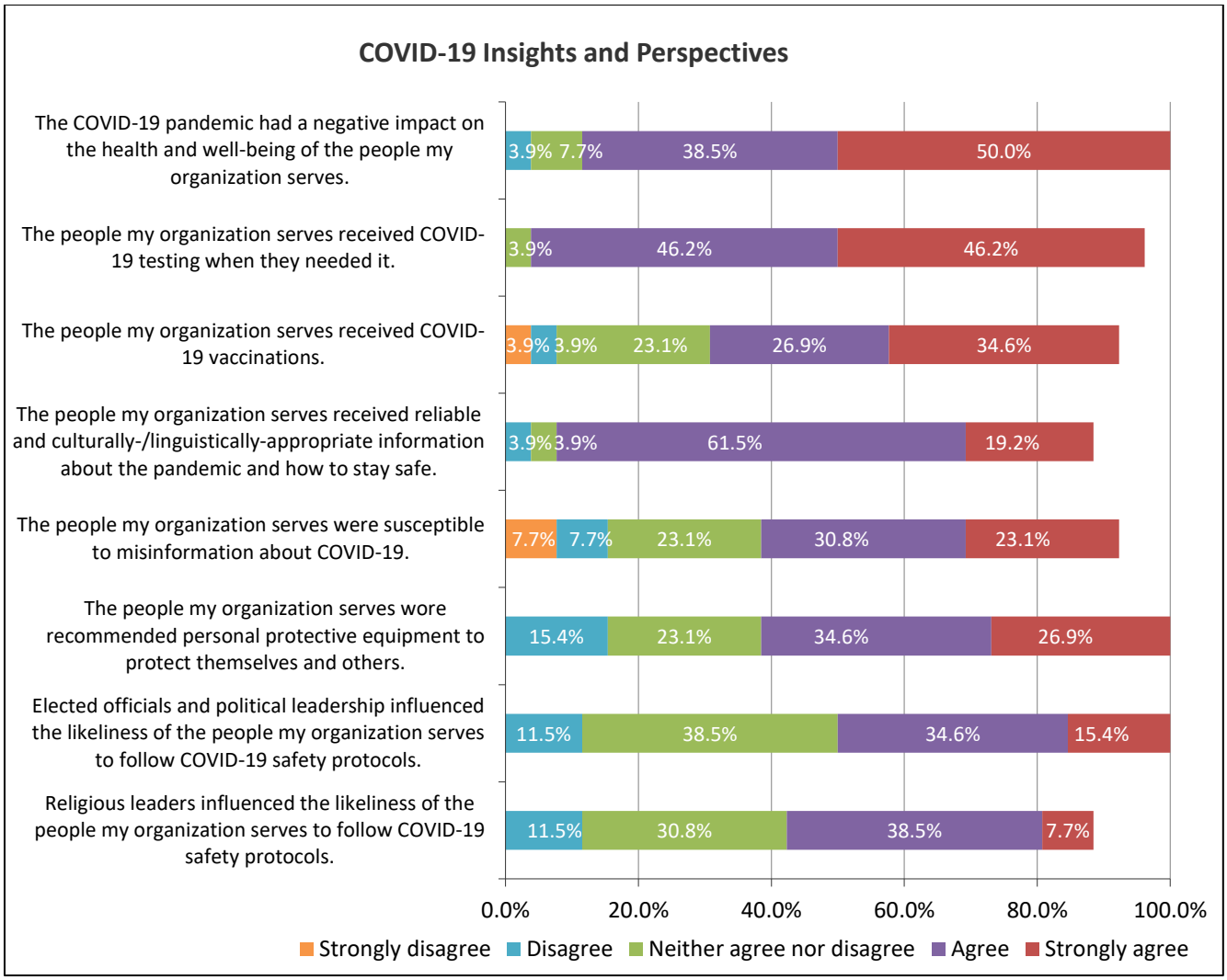
	Number of Participants	Percent of Total
Social media	17	65.4%
Friends/family	14	53.9%
Health care providers	7	26.9%
Local or state health department	7	26.9%
National news source/media	7	26.9%
Centers for Disease Control and Prevention (CDC)	6	23.1%
Local news source/media	6	23.1%
Church/religious leaders	3	11.5%
Other (please specify)	3	11.5%
Don't know	1	3.9%

*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 92% of respondents agreed that people were mostly able to receive COVID-19 testing when they needed it, and 61.5% agreed that the people they served wore recommended Personal Protective Equipment (PPE). About 60% of respondents believed their constituents were vaccinated; about 23% were not sure; and about 8% did not think their populations were vaccinated.

About 80% of respondents agreed that people received reliable, culturally and linguistically appropriate information, and 54% thought they were also susceptible to misinformation. About half of the respondents thought their constituents were influenced by political leaders (50%) and religious leaders (46%). Thirty to 40% of respondents neither agreed nor disagreed that their constituents were influenced by these leaders.

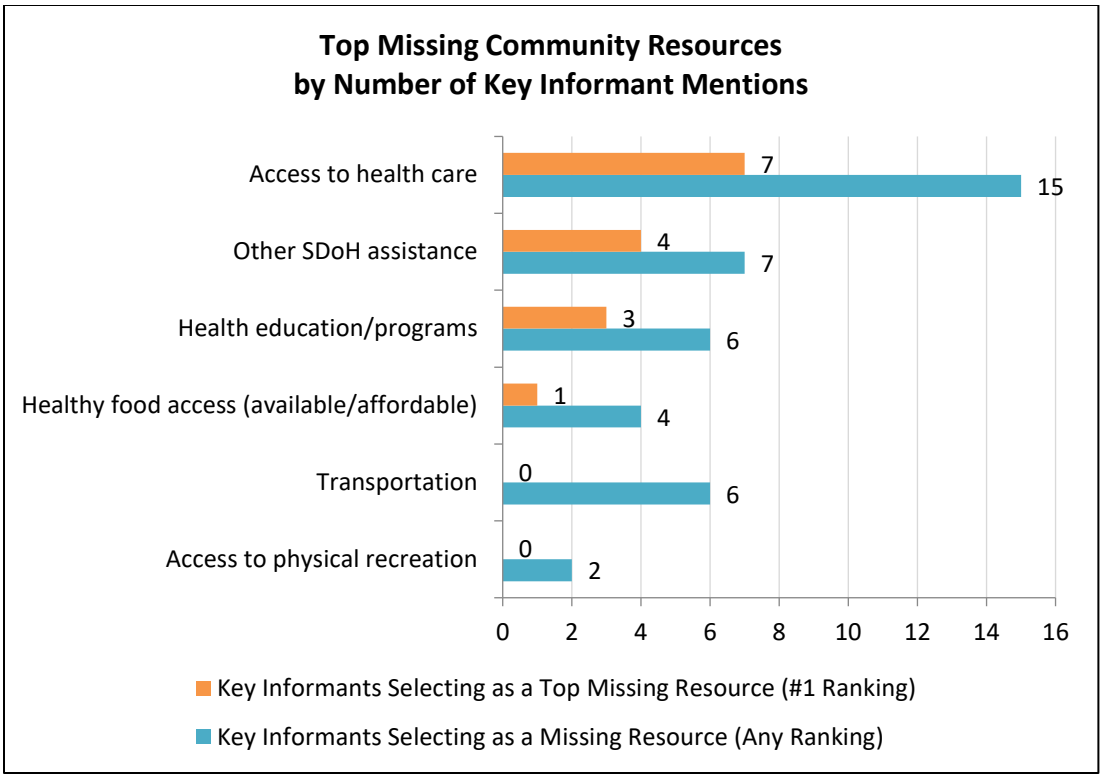


Community Resources That Impact Health

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 included affordability of health care and availability of care including urology and pulmonology, mental health providers, primary care providers, adult daycare, hospital/emergency resources and free wellness screenings.

Socio-economic needs were also noted, including transportation and healthy food access. Opportunities to increase *health education and programs* included early prevention and screening; holistic youth and parent education; healthy eating; and health fairs at local factories.



Health Equity

Key informants were asked how community organizations, including Baptist, could 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.

- *"Availability of services, personnel and outreach to affected communities."*
- *"Be as visible as possible in the community."*
- *"Find key influencers within those communities and educate them on the services available so they can provide information to those that need it. Our county is very rural and geographically distanced. To reach people that need services, it will take more than just sending out flyers."*
- *"Get more involved in the community—not through handouts, but true education that will make long lasting change."*
- *"Help with better coordination of care, access to pharmaceuticals, good housing, better transportation, reliable internet access, mental health services."*
- *"More health clinics/fairs; health education and nutrition classes; affordable health care."*
- *"Partner with local civic organizations and hold workshops that are specific to the issues that apply to the intended audience."*
- *"We need more informative public forums to spread knowledge of growing health concerns."*

Community Collaboration

Approximately 70% 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

- *"Satellite services/facilities."*
- *"Transitions of care from pediatric to adult services."*

Community Outreach

- *"Awareness campaigns."*
- *"Provide pamphlets etc. to pass out to our members and families."*

Health Programming

- *"An internal program within Baptist to encourage employees and their families to be healthier and thereby lead by example."*
- *"Collaborate with local agencies on illegal drug use and provide consistent professional help."*
- *"HPV vaccination program and education."*
- *"Mental Health—there is a great need in our county for mental health programs. Expand on what is currently available and possibly work with the schools to help erase the stigma of mental health issues and provide needed services for students/families and educators."*
- *"Sponsor health screenings on a more frequent basis to different communities."*
- *"Support employee physical activity in-house."*

Youth Health

- *"Childhood obesity; support youth teaching."*
- *"Create a department that would work directly with local school counselors."*
- *"Youth mental health focus."*
- *"Youth programs that educate the younger generation on the importance of health and incorporates a family aspect to get them involved."*

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% to 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%

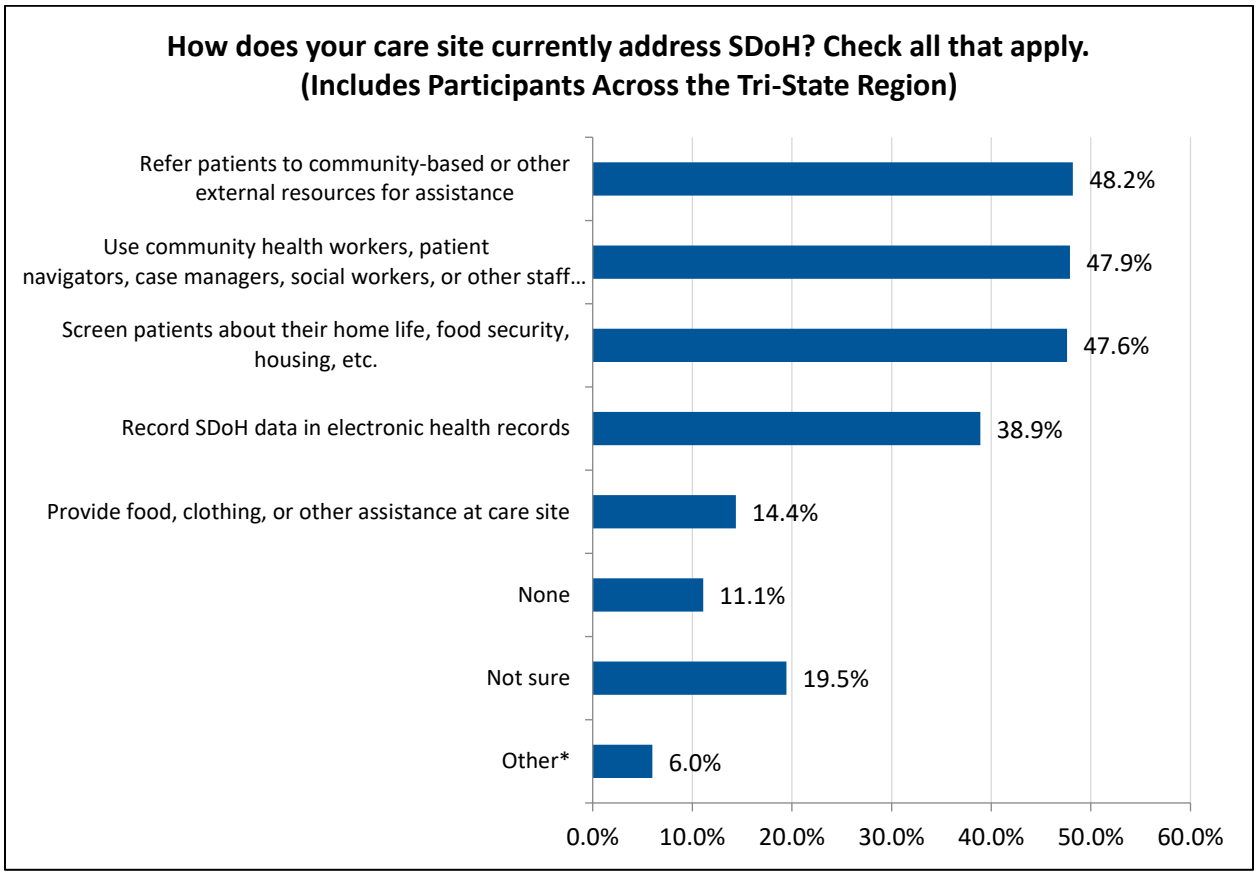
Please rate your level of comfort in performing the following tasks related to SDoH
Percent Comfortable/Very Comfortable by Baptist Service Area

	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

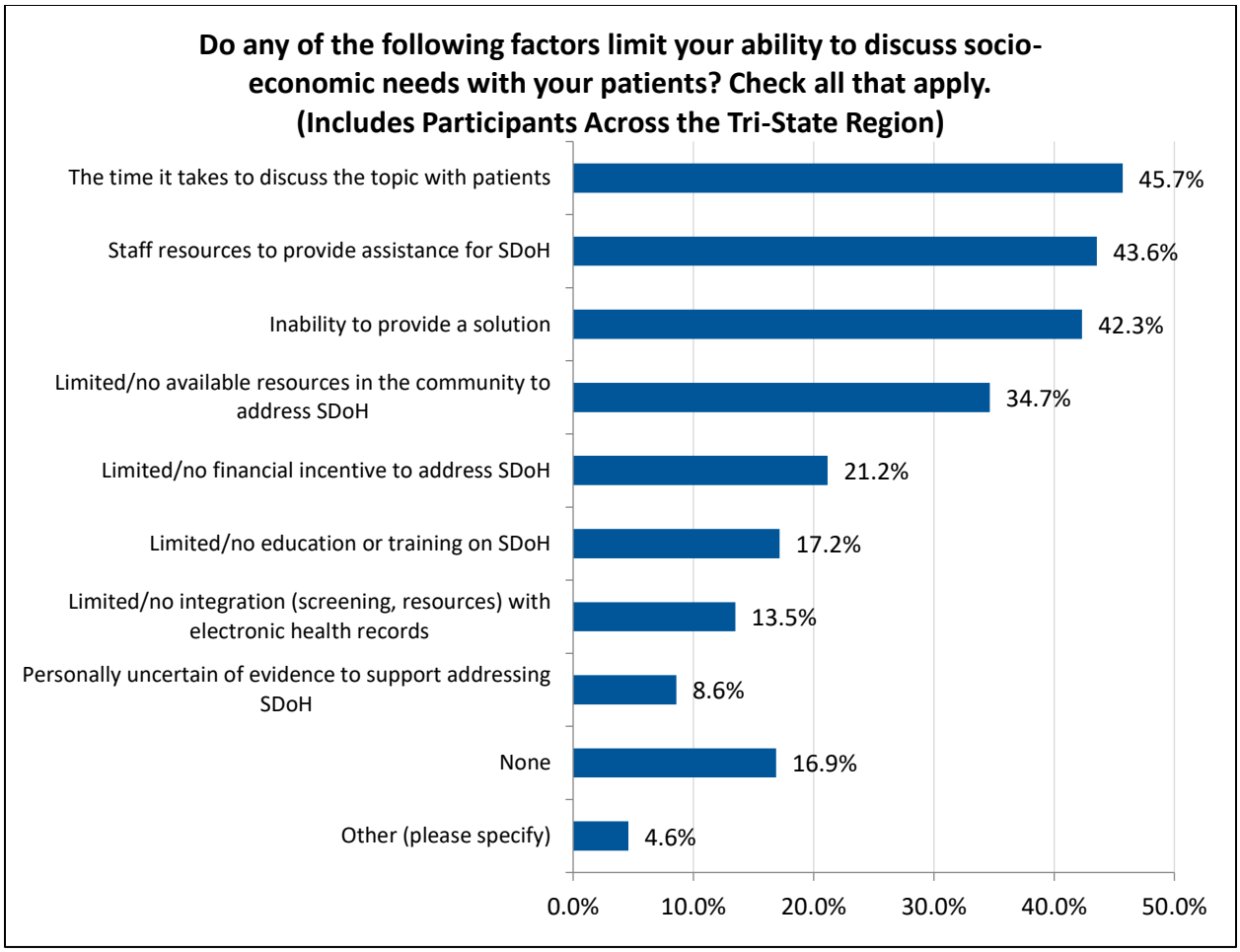
populations, a similar proportion of survey participants (48%) indicated that their care site refers them to community-based or other external resources for assistance and/or uses community health workers or other staff to assist them. Approximately 1 in 10 survey participants indicated that their care 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 West Tennessee 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: West Tennessee Service Area
Please share a specific incident or common experience of how SDoH affect your patients' health.

- *"A very common problem that my entity faces is how expensive employer-based health insurance can be, and how limited enrollment periods are, which results in less access to health care insurance. Our patients experience higher rates of ER utilization and urgent care utilization since they are unable to get preventative care without coming out of pocket for all medical expenses. Patients have such a hard time affording medical care that they often forgo medical care in efforts to save money for everyday expenses such as gas, groceries and housing. While patients may have access to healthy foods, it is neither affordable nor is it local. Transportation is another huge issue and remains an obstacle to our patients."* (Participant also served Memphis Metro service area)
- *"High levels of malnutrition in West Tennessee (resulting in obesity, diabetes, vascular disease) account for most of the chronic disease in my geographic area. Instead of applying resources to the cause of disease, we throw untold riches into treating the end result, often in the last few years of life. Most of the disease we see is a result of these lifestyle issues."*
- *"I very commonly run into patients who need meal replacements. Sometimes they are easy to obtain, sometimes not. Even more often, I find patients interested in quitting smoking who can't afford nicotine replacement therapy. The state supplies NRT for only 2 weeks. That is not nearly enough to help people quit smoking."* (Participant served all Baptist service areas)
- *"Low income and inability to transition patient to an appropriate lower level of care."*

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 West Tennessee 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: West Tennessee Service Area
Imagine that your care site is successful in doing everything possible to address SDoH. What would that look like?

- *"Economic resources to place patients in the right level of care with medical resources to improve episodic exacerbation of disease."*
- *"More expanded resources and infrastructure for serving resource needy patients, having a food pantry at our sites to address food insecurity in real time." (Participant also served Memphis Metro service area)*

Survey participants were asked to share any suggestions to address SDoH affecting their patients. Select verbatim comments from participants serving the West Tennessee 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: West Tennessee Service Area
What suggestions would you like to share with Baptist that will address SDoH that affect your patients?

- *"Free screenings for uninsured patients for all cancers; instant referral into cancer centers for any uninsured patients that are diagnosed with cancer of any form." (Participant also served Memphis Metro Service Area)*
- *"Grants that provide resources for education, nutrition and training to those effected by the SDoH."*
- *"It makes so much more sense for people's health to focus on prevention and healthy lifestyle. The problem is that it is not financially lucrative. Our health system has its incentives based on a free market. Money is made by focusing on treating disease, not in addressing the root problems."*
- *"We need staff buy in. We need staff to recognize their unconscious bias and be willing to go out of their comfort zone. We also need empathy training. This biggest issue for cancer treatment patients is transportation. I wish we could find reliable options to get patients to and from their appointments that don't cost the Foundation an arm and a leg and/or are reliable and the patient doesn't have to wait an exorbitant amount of time."*

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 #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 No. 1 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 No. 1 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 No. 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. Specific hospital initiatives are highlighted as applicable.

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 2019-2022 implementation plan, Baptist conducted the following programs and initiatives within the West Tennessee service area:

- 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
- Hosted community education sessions and group discussions to share Alzheimer's disease information, available resources and support, including how to detect early signs of dementia and care for someone with this condition; sessions were hosted in partnership with senior living communities, Office on Aging, Senior Day Health Fair and the Chamber of Commerce (Baptist Carroll County)
- Hosted community education sessions and group discussions to share senior-specific mental health information and increase awareness of concerns; sessions were hosted in partnership with senior living communities and Office on Aging (Baptist Carroll County)
- In partnership with WTAN, conducted a needs assessment across rural West Tennnessee 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
- Offered an Alzheimer's disease caregiver support group in partnership with local assisted living facility (Baptist Carroll County)
- Offered a caregiver grief and bereavement support group for participants to share advice, exchange stories and learn about additional resources available to them (Baptist Carroll County)

- Participated in the "Healthy Choices Carroll County Teen Summit," a gathering of youth to learn about health-related topics such as maintaining a healthy lifestyle, both mentally and physically (Baptist Carroll County)
- Participated in the Suicide Prevention Fair for Bethel University students and Pine Ridge Mental Awareness Health Fair and conducted depression screenings (Baptist Carroll County)
- Started a Center of Excellence in Addiction Medicine with Baptist Foundation grant funding**

***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.

****Center of Excellence in Addiction Medicine**
The Baptist West Tennessee service area started a Center of Excellence (COE) in Addiction Medicine in 2018 with Baptist Foundation grant funding. The grant allowed the region to offer a one-year Addiction Medicine Fellowship and funded two Addiction Medicine Fellows. The Baptist COE is a partnership with Vertava and beginning in 2020, Vertava provided 24/7 acute tele-addiction medicine consultation services to Emergency Room patients and hospital inpatients at both Baptist Union City and Baptist Carroll County hospital. Additionally, Vertava opened a part-time outpatient clinic in Jackson, Tennessee to provide follow-up care for individuals with substance use disorders. This is a service that had never been available for these two hospitals or communities.

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 2019-2022 implementation plan, Baptist conducted the following programs and initiatives within the West Tennessee 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
- Launched breast and lung cancer screening campaigns (e.g., social media, in-person events, mailers) in all Baptist service areas
- Partnered with the American Cancer Society Relay for Life to increase awareness of cancer risks, prevention and screenings, and provided meeting space for this group (Baptist Carroll County)
- Provided online and in-person cancer education, including screening awareness, risk factors and prevention methods (Baptist Carroll County)

***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 2019-2022 implementation plan, Baptist conducted the following programs and initiatives within the West Tennessee service area:

- Collaborated with community partners to sponsor events promoting physical activity
- 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 Carroll County
- 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
- Participated in health fairs and community events to provide free screenings and education for healthy lifestyles and prevention of chronic disease
- Provided early heart attack care and hands-only CPR education and materials to the community (Baptist Union City)
- Provided smoking cessation classes for hospital employees (Baptist Carroll County)
- Worked with the Baptist Cancer Center to establish blood sugar monitoring and treatment protocols for dually diagnosed diabetic and cancer patients

***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.

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 2019-2022 implementation plan, Baptist conducted the following programs and initiatives within the West Tennessee service area:

- Offered childbirth and breastfeeding education and lactation support to increase the proportion of infants who are breastfed during the first six months (Baptist Union City)
- Participated in the "Healthy Choices Carroll County Teen Summit," a gathering of youth to learn about health-related topics such as maintaining a healthy lifestyle, both mentally and physically (Baptist Carroll County)
- Partnered with the local health department to provide prenatal care education and increase awareness of available resources (Baptist Carroll County)
- Provided education on teen pregnancy and prevention efforts (Baptist Carroll County)
- Offered the free Beautiful Beginnings* maternity mobile app

***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
- 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

- Baptist Memorial Health Care, Outreach
- Baptist Memorial Hospital-Carroll County, Social Worker
- Baptist Memorial Hospital-Carroll County, CEO
- Bethel University, President
- Baptist Memorial Hospital-Carroll County, Pharmacy Manager
- Baptist Memorial Hospital-Union City (title not provided)
- Boys & Girls Clubs of Northwest Tennessee, CEO
- Carroll County Health Department, Public Health Educator
- Carroll County Office on Aging, Director
- Central High School, High School Principal
- County Government, Register
- Department of Children's Service-Northwest Region, Home Study Contract Coordinator
- Life Care Center Bruceton-Hollow Rock, Director of Business Development
- Northwest TN Adult Education, Lead Program Assistant
- Northwest TN Adult Education, Lead Program Assistant
- Obion County Joint Economic Development Corporation, CEO
- St. Jude Children's Research Hospital, Director of Managed Care
- TN State Library & Archives, Regional Library Director
- White & Associates Insurance, Manager