



## 2019 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 is dedicated to the health and well-being of the many communities we serve across the Mid-South. We believe strongly in corporate citizenship and the importance of collaboration with local organizations to build stronger and healthier communities.

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

Some of our key initiatives are listed below.

#### Providing access to high-quality health care

Baptist ensures residents can receive care when they need it across the region. We reinvest resources in technology to bring the highest level of health care to people across the Mid-South. We invest in hospitals and health services to deliver care to

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

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. In order to promote health and quality of life, we collaborate with community partners who have expertise in social needs, specialty services, faith leadership, advocacy and essential resources. We also foster ongoing relationships with these partners and provide financial and in-kind gifts to support their work.

#### Investing in health care education and research

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

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

### A Systemwide Approach to Community Health Improvement

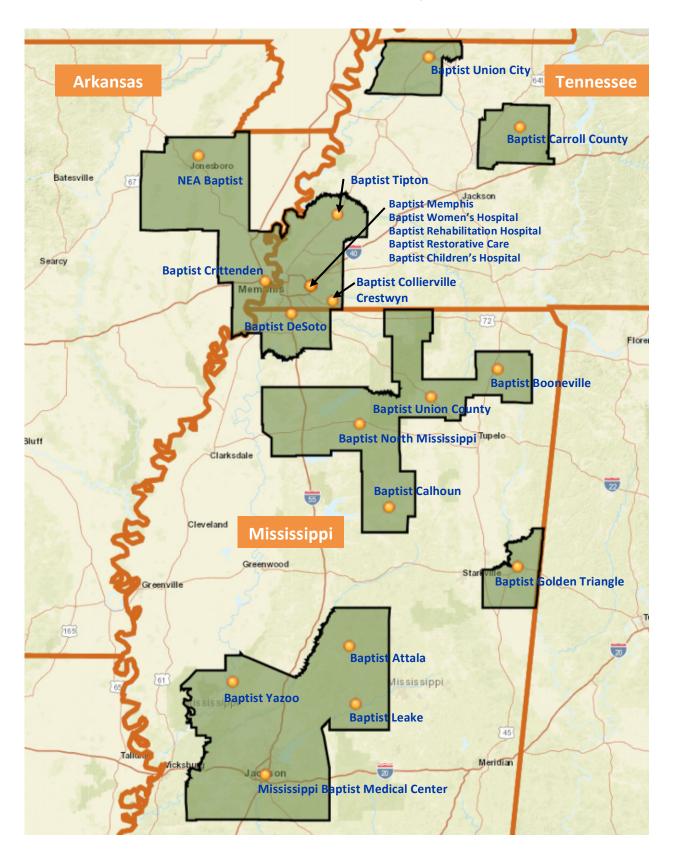
Baptist Memorial Health Care has 22 affiliate hospitals serving residents in three states. The CHNA focused on the primary service county of each Baptist Memorial hospital to identify health trends and unique disparities within these communities. Hospitals with overlapping service areas were grouped into regions for comparisons of health and socioeconomic data. Systemwide priorities were determined to address common health needs across the Mid-South. Specific strategies were outlined in each hospital's Implementation Plan to guide local efforts and collaboration with community partners.

#### 2019 CHNA Geographic Regions and Primary Service Areas

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

<sup>\*</sup>These entities are not required to conduct a CHNA.

## **Baptist's Affiliate Hospitals and Primary Service Counties**



# **West Tennessee Service Area 2019 CHNA Executive Summary**

#### **CHNA Hospital Partners and Study Service Area**

Baptist Memorial Health Care has two hospitals in the West Tennessee Service Area, which collaborated on the 2019 CHNA. The study encompassed Carroll and Obion counties in Tennessee. The following hospitals participated in the 2019 CHNA for the West Tennessee Service Area.

- > Baptist Carroll County
- Baptist Union City

#### **CHNA Leadership**

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

#### Baptist 2019 CHNA Steering Committee

Donna Baugus, Manager of Survey Research
Cynthia Bradford, System Community Involvement Manager
Scott Fountain, Senior Vice President and Chief Development Officer
Tom Gladney, Director of Data Management and Decision Support
Bill Griffin, Executive Vice President and Chief Financial Officer
Caitlin Hayden, System Community Outreach and Special Events Coordinator
Kelley Jerome, General Counsel
Jeff Lann, Manager of Research and Marketing Development
Debbie Lassiter, Health Services Research Consultant
Cheryl Lee, Director of Tax and Compliance
Jim Messineo, Director of Revenue and Operations Audits
Brenna Piccirilli, Cost Accounting Analyst in Decision Support
Kellie Prescott, Cancer Program Coordinator

Anne Sullivan. MD. Chief Quality and Academic Officer

Henry Sullivant, MD, Vice President and Chief Medical Officer

Morgan Thornton, Finance and Health Research Intern

Kimmie McNeil Vaulx, System Director of Corporate Communications

Ann Marie Watkins Wallace, System Senior Community Outreach Coordinator

#### Consulting Team

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

#### **CHNA Methodology**

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

- > A review of public health and demographic data portraying the health and socioeconomic status of the community. A full listing of data references is included in Appendix A.
- A Key Informant Survey of 36 community representatives serving the West Tennessee Service Area to identify community health priorities, underserved populations, partnership opportunities and other insights. A list of key informants and their respective organizations is included in Appendix B.
- > Focus groups with 98 cancer survivors or caregivers to collect perspectives about their experiences, preferences and attitudes related to cancer diagnosis and care.
- Criteria-based prioritization of health issues to determine the most pressing health needs affecting the health status of West Tennessee residents.

#### **Community Engagement**

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

#### **Overview of the West Tennessee Service Area**

The West Tennessee Service Area differs from the rest of Tennessee and the nation in a variety of ways. While the population of Tennessee is growing, the population in both Carroll and Obion counties decreased and is predicted to further decrease over the next five years. The population in both counties is predominantly White and less diverse than Tennessee and the nation. The median age of the counties is older than Tennessee and the nation, and there are proportionately fewer young people in both counties.

Economically, both Carroll and Obion counties experience greater poverty and a lower median income than state and national medians. A higher percentage of the workforce is employed in blue-collar positions, particularly in Obion County, where the unemployment rate is also slightly higher. Unemployment is of greatest concern for Blacks/African Americans; nearly 25% are unemployed in either county. Related to educational attainment, residents are more likely to either not complete a high school diploma or conclude their education with a high school degree when compared to overall state and national comparisons. Less than 2 in 5 adults have completed a bachelor's degree or higher.

The uninsured population in Carroll County is slowing decreasing, consistent with state and national trends. In Obion County, the percentage of uninsured people has remained stable and consistently higher than state and national percentages.

#### **Community Health Priorities**

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

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

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

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

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

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

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

#### **Priority Health Needs in the West Tennessee Service Area**

#### **Behavioral Health**

Residents in the West Tennessee Service Area report having more "poor mental health days" per month than the state and national averages. The suicide rate in Carroll and Obion counties is higher than the state and the nation, and roughly twice the Healthy People 2020 target. Suicide rates in both counties increased in recent years. Deaths due to Alzheimer's disease are also high.

Fewer adults in Tennessee report excessive drinking than the nation as a whole, and adults in Carroll and Obion Counties report less excessive drinking than Tennessee. The drug-induced death rate in Carroll and Obion counties is lower than the state and the nation. The death rate has been stable in Obion County and decreased in Carroll County. This finding is particularly positive as drug-induced deaths increased for both the state and the nation.

Mental health provider rates are among the lowest in both counties, and are approximately one-sixth of the national rate. An effort to increase the availability of mental health professionals in this area will likely have a strong impact on resident quality of life. Professionals specializing in Alzheimer's disease are of particular need as the aging population is growing in both Carroll and Obion counties.

#### Cancer

The West Tennessee Service Area experienced a decline in cancer incidence from the 2013 CHNA to present, but the Carroll County rate appears to be increasing in recent years. The rate of death due to cancer of all types is higher in Carroll and Obion counties when compared to the nation, and both counties have a higher overall cancer death rate than the state. The Carroll County lung cancer death rate is particularly high, exceeding the Healthy People 2020 target by nearly 30 points. The Obion County breast cancer death rate is nearly eight points higher than the Healthy People 2020 target.

#### **Chronic Disease**

Despite fewer people reporting alcohol and drug use in the West Tennessee Service Area, adults across both counties are more likely to use tobacco. The prevalence of obesity, which affects more than one-third of adults, is also higher in the service area, and increasing. Reducing smoking rates and improving health behaviors related to obesity could have a strong impact on a variety of chronic diseases such as heart disease, stroke, cancer and Chronic Lower Respiratory Disease (CLRD), which contribute to higher death rates in the service area.

The burden of chronic disease is higher among senior Medicare beneficiaries in the service area, with more than 40% of seniors diagnosed with four or more chronic conditions. Seniors have a higher prevalence of nearly all reported chronic conditions compared with the state or the nation. Seniors in the service area are also more likely to live alone, which may contribute to social isolation and poorer self-management of chronic disease.

#### **Maternal and Child Health**

The percentage of pregnant women in Obion County who access prenatal care in the first trimester nearly meets the Healthy People 2020 target. The strategy used to improve prenatal care access in Obion County could be applied to Carroll County, where the number of pregnant women accessing prenatal care is more than 10 percent lower than the Healthy People 2020 target and decreasing. Across both counties, less than 70% of Black/African American women receive first trimester prenatal care compared to approximately 75% of White women. Lower prenatal care access among Black/African American mothers contributes to higher percentages of low birth weight and premature births. Black/African American mothers in Obion County

experience the greatest disparity with 21% giving birth to low birth weight babies and 30% giving birth prematurely. This finding represents an opportunity for targeted intervention to improve prenatal care access universally in Carroll County and among Black/African American women in Obion County.

#### **Implementation Plan**

Each of Baptist's two hospitals in West Tennessee Service Area developed an Implementation Plan to guide community health improvement activities for the 2019–2022 cycle. Each plan details the resources and strategies each hospital will undertake to address priority areas and unique needs within each service area. Where applicable, Baptist's hospitals will coordinate efforts and leverage system resources to reduce health disparities. Each hospital's Implementation Plan, along with 2019 CHNA reports, can be found on the Baptist Memorial Health Care website at https://www.baptistonline.org/about/chna.

#### **Board Approval**

Baptist Memorial Health Care's board of directors approved the CHNA report and Implementation Plan on Tuesday, Sept. 24, 2019.

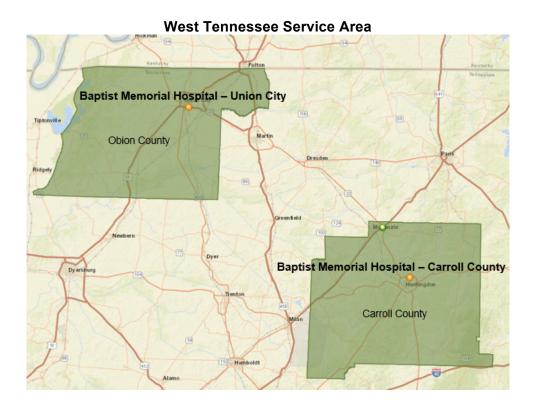
# Full Report of 2019 CHNA West Tennessee Service Area

## **Baptist's West Tennessee Service Area**

#### **CHNA Hospital Partners and Study Service Area**

Baptist Memorial Health Care operates the following two hospitals in the West Tennessee Service Area. Both of these hospitals collaborated on the 2019 CHNA. The study encompassed Carroll and Obion counties. The region is located in North West Tennessee, along the Kentucky border.

- Baptist Carroll County
- Baptist Union City



# **Baptist's West Tennessee Service Area Demographic Data Analysis**

#### **Background**

Analyses of demographic and socioeconomic data are essential to understanding health trends and determining key drivers of health status. Socioeconomic indicators play a significant role in

community and individual health. Known as **social determinants of health**, they are defined as factors within the environment in which people live, work and play that can affect health and quality of life. Social determinants of health are often the root causes of **health disparities**. Healthy People 2020 define a health disparity as "a particular type of health difference that is closely linked with social, economic or environmental disadvantage."

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

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

#### **Population Overview**

The 2018 total population of the West Tennessee Service Area is 59,284 and nearly evenly split between Carroll and Obion counties. The population of Tennessee has grown since 2010 and is expected to grow through 2023. Both Carroll and Obion counties have moved in the opposite direction with population decreases experienced since 2010, and continued declines anticipated through 2023.

#### **Population Growth**

	2018 Population	% Growth From 2010	% Growth by 2023
Carroll County	28,150	-1.3%	-2.7%
Obion County	31,134	-2.1%	-1.9%
Tennessee	6,818,402	7.4%	4.5%

#### 2018 Total Population by Race

		•	•		
		Black or		Hispanic or	Language Other
	White	African	Asian	Latino	Than English
		American		(any race)	Spoken at Home*
Carroll County	85.6%	10.2%	0.3%	2.7%	2.1%
Obion County	84.3%	10.5%	0.4%	4.5%	3.4%
Tennessee	75.9%	16.9%	1.8%	5.5%	6.8%
United States	70.0%	12.9%	5.7%	18.3%	21.1%

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

The population within Carroll and Obion counties is less diverse than the nation and the state of Tennessee with roughly 85% of the population identifying as White and more than 95% speaking primarily English. The anticipated population change by race and ethnicity for the service area is generally consistent with the population change anticipated for the nation, which is marked by a decrease in the proportion of Whites and an increase in the proportion of people of color. The Hispanic/Latino population is projected to experience the greatest growth, particularly in Obion County. However, the underlying distribution of race for both counties is not anticipated to change substantially from what it is today. The Black/African American population, in particular, will maintain current proportions through 2023.

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

	White		Black/A Amer		As	ian	Hispani	c/Latino
	2010	2023	2010	2023	2010	2023	2010	2023
Carroll County	86.8%	84.6%	10.1%	10.2%	0.2%	0.5%	2.1%	3.2%
Obion County	85.9%	82.6%	10.6%	10.4%	0.2%	0.6%	3.1%	5.7%
Tennessee	77.6%	74.6%	16.7%	17.1%	1.4%	2.2%	4.6%	6.4%
United States	72.4%	68.2%	12.6%	13.0%	4.8%	6.4%	16.4%	19.8%

People living in Carroll and Obion counties tend to be older than people living in both Tennessee and the nation. The median age of the two counties is roughly 4–5 years older than state and national medians. There are proportionately more residents in both counties over age 55, and proportionately fewer people age 34 or younger.

2018 Population by Age

	Under 14 years	15–24 years	25–34 years	35–54 years	55–64 years	65+ years	Median Age
Carroll County	16.4%	12.5%	11.7%	24.1%	14.0%	21.4%	43.7
Obion County	16.8%	10.8%	12.0%	25.5%	14.6%	20.3%	43.5
Tennessee	18.2%	12.6%	13.4%	25.8%	13.4%	16.6%	39.4
United States	18.6%	13.3%	13.9%	25.3%	13.0%	16.0%	38.3

#### **Income and Poverty Status**

Both Carroll and Obion counties have lower median household incomes than Tennessee and the nation, and roughly 1 in 5 people in both counties live in poverty. Obion County also has a higher proportion of children living in poverty at more than 30%. Approximately 1 in 5 households in Carroll and Obion counties have Food Stamps/Supplemental Nutrition Assistance Program (SNAP) benefits compared to approximately 1 in 10 households across the nation.

2012-2016 Ho	ousehold Income	and Poverty	/ Status
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	Median Household Income	People in Poverty	Children in Poverty	Households with Food Stamp/ SNAP Benefits
Carroll County	\$36,212	19.8%	22.4%	20.6%
Obion County	\$38,933	21.1%	30.9%	19.1%
Tennessee	\$46,574	17.2%	25.1%	16.5%
United States	\$55,322	15.1%	21.2%	13.1%

A higher percentage of the workforce in Carroll and Obion counties is employed in blue-collar positions than in Tennessee and the nation. Obion County has the highest percentage of blue-collar workers and a higher unemployment rate than the state and the nation. The Carroll County 2018 estimated unemployment rate is similar to the state and the nation, but as of October 2018, the county reported a higher than expected unemployment rate, exceeding the state and the nation.

2018 Population by Occupation and Unemployment

	White-Collar Workforce	Blue-Collar Workforce	Unemployment Rate (2018 estimate)	Unemployment Rate (Oct. 2018)
Carroll County	51.0%	49.0%	4.4%	5.4%
Obion County	47.0%	53.0%	5.8%	5.6%
Tennessee	58.0%	42.0%	4.5%	3.7%
United States	61.0%	39.0%	4.8%	3.5%

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

#### **Housing Measures**

The median home value for Carroll and Obion counties is lower than state and national medians. The Carroll County median is the lowest of the two counties and roughly half of the state median. The proportion of owner-occupied homes in Carroll County is higher than any other reported geography. The proportion of renters versus home owners in Obion County is consistent with state and national percentages.

Renters in Carroll County are more likely to pay 30% or more of their income on housing than the state and the nation. Housing-cost burden among owners in Carroll County and renters and owners in Obion County is generally lower than statewide and national percentages.

#### 2018 Population by Household Type

	Renter-Occupied	Owner-Occupied	Median Home Value
Carroll County	28.7%	71.3%	\$91,558
Obion County	35.0%	65.0%	\$104,561
Tennessee	34.7%	65.4%	\$170,899
United States	36.9%	63.1%	\$218,492

#### 2012-2016 Housing-Cost Burden

	Percent of Renters	Percent of Mortgages	
	Paying 30% or More of	Costing 30% or More of	
	Income on Rent	Household Income	
Carroll County	58.4%	25.8%	
Obion County	45.9%	25.6%	
Tennessee	49.4%	27.8%	
United States	51.1%	30.8%	

#### **Education Measures**

Higher educational attainment is associated with increased quality of life and improved health outcomes. Adults in both counties are more likely than adults in the state or nation to have either not completed a high school diploma or terminated their education with a high school degree. In all, more than half of all adults living in Carroll or Obion counties have a high school education or less. Less than 1 in 5 adults in either county have completed a bachelor's degree or higher compared to more than 1 in 4 adults across the state and the nation.

2018 Population (25 Years of Age or Older) by Educational Attainment

•	`	, ,	
	Less than a High	High School	Bachelor's Degree
	School Diploma	Graduate/GED	or Higher
Carroll County	19.1%	41.1%	15.8%
Obion County	15.4%	41.5%	17.5%
Tennessee	12.5%	32.1%	26.4%
United States	12.3%	27.0%	31.8%

#### **Health Disparities**

Across Carroll and Obion counties, approximately 1 in 5 people experience poverty. When stratified by race, a greater proportion of Whites and Blacks/African Americans in either county live in poverty than in Tennessee. Poverty percentages are highest among Black/African Americans compared to Whites. Poverty among Hispanic/Latino residents is consistent with the state and affects approximately 1 in 3 individuals.

2012-2016 Poverty by Race

	White		Black/Afric	an American	Hispanic/Latino	
	Count	Percentage	Count	Percentage	Count	Percentage
Carroll County	4,061	16.9%	1,142	42.3%	221	33.3%
Obion County	4,591	17.6%	1,236	40.3%	401	35.1%
Tennessee	721,390	14.5%	297,340	28.1%	102,693	32.0%

Unemployment is a significant barrier to accessing health care. The percentage of unemployed adults in Carroll and Obion counties is higher than the statewide percentages for all racial and ethnic groups. Nearly 1 in 10 Whites and 1 in 5 Blacks/African Americans in Carroll and Obion counties are unemployed. Among Hispanics/Latinos, the percentage of unemployed adults is the lowest of any other demographic in Carroll County, but among the highest in Obion County.

2012–2016 Unemployment by Race

	White		Black/Afric	an American	Hispanic/Latino	
	Count	Percentage	Count	Percentage	Count	Percentage
Carroll County	20,156	7.1%	2,376	21.4%	458	5.5%
Obion County	21,740	9.5%	2,447	22.9%	702	14.8%
Tennessee	4,149,126	6.4%	840,401	12.6%	208,464	6.2%

The proportion of adults in Carroll and Obion counties who have completed a bachelor's degree is lower than the statewide proportion in all racial and ethnic categories. The percentage of Black/African American and Hispanic/Latino residents completing a bachelor's degree is generally less than half of the percentage of White residents completing a bachelor's degree.

2012–2016 Bachelor's Degree or Higher by Race

	White		Black/Afric	an American	Hispanic/Latino		
	Count	Percentage	Count	Percentage	Count	Percentage	
Carroll County	2,788	16.2%	121	6.2%	18	4.9%	
Obion County	3,392	17.8%	170	8.4%	52	9.4%	
Tennessee	940,959	26.3%	124,276	18.5%	23,232	14.3%	

#### **ZIP Code Analysis**

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

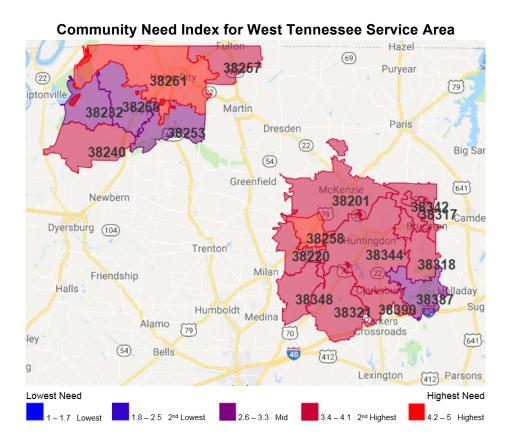
- > Income: Poverty among elderly households, families with children and single femaleheaded families with children
- > Culture/Language: Minority populations and English-language barriers
- Education: Population over 25 years without a high school diploma

> Insurance coverage: Unemployment rate among population 16 years of age or older and population without health insurance

Housing status: Householders renting their home

The weighted average CNI score for the West Tennessee Service Area is 3.9, indicating higher than average overall community need.

The CNI score map below reflects similar data findings as detailed within the county-level analysis and provides a closer look at health disparities. A full analysis of socioeconomic factors is included for each ZIP Code with a CNI score of 3.4 or greater, which is useful in pinpointing high-risk populations and prioritizing communities and neighborhoods on which to focus community health improvement efforts.



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

Socioeconomic disparity is above average in all but two ZIP Codes in Carroll County (38387, Westport and 38235, McLemoresville). Residents of the county experience higher poverty, lower educational attainment and higher uninsured rates. In the highest need ZIP Codes,

approximately 1 in 4 households and 1 in 3 children live in poverty, nearly 1 in 5 people are without health insurance and 1 in 4 adults age 25 years of age or older have not attained a high school diploma. In combination, these indicators represent significant barriers to accessing health care and present challenges to maintaining a healthy lifestyle.

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

	House- holds in Poverty	House- holds Receiving Food Stamps/ SNAP	Children in Poverty	Language Other Than English Spoken at Home	Unem- ployment	Less Than HS Diploma	Without Health Insurance	CNI Score
<b>Carroll County</b>	20.4%	20.6%	23.7%	2.1%	4.4%	19.1%	11.0%	3.9
38258, Trezevant	19.6%	23.2%	31.1%	3.2%	6.0%	21.5%	16.9%	4.4
38201, Mc Kenzie	20.0%	19.5%	26.9%	2.2%	4.8%	18.1%	9.6%	4.0
38317, Bruceton	24.3%	26.5%	19.2%	1.8%	3.3%	23.7%	11.5%	4.0
38344, Huntingdon	20.8%	21.4%	34.0%	1.7%	4.8%	17.2%	10.4%	3.8
38220, Atwood	13.3%	11.7%	23.2%	1.7%	6.6%	17.2%	11.5%	3.8
38348, Lavinia	17.0%	24.5%	10.5%	2.6%	6.0%	19.9%	11.2%	3.6
38342, Hollow Rock	27.4%	25.6%	13.0%	1.7%	2.8%	23.8%	15.4%	3.6
38321, Cedar Grove	18.6%	19.9%	24.6%	4.1%	4.9%	18.1%	13.7%	3.6
38318, Buena Vista	28.7%	26.6%	17.9%	2.0%	3.6%	21.1%	11.6%	3.6
38390, Yuma	18.3%	17.1%	12.5%	2.0%	5.8%	18.2%	10.7%	3.4
Tennessee	16.3%	16.5%	25.1%	6.8%	4.5%	12.5%	11.8%	

Carroll County

Demographic Indicators for ZIP Codes With CNI Score ≥3.4

	White	Black/ African American	Hispanic / Latino	18–24	25–34	35–44	45–54	55–64	65+
<b>Carroll County</b>	85.6%	10.2%	2.7%	9.3%	11.7%	10.8%	13.2%	14.0%	21.4%
38258, Trezevant	80.2%	16.8%	2.0%	7.4%	12.2%	10.8%	14.5%	15.9%	19.9%
38201, Mc Kenzie	85.8%	9.7%	3.6%	13.2%	12.2%	10.9%	12.0%	13.0%	20.3%
38317, Bruceton	90.6%	5.7%	2.6%	7.3%	10.2%	10.0%	13.5%	14.4%	24.5%
38344, Huntingdon	84.8%	10.9%	2.2%	7.3%	11.7%	11.1%	13.3%	14.2%	21.3%
38220, Atwood	84.3%	12.4%	2.5%	7.3%	11.8%	11.0%	14.1%	15.7%	21.5%
38348, Lavinia	92.4%	4.2%	2.7%	6.7%	11.5%	11.7%	15.1%	15.0%	20.9%
38342, Hollow Rock	90.8%	5.3%	2.2%	7.6%	11.4%	10.3%	14.7%	13.8%	21.3%
38321, Cedar Grove	89.1%	8.1%	1.7%	7.0%	11.9%	12.2%	15.0%	15.4%	19.6%
38318, Buena Vista	86.4%	7.9%	1.9%	6.8%	11.3%	10.9%	14.5%	14.3%	21.7%
38390, Yuma	88.1%	7.9%	1.4%	7.1%	11.3%	11.4%	15.1%	13.8%	20.0%
Tennessee	75.9%	16.9%	3.2%	9.1%	13.4%	12.7%	13.1%	13.4%	16.6%

Obion County also has above average socioeconomic disparity, evidenced by higher poverty, unemployment and uninsured rates and lower educational attainment. These social factors make it more difficult for people in Obion County to make healthy choices for their health. Half of the ZIP Codes in Obion County have a CNI score of 3.4 or greater. Residents of ZIP Code 38240, Obion experience the greatest socioeconomic barriers with 1 in 4 households and nearly 50% of children living in poverty and more than 1 in 5 adults without a high school diploma.

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

	House- holds in Poverty	House- holds Receiving Food Stamps/ SNAP	Children in Poverty	Language Other Than English Spoken at Home	Unem- ployment	Less Than HS Diploma	Without Health Insurance	CNI Score
<b>Obion County</b>	20.4%	19.1%	33.6%	3.4%	5.8%	15.4%	13.8%	4.0
38261, Union City	22.6%	21.3%	36.4%	5.0%	6.5%	15.5%	14.3%	4.4
38257, South Fulton	18.2%	17.4%	34.5%	1.6%	4.3%	12.7%	9.6%	4.0
38240, Obion	25.1%	22.5%	46.4%	0.6%	3.7%	19.1%	14.7%	4.0
Tennessee	16.3%	16.5%	25.1%	6.8%	4.5%	12.5%	11.8%	

Obion County

Demographic Indicators for ZIP Codes With CNI Score ≥3.4

	White	Black/ African American	Hispanic / Latino	18–24	25–34	35–44	45–54	55–64	65+
<b>Obion County</b>	84.3%	10.5%	4.5%	7.3%	12.0%	12.3%	13.2%	14.6%	20.3%
38261, Union City	76.6%	16.1%	6.9%	7.5%	12.4%	12.6%	12.7%	13.7%	19.9%
38257, South Fulton	84.7%	11.9%	1.3%	6.1%	11.4%	11.4%	12.9%	16.2%	22.8%
38240, Obion	94.4%	2.9%	2.4%	8.8%	11.4%	12.0%	14.2%	15.5%	19.8%
Tennessee	75.9%	16.9%	3.2%	9.1%	13.4%	12.7%	13.1%	13.4%	16.6%

### **Statistical Analysis of Health Indicators**

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

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

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

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

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

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

#### **Access to Health Care**

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

**2018 Clinical Care County Health Rankings** 

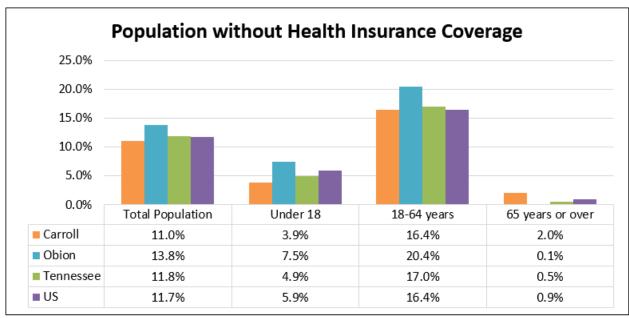
No. 22 Obion County (No. 35 in 2015) No. 37 Carroll County (No. 30 in 2015)

#### **Health Insurance Coverage**

The proportion of the Carroll County population without health insurance is consistent with state and national percentages, while the proportion of uninsured in Obion County is higher than all other reported geographies. Within Obion County, the greatest proportion of uninsured individuals are children under 18 years old and working

A higher percentage of children and working age adults in Obion County are uninsured.

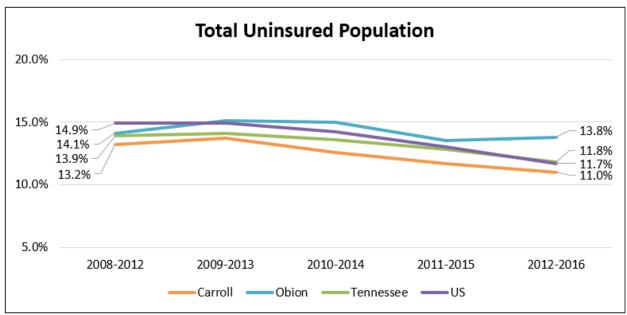
age adults between 18–64 years of age. Within Carroll County, a slightly higher percentage of seniors are uninsured compared to the other geographies.



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

The uninsured population in Carroll County is slowing decreasing, consistent with state and national trends. In Obion County, the percentage of uninsured residents has remained stable and consistently higher than state and national percentages.

The percentage of uninsured residents declined in Carroll County, but remained high in Obion County.

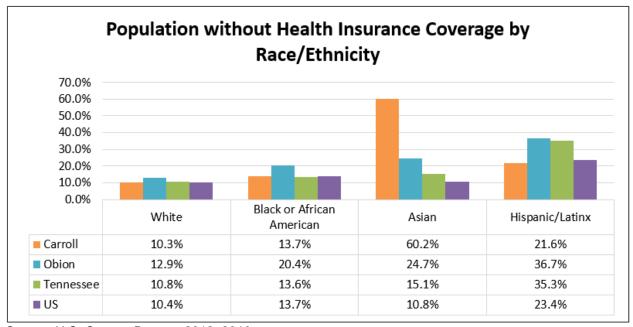


Source: U.S. Census Bureau, 2008-2012 to 2012-2016

When stratified by race, the percentage of uninsured residents is highest among racial and ethnic minority populations and higher in Obion County than any other geography. The exception is the percentage of uninsured residents among Asians in Carroll County, which is six times higher than the national uninsured rate.

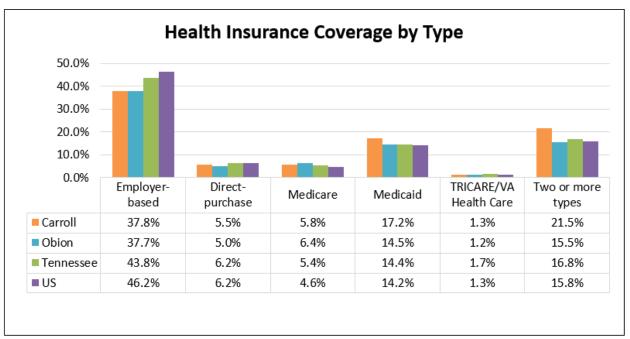
The percentage of uninsured residents is highest among minority racial and ethnic groups.

However, the Carroll County uninsured percentage for Asians is based on a small count as Asians comprise 0.3% of the population.



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

The majority of residents in Carroll and Obion counties access health insurance through their employer, consistent with state and national trends. In Carroll County, a higher percentage of residents are insured by Medicaid or two or more insurance types (public or private) compared to other geographies.



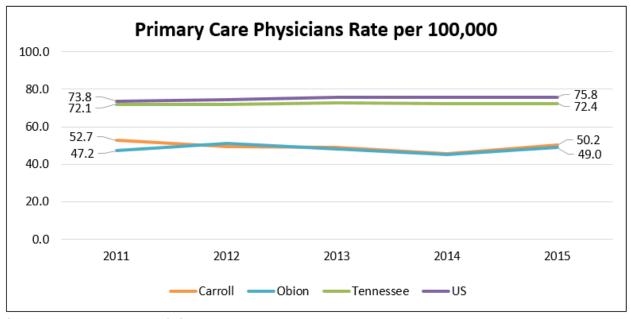
Source: U.S. Census Bureau, 2012-2016

#### **Provider Access**

Provider rates are measured by the number of providers per 100,000 people and are measured against state and national benchmarks for primary, dental and mental health care.

The Tennessee rate of primary care physicians per 100,000 people is consistent with the national rate. The primary care physician rate in both Carroll and Obion counties is approximately one-third lower than state and national rates and is generally unchanged since 2011.

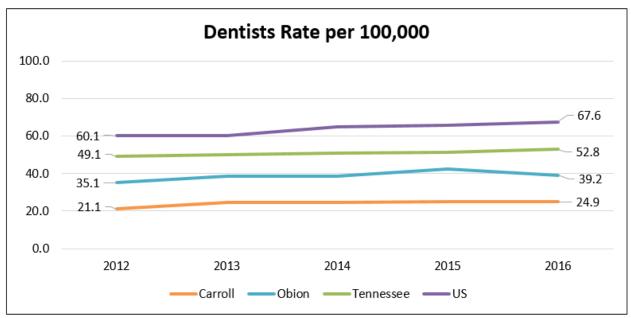
Primary, dental and mental health provider rates are lower than state and national rates in both counties and generally unchanged over the past 5



Source: Health Resources & Services Administration, 2011–2015

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

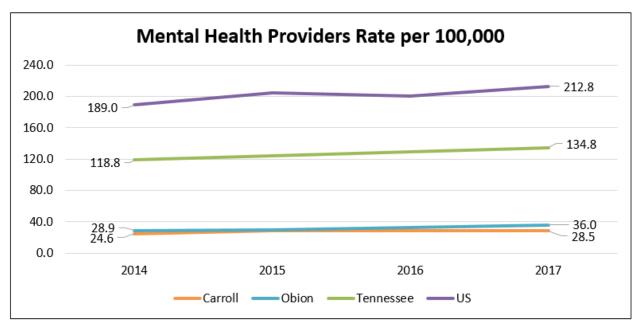
The Carroll County rate of dentists per 100,000 people is less than half of the state and national rates, while the Obion County rate is approximately one-third lower than the national rate. The availability of dentist providers in the two counties has remained generally unchanged since 2012.



Source: Health Resources & Services Administration, 2012–2016 The mental health provider rate in both Carroll and Obion counties is the lowest of all of the reported provider rates in comparison to the state and the nation. The current rates are

The mental health provider rate in both counties is one-sixth of the national rate.

roughly one-sixth of the national rate and one-fourth of the state rate. Obion County saw a slight increase in the mental health provider rate from 2014 to 2017, but the Carroll County rate has been generally stable.



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

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

Health Professional Shortage Areas and Medically Underserved Areas in the West Tennessee Service Area

Geographic Area	Medically Underserved Area	Health Professional Shortage Area(s)
Carroll County (All)	х	Mental health care; Low-income population (primary care, dental care)
Obion County (All)	х	Mental health care; Low-income population (primary care, dental care)

<sup>\*</sup>An error occurred in the County Health Rankings method for identifying mental health providers in 2013. Data prior to 2014 are not shown.

The Health Resources & Services Administration also plays a role in designating Federally Qualified Health Centers (FQHCs). Federally Qualified Health Centers are defined as "community-based health care providers that receive funds from the HRSA Health Center Program to provide primary care services in underserved areas." Services are provided on a sliding fee scale based on patients' ability to pay. There are no FQHCs located within Carroll or Obion counties. The local health departments located in Huntingdon, Carroll County and Union City, Obion County offer primary and mental health care services. The Carroll County health department also offers adult dental services.

#### **Overall Health Status**

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

**2018 Health Outcomes County Health Rankings** 

No. 52 Obion County (No. 30 in 2015) No. 67 Carroll County (No. 53 in 2015)

The following table indicates that for all four identified health outcome measures, Carroll and Obion counties rank below the state and the nation. County residents have higher premature death rates than the state and the nation and lower quality of life, as evidenced by self-reported health status.

The premature death rate for both counties exceeds state and national rates.

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

	Premature Death Rate per 100,000	Adults With "Poor" or "Fair" Health Status	30-Day Average  -Poor Physical  Health Days	30-Day Average  -Poor Mental  Health Days
Carroll County	11,626	21.6%	4.9	4.7
Obion County	9,452	22.9%	5.2	4.9
Tennessee	8,760	19.1%	4.4	4.5
United States	6,700	16.0%	3.7	3.8

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

#### **Health Behaviors**

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

#### **Tobacco Use**

Smoking is a significant contributor to heart disease, cancer, stroke, respiratory health, low birth

weight, early death and other conditions. Healthy People 2020 sets a national target of no more than 12% of adults reporting smoking. Both Carroll and Obion counties experienced a decrease in the percentage of adults who report smoking, and current percentages are generally comparable to the state. However, both counties and the state exceed the national and Healthy People 2020 benchmarks with roughly 1 in 4 adults reporting tobacco use.

Roughly 1 in 4 adults in both counties report smoking.

# Tobacco Use Among Adults (Green = Decrease of More than 2 Points)

	Adult Smoking			
	2014	2016		
Carroll County	23.2%	21.1%		
Obion County	23.3%	22.7%		
Tennessee	24.2%	22.1%		
United States	17.0%	17.0%		
Healthy People 2020	12.0%	12.0%		

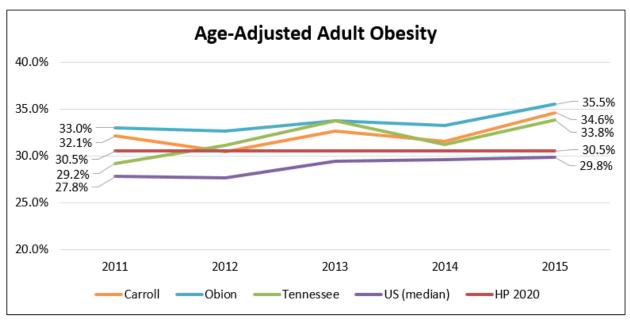
Source: Centers for Disease Control and Prevention, 2014 & 2016; Healthy People 2020

#### Obesity

Overweight and obesity are associated with greater risk for a variety of diseases, including heart disease and diabetes, and contribute to decreased quality of life. The Healthy People 2020 target for adult obesity is no more than 30.5% of the population. The nation in general has met this target. None of the counties in the West Tennessee Service Area have met the Healthy People

Approximately 35% of adults in both counties are obese, exceeding state and national benchmarks.

2020 target or national percentage. Approximately 35% of adults in both counties experience obesity, and percentages increased from 2011 to 2015.



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

#### **Healthy Eating and Food Insecurity**

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

A higher percentage of residents in both counties are food insecure compared to the state and nation.

Tennessee has a greater proportion of food insecure residents than the nation, and Carroll and Obion counties have more food insecure residents than Tennessee. More than 1 in 5 children in Carroll County and roughly 1 in 4 children in Obion County are food insecure.

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

In both counties, more than 20% of children are food insecure and approximately 60% are eligible for free or reduced-price lunch.

Roughly 60% of children in Carroll and Obion counties are eligible for free or reduced-price lunch.

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

	All Residents	Children
Carroll County	15.5%	21.4%
Obion County	16.3%	23.8%
Tennessee	14.5%	19.7%
United States	12.9%	17.5%

Source: Feeding America, 2016

#### Children Eligible for Free or Reduced-Price Lunch

	Percent
Carroll County	57.7%
Obion County	61.3%
Tennessee	58.8%

Source: National Center for Education Statistics, 2015–2016

#### **Healthy Living**

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

Obion County has fewer physical activity spaces than the nation, but it is comparable to the state. Carroll County has lower access to physical activity than any other reported geography with fewer than 30% of residents having access to recreation space. The percentage of physically inactive adults in both counties in partly and access to and actions and actions.

Nearly 40% of service area adults are physically inactive, higher than state and national benchmarks.

in both counties is nearly equal and exceeds state and national benchmarks.

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

	Access to Physical Activity	Physically Inactive Adults
Carroll County	27.1%	37.2%
Obion County	71.4%	39.3%
Tennessee	71.2%	30.1%
United States	83.0%	23.0%

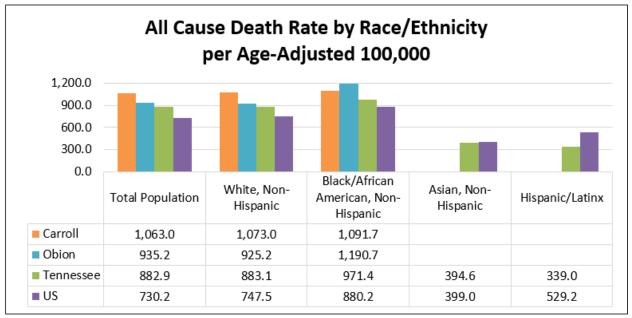
Source: Business Analyst, Delorme Map Data, ESRI, & U.S. Census Tigerline Files, 2010 & 2016; Centers for Disease Control and Prevention, 2014

#### **Mortality**

The following graph depicts the all cause age-adjusted death rate by county and by race/ethnicity. The death rates for White and Black/African American residents in the West Tennessee Service Area are higher than the state and national rates. The death rate among Black/African American residents in Obion County is the highest in the

In Obion County, the death rate among Blacks/African Americans exceeds the death rate among Whites by more than 250 points.

service area and exceeds the White death rate by more than 250 points.



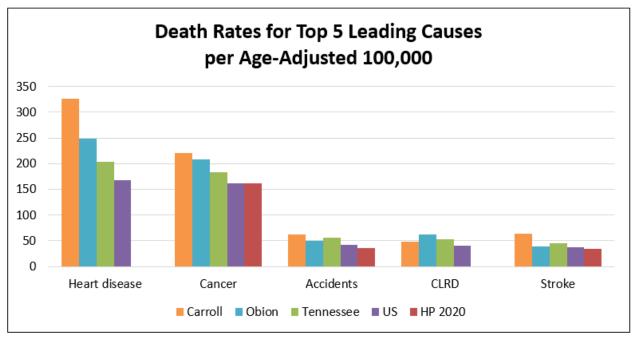
Source: Centers for Disease Control and Prevention, 2012–2016

The top five causes of death in the nation, in rank order, are heart disease, cancer, accidents, chronic lower respiratory disease (CLRD) and stroke. The following chart profiles death rates for the top five causes by county and for Tennessee. The death rates for all five causes are higher in Carroll and Obion counties than the nation. Both counties also have a higher rate

Tennessee and both counties exceed national and Healthy People 2020 benchmarks for the leading causes of death.

of death due to heart disease and cancer compared to the state. None of the counties, nor the state of Tennessee, have met the Healthy People 2020 targets for the leading causes of death.

<sup>\*</sup>Asian and Hispanic/Latino death rates are not available at the county level due to low counts.



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

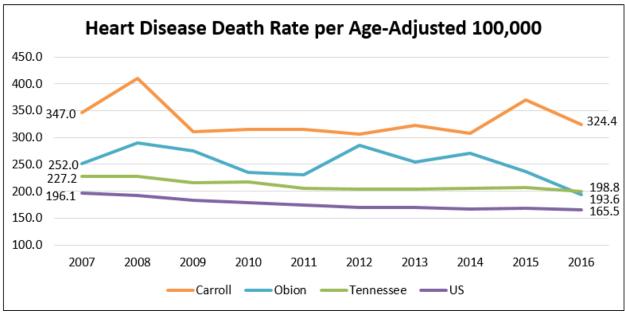
#### **Chronic Diseases**

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

#### **Heart Disease**

Heart disease is a leading cause of death in the nation, and within Baptist's West Tennessee Service Area. While the rate of death due to heart disease decreased in Carroll and Obion counties, it is still higher than the national rate. The Obion County death rate is equal to the Tennessee rate, but the Carroll County death rate is more than 100 points higher than the state rate.

The heart disease death rate declined in both counties, but it remains higher than the national rate.



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

When stratified by race, the rate of heart disease death remains higher in Carroll and Obion counties than state and national rates for both Whites and Blacks/African Americans. In Carroll County, the rate of death from heart disease is roughly two times higher for Whites and Blacks/African Americans than the national rate. Across both counties, Blacks/African Americans have a higher rate of death than Whites.

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

	White, Non-Hispanic Death Rate	Black/African American, Non- Hispanic Death Rate	Hispanic/Latino Death Rate
Carroll County	321.4	418.1	NA*
Obion County	248.0	287.1	NA*
Tennessee	202.6	233.5	66.4
United States	170.9	212.6	118.2

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

#### **Coronary Heart Disease and Stroke**

Coronary heart disease (CHD) is characterized by the buildup of plaque inside the coronary arteries. Several types of heart disease, including coronary heart disease, are risk factors for stroke. Death rates due to CHD and stroke in Carroll and Obion counties exceed national rates and do not meet Healthy People

The Coronary heart disease death rate in Carroll County is nearly double the state rate.

2020 targets. The CHD death rate in both counties also exceeds the state rate. In Carroll County, the CHD death rate is nearly double the state rate.

<sup>\*</sup>Hispanic/Latino death rates are not available at the county level due to low counts.

Coronary Heart Disease and Stroke Death Rate	es
(Red = Higher Than the State or Nation)	

	Coronary Heart Disease Death	Stroke Death per Age-
	per Age-Adjusted 100,000	Adjusted 100,000
Carroll County	241.6	64.3
Obion County	145.6	42.3
Tennessee	129.3	45.9
United States	99.6	36.9
Healthy People 2020	103.4	34.8

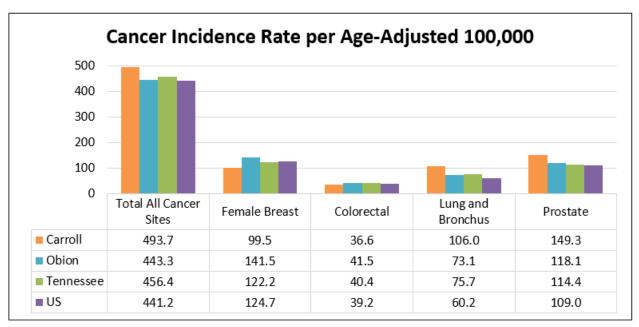
Source: Centers for Disease Control and Prevention, 2014–2016

#### Cancer

Cancer remains a leading cause of death, but if detected early, can often be effectively treated. The incidence of cancer of all types in Obion County is generally consistent with state and national rates. Carroll County has a slightly higher overall incidence rate than the state and the nation, which is largely

Carroll County has a higher overall cancer incidence rate, as well as higher incidence rates for lung and prostate cancers.

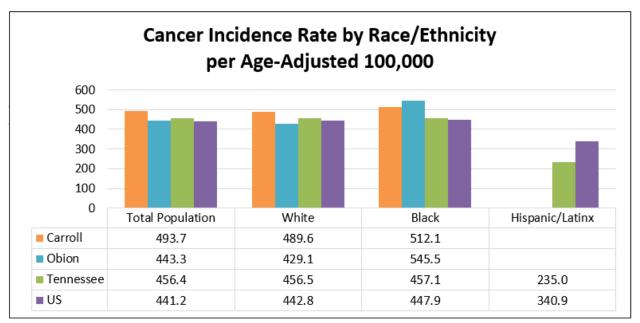
driven by higher lung and prostate cancer incidence rates. Both counties experienced a decline in cancer incidence from the 2013 CHNA to present, but the Carroll County rate appears to be increasing.



Source: National Cancer Institute, 2011–2015

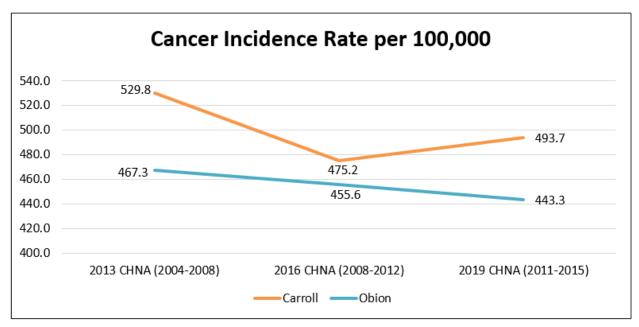
When stratified by race, the incidence of cancer in both counties is higher among Blacks/African Americans than Whites. The difference is greatest in Obion County, where cancer incidence among Blacks/African Americans is more than 100 points higher than incidence among Whites.

In Obion County, the Black/African American cancer incidence rate is more than 100 points higher than the White incidence



Source: National Cancer Institute, 2011–2015

<sup>\*</sup>Hispanic/Latino cancer incidence data reported as available.

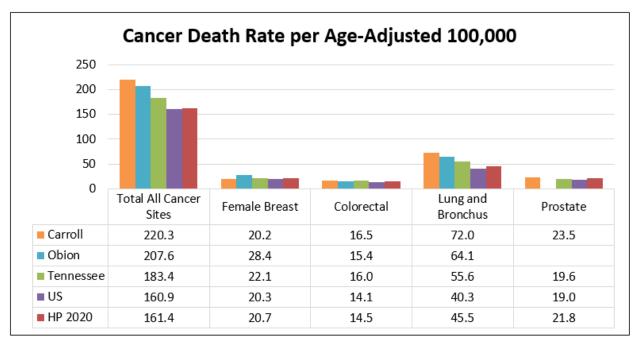


Source: National Cancer Institute, 2004-2008 to 2011-2015

The rate of death due to cancer of all types is higher in Carroll and Obion counties when compared to the nation. Both counties also have a higher overall cancer death rate than the state.

Both counties exceed state and national benchmarks for lung cancer death.

When stratified by cancer type, both counties have a higher rate of death due to lung cancer than the state and the nation. The Carroll County lung cancer death rate is particularly high, exceeding the Healthy People 2020 target by nearly 30 points. The Obion County breast cancer death rate is also elevated at nearly eight points higher than the Healthy People 2020 target.



Source: Centers for Disease Control and Prevention, 2012–2016; Healthy People 2020 \*Prostate cancer death rates are not available for Obion County due to low counts.

The rate of death from cancer is higher for all reported races in Carroll and Obion counties than in Tennessee or the nation. The rate of death from cancer is particularly high among Blacks/African Americans living in Obion County when compared to the other geographies.

Blacks/African Americans in Obion County have higher cancer incidence and death rates than Whites.

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

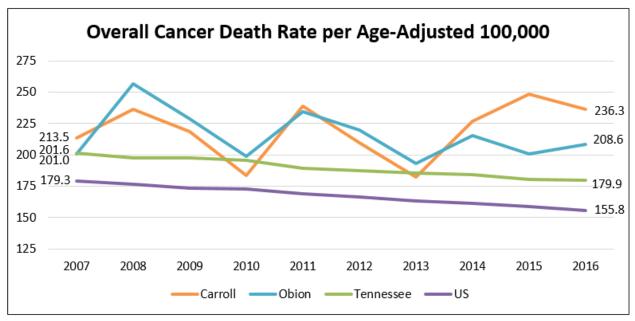
	White, Non- Hispanic Death Rate	Black/African American, Non- Hispanic Death Rate	Hispanic/Latino Death Rate
Carroll County	220.4	246.2	NA*
Obion County	202.1	311.9	NA*
Tennessee	182.3	212.2	74.9
United States	165.7	190.0	112.6

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

The graph below demonstrates that the rate of death from cancer is higher in Carroll and Obion counties than in the state and nation and increased in recent years. In contrast, the rate of death from cancer in Tennessee and the nation is trending downward.

Cancer death rates declined in Tennessee and the nation, but increased in Carroll and Obion counties.

<sup>\*</sup>Hispanic/Latino death rates are not available at the county level due to low counts.



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

# **Chronic Lower Respiratory Disease**

Chronic lower respiratory disease (CLRD) is the third most common cause of death in the nation. CLRD encompasses such diseases as chronic obstructive pulmonary disorder (COPD), emphysema and asthma, all of which contribute to lower quality of life and increased

The Obion County CLRD death rate is higher than the state and the nation.

risk of early death. The rate of death from CLRD in Carroll and Obion counties is higher than the nation. The Obion County death rate is also higher than the state.

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

	Total Population	White, Non- Hispanic Death Rate	Black/African American, Non- Hispanic Death Rate	Hispanic/Latino Death Rate
Carroll County	48.0	52.1	NA*	NA*
Obion County	62.0	62.7	NA*	NA*
Tennessee	53.4	57.0	32.6	10.4
United States	41.2	46.3	29.7	17.8

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

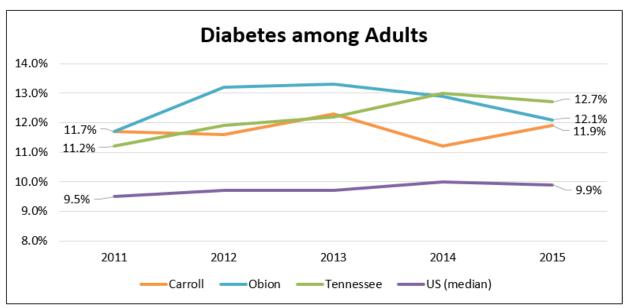
#### **Diabetes**

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

More than 1 in 10 adults across the West Tennessee Service Area have a diabetes diagnosis.

<sup>\*</sup>Black/African American and Hispanic/Latino death rates are not available at the county level due to low counts.

The proportion of adults in Carroll and Obion counties with a diabetes diagnosis is higher than the nation and comparable to the state. While Carroll County has slightly fewer adults with diabetes than Obion County, the proportion of adults with diabetes in Carroll County is increasing, while the proportion in Obion County is decreasing.



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

The rate of death from diabetes is lower in Carroll County than Obion County, Tennessee and the nation. The rate of death from diabetes in Obion County exceeds state and national benchmarks.

Carroll County has a lower diabetes death rate than the state and nation.

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

	Total Population	White, Non- Hispanic Death Rate	Black/African American, Non- Hispanic Death Rate	Hispanic/Latino Death Rate
Carroll County	16.7	17.1	NA*	NA*
Obion County	34.7	31.6	NA*	NA*
Tennessee	24.2	21.8	44.2	11.2
United States	21.1	18.6	38.6	25.6

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

#### **Chronic Conditions Among Seniors**

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

<sup>\*</sup>Black/African American and Hispanic/Latino death rates are not available at the county level due to low counts.

The tables below indicate that the burden of chronic conditions among senior Medicare beneficiaries is greater in Carroll and Obion counties than in Tennessee and the nation. Seniors in both counties are more likely to manage four or more chronic conditions, and they have a higher prevalence of nearly all reported chronic conditions, particularly hypertension and ischemic heart failure.

More than 40% of senior Medicare beneficiaries living in the West Tennessee Service Area manage 4 or more chronic conditions.

Chronic Conditions Among Medicare Beneficiaries 65 Years of Age or Older (Red = Higher Than the State and Nation; Green = Lower Than the State and Nation)

	Carroll County	Obion County	Tennessee	US
Alzheimer's	12.2%	10.8%	12.2%	11.3%
Arthritis	34.1%	32.4%	32.1%	31.3%
Asthma	9.3%	7.3%	7.8%	7.6%
Cancer	8.0%	7.6%	8.3%	8.9%
COPD	15.7%	13.9%	12.7%	11.2%
Depression	17.4%	14.6%	15.1%	14.1%
Diabetes	30.1%	30.0%	27.5%	26.8%
Heart Failure	20.1%	15.4%	15.2%	14.3%
High Cholesterol	45.7%	50.8%	46.7%	47.8%
Hypertension	65.5%	65.6%	61.6%	58.1%
Ischemic Heart Disease	34.9%	33.2%	29.5%	28.6%
Stroke	4.1%	3.9%	4.1%	4.2%

Source: Centers for Medicare & Medicaid Services, 2015

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

	Carroll County	Obion County	Tennessee	US
0 to 1	27.8%	27.6%	30.5%	32.3%
2 to 3	28.8%	30.8%	30.4%	30.0%
4 to 5	23.0%	24.3%	22.2%	21.6%
6 or more	20.4%	17.3%	17.0%	16.2%

Source: Centers for Medicare & Medicaid Services, 2015

Regular screenings are essential for the early detection and management of chronic conditions. The following table lists diabetes and mammogram screenings among Medicare enrollees. Seniors in Carroll and Obion counties are more likely than their peers across Tennessee and the nation to be screened for diabetes (HbA1c), but less likely to be screened for breast cancer (mammogram).

**Chronic Disease Screenings Among Medicare Enrollees** 

	Diabetes Screening (65–75 Years) Annual HbA1c Test	Breast Cancer Screening (Females 67–69 Years) Mammogram in Past Two Years
Carroll County	88.3%	55.4%
Obion County	89.7%	61.0%
Tennessee	86.6%	62.7%
United States	85.0%	63.0%

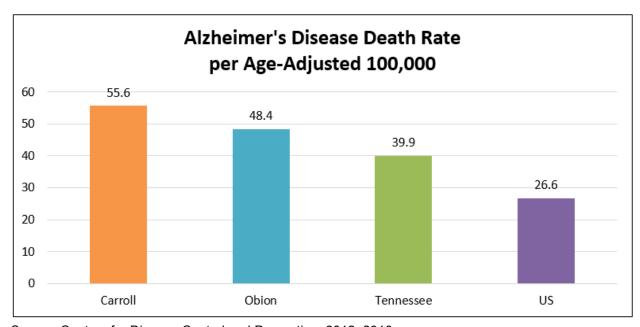
Source: Dartmouth Atlas of Health Care, 2014

Alzheimer's disease is a type of dementia that causes problems with memory, thinking and behavior. Symptoms usually develop slowly and get worse over time, becoming severe enough to interfere with daily tasks. The disease weakens the body's defense mechanisms, increasing

susceptibility to catastrophic infection and other causes of death related to frailty. Alzheimer's is the sixth leading cause of death in the United States. While there is no cure, treatment is focused on helping people maintain mental function, manage behavioral symptoms and slow or delay the symptoms of the disease.

The death rate due to Alzheimer's disease is higher in both counties compared to the state and nation.

The age-adjusted death rate due to Alzheimer's disease is noticeably higher in Carroll and Obion counties than in Tennessee and the nation. In Carroll County, the Alzheimer's disease death rate is more than twice the national rate.



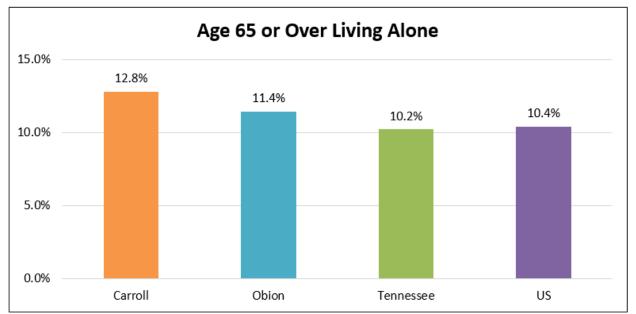
Source: Centers for Disease Control and Prevention, 2012–2016

Categorizations for cause of death can vary among reporting entities. Given the propensity for Alzheimer's to increase risk factors for other diseases, cause of death for individuals with the disease is not always attributed solely to Alzheimer's. Additional exploration of procedures for categorization of cause of death may further illuminate trends.

As seniors age, they are at risk for isolation due to physical limitations and decreasing social circles. One indicator of isolation is the percentage of seniors age 65 or older who live alone. Seniors in

Seniors in both counties are more likely to live alone than the state and nation.

Carroll and Obion counties are more likely to live alone than seniors in Tennessee and the nation in general, putting seniors in these counties at risk for greater social isolation.



Source: American Community Survey, 2012–2016

#### **Behavioral Health**

#### **Mental Health**

Mental and behavioral health disorders include a wide range of conditions, including disorders from psychoactive substance use,

The suicide death rate in both counties is roughly twice the Healthy People 2020 target.

anxiety disorders, schizophrenia and other delusional disorders and mood or personality disorders. These disorders are not induced by alcohol and other psychoactive substances, but they may result from substance abuse.

The death rate due to mental and behavioral disorders is lower in Carroll and Obion counties than Tennessee and the nation. The death rate has been stable in Obion County and decreased in Carroll County.

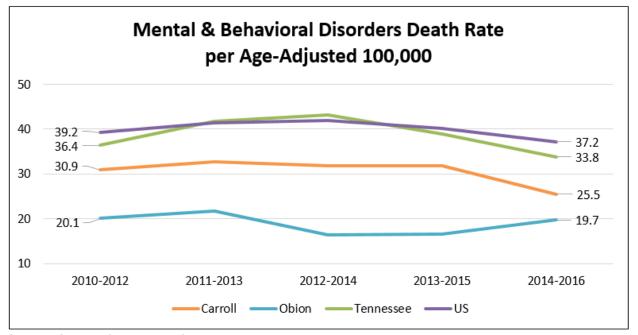
Living with behavioral health conditions can reduce an individual's life expectancy, particularly if they have co-occurring chronic conditions, such as heart disease or diabetes, or engage in risky health behaviors such as tobacco, alcohol or drug use. Behavioral health disorders can reduce

a patient's ability to effectively manage other chronic diseases, increasing disease complications and the need for medical care.

Mental Health Measures (5-Year Trends)
(Red = Higher Than State and National Benchmarks)

				-
		Suicide Rate	Mental &	Mental & Behavioral
	Cuisida Daatha	per Age-	Behavioral	Disorders Death
	Suicide Deaths	Adjusted	Disorders	Rate per Age-
		100,000	Deaths	Adjusted 100,000
Carroll County	32	22.6	58	29.0
Obion County	28	18.4	38	18.7
Tennessee	5,184	15.3	16,221	45.9
United States	213,733	13.0	724,640	39.3
Healthy People 2020	NA	10.2	NA	NA

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

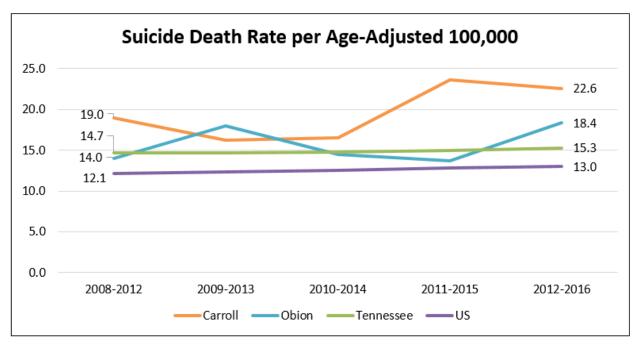


Source: Centers for Disease Control and Prevention, 2010–2012 to 2014–2016

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

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

Healthy People 2020 provides a benchmark for age-adjusted suicide death per 100,000 at 10.2. The suicide rate in Tennessee slightly exceeds the national rate and has been stable over the past five years. The suicide rate in Carroll and Obion counties is higher than the state and the nation, and roughly twice the Healthy People 2020 target. Suicide rates in both counties increased in recent years.



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

#### **Substance Use Disorder**

Excessive drinking includes heavy drinking (two or more drinks per day for men; one or more drinks per day for women) and binge drinking (five or more drinks on one occasion for men; four or more drinks on one occasion for women). Fewer adults in Tennessee report excessive drinking than the nation, and Carroll and Obion County adults report less excessive drinking than Tennessee. The percentage of driving deaths due to driving

Both counties have fewer adults who report excessive drinking and a lower druginduced death rate than the state and nation.

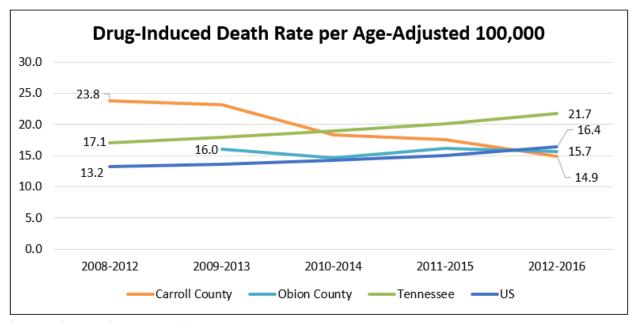
under the influence (DUI) is roughly half of that of the state and the national percentages in Obion County, but slightly elevated in Carroll County.

Drug-induced deaths include all deaths for which drugs are the underlying cause, including drug overdoses and deaths from medical conditions resulting from chronic drug use. The drug-induced death rate in Carroll and Obion counties is lower than the state and the nation. The death rate has been stable in Obion County and decreased in Carroll County. This finding is particularly positive as drug-induced deaths increased for both the state and the nation.

	Substance	Use D	Disord	ler N	leas	ures	
(	Red = Higher	Γhan	the S	tate	and	Nation	ı)

	Excessive Drinking (Adults)	Percent of Driving Deaths from DUI	Drug-Induced Deaths	Drug-Induced Death Rate per Age- Adjusted 100,000
Carroll County	12.9%	32.1%	22	14.9
Obion County	12.3%	14.3%	23	15.7
Tennessee	14.4%	27.5%	7,121	21.7
United States	18.0%	29.0%	262,672	16.4

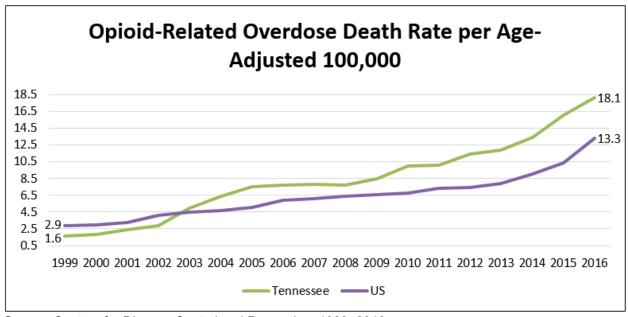
Source: Centers for Disease Control and Prevention, 2012–2016 & 2016; National Highway Traffic Safety Administration, 2012–2016



Source: Centers for Disease Control and Prevention, 2008–2012 to 2012–2016 \*Data not reported for Obion County in 2008–2012.

#### **Opioids**

A significant contributor to the number of drug-induced deaths across the nation and within Baptist's West Tennessee Service Area is opioid overdose. According to the National Institute on Drug Abuse, in 2016, there were 1,186 opioid-related overdose deaths in Tennessee — a rate of 18.1 deaths per 100,000 persons — higher than the national rate of 13.3. Deaths from heroin overdose have increased since 2010 from 17 to 260 deaths. Deaths from synthetic and prescription opioids have also increased, from 72 to 395 deaths and from 516 to 739 deaths, respectively.



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

Medication assisted treatment (MAT) has been found to be an effective treatment for people struggling with opioid addiction. MAT uses FDA-approved medications, including buprenorphine (Suboxone, Subutex), methadone and extended release naltrexone (Vivitrol), in combination with counseling and behavioral therapies to provide a "whole-patient" approach to the treatment of substance use disorders. There are 87 facilities in Tennessee providing some form of MAT; none of these facilities are within the West Tennessee Service Area as shown below.

**Opioid Treatment Services** 

	Facilities Providing Medication-Assisted Treatment		
Carroll County	0		
Obion County	0		
Tennessee	87		
United States	5,470		

Source: American Foundation for AIDS Research, 2018

#### **Neonatal Abstinence Syndrome (NAS)**

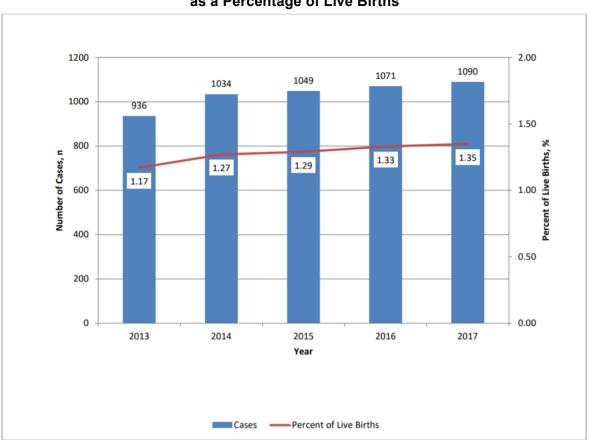
Neonatal abstinence syndrome (NAS) is a group of conditions caused when a baby withdraws from certain drugs he or she has been exposed to in the womb. Although most commonly associated with opioid exposure, other substances can also cause NAS, including antidepressants and benzodiazepines. In addition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

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

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

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

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



Source: Tennessee Department of Health, 2013-2017

Rate per 1,000 live births

Data Suppressed

0
0.01 - 6.72
6.73 - 10.86
10.87 - 21.24
21.25 - 33.70
33.71 - 93.20

# Rate of NAS Cases by Tennessee County, 2017

Source: Tennessee Department of Health, 2017

#### **Maternal and Infant Health**

#### **Total Births**

Despite the projected population decline in the West Tennessee Service Area, both counties have a similar birth rate to the state. This difference is likely impacted by the premature death rate, which is higher in both counties compared to the state and the nation. Consistent with their racial makeup, the majority of births in Carroll and Obion counties are to White mothers with fewer births to Black/African American mothers compared to the state.

2016 Births by Race

	Total Births	Birth Rate per 1,000	Percent of Total Births to White Mothers	Percent of Total Births to Black/ African American Mothers
Carroll County	304	10.8	92.4%	6.6%
Obion County	367	12.0	85.6%	12.3%
Tennessee	80,755	12.1	75.6%	20.3%

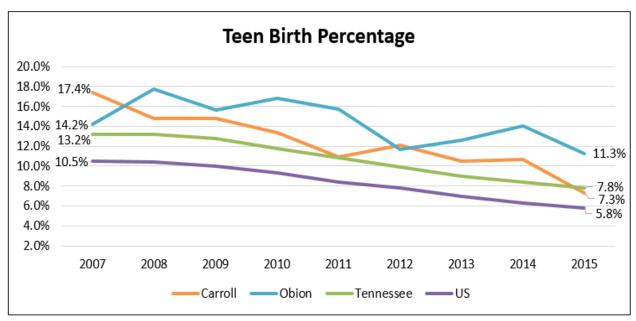
Source: Tennessee Department of Health, 2016

#### **Births to Teens**

Nationally, the percent of live births to teens under 19 years old has been decreasing since 2007, which is generally reflected in the West Tennessee Service Area, although the percentages of teen births in Carroll and Obion counties is has been consistently higher than the state and national percentages. Carroll County births were

Teen birth percentages decreased but remain higher than the nation.

just under the state percentage in 2015. Obion County has shown less of a decline in teen births, and is nearly double the national percentage.



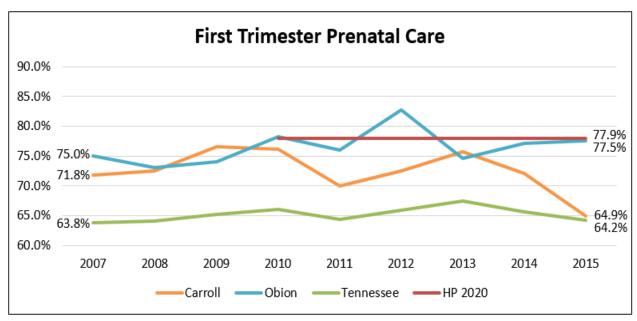
Source: Centers for Disease Control and Prevention, 2007–2015; Tennessee Department of Health, 2007–2015

#### **Prenatal Care**

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

The percentage of women accessing first trimester prenatal care increased in Obion County, but decreased in Carroll County.

While there has been some variability with regard to women accessing prenatal care since 2007, the graph below suggests that Obion County is nearing the Healthy People 2020 target. In Carroll County, the proportion of women accessing prenatal care in the first trimester decreased. Currently 1 in 3 women in Carroll County do not access prenatal care in the first trimester, which is consistent with the state average.



Source: Tennessee Department of Health, 2007–2015; Healthy People 2020

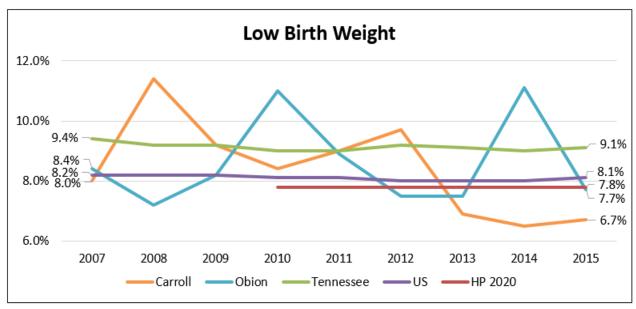
\*Starting in 2016, all of the U.S. reported data based on the 2003 US Certificate of Live Birth, providing national indicators for timing of prenatal care. In 2016, 77.1% of mothers across the nation access first trimester prenatal care. Data prior to 2016 are not reported.

# Low Birth Weight and Premature Birth

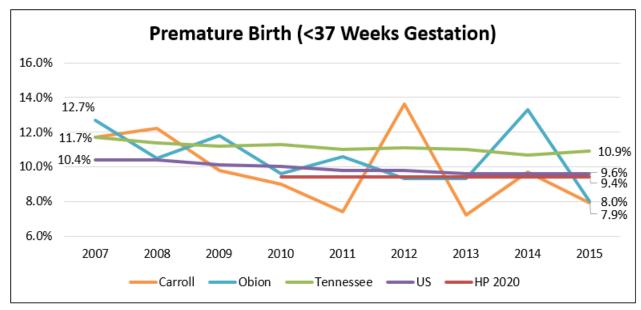
Delayed prenatal care can contribute to low birth weight and premature births. Premature birth is defined as birth before 37 weeks of pregnancy, and can contribute to infant death or disability. Low birth weight is defined as a birth weight of less than 5 pounds, 8 ounces. It is often a result of premature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

Healthy People 2020 sets a target of no more than 7.8% of all newborns having low birth weight and 9.4% of all births occuring before 37 weeks of pregnancy. Although there has been some variability in recent years, both Carroll and Obion counties meet the Healthy People 2020 targets for low birth weight and premature birth.

Both counties meet the Healthy People 2020 goals for low birth weight and premature birth.



Source: Centers for Disease Control and Prevention, 2007–2015; Tennessee Department of Health, 2007–2015; Healthy People 2020



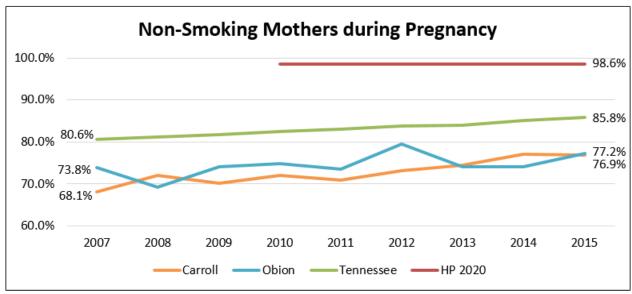
Source: Centers for Disease Control and Prevention, 2007–2015; Tennessee Department of Health, 2007–2015; Healthy People 2020

# **Smoking During Pregnancy**

Smoking during pregnancy is associated with a variety of negative birth outcomes, including low birth weight and premature birth. Healthy People 2020 sets a target of reducing the number of pregnant women who smoke to 1.4%. Roughly 1 in 4 pregnant

Approximately 1 in 4 women in both counties smoke during pregnancy.

women in Carroll and Obion counties smoke during pregnancy. The proportion is higher than the state and does not meet the Healthy People 2020 target.



Source: Tennessee Department of Health, 2007–2015; Healthy People 2020

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

### **Maternal and Child Health Disparities**

Maternal and child health indicators are presented in the table below by race for each county in the West Tennessee Service Area. In both counties, Whites are more likely than Blacks/African Americans to enter prenatal care in the first trimester. Black/African American mothers in both counties are more likely than White mothers to have low birth weight infants, and in Obion County, they are more likely to have premature births. White mothers in both counties are more likely to smoke during pregnancy.

Maternal and Child Health Indicators by Race

Maternal and Child Health Indicators by Nace						
	Carroll County	Obion County				
Women	Women With First Trimester Care					
Total Population	64.9%	77.5%				
White	73.1%	78.1%				
Black/African American	65.2%	69.8%				
Lov	w Birth Weight Infants					
Total Population	6.7%	7.7%				
White	6.5%	9.6%				
Black/African American	8.7%	20.9%				
Non-Smoki	ng Women During Pregnanc	У				
Total Population	76.9%	77.2%				
White	75.6%	73.3%				
Black/African American	87.0%	76.7%				
Premature Births						
Total Population	7.9%	8.0%				
White	10.0%	10.7%				
Black/African American	8.7%	30.2%				

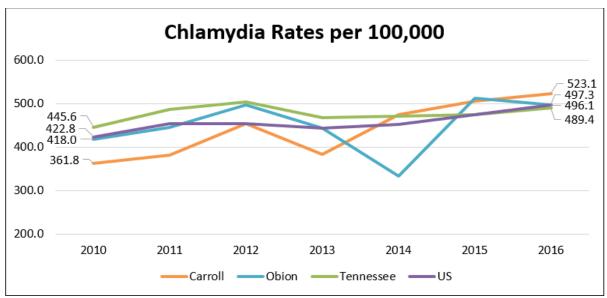
Source: Tennessee Department of Health, 2015

#### **Notifiable Diseases**

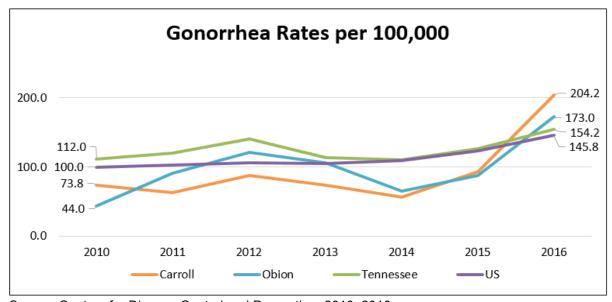
## **Sexually Transmitted Infections**

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

Chlamydia and gonorrhea are both preventable and treatable, but if left untreated can lead to serious complications and decreased quality of life. The rates of chlamydia and gonorrhea infection in Carroll and Obion counties are variable but increasing at a faster rate than that of the state and the nation.



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



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

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

The rate and number of people diagnosed with HIV infection is relatively low in Carroll and Obion counties compared to the state and nation. However, current rates represent an opportunity for continued intervention to ensure people living with HIV are

Both counties have lower HIV rates than the state or nation.

accessing consistent and proper care for the maintenance of their disease, and that efforts are continued towards prevention, education and testing.

#### **HIV Prevalence**

	Cases	Rate Per 100,000
Carroll County	30	125.7
Obion County	26	100.1
Tennessee	16,425	297.4
United States	971,524	362.3

Source: Centers for Disease Control and Prevention, 2015

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

# **Key Informant Survey Findings**

# **Background**

A Key Informant Survey was conducted with community representatives within Baptist's West Tennessee Service Area to solicit information about health needs among residents. A total of 36 individuals responded to the survey, including health and social service providers; community and public health experts; civic, religious and social leaders; policy makers; elected officials; and others representing minority, low-income or other underserved populations. A list of the represented community organizations and the key informants' respective titles is included in Appendix B. Key informant's names are withheld for confidentiality.

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

## **Summary of Findings**

- The top community health concerns, in rank order according to key informants, are diabetes, heart disease and stroke, cancer, overweight/obesity and drug or alcohol abuse. The findings are consistent with 2016 CHNA Key Informant Survey results.
- > The top contributing factors to identified health concerns, in rank order, are health habits, ability to afford health care, drug/alcohol use, health literacy and availability of health and wellness programs.
- When asked if various health care services are available in the community, respondent mean scores were between 2.17 and 3.26 out of 5, indicating overall disagreement or neutral perspectives. Mental health and substance use disorder providers were considered the least available services.
- > When asked to rate community dimensions affecting social determinants of health, respondent mean scores were between 2.58 and 3.12 out of 5, indicating overall "poor" or "average" ratings. Education and health and health care were seen as the strongest dimensions. Mean scores for nearly all dimensions decreased from the 2016 CHNA.
- More than 50% of key informants indicated that their organization currently collaborates with Baptist to improve the health of the local community; more than 75% expressed interest in collaboration opportunities.
- Consistent with the top community health concerns and contributing factors selected by informants, 50% or more chose health and wellness education and programs, mental health services, substance abuse services and community health screenings as the top needed resources in the community to optimize resident health.

# **Survey Participants**

Half of key informants indicated that they served all populations across Baptist's West Tennessee Service Area. The most commonly served special population groups were Black/African American, children/youth and seniors/elderly. "Other" populations served, as indicated by respondents, included health professionals.

# **Populations Served by Key Informants**

	Percent of Informants*	Number of Informants
Not Applicable (serve all populations)	50.0%	18
Black/African American	30.6%	11
Children/Youth	30.6%	11
Seniors/Elderly	30.6%	11
Disabled	27.8%	10
Families	25.0%	9
Hispanic/Latino	25.0%	9
Uninsured/Underinsured	25.0%	9
White	25.0%	9
Men	22.2%	8
Women	22.2%	8
Homeless	19.4%	7
Low-Income/Poor	19.4%	7
American Indian/Alaska Native	13.9%	5
LGBTQ+ Community	13.9%	5
Asian/Pacific Islander	8.3%	3
Immigrant/Refugee	8.3%	3
Other	5.6%	2

<sup>\*</sup>Key informants were able to select multiple populations. Percentages do not add up to 100%.

# **Health Perceptions**

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

Nearly three-quarters of informants chose diabetes and heart disease and stroke among their top five community health concerns. Cancer was also selected as a top health concern with approximately two-thirds of informants selecting it among their top five choices. It is worth noting that 27% of informants selected cancer as their No. 1 health concern in the community, the highest of any health issue. Overweight/obesity and drug or alcohol abuse were also selected among the top five health concerns by more than half of the informants.

A similar Key Informant Survey was conducted as part of the Baptist 2016 CHNA. The top five health concerns identified by 2019 survey respondents are consistent with those identified by 2016 survey respondents.

**Top 10 Health Concerns Affecting Residents** 

Ranking	Health Concern	Top 5 Health Concerns Selected by Informants		Top (No. 1) Health Concern Selected by Informants	
		Percent*	Count	Percent	Count
1	Diabetes	72.7%	24	15.2%	5
2	Heart disease and stroke	72.7%	24	6.1%	2
3	Cancer	66.7%	22	27.3%	9
4	Overweight/Obesity	60.6%	20	15.2%	5
5	Drug or alcohol abuse	51.5%	17	21.2%	7
6	Mental health conditions	45.5%	15	9.1%	3
7	Alzheimer's disease/dementia	45.5%	15	6.1%	2
8	Tobacco use	15.2%	5	0.0%	0
9	Respiratory disease	12.1%	4	0.0%	0
10	Other**	12.1%	4	0.0%	0

<sup>\*</sup>Key informants were able to select multiple health concerns. Percentages do not add up to 100%.

Correlation between the percentage of informants selecting a contributing factor among their top five choices and the percentage of informants selecting a contributing factor as their No. 1 choice demonstrates consistent perspectives regarding the top selections: health habits and ability to afford health care. Approximately 1 in 4 informants saw these factors as the top contributors to health concerns among residents and more than 60% chose them among their top five selections. It is worth noting that nearly half of informants selected drug/alcohol use and health literacy among their top five choices, but four or fewer informants saw them as top concerns.

The top contributing factors identified by respondents are similar to those identified by 2016 CHNA Key Informant Survey respondents: lack of knowledge/awareness of the value of preventative care/screenings, inability to afford care, drug/alcohol abuse, lack of good nutrition and lack of physical activity.

<sup>\*\*</sup>Other responses: Nutrition/hunger, being able to afford medications, access to health care and aging-related issues.

**Top 10 Contributing Factors to Community Health Concerns** 

Ranking	Contributing Factor	Top 5 Contributors Selected by Informants		Top (No. 1) Contributor Selected by Informants	
		Percent*	Count	Percent	Count
1	Health habits (diet, physical activity)	78.8%	26	24.2%	8
2	Ability to afford health care (doctor visits, prescriptions, deductibles, etc.)	63.6%	21	24.2%	8
3	Drug/alcohol use	45.5%	15	12.1%	4
4	Health literacy (ability to understand health information)	42.4%	14	0.0%	0
5	Availability of health and wellness programs	39.4%	13	3.0%	1
6	Poverty	30.3%	10	9.1%	3
7	Lack of preventive health care (screenings, annual check-ups)	30.3%	10	6.1%	2
8	Inadequate or no health insurance	24.2%	8	3.0%	1
9	Stress (work, family, school, etc.)	24.2%	8	0.0%	0
10	Availability of healthy food options	21.2%	7	3.0%	1

<sup>\*</sup>Key informants were able to select multiple contributing factors. Percentages do not add up to 100%.

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

# Access to Care and Health Resources

- > "Having had personal experience with a parent with Alzheimer's, I have found the lack of resources to just be overwhelming. On top of insufficient financial resources, there is not enough social support for families. Medicare should do more to help with hospitalization and even long term care, etc. At a certain point in the disease process, these people absolutely cannot make decisions for themselves or even do simple self-care. So much change is needed in the way this is handled in our community and in our country."
- "Access to health care providers, access to reasonable healthy food options [are needed]."

#### Health Habits and Preventative Care

> "The medical model has created these problems with a pill-for-my-problem style of medicine. Emphasis should be placed on preventative care such as food (which ones, how to prepare them, specialized diets, etc.) and physical activity. Big Pharma needs hard regulations to keep their influence out of doctor's offices, hospitals and other medical facilities. The same goes for Big Dairy, Big Soda and Big Grain."

> "Most of the elderly grew up without emphasis on preventative measures/medicine and encouraging visits to providers on a regular basis just isn't "in their DNA," especially elderly men."

### Social Determinants of Health

- > "Unemployment has contributed to lack of health insurance. [The population is indifferent] to healthy lifestyles."
- > "Poverty and education seem to be direct factors in overall health. We must address mental issues/traumas/disorders, which are normally the root of many other negative behaviors."
- > "Our employees have health insurance but say they do not have the money for co-pays for either medications or medical visits. This contributes to the lack of preventative maintenance and health/wellness visits. The ones that voice this do not know how to manage money, budget, set priorities, etc."

#### **Health Care Access**

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

Approximately 56% of informants "disagreed" or "strongly disagreed" that their community is healthy, while 17% of informants "agreed" that their community is healthy. Access to adequate and timely health services is a key contributor to the health of a community.

Cultural sensitivity among providers received the highest mean score among health care access indicators. Availability of transportation and providers accepting Medicaid received the second highest mean score, but informants had differing perspectives on residents' ability to access these services. Approximately 42% of informants "agreed" or "strongly agreed" that these services were available, but one-quarter of respondents "disagreed" or "strongly disagreed."

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

Access to primary care and preventive screenings are also top concerns for the service area. Approximately 56% of informants indicated that residents do not receive recommended preventive screenings and checkups and one-third indicated that residents do not have a regular primary care provider or health insurance.

# Resident Health Care Access in Descending Order by Mean Score

Resident fleath date Access in Descending Order by Mean Ocore						
	Informants Strongly Disagree	Informants Disagree	Informants Neither Agree nor Disagree	Informants Agree	Informants Strongly Agree	Mean Score (1–5)
Providers in our community are culturally sensitive to race, ethnicity and cultural preferences of patients.	5.7%	11.4%	37.1%	42.9%	2.9%	3.26
Residents in our community have available transportation for medical appointments and other services.	2.8%	19.4%	36.1%	41.7%	0.0%	3.17
There are a sufficient number of providers that accept Medicaid in our community.	2.8%	25.0%	30.6%	36.1%	5.6%	3.17
Residents have health insurance.	2.8%	30.6%	33.3%	33.3%	0.0%	2.97
Residents in our community have a regular primary care provider/doctor/practitioner that they usually go to for health care.	5.6%	27.8%	36.1%	30.6%	0.0%	2.92
I would describe our community as healthy.	8.3%	47.2%	27.8%	16.7%	0.0%	2.53
Residents receive recommended preventive screenings and check-ups.	11.1%	44.4%	33.3%	11.1%	0.0%	2.44
There are a sufficient number of providers treating substance use disorders in our community.	30.6%	30.6%	19.4%	16.7%	2.8%	2.31
There are a sufficient number of mental health providers in our community.	33.3%	30.6%	22.2%	13.9%	0.0%	2.17

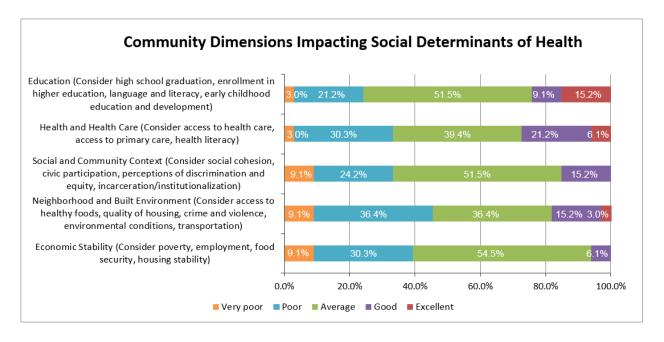
#### **Social Determinants of Health**

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

The mean score for each dimension is listed in the table below in rank order, followed by a graph showing the scoring frequency. Mean scores were between 2.58 and 3.12 out of 5, with most respondents rating the listed dimensions as "poor" or "average." Education and health and health care were seen as the strongest community dimensions, ranked as No. 1 and No. 2 respectively. Health and health care was ranked as the top community dimension by 2016 survey participants. Overall mean scores for all dimensions, except education and economic stability, decreased from the 2016 survey results.

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

Danking	Ranking Community Dimonoian		2016 Results
Ranking Community Dimension		Mean Score	Mean Score
1	Education	3.12	3.00
2	Health and Health Care	2.97	3.23
3	Social and Community Context	2.73	3.15
4	Neighborhood and Built Environment	2.67	2.85
5	Economic Stability	2.58	2.56



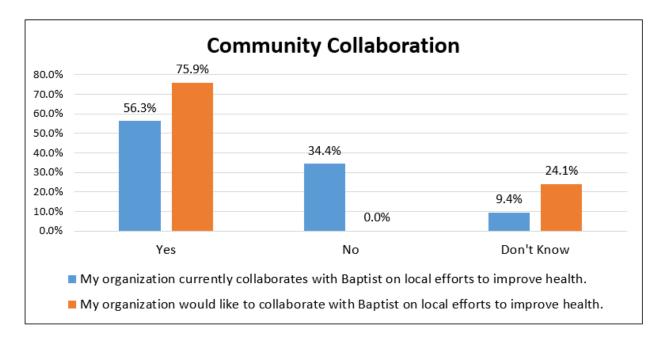
Key informants' specific comments related to social determinants of health are included below.

"Most of the people that we serve are indigent. Most often what impacts this [population] the most is the disease of addiction. Without a way of addressing this disease in a manner that not only removes the chemicals from their system, but teaches skills that helps to raise their level of functioning, not much else will matter for them.

- > "Our population, being in the health care field, have access to a lot of these resources but because of fear, shame and stigma, high expectations by colleagues and supervisors or not recognizing their own symptoms and being in denial, they are among the last to practice self-care."
- "Health care providers and health care information access is very inaccessible for most of rural MS."

# **Leveraging Community Resources to Impact Health**

More than half of key informants indicated that their organization currently collaborates with Baptist to improve the health of the local community. Approximately 76% of informants expressed interest in collaboration opportunities with Baptist.



Key informants were asked what resources are missing in the community that would help residents optimize their health. Respondents could choose as many options as they saw needed. Consistent with the top five community health concerns and contributing factors selected by informants, 50% or more chose health and wellness education and programs, mental health services, substance abuse services and community health screenings.

Top Missing Resources Within the Community to Optimize Health

Ranking	Resource	Percent of Informants	Number of Informants
1	Health and wellness education and programs	53.3%	16
1	Mental health services	53.3%	16
1	Substance abuse services	53.3%	16
4	Community health screenings (blood pressure, cancer risk, stroke, etc.)	50.0%	15
5	Affordable housing	40.0%	12
5	Community Clinics/Federally Qualified Health Centers (FQHCs)	40.0%	12
5	Corporate wellness	40.0%	12
5	Healthy food options	40.0%	12
9	Outlets for physical activity (parks, recreation centers, gyms, walking trails, etc.)	36.7%	11
10	Child care providers	33.3%	10
10	Dental care	33.3%	10
10	Social services assistance (housing, electric, food, clothing)	33.3%	10
10	Transportation options	33.3%	10

Specific comments related to missing resources in the community are included below.

- > "I think that indigent people receiving services should be treated with respect. I think that when they are physically and mentally able, they should be able to receive health services during times that will allow them to not have to miss work in order to receive care. I also think that more clinics in the community should be more conscious of the cost of medicines. There are some safety net programs, but not enough clinics offer this."
- > "As part of the Tennessee Library and Archives Regional Library System, our mission is to make the public libraries of Tennessee better. Public libraries are the hub of the community and are able to impact all aspects of citizens. Libraries are excellent partners with health care providers. We can offer materials, print, non-print and digital along with programming. Some of the newest 21st century libraries are providing nutritional information and healthy life style programming. All of the topics listed for question 14 can be addressed at a public library, partnering with a health care provider. The Baptist Hospital at Union City has hosted in-services for the librarians of the 9 northwest counties of Tennessee impacting 20 libraries."
- "We need a "quick care" clinic in the community to serve South Carroll County and Northern Henderson County."

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

# **Summary of Focus Groups**

# **Background**

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

# **Memphis Metro Service Area**

Germantown: 15 attendees Southaven: 12 attendees

#### **Northeast Arkansas Service Area**

Jonesboro: 12 attendees

# **North Mississippi Service Area**

Batesville: 9 attendees Columbus: 14 attendees

# **Central Mississippi Service Area**

Canton: 17 attendees Carthage: 7 attendees Jackson: 12 attendees

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

# **Key Takeaways**

Perceptions related to cancer diagnosis as a "death sentence" are slowly changing. Long-held regional beliefs that cancer diagnosis is a "death sentence" are slowly changing as new technologies and treatment options produce improved outcomes and quality of life for survivors. Patients express positive experiences with care and regard care options as high quality across the region. Insurance remains a key driver in decision-making for cancer care, while provider referrals and recommendations from family and friends are highly considered.

Trust in providers, shared faith, bedside manners rank highly after expertise. Patients value expertise and honesty with diagnosis, prognosis, preparation for path ahead and regular checkins via phone. Nearly all focus group participants relied on spiritual or religious beliefs and practices to help them cope with their condition and appreciated when their providers prayed with them. Nurse navigators were seen as valuable in helping patients and families navigate their first experience with a serious medical condition.

Most focus group participants discovered their cancer diagnosis through routine screening. Individuals were more likely to get cancer screenings if they knew someone personally who was diagnosed with cancer. Cancer survivors are influential advocates for preventive screenings and early treatment. Opportunity exists to encourage patients to share stories with their communities, such as faith congregations, employer groups, civic and social clubs, etc., to educate community members on the benefits of early diagnosis, improved outcomes for cancer care and advances in treatment and screening techniques.

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

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

<u>Limited insurance, transportation and after-hours care are barriers to screenings.</u> The more rural the community, the more challenges exist to accessing screenings. Participants suggested that health care providers offer free or low-cost screenings at hair and nail salons, churches and area businesses. Mobile screenings in rural and isolated communities were recommended to bring services to residents, as was providing a "one-stop shop" to conduct multiple cancer

screenings at one time. Focus group participants in rural areas were less able to recall health fairs and free community screenings than more populous areas.

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

"Lung cancer is one of the most common and deadly cancers, but people only get screened if they're a smoker."

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

Few participants received screenings at health fairs. Focus group participants were generally reminded by their primary care providers to receive recommended screenings and did so within an outpatient setting. Symptoms and other concerns prompted screenings outside of agerelated recommendations. Generally, residents in more rural locations were not aware of any free or community screenings held within their neighborhoods. Participants were not adverse to receiving free screenings at a health fair or other community event.

Cost was not a deterrent for treatment, but financial expense of cancer care has a huge impact on patient finances. Information on fees and financial assistance is needed ahead of treatment. Participants did not forgo treatment because of cost. Deductibles, coinsurance are concerns, but participants "find a way" to afford care. Patients often rely on family, churches, support from local foundations, hospital payment plans or charity care to finance cancer treatment. A few participants were forced to declare bankruptcy due to their treatment costs. Others anticipated making monthly payments "for the rest of my life." Patients would like a better estimate of expected costs and knowledge of financial assistance options ahead of treatment. Participants received unexpected bills for their care. Recommendations were to provide information during initial appointments about available financial assistance. Written materials are most useful so patients can refer to the information later. Ease of application and assistance with completing forms is necessary to ensure all patients can access programs. Streamline paper application across all programs with a single application. Some participants are able to work throughout their treatment; others rely on short-term disability insurance or needed to guit their jobs. Savings, retirement, loans and other finances are used to pay for care and have a long-term effect on the whole family.

"It changes your entire future. My husband and I had plans for retirement. We don't anymore."

"The gas costs to get back and forth to treatment really added up."

Cancer brings loss of control in life and changes in family structure that affect mental well-being. Cancer treatment is emotionally draining for patients and caregivers. Women are especially affected. Health care providers, staff, advocates and others should help patients to prepare for what's to come and provide support throughout treatment. Patients and caregivers seek inhome services for personal care, home maintenance and meal delivery. They recommend providing a list of community resources in MyChart and other hospital communications. Meal delivery and prep services were seen as the most needed services, and critical to recovery.

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

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

<u>Faith communities are a primary support system for cancer patients and their families.</u>

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

Patients need transportation, escorts to frequent appointments; rural patients are most affected. Treatment and physician visits can be frequent and present transportation challenges for patients. Participants recommended satellite clinics in rural communities, bundled treatments and wider services provided through home care. Patients rely on family and friends to transport them to chemotherapy, radiation and other appointments. Rural community members drive one to two hours for care, sometimes daily. A few participants lied to a provider about having a driver and drove themselves to and from treatment appointments.

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

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

# **Evaluation of Impact From the 2016–2019 CHNA Implementation Plan**

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

# **2016 Health Priority Goals**

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

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

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

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

# **Completed Strategies**

- Donated medical supplies and ambulances to local organizations, including the Carroll County Sheriff's Department, Carroll County Technical Center and Tennessee Technology Centers
- Fostered health care workforce development by providing a \$500 annual scholarship to one graduating student in Carroll County pursuing a career in health care, and by providing hospital tours and academic banquets for middle and high school students
- Hosted an Alzheimer's/Dementia caregiver support group at the Benton County Resource Center to educate the community on signs and symptoms and available resources
- > Offered free Hands-Only CPR instructional events to the community
- > Participated in the Feed America First food drive, a faith-based hunger relief initiative
- > Participated in various community and faith-based health fairs and events to share health information, healthy living demonstrations and free or low-cost screenings and immunizations, including BMI, blood pressure, flu shots, etc.
- > Provided Crisis Prevention Intervention training for Carroll Academy staff

Provided financial and in-kind contributions to community agencies and events, including the Agape House Pregnancy Center, American Cancer Society, Blue Jeans for Babies, Carroll County Child Abuse Center, Corn Fest, Exchange Club Carl Perkins Center, Falcon Academy, Hometown Walk of Hope, Northwest Tennessee Fellowship of Christian Athletes, Obion County Youth Leadership and Union City Tornadoes Pink Out, among others

- Provided meeting space for organizations like the American Cancer Society, Child Fatality Review Board, Gideons, Hope Chest at Health Quest and Obion County Cancer Agency
- > Provided monthly childbirth and breastfeeding classes for new and expectant mothers to promote healthy birth outcomes
- Provided needed supplies for Discovery Park of America, Trudy's Kids Café and Union City Middle School science department, among others
- > Provided patient financial aid to assist with the cost of medications
- Served on community committees and councils for organizations, including the American Cancer Society, Carroll County Health Council Meeting and Carroll County Chamber of Commerce
- Sponsored local high school students to attend the HOSA (Health Occupation Students of America) National Conference
- > Sponsored one student to attend the American Legion Auxiliary Volunteer Girls State, a leadership and citizenship training program
- Supported the Angel Tree Fund, a program to raise money to purchase gifts and nonperishable food items for families in the five Carroll County School Districts

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

# **Priorities for 2019–2022 CHNA Implementation Plan**

#### **Prioritization of Health Needs**

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

The rationale and criteria used to select health priorities included:

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

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

# **Systemwide Community Health Priorities and Goals**

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

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

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

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

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

# **Hospital Implementation Plans**

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

# **Board Approval**

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

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# **Appendix B: Key Informant Survey Participants**

Key Informant Organization	Key Informant Title/Role	City/State
Arkansas State University	Associate Professor	Jonesboro, AR
BancorpSouth	AVP, CRA Specialist	Jonesboro, AR
Baptist Medical Group–The Doctor's Clinic	MD	Union city, TN
Baptist Memorial Hospital—Carroll County	Board Chairman	Huntingdon, TN
Baptist's Corporate Office-Internal Audit	Director of Operations and Revenue Audits	Memphis, TN
Boys & Girls Clubs of Northwest Tennessee	CEO	Union City, TN
Carroll County News Leader	Editor	Huntingdon, TN
Carroll County Office on Aging/Senior Center	Director	Huntingdon, TN
Circuit Court 24th Judicial District	Judge	Huntingdon, TN
City of Clarksburg	Mayor	Clarksburg, TN
City of South Fulton	Mayor	South Fulton, TN
Elam, Glasgow, and Chism	Partner	Union City, TN
Grace House of Memphis	Executive Director	Memphis, TN
Huntingdon Insurance Agency	Partner	Huntingdon, TN
Kiwanis	Member	Union City, TN
Kiwanis Club of Union City	Member, Board Member	Union City, TN
Le Bonheur	Administration	Memphis, TN
Life Care Center Bruceton	Admissions Director	Camden, TN
Mississippi Resident	Taxpayer	Jackson, MS
Obion County	County Mayor	Union City, TN
Obion County Joint Economic Development Council	CEO	Union City, TN
Obion County Public Library	Director	Union City, TN
Obion County Senior Citizens Association	Director	Union City, TN
Optus Inc.	Vice President, HR	Jonesboro, AR
Simmons Bank	Auditor	Union City, TN
Tennessee State Library & Archives, Obion Regional Library	Regional Library Director	Martin, TN
Tennessee Medical Foundation	Development Coordinator	Nashville, TN
Twin Oaks Technology, LLC	COO	Union City, Martin and Clarksville, TN
Tyson Foods	Complex Administrative Assistant	Union City, TN
Tyson Foods	Nurse Manager	Union City, TN
Baptist Memorial Hospital – Union City	Board Member	Union City, TN
Union City Schools	Superintendent/Retired	Union City, TN
Union City Urgent Care	Physician Assistant	Union City, TN
Union City	Physician	Union City, TN
Vitalant	Senior Donor Recruitment Representative	Memphis, TN
White & Associates Insurance	Agency Manager	Union City, TN