Health Disparities in Tennessee

Prepared by
The Tennessee Department of Health
Division of Health Disparities Elimination
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Executive Summary

Healthy life expectancy is an important measure of the overall health of a population. Unfortunately, Tennesseans experience shorter life expectancy than the residents of the United States as a whole. Tennessee faces numerous health challenges, with generally poorer health outcomes than those of most other states. **The high prevalence of chronic conditions, including obesity, diabetes, and hypertension, presents a major concern, as do the rates of substance misuse, suicide, and infant and maternal mortality.** This comparatively poor health represents both a social and an economic burden for the state's residents. Thus, improvement in health outcomes creates the potential for economic gains, in addition to improved well-being.

Although these poor outcomes can and do afflict Tennesseans across the spectrum of demographic groups, the worst health outcomes are frequently borne by the state's most vulnerable residents. **There are notable differences in life expectancy and numerous other health outcomes across racial, ethnic, gender, and geographic lines within Tennessee.** Such preventable differences in health between groups, termed **health disparities**, have grown out of a complex and long-standing set of inequalities, and are sustained and exacerbated by lack of access to healthcare and preventive services.

Differences in health outcomes across groups are typically highlighted by individual Tennessee Department of Health (TDH) programs, with limited coordination to identify and address common risk factors. Therefore, the TDH's Division of Health Disparities Elimination (DHDE) has compiled this report with assistance from multiple TDH Divisions/Programs as a step toward a shared understanding of the current state of health disparities experienced by Tennessee residents.

This report can be used to learn more about health disparities generally or to delve deeper into the populations within Tennessee most impacted by specific health factors or health outcomes. The health-related measures compiled in this report are organized into health priority areas which reflect the TDH strategic plan, priority work areas of DHDE, and the priorities of internal and external advisory bodies. The measures are considered in light of racial, ethnic, gender, and urban/rural variations, with recommendations for action to decrease the disparity in health outcomes between these groups. **The range of data included in this report provides context for the unique challenges different communities face as well as the issues which unite all Tennesseans in the search for healthy lives**.

Contents

Section 1: Report Organization & Background

Introduction

The Tennessee Department of Health (TDH), Division of Health Disparities Elimination (DHDE), is pleased to present the following report on the current state of health disparities experienced by the residents of Tennessee. Although this report describes a broad range of health conditions and social factors in which disparities exist, it cannot provide an exhaustive accounting. Because no similar overview has been conducted for more than a decade[1], the findings serve as a useful checkpoint.

This report is envisioned as a regular compilation of health disparities findings. Future volumes will refine the report's focus in response to newly identified priorities such as emerging diseases or health conditions of concern, while also providing continuity of attention to long-recognized areas of health inequity and health disparity.

Historically, health disparities have been identified and highlighted by individual program areas within TDH when reporting outcome measures. However, there has been little coordination between program areas with a goal of identifying common risk factors underlying disparate health outcomes. The broad range of programmatic data included in this disparity-focused report **brings into context both the unique challenges different communities face and the issues which unite us all in the search for healthy lives**.

Recognizing the complexity of this landscape, DHDE was organized to expand the scope and interconnection of community outreach services. The Offices comprising DHDE join their distinct funding streams and mandates in a functional grouping of service-oriented programmatic areas, all conducted through a health equity lens. DHDE also partners closely with numerous divisions and offices across TDH. Through these coordinated outreach and care efforts, DHDE has broadened recognition that **disparities in health outcomes experienced by diverse communities are often driven by common factors**.

When life factors influence health outcomes these are referred to as social drivers of health (SDOH). Awareness of the complex ways in which SDOH interact includes the recognition that these factors impact everyone. Differences in health outcomes are considered to reflect, in large part, the ability of individuals and groups to harness the resources needed to diminish the potentially negative impacts of SDOH. Programs addressing areas of health inequity such as access to care or ability to navigate care are critical to improving individual health outcomes and, in turn, reducing health disparities throughout Tennessee.

Organization of the Health Disparities Report

The organization of the health-related measures in this report utilizes a conceptual model (Figure 1) to unify risk factors, contributors, and outcomes into a visual network. The health priority areas included reflect the TDH strategic plan, the priority work areas of DHDE, and focus area recommendations from internal and external advisory bodies including the TDH Health Equity Advisory Team and Tennessee Health Disparities Advisory Group. The conceptual model is further enhanced by aligning domains from the Strategies to Restore Equity and Transform Community Health (STRETCH) framework used as a basis for the Health Equity Roadmap, which directs health equity training efforts across TDH.

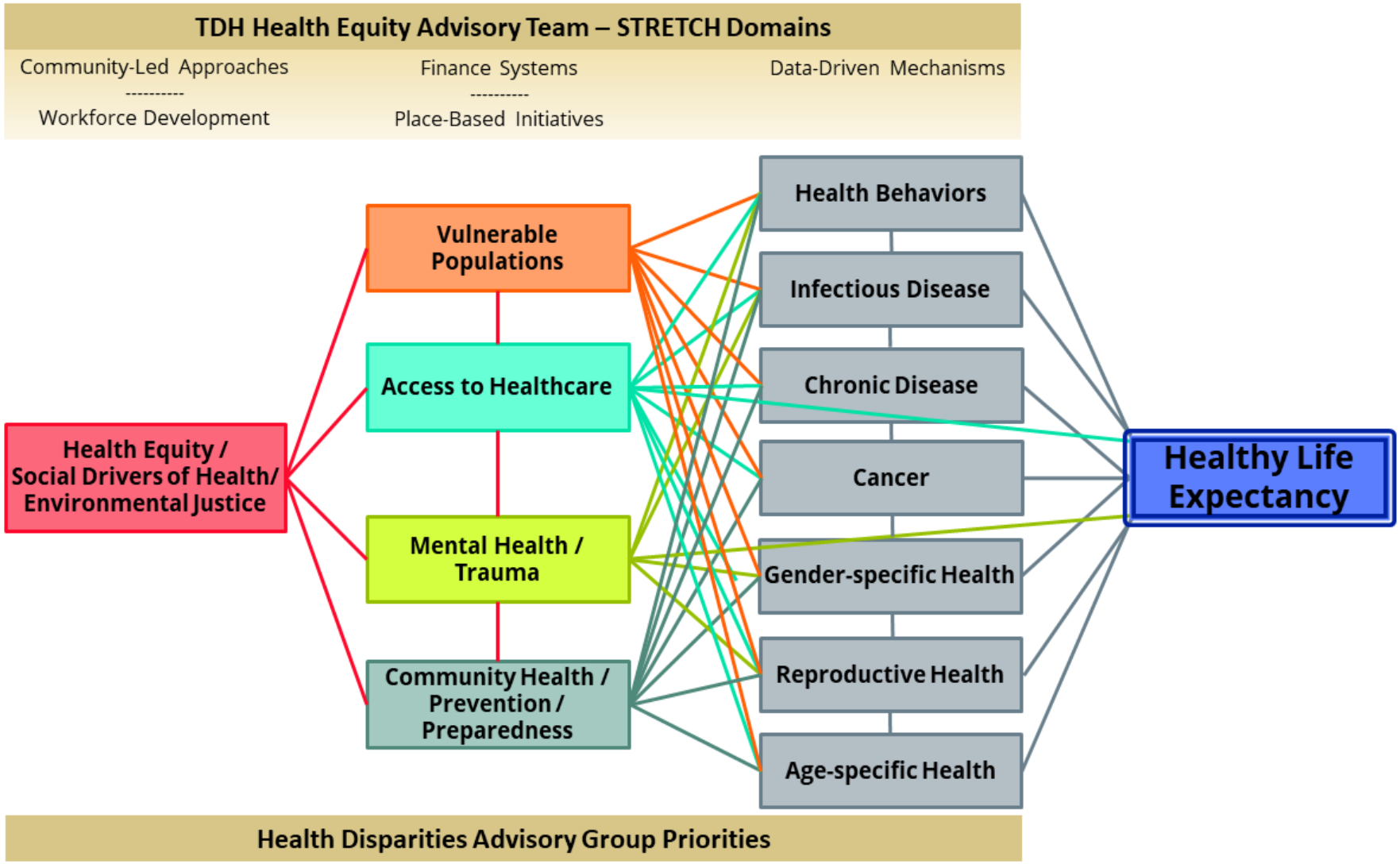
As visualized in the conceptual model below, healthy life expectancy is the ultimate outcome. **The residents of Tennessee experience poorer life expectancy than the residents of most other states. Additionally, there many significant differences in this outcome across racial, ethnic, gender, and geographic lines within Tennessee.** Therefore, the conceptual model helps highlight factors which may contribute to these differences and thus offer places for meaningful interventions.

The identified priority areas include:

- ***Health Equity / Social Drivers of Health / Environmental Justice***
- ***Vulnerable Populations***
- ***Access to Healthcare***
- ***Mental Health/Trauma***
- ***Community Health / Preparedness/ Prevention***
- ***Health Behaviors***
- ***Infectious Disease***
- ***Chronic Disease***
- ***Cancer***
- ***Gender-specific Health***
- ***Reproductive Health***
- ***Age-specific Health***

Each priority area is described by a set of between two and seven health measures. The selected measures align with many of those reported in the State Health Plan, but provide a disparity-specific focus which considers racial, ethnic, gender, and urban/rural variations. Each priority area is summarized and recommendations for action are provided following the visual presentation of the health measures.

Figure 1. Conceptual Model of Tennessee Health Disparities Priority Areas.



Background

What Are Health Disparities?

Health disparities are preventable differences in health between population groups that stem from broader inequities. While there are multiple definitions of the term "health disparities," the unifying concept is that **differences in health outcomes may be associated with social, economic, or environmental disadvantages which adversely affect groups of people** in a systematic and measurable way. Such differences may also be linked with disparities in healthcare including health insurance coverage, affordability, availability of care, access to and use of care, and quality of care.

The terms "health disparity" and "health inequity" both indicate avoidable differences in health outcomes between groups and are thus often used interchangeably. Precise definitions vary by source, but for the purposes of this report, health disparity will be used to describe observed health differences across social groups, while health inequity will be used to describe unjust health differences.

Health disparities are often assessed in light of race and ethnicity, yet disparities also occur across a broad range of demographic dimensions, including, but not limited to, age, socioeconomic status, geographic location, language, gender, disability status, citizenship status, and sexual orientation. Differences in health outcomes have also been observed in relation to a wide range of social factors such as educational attainment, nutritional security, spaces and opportunities for physical activity, language barriers, health literacy, social trust, access to healthcare, and ability to navigate the healthcare system. Personal experiences of health are strongly associated with these social and demographic factors and thus an individual's experience with health disparities may change throughout the life course, from birth through adult life, as their circumstances change.

Resolving health disparities requires addressing these underlying factors for individuals and populations. Importantly, because equity is not the same as equality, in order to bring health outcomes into alignment, those individuals and populations with fewer resources may need more opportunities and efforts expended to improve their health.

Why Do Health Disparities Matter?

Health is essential to every individual's well-being and ability to participate fully in the activities of daily life, such as education, economic participation, and religious, cultural, or civic engagement. Poor health can become a serious obstacle, potentially leading to suffering, disability, inability to earn a living, and loss of life. Health holds great importance in the lives of all persons, yet good health is not equitably distributed across the population. Data from the Centers for Disease Control and Prevention (CDC) indicate that Tennessee performs poorly in many key health indicators[2] and, furthermore, there are notable differences in these key health indicators across population groups within the state. Therefore, **narrowing the gap in preventable health differences across population groups represents an important focus for improving quality of life, personal and community achievement, and economic prosperity**.

As the population becomes more diverse, identifying and addressing health disparities becomes increasingly important. Yet disparities in health and healthcare in the United States (U.S.) are evident and enduring. Almost four decades ago, the impact of health disparities was brought to light in the 1985 *Report of the Secretary's Task Force on Black and Minority Health*[3]. The report documented persistent health disparities accounting for 60,000 excess deaths each year and its recommendations led to the creation of the U.S. Department of Health and Human Services Office of Minority Health. This federal recognition led to the creation of many state Offices of Minority Health, such as that housed within TDH. Despite advances in awareness, investment in health equity programs has lagged, and many measurable health inequities remain inadequately addressed.

Tennessee has seen improvements in many areas of health disparity over recent decades, yet the state still ranks low in many nationwide measures of health and quality of life. This comparatively poor overall health signifies an economic burden for the state's residents in addition to unnecessary individual suffering. Thus, **improvement in health outcomes for all residents creates the potential for significant economic gains, as well as improved well-being and healthy life expectancy.**

Reporting of Health Disparities

The mandate of public health to oversee and/or provide equitable care must be balanced with the need to tailor interventions to specific risk groups. Therefore, understanding where health disparities exist is critical to the work of public health.

Health outcomes vary widely across population groups. However, identification and reporting of specific health disparities is complicated by numerous factors. Principal among these is the lack of complete data, particularly with regard to the ways in which demographic descriptors are connected to health outcomes and conditions. These include inconsistent definitions, hesitancy regarding terminology, and social norms around asking self-identification questions, especially with regard to gender, sexual orientation, and race or ethnicity, leading to under-representation of many communities within reported health data. Additional challenges to reporting variation in health outcomes relate to lack of representation such as limitations on reporting small numbers of cases in order to maintain patient privacy, and concerns over the accuracy of estimates based on small numbers of cases or cases within small populations. Challenges may also arise based on communication gaps such as those posed by the level of health literacy or English proficiency of a surveyed population. Furthermore, data availability is often delayed while cases are confirmed, case data transmitted and compiled, and datasets prepared for analysis. Changes in data collection over time pose an additional difficulty when making comparisons between time periods. Finally, while datasets utilizing self-reported data may be more complete in terms of demographics, they may be less reliable in terms of the accuracy or clinical detail of reported health conditions.

This report has made every effort to present the most recent, complete data available for each health measure included. For many measures the most recent complete data available are from 2021, although the data represent a range of years within the past decade. In consideration of the challenges posed by incomplete data and small numbers, some of the datasets used aggregate data from multiple years. This permits stratification by sex or race and ethnicity, allowing a closer look at the factors associated with the health outcome. Where available, the data have been stratified by both race and ethnicity, with notation of the categories; where there is no notation of ethnicity, this indicates that the data were not available with this level of detail and the race categories include persons of both Hispanic/Latino and Non-Hispanic/Latino ancestry. While not indicative of any limitations to public health program offerings, such stratification of health outcomes by race, ethnicity, sex, and geography can help guide the development of tailored intervention efforts which may improve health measures in Tennessee more broadly.

Section 2: Population Characteristics

Tennessee Demographics

How Do the Populations of Tennessee and the United States Compare?

Tennessee 's population makes up 2.1% of the population of the United States (Table 1). The state's population increased by a larger share between the 2010 and 2020 Census than did the population of the nation (8.9% vs. 7.4%). **Although Tennessee is less diverse than the nation as a whole, the diversity index increased more rapidly in the state than it did nationwide during the intercensal period** (17.1% increase vs. 11.3% increase). Much of the increase in racial and ethnic diversity in Tennessee is accounted for by the growth of the Hispanic/Latino population and people who self-identify as two or more races. However, Tennessee continues to have greater proportions of both White and Black residents than the national proportions.

Table 1. Population by Race and Ethnicity, United States and Tennessee, 2020.

2020 Census Measures	US	TN
Population	331.4 million	6.9 million
White alone	61.6%	72.2%
Black alone	12.4%	15.8%
Hispanic	18.7%	6.9%
Asian alone	6.0%	2.0%
American Indian and Alaska Native alone	1.1%	0.4%
Native Hawaiian and Other Pacific Islander alone	0.2%	0.1%
Some Other Race alone	8.4%	3.6%
Two or More Races	10.2%	6.0%

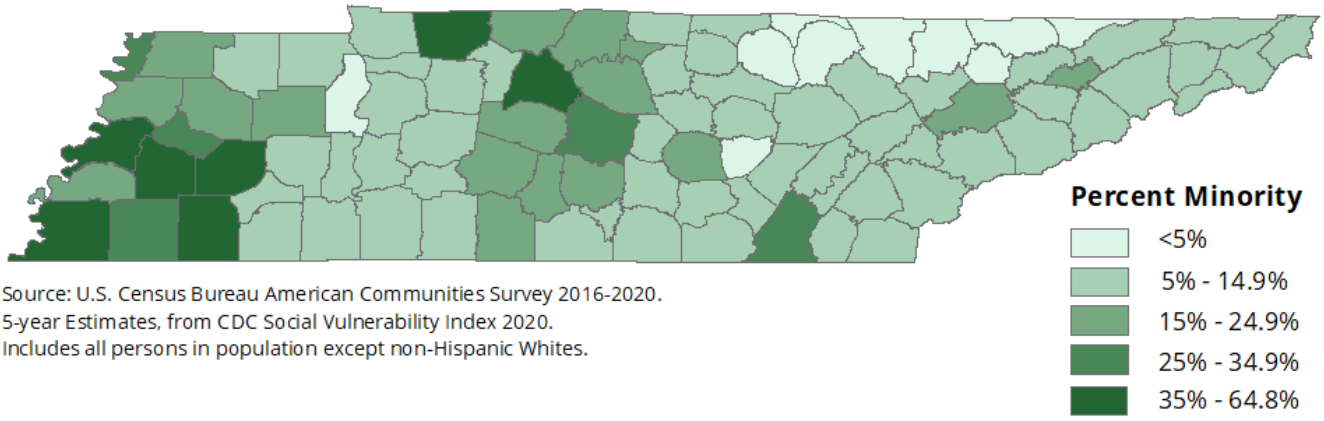
Note: The race and ethnicity categories presented are not mutually exclusive and thus sum to more than 100%.

Source: https://www.census.gov/library/stories/state-by-state/tennessee-population-change-between-census-decade.html

Tennessee Population Distribution

The population of Tennessee varies widely across its diverse geography. While more than half (55.8%) of Tennessee's 95 counties are considered rural, the residents of these counties represent less than one-quarter (23.9%) of the state's population. Contrasting with the common perception that rural areas are less diverse, **many of the state's rural counties have above average proportions of racial and ethnic minority residents**.

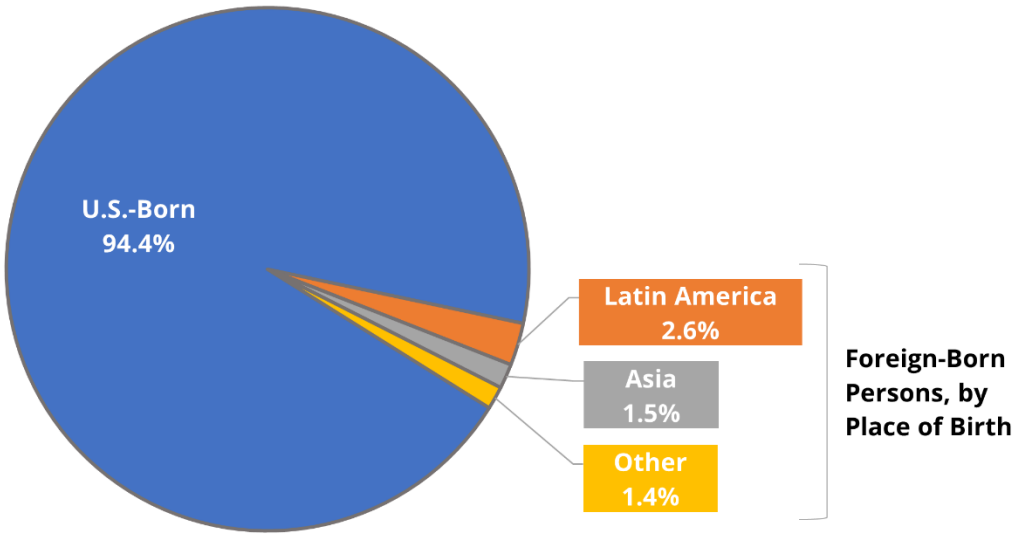
Figure 2. Percentage of Racial and Ethnic Minority Population by County, Tennessee, 2020.



Source: U.S. Census Bureau American Communities Survey 2016-2020.
5-year Estimates, from CDC Social Vulnerability Index 2020.
Includes all persons in population except non-Hispanic Whites.

The noted increase in Tennessee's diversity index arises from both the racial/ethnic variation of its longtime population as well as more recent arrivals to the state. Yet even amid a changing demographic, a very limited proportion of state residents are immigrants (Figure 3). Access to and utilization of healthcare resources by immigrant populations are often lower than for the U.S.-born[4]. While some immigrant populations may experience poorer health associated with reduced healthcare access, limited English proficiency, biases in healthcare provision, or cultural acceptance of healthcare practices[4], other immigrant groups may have better health outcomes or less real or perceived need of healthcare services. Immigrants in Tennessee have a slightly younger age distribution than the U.S.-born population[5], yet even among these younger Tennessee residents, there remains unmet need for healthcare, principally in the areas of preventive care, dental care, and obstetric services. However, there are limited data available to identify specific health disparities between U.S.-born and foreign-born individuals at a state or county-level.

Figure 3. Percentage of Population by Nativity (U.S.-Born vs. Foreign-Born), Tennessee, 2022.



Source: U.S. Census Bureau, American Communities Survey, 2022. Table DP02.

Like the state's beautiful and varied geography, the people of Tennessee personify a wonderful and welcoming range of cultures, traditions, music, and flavors. This amazing state is already a place of opportunity for many, but **the Tennessee Department of Health aims for the state become a national leader in ensuring equitable healthcare access to achieve its vision: Healthy People, Health Communities, Healthy Tennessee**.

Achieving the goal will require both a clear-eyed assessment of the areas in which the state currently falls short and ongoing coordinated effort across many sectors as focused interventions are deployed. This report represents a step in that direction, highlighting health priority areas in which outcomes across Tennessee are unequally distributed, celebrating the improvements that have been hard-won, underscoring the partnerships that allow the work of TDH to be successful, and describing the path forward toward better health for all Tennesseans.

Figure 4. Mosaic of Population Distribution by Race and Ethnicity, Tennessee, 2020. Each generated individual represents approximately 100,000 Tennessee residents.

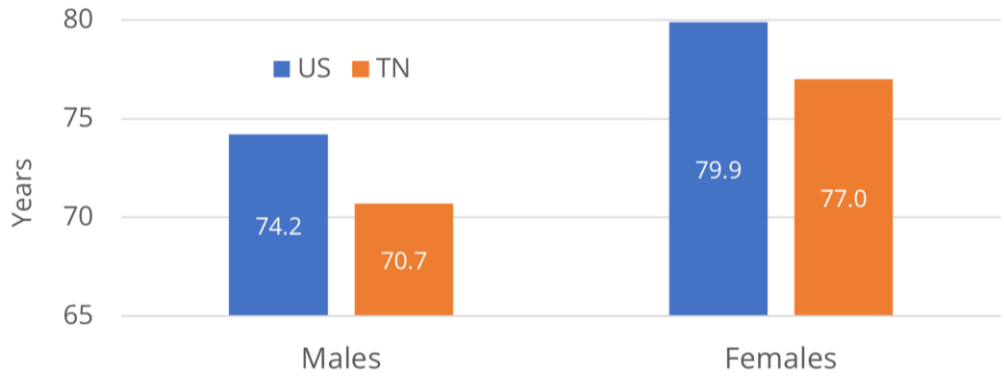
Healthy Life Expectancy

Outcomes: Life Expectancy & Causes of Death

Overview

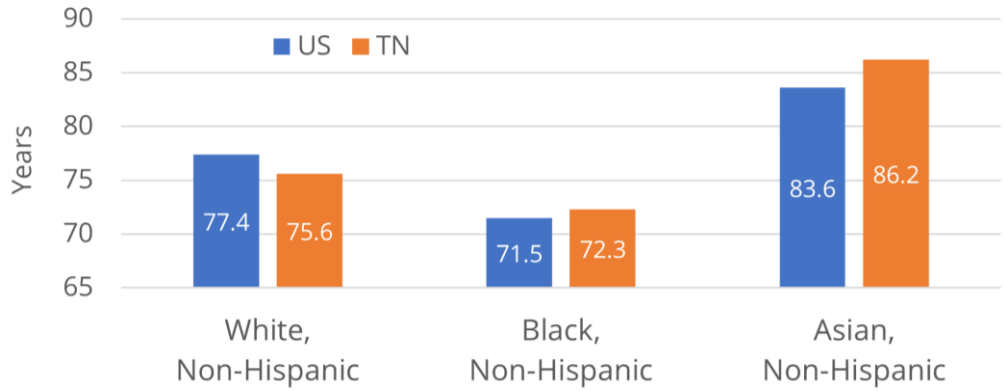
Tennessee has a lower life expectancy than most other states, ranking 45th in the nation. There is considerable variation in life expectancy both by sex and race/ethnicity. While causes of death are relatively similar in rank, death rates vary by demographic group. **Specific areas of concern include deaths from chronic conditions, vaccine preventable illnesses, homicide, suicide, and overdose.**

Figure 5. Life Expectancy at Birth by Sex, United States and Tennessee, 2020.



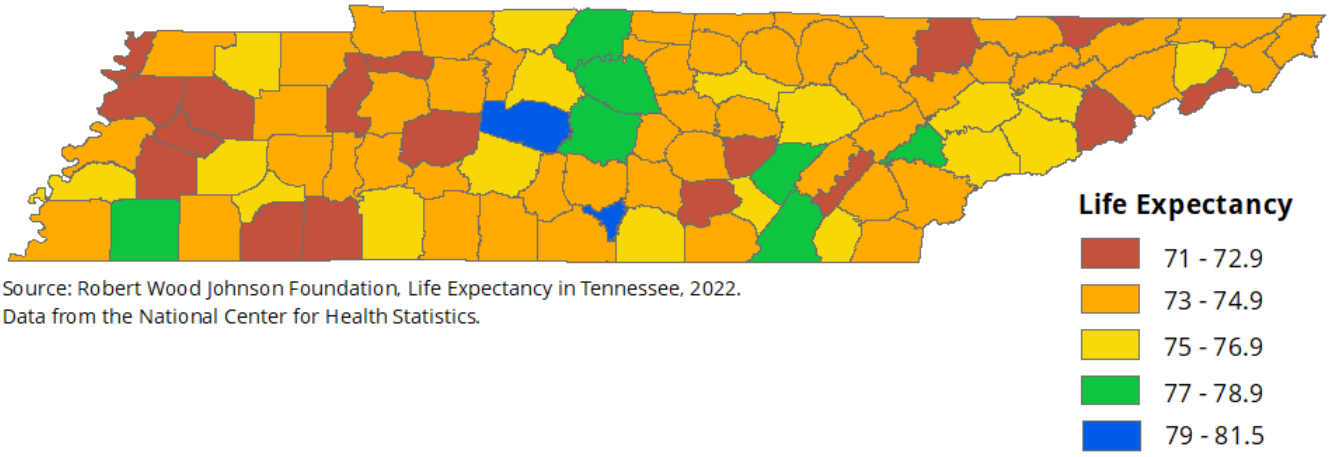
Source: National Vital Statistics Report, United States Life Tables, 2020.

Figure 6. Life Expectancy at Birth by Race and Ethnicity, United States and Tennessee, 2020.



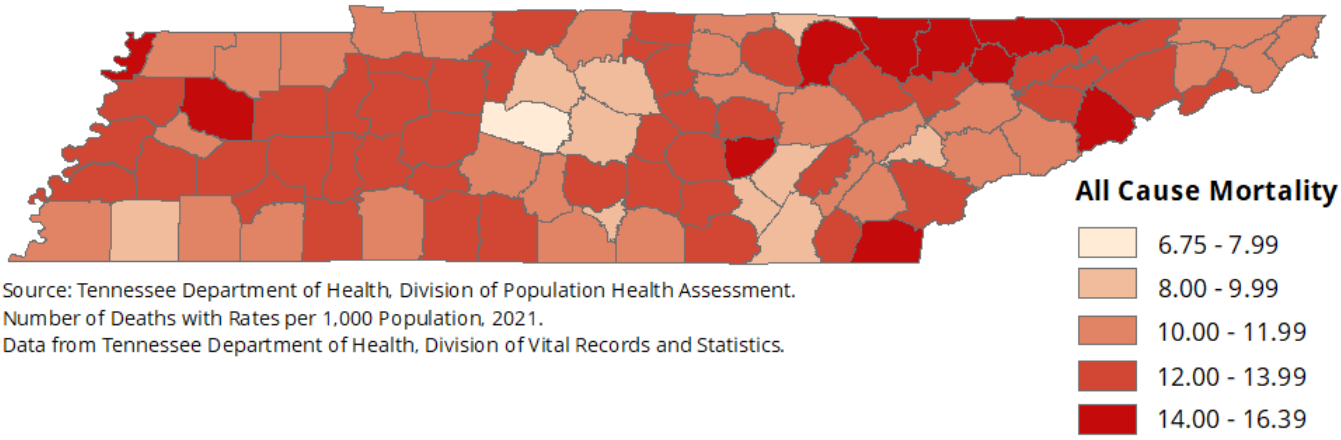
Note: Unreliable estimates for categories based on small numbers have been omitted.
Sources: National Vital Statistics Report, United States Life Tables, 2020.
Robert Wood Johnson Foundation, 2023 County Health Rankings.

Figure 7. Life Expectancy at Birth, Tennessee, 2022.



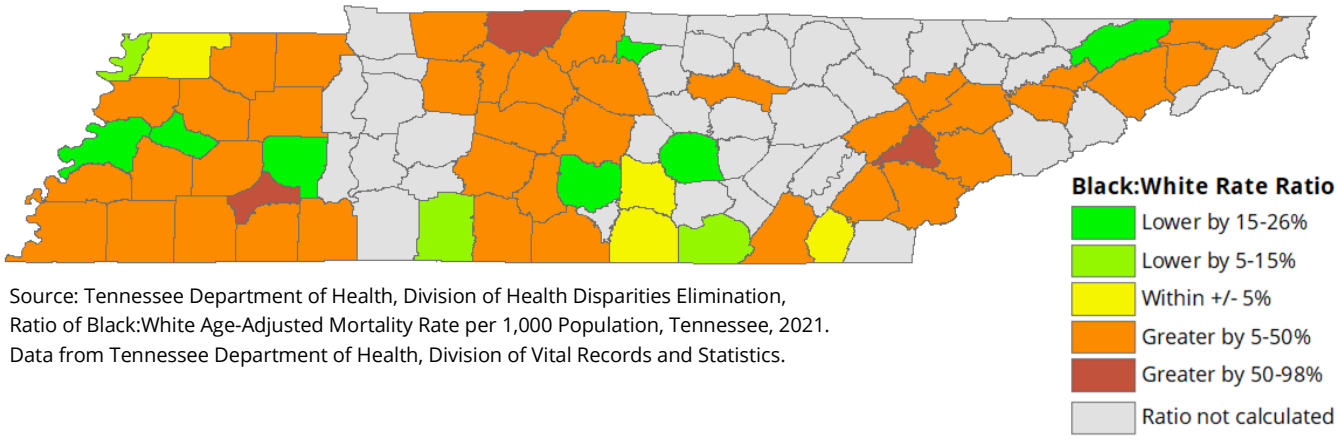
Source: Robert Wood Johnson Foundation, Life Expectancy in Tennessee, 2022.
Data from the National Center for Health Statistics.

Figure 8. Age-Adjusted All-Cause Mortality Rate per 1,000 Population, Tennessee, 2021.



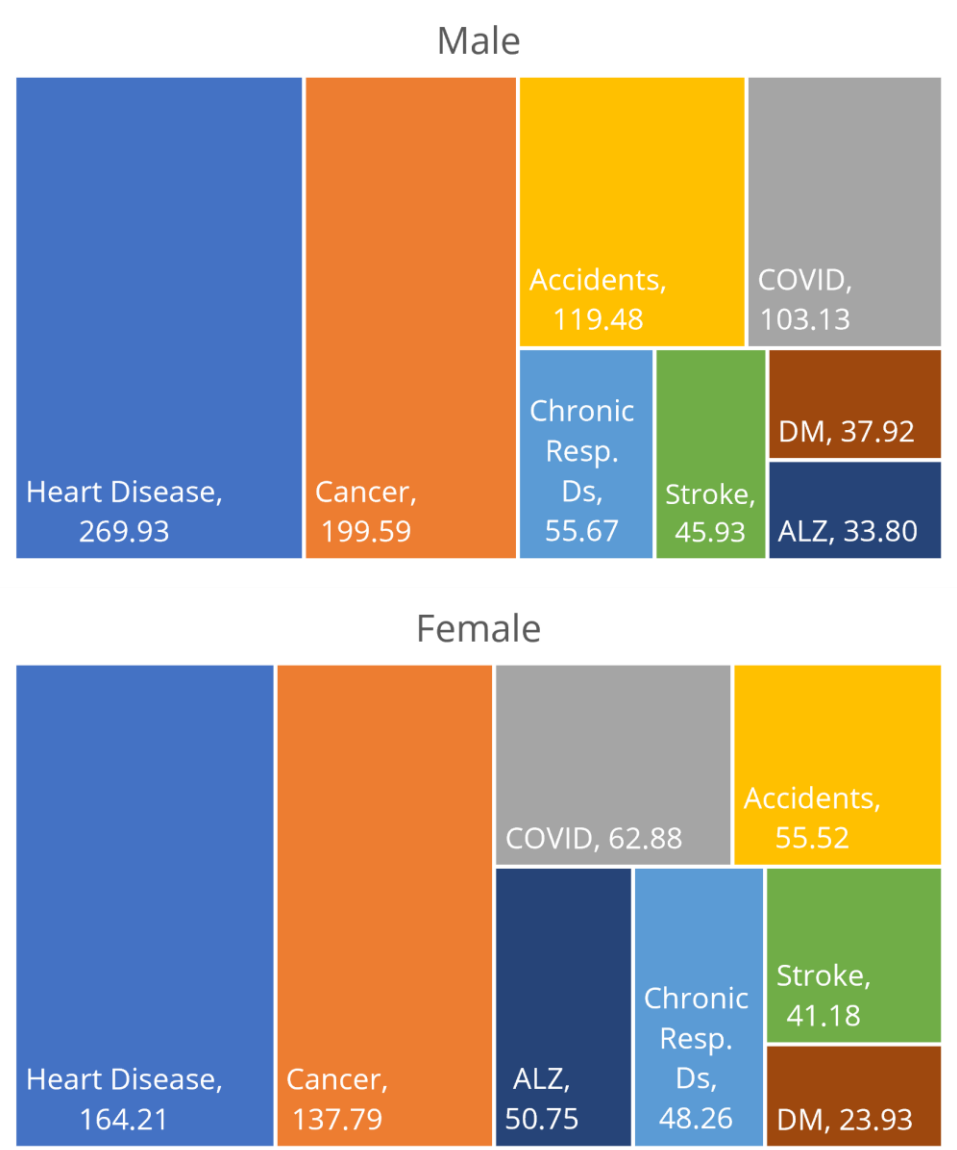
Source: Tennessee Department of Health, Division of Population Health Assessment.
Number of Deaths with Rates per 1,000 Population, 2021.
Data from Tennessee Department of Health, Division of Vital Records and Statistics.

Figure 9. Ratio of Black and White Age-Adjusted Mortality Rate per 1,000 Population, Tennessee, 2021.



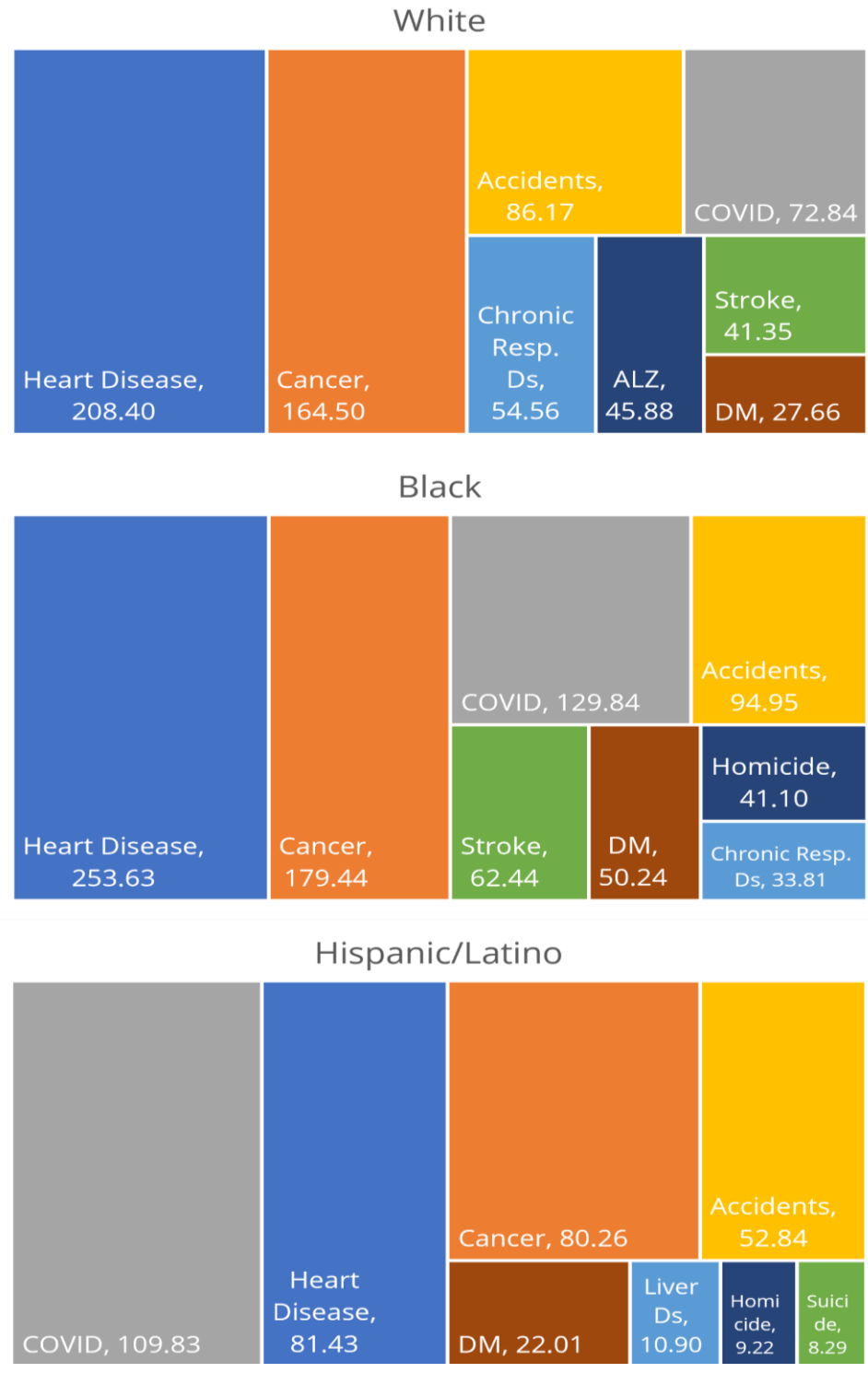
Source: Tennessee Department of Health, Division of Health Disparities Elimination,
Ratio of Black:White Age-Adjusted Mortality Rate per 1,000 Population, Tennessee, 2021.
Data from Tennessee Department of Health, Division of Vital Records and Statistics.

Figure 10. Leading Causes of Death by Sex, with Age-Adjusted Rates per 100,000 Population, Tennessee, 2020.



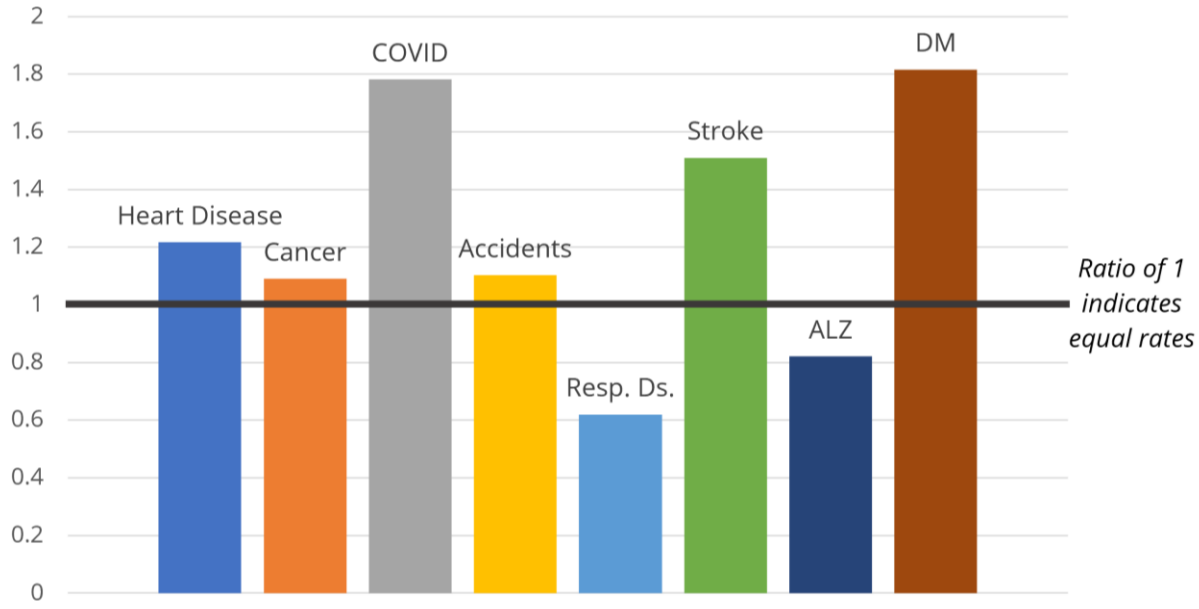
Note: ALZ – Alzheimer's Disease; DM – Diabetes mellitus
Source: Tennessee Department of Health, Division of Vital Records and Statistics. Tennessee Death Statistical File, 2020.

Figure 11. Leading Causes of Death by Race and Ethnicity, with Age-Adjusted Rates per 100,000 Population, Tennessee, 2020.



Note: ALZ – Alzheimer's Disease; DM – Diabetes mellitus
Source: Tennessee Department of Health, Division of Vital Records and Statistics. Tennessee Death Statistical File, 2020.

Figure 12. Ratio of Black and White Age-Adjusted Mortality Rates by Cause of Death, Tennessee, 2020.



Source: Tennessee Department of Health, Division of Health Disparities Elimination.
Ratio of Black:White Age-Adjusted Mortality Rates by Cause of Death, Tennessee, 2020.
Data from Tennessee Department of Health, Division of Vital Records and Statistics. Tennessee Death Statistical File, 2020.

Recommendations

Causes of death for which significant differences are noted by race and ethnicity (Heart Disease, COVID-19, Stroke, and Diabetes) are largely preventable. Improved individual outcomes depend upon early identification and consistent management of chronic conditions. Improved aggregate health measures depend upon greater adoption of positive health behaviors such as routine adult vaccination and strategies targeting suicide, violence, and overdose prevention. Key recommendations include:

- Ensure affordable access to primary care for all Tennesseans through expanded funding and presumptive eligibility for uninsured adult healthcare programs such as Safety Net and TennCare.
- Encourage development of a primary care “home” for all individuals, providing a trusted source of health information as well as a vital linkage to preventive services.
- Provide support for community-led behavioral health interventions to reduce locally elevated rates of homicide, suicide, and overdose.
- Support continued production and dissemination of culturally appropriate health education materials and outreach campaigns for a variety of chronic disease, nutrition, mental health interventions, and other health prevention topics.

Section 3: Social Drivers of Health & Health Measures

Tennessee Measures of Health and Social Drivers

The health measures selected for inclusion in this report have been stratified by sex, race/ethnicity, and, where the data permit, by county. The measures span a range of priority areas reflecting the recommendations of both internal and external advisory bodies (Figure 1). **The picture which these data paint is one of significant disparity in comparison to national indicators, with further differences within Tennessee noted across sex and racial or ethnic groups and, more frequently, between rural/urban geography.** However, many data sources are unable to examine outcomes at a county level, since the statistical weighting which large population surveys rely upon ensures they are representative of the broader population, such as at a state or regional level, but does not permit further stratification. Similarly, reportable disease data collected at a county level may be subject to reporting limitations in order to maintain patient privacy and is often unavailable with further stratification such as sex, age, race, or ethnicity.

Thus, our understanding of the populations most affected by a health disparity at a local level must be informed by collaboration with community partners. **Areas of significant disparity must be investigated further to deepen our understanding, identify factors associated with the disparity, and develop potential avenues for intervention.**

This section of the report also assesses the distribution of various health determinants in the Tennessee population. Preferentially termed "Social Drivers of Health" (SDOH; see Appendix B, *Definitions*, for additional detail), these are "the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks."[6] These SDOH are grouped into five domains, as displayed in Figure 13. Such factors are estimated to account for as much as 80% of the differences in health outcomes experienced across the population[7]. Because SDOH play such an important role in the development of health outcomes, proposed solutions to the outcomes must explicitly address the underlying factors in order to be successful. Furthermore, solutions must be culturally relevant, actionable, and sustainable in order to effect meaningful change.

Figure 13. Domains Representing Social Drivers of Health.

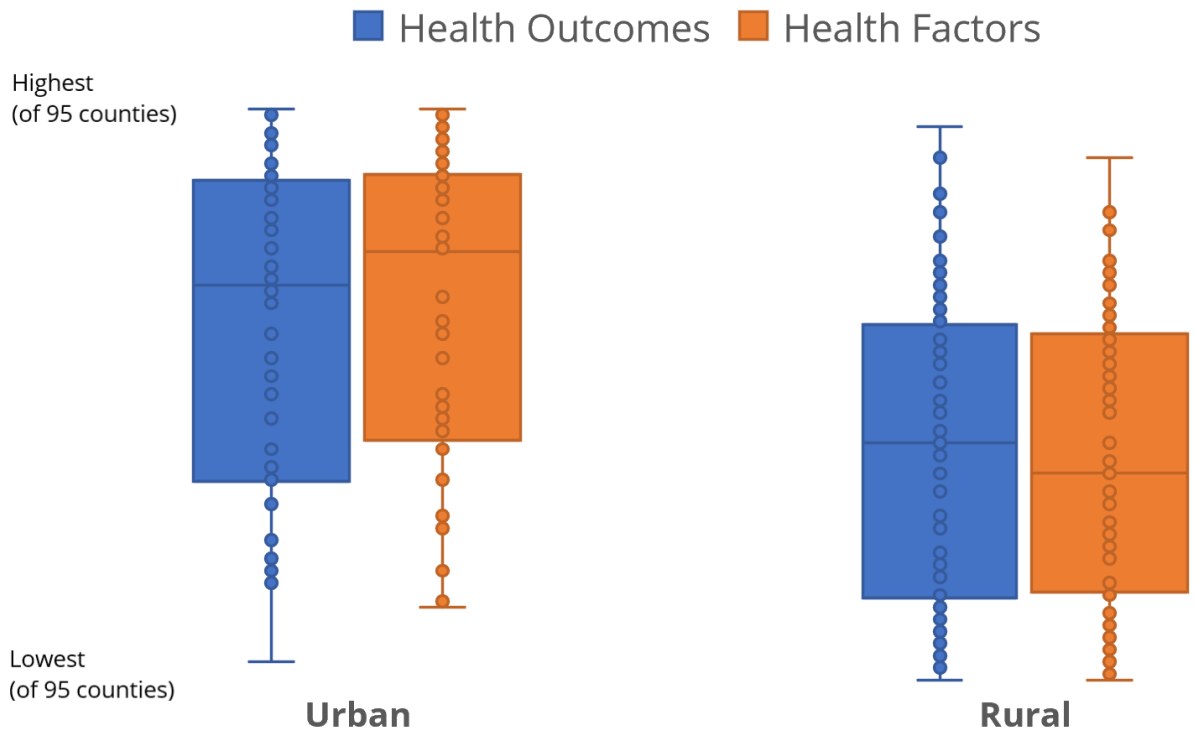
Source: U.S. Department of Health and Human Services. Healthy People 2030. https://health.gov/healthypeople/priority-areas/social-determinants-health

Across Tennessee's 95 counties, there exists wide variation in life expectancy as well as for many other health outcomes, but how do these match up to the factors supporting a healthy life? Data compiled by the Robert Wood Johnson Foundation ranks the state's counties in terms of both health outcomes and health factors, as seen in Figures 14 and 15.

On the whole, Tennessee's urban counties rank higher in terms of health outcomes and health factors than the state's rural counties, however, there are a wide range of ranked levels for both geography types. Notably, a larger number of the low-ranked counties correspond to rural areas, while more of the higher ranked counties are in urban areas (Figure 14).

Data compiled by the Centers for Disease Control and Prevention/ Agency for Toxic Substances and Disease Registry to create a Social Vulnerability Index[8] indicate that, while there are many elements involved, poor county rankings for health factors and, in turn, health outcomes, appear crucially related to the availability of healthcare resources, transportation, and employment.

Figure 14. Health Outcome Rankings and Health Factor Rankings by Urban and Rural Geography of Counties, Tennessee, 2021.

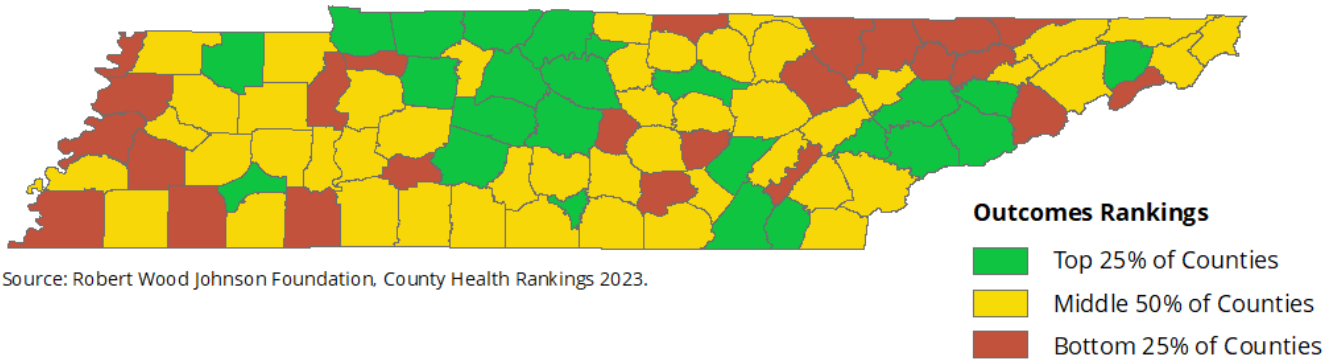


Source: Tennessee Department of Health, Division of Health Disparities Elimination.
Health Outcome and Health Factor Rankings by Urban and Rural Geography of Counties, Tennessee, 2021.
Data from Robert Wood Johnson Foundation, County Health Rankings 2023.

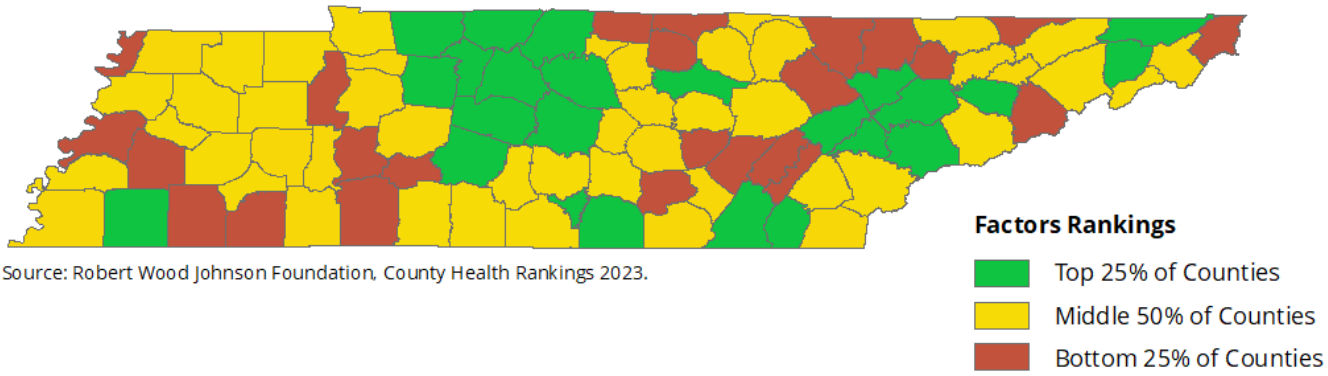
Comparison of the health factors and health outcomes datasets (Figure 15) reveals that most counties fare as expected in health outcomes, given their level of health factors. Yet, there are numerous counties where there is a mismatch. **For many counties, their ranked health outcomes are worse than the existing health factors would suggest they should be.** These are, in large part, urban or peri-urban counties in which availability of healthcare is high, but access and use may be constrained by time or cost factors.

However, there are also a number of counties for which health outcomes are better than the level of health factors available would indicate. These better-performing-than-expected areas are largely rural counties adjacent to urban counties, reducing some of the healthcare resource availability and access issues.

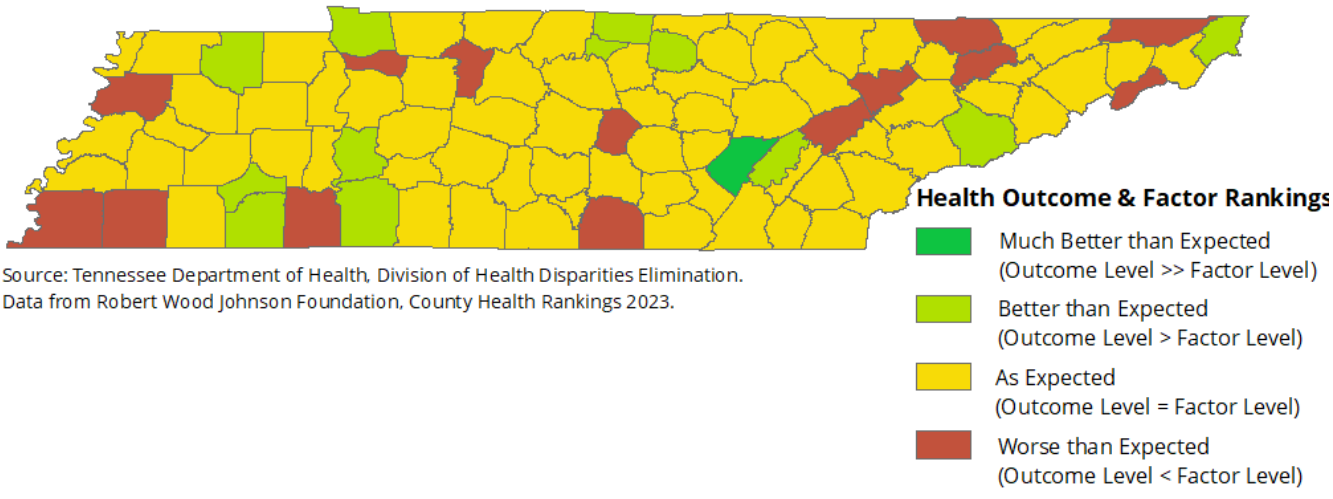
Figure 15. Comparison of Health Outcome Rankings and Health Factor Rankings, Tennessee, 2023



Source: Robert Wood Johnson Foundation, County Health Rankings 2023.



Source: Robert Wood Johnson Foundation, County Health Rankings 2023.



Source: Tennessee Department of Health, Division of Health Disparities Elimination.
Data from Robert Wood Johnson Foundation, County Health Rankings 2023.

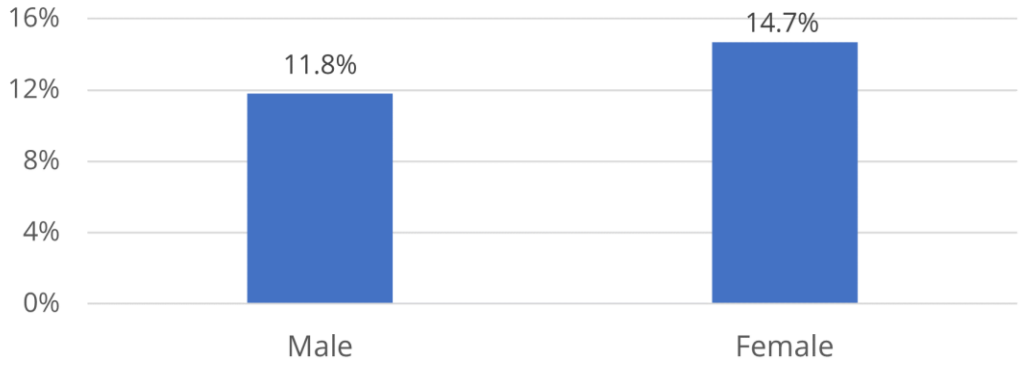
Health Equity & Social Drivers

Measures: Poverty, Nutritional Insecurity, Environmental Factors

Overview

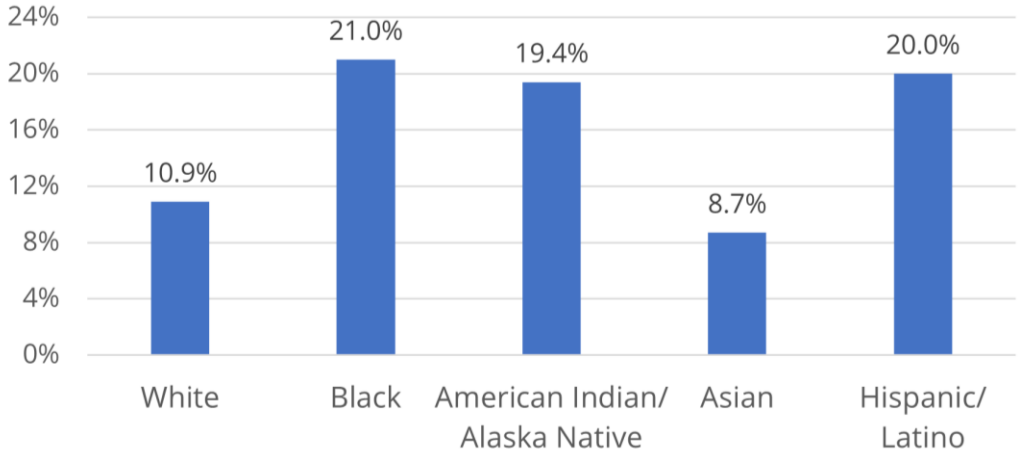
Tennessee has a high rate of adult poverty, ranking 38th in the nation, and the rates vary greatly both by sex and race/ethnicity. The state's percentage of nutritionally insecure households is greater than the national level as well, with significant variation by race/ethnicity. Nutritional insecurity among adults is highest in rural counties, both overall as well as for the race and ethnicity groups for which there are data, however, lack of data is a concern when assessing demographics at a county level. Nutritional insecurity among households with children is highest both in very rural counties and also in populous Shelby County. Exposure to environmental factors including fine particulate matter and heat-related stress also demonstrate geographic variation, with the **highest levels of air pollution found in metro and surrounding counties, while heat-related emergency department visits were concentrated in the western portion of the state**.

Figure 16. Percentage of Adults with Income Below the Poverty Level by Sex, Tennessee, 2021.



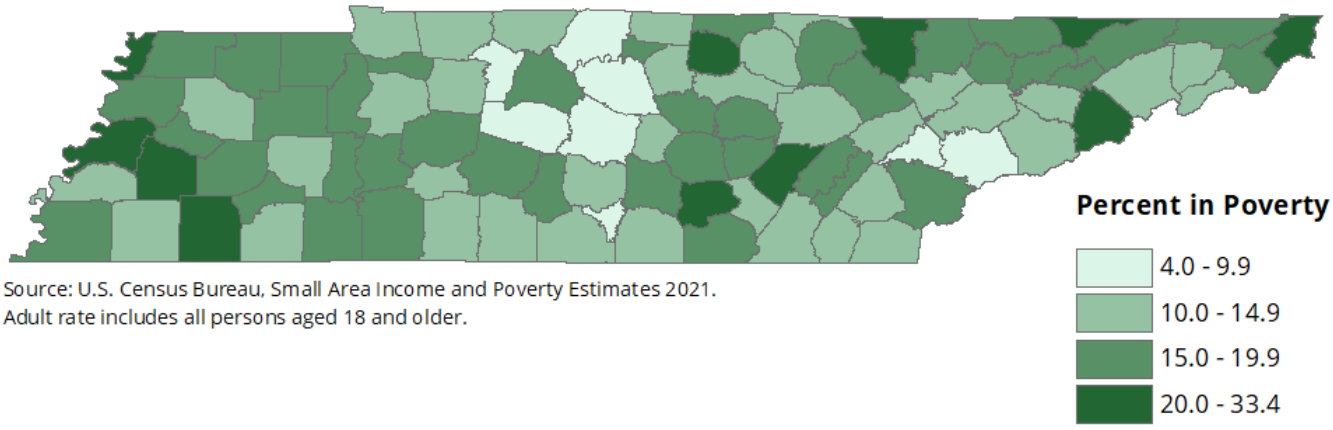
Source: U.S. Census Bureau, American Communities Survey, 2022. Table S1701.

Figure 17. Percentage of Adults with Income Below the Poverty Level by Race and Ethnicity, Tennessee, 2022.



Source: U.S. Census Bureau, American Communities Survey, 2022. Table S1701.

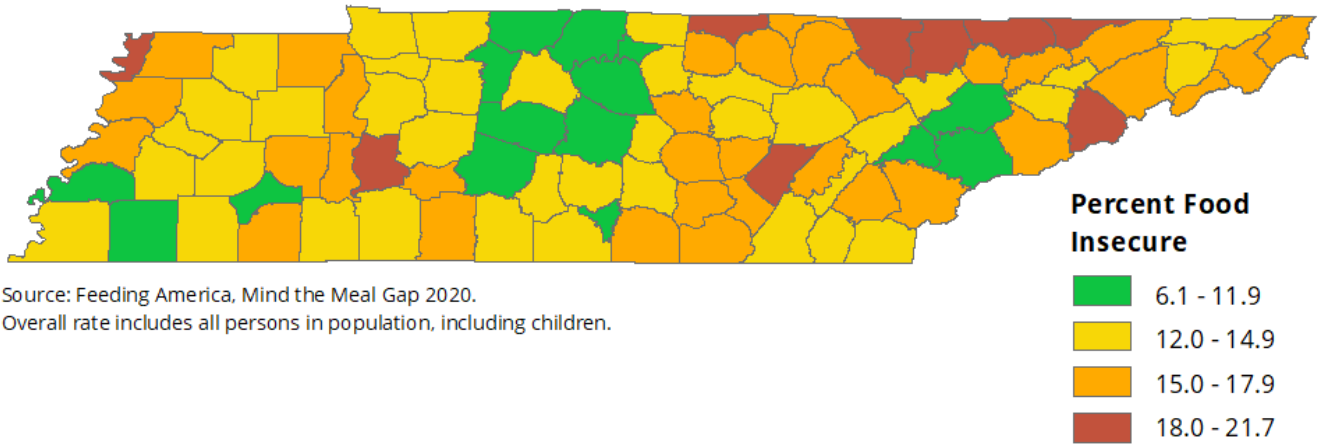
Figure 18. Percentage of Adults with Income Below the Poverty Level, Tennessee, 2021.



Source: U.S. Census Bureau, Small Area Income and Poverty Estimates 2021.
Adult rate includes all persons aged 18 and older.

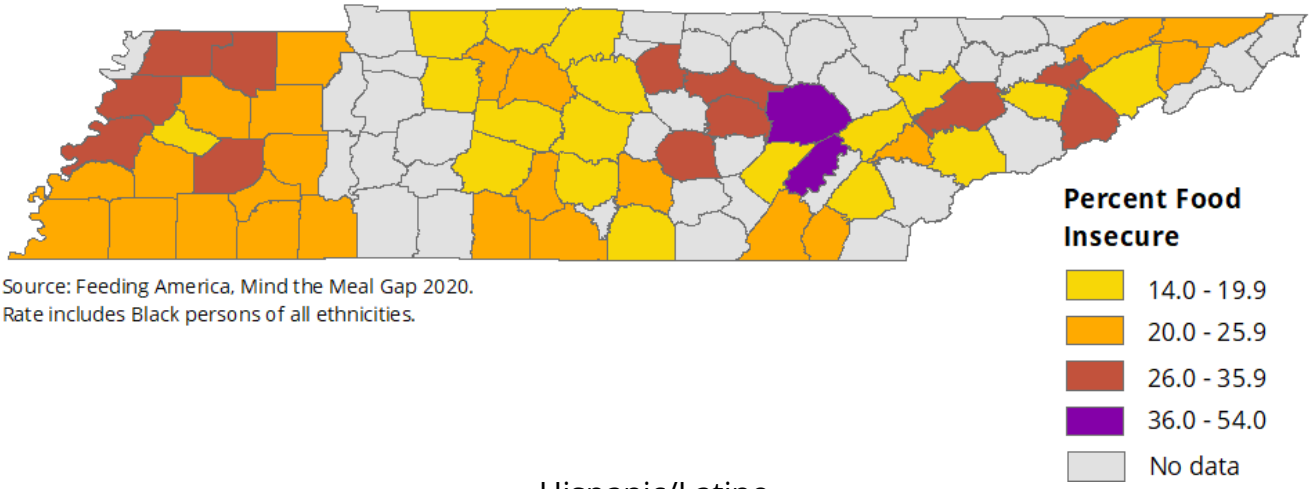
Figure 19. Percentage of Population Lacking Adequate Access to Food by Race and Ethnicity, Tennessee, 2021.

All Race/Ethnicity Categories



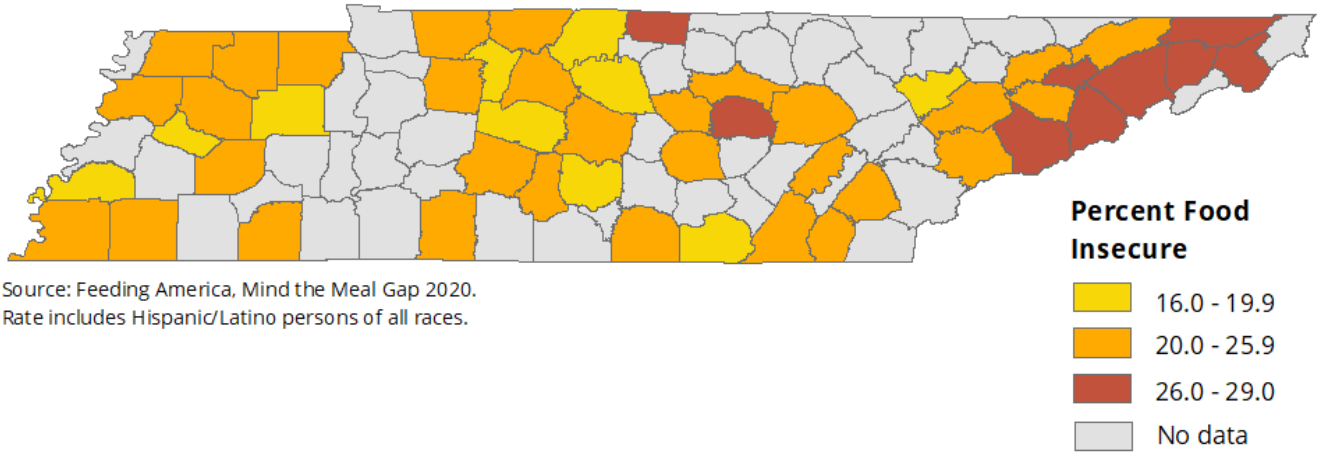
Source: Feeding America, Mind the Meal Gap 2020.
Overall rate includes all persons in population, including children.

Black



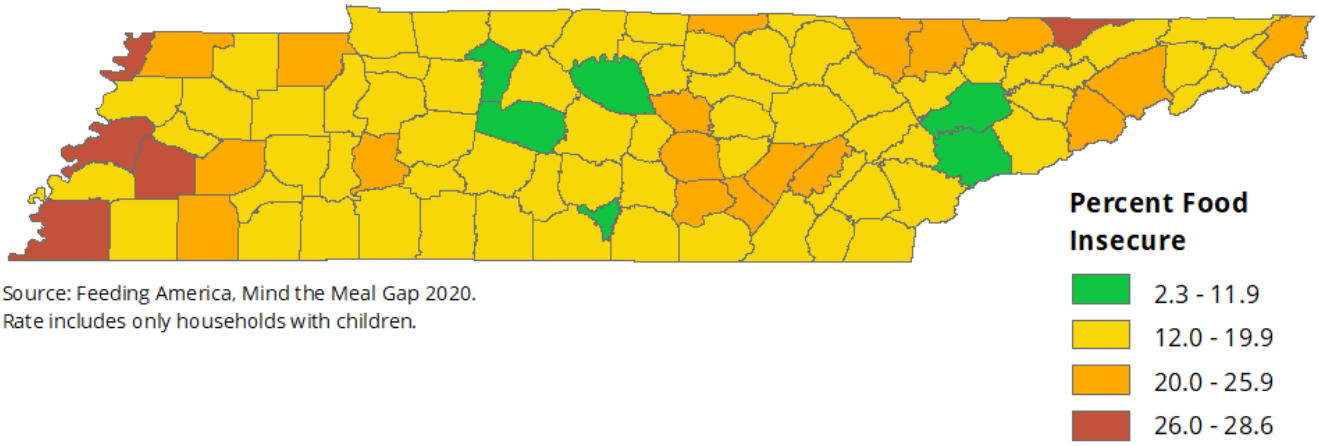
Source: Feeding America, Mind the Meal Gap 2020.
Rate includes Black persons of all ethnicities.

Hispanic/Latino



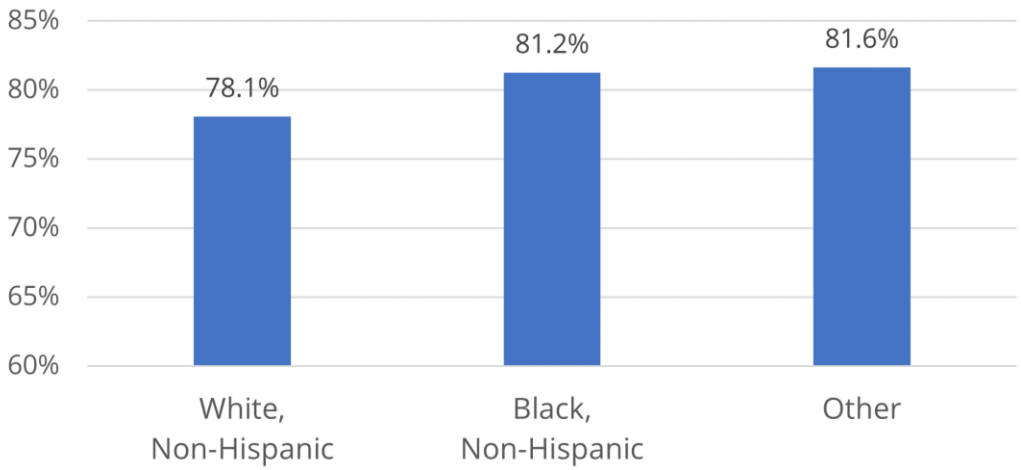
Source: Feeding America, Mind the Meal Gap 2020.
Rate includes Hispanic/Latino persons of all races.

Figure 20. Percentage of Households with Children Considered Food Insecure (Low or Very Low Food Security Status), Tennessee, 2022.



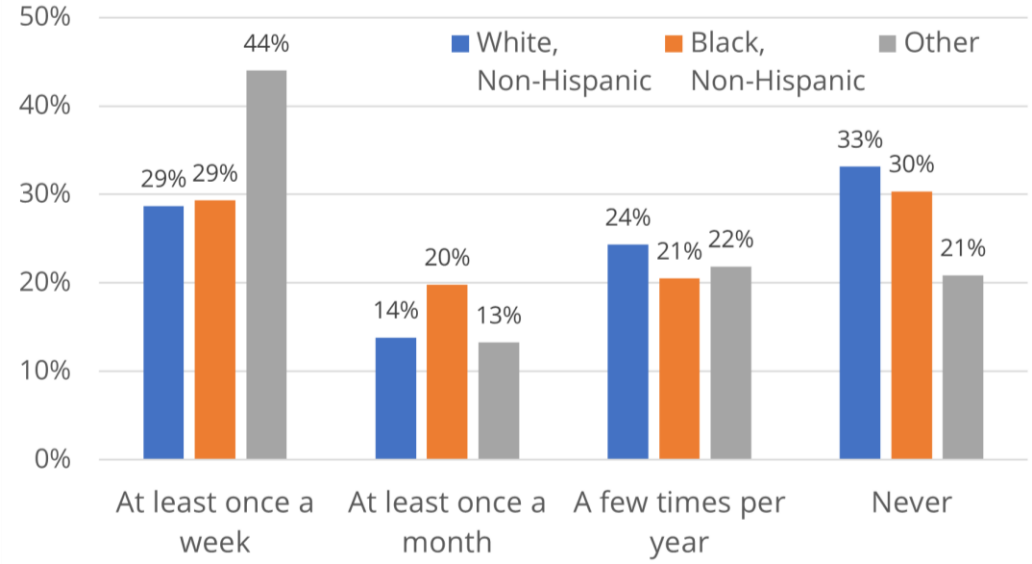
Source: Feeding America, Mind the Meal Gap 2020.
Rate includes only households with children.

Figure 21. Percentage of Population with Adequate Access to Locations for Physical Activity by Race and Ethnicity, Tennessee, 2019.



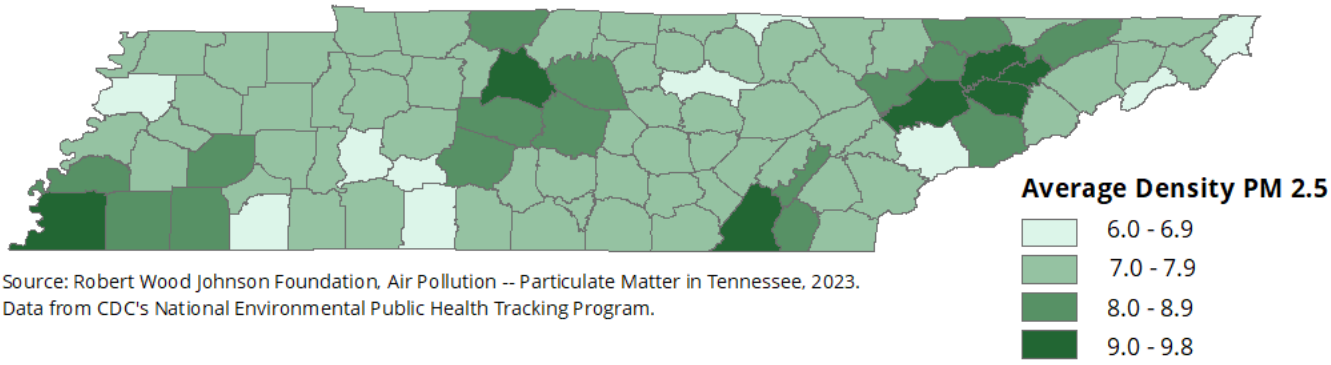
Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2019.

Figure 22. Utilization of Locations for Physical Activity by Frequency and Race/Ethnicity, Tennessee, 2019.



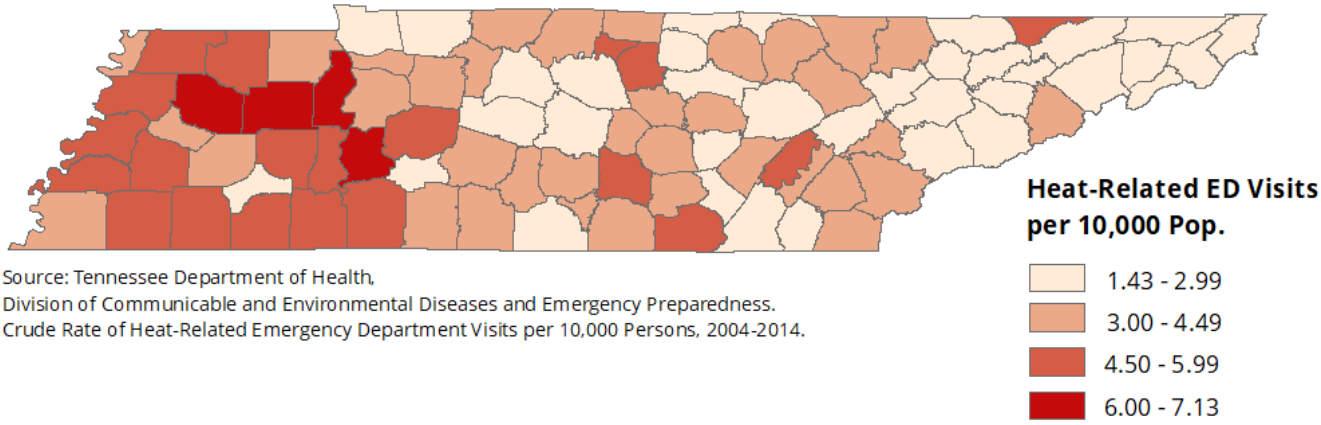
Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2019.

Figure 23. Average Daily Density of Particulate Matter (PM 2.5), Tennessee, 2023.



Source: Robert Wood Johnson Foundation, Air Pollution -- Particulate Matter in Tennessee, 2023.
Data from CDC's National Environmental Public Health Tracking Program.

Figure 24. Crude Rate of Heat-Related Emergency Department Visits per 10,000 Population, Tennessee, 2004-2014.



Source: Tennessee Department of Health,
Division of Communicable and Environmental Diseases and Emergency Preparedness.
Crude Rate of Heat-Related Emergency Department Visits per 10,000 Persons, 2004-2014.

Recommendations

High rates of poverty in Tennessee, particularly among minoritized populations, may have significant downstream impacts on health outcomes through inequitable nutritional security, physical activity opportunities, environmental justice, transportation options, and access to preventive healthcare. Reduction of disparate rates of these social drivers will require dedicated funding and projects tailored to overcome the barriers unique to each community's challenges. General recommendations include:

- Strategic provision of subsidies for nutritional support, housing, and electrical use in periods of extreme weather.
- Coordination with education and healthcare entities in areas of high nutrition insecurity to implement locally appropriate food distribution mechanisms, with particular focus on meeting the nutritional needs of children when they are on holiday and summer break.
- Evaluate current nutrition supplementation policies and consider adaptations to promote increased uptake and utilization among potential beneficiaries.
- Encourage organizations to participate in County Health Council (CHC) strategic planning processes to seek locally adapted solutions to physical, environmental, and social challenges of highest import to their communities and leverage TDH personnel and resources to develop action plans.

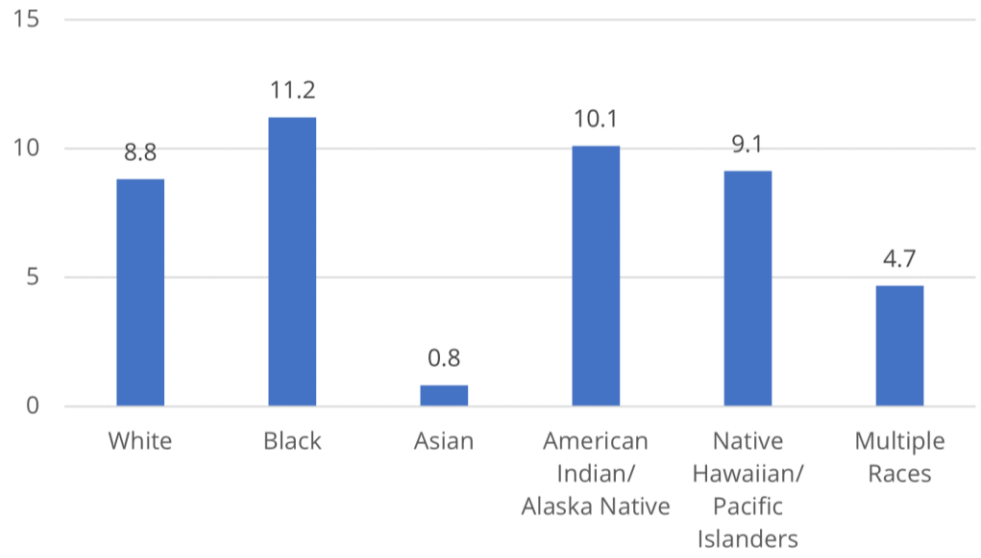
Vulnerable Populations

Measures: Unhoused Populations, Disabling Conditions

Overview

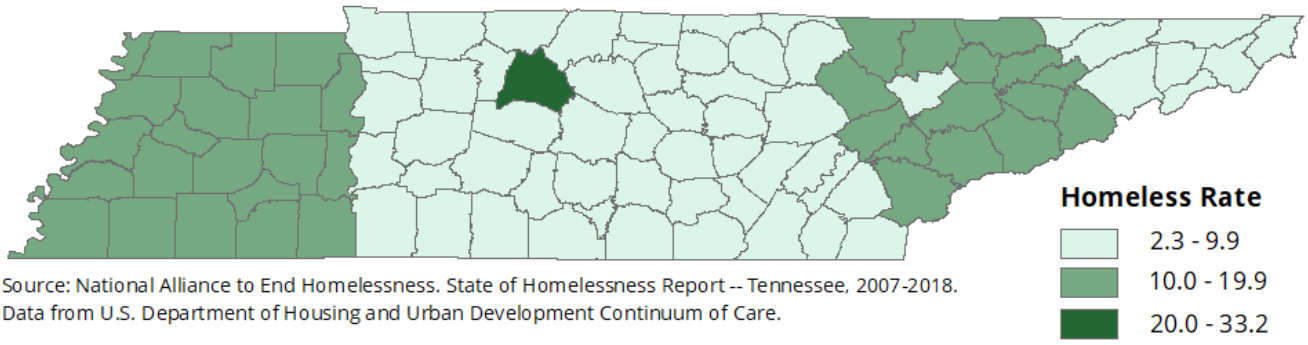
Details regarding vulnerable populations are difficult to identify. However, Tennessee is estimated to have increasing populations of vulnerable individuals, including persons who are unhoused, have a disabling condition, or have limited English proficiency. The U.S. Census Bureau estimates that 17.6% of Tennessee's population has one or more disabling conditions, placing the state above the national rate[9]. **There is significant variation in both homelessness and disability noted by sex and race/ethnicity.** Tennessee-specific datasets regarding the health of immigrant and/or limited English proficient populations are unavailable or too small to stratify, however, studies conducted elsewhere indicate that significant health disparities exist for these groups.

Figure 25. Estimated Rate of Unsheltered Persons per 10,000 Population by Race, Tennessee, 2022.



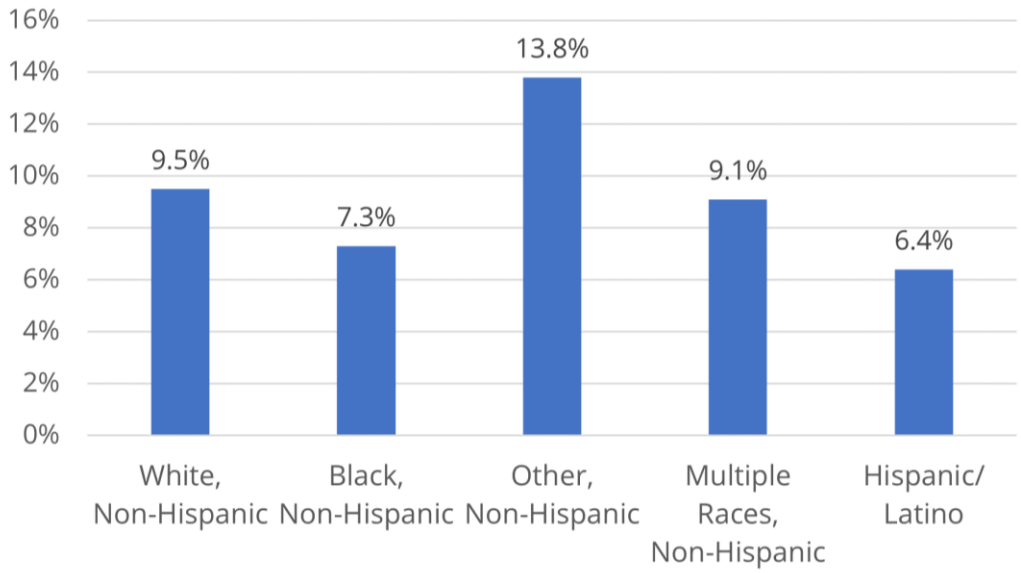
Source: Tennessee Department of Health, Division of Health Disparities Elimination.
Data from U.S. Department of Housing and Urban Development, Continuum of Care Homeless Assistance Programs, Homeless Populations and Subpopulations. Tennessee Summary, 2022.

Figure 26. Estimated Rate of Homelessness per 10,000 Population by State Continua of Care Region, Tennessee, 2018.



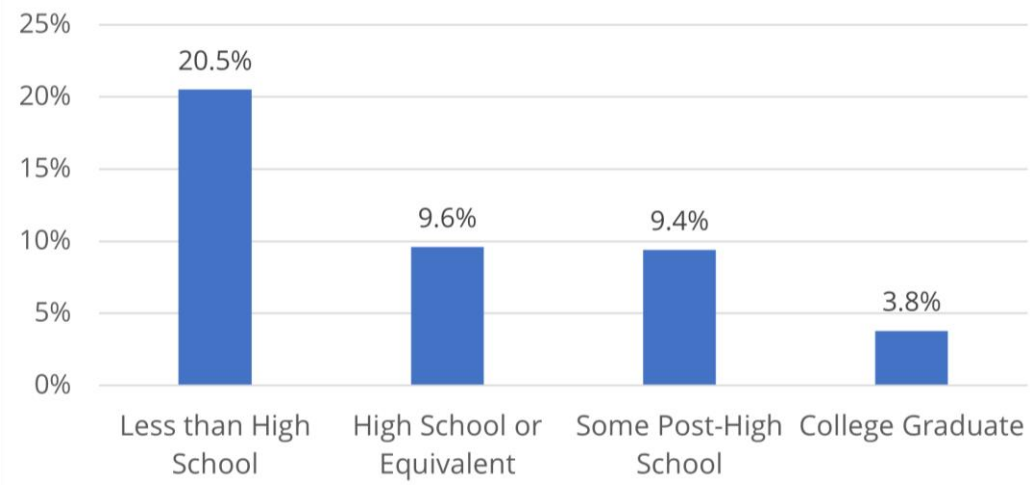
Source: National Alliance to End Homelessness. State of Homelessness Report -- Tennessee, 2007-2018.
Data from U.S. Department of Housing and Urban Development Continuum of Care.

Figure 27. Percentage of Population Reporting Disabling Conditions Associated with Difficulty in Independent Care by Race and Ethnicity, Tennessee, 2022.



Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2022.

Figure 28. Percentage of Population Reporting Disabling Conditions Associated with Difficulty in Independent Care by Educational Attainment, Tennessee, 2022.



Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2022.

Recommendations

The increasing number of vulnerable individuals within the population of Tennessee suggests that a key to improving health outcomes lies in developing awareness of those that are vulnerable or excluded and considering active strategies to promote their health and social inclusion. Transportation support and linguistically and culturally appropriate outreach materials are critical components. Additional specific recommendations include:

- Support local outreach efforts to vulnerable populations across the state to assess need and develop culturally and linguistically appropriate health promotion materials and events in coordination with local advisors.
- Conduct events in accessible community locations to mitigate transportation concerns and carefully coordinate timing of events with community leaders to maximize attendance.
- Expand coordination with community services organizations to provide clinical health assessments for vulnerable individuals at community-sponsored health fairs and mobile clinic events and provide referral to low-cost or subsidized healthcare services as necessary.
- Provide follow-up care coordination to ensure vulnerable individuals are receiving appropriate care and support their compliance with treatment recommendations.

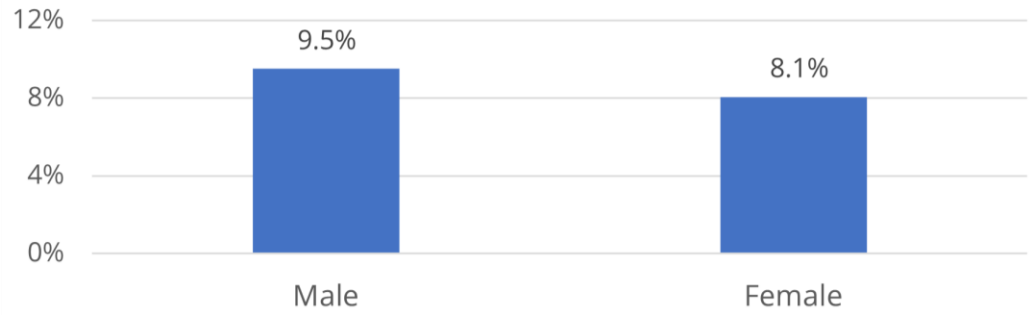
Access to Healthcare

Measures: Insurance, Cost of Care, Primary Care, Dental Care, and Obstetric Care Availability

Overview

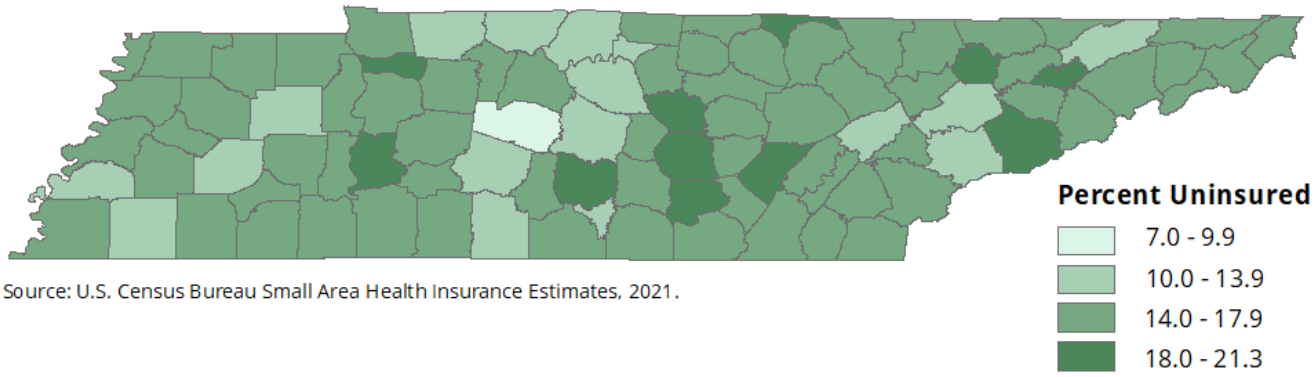
Despite improved availability of health insurance nationally, **Tennessee is in the bottom tier of states with regard to health care access, ranking 40th for percentage of adults with health insurance.** Likewise, cost of care is a barrier for many Tennesseans, and the state ranks 41st for the percentage of residents who avoided care in the past year due to its cost. Variation in access to care is noted by age group and race/ethnicity, particularly for Hispanic/Latino residents of the state. Additionally, **primary and dental care availability are unevenly distributed, with resource shortage areas noted in both urban and rural counties**.

Figure 29. Percentage of Adult Population without Health Insurance by Sex, Tennessee, 2022.



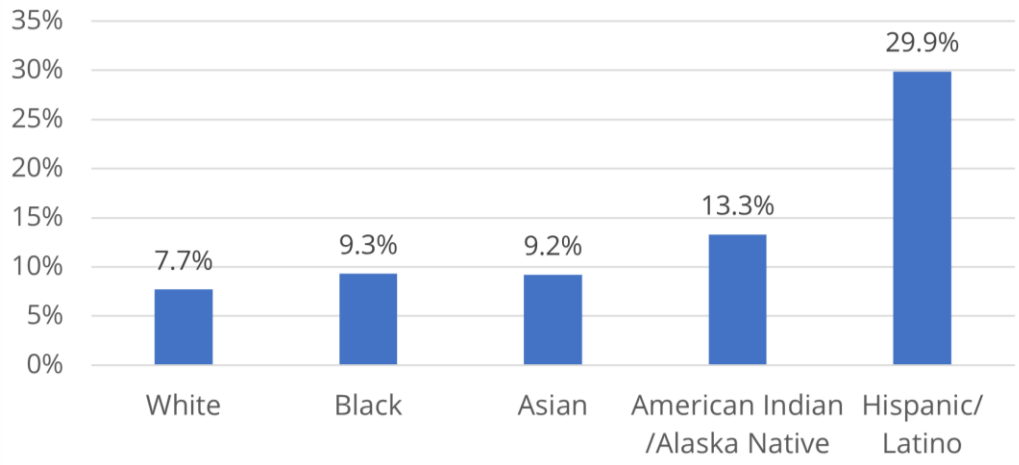
Source: U.S. Census Bureau, American Community Survey, 2022.

Figure 30. Percentage of Adult Population without Health Insurance, Tennessee, 2021.



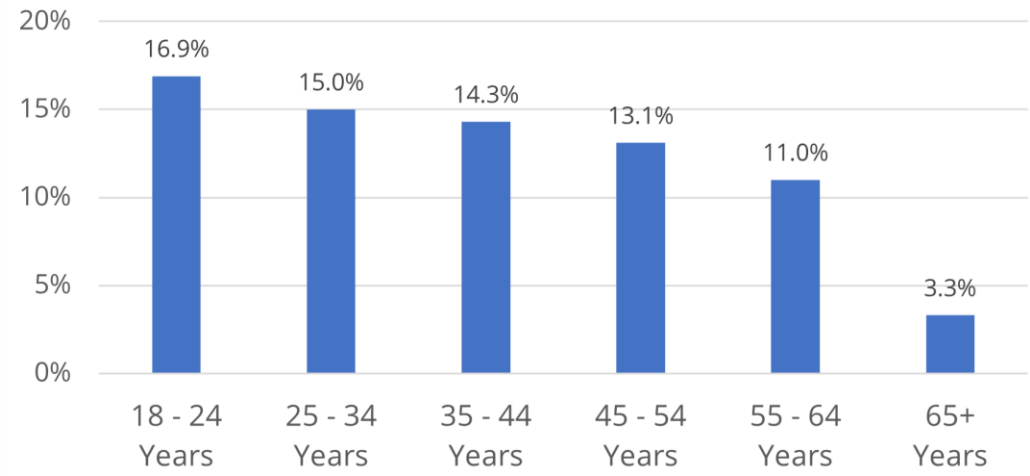
Source: U.S. Census Bureau Small Area Health Insurance Estimates, 2021.

Figure 31. Percentage of Adult Population without Health Insurance by Race and Ethnicity, Tennessee, 2022.



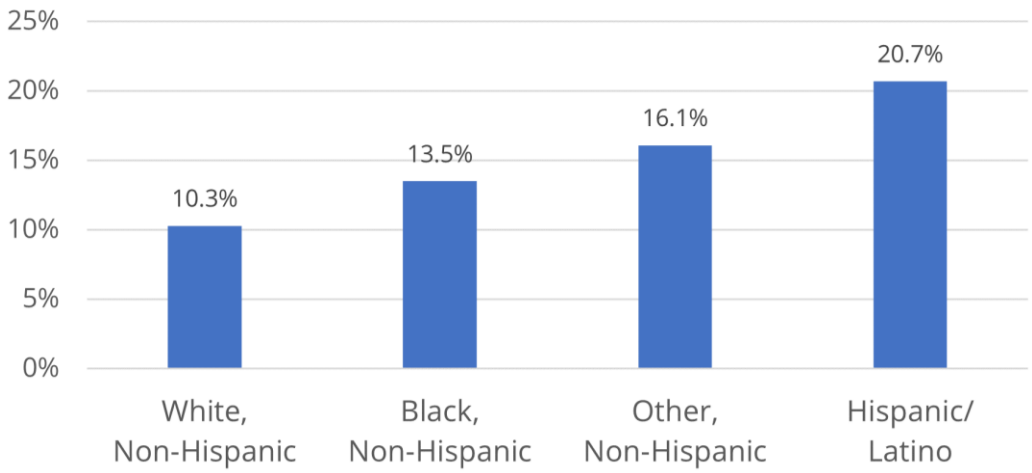
Source: U.S. Census Bureau, American Community Survey, 2022.

Figure 32. Percentage of Adult Population Unable to See a Doctor Due to Cost in the Past 12 Months by Age Group, Tennessee, 2021.



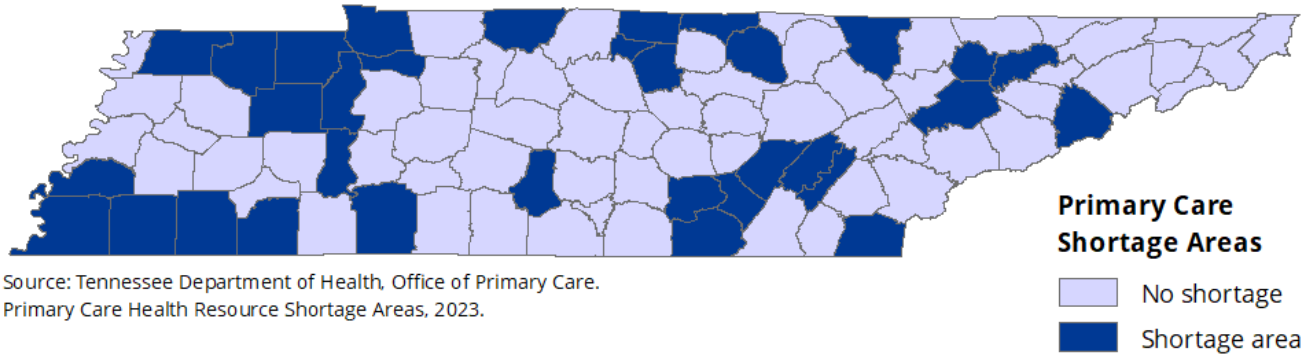
Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2021.

Figure 33. Percentage of Adult Population Unable to See a Doctor Due to Cost in the Past 12 Months by Race and Ethnicity, Tennessee, 2021.



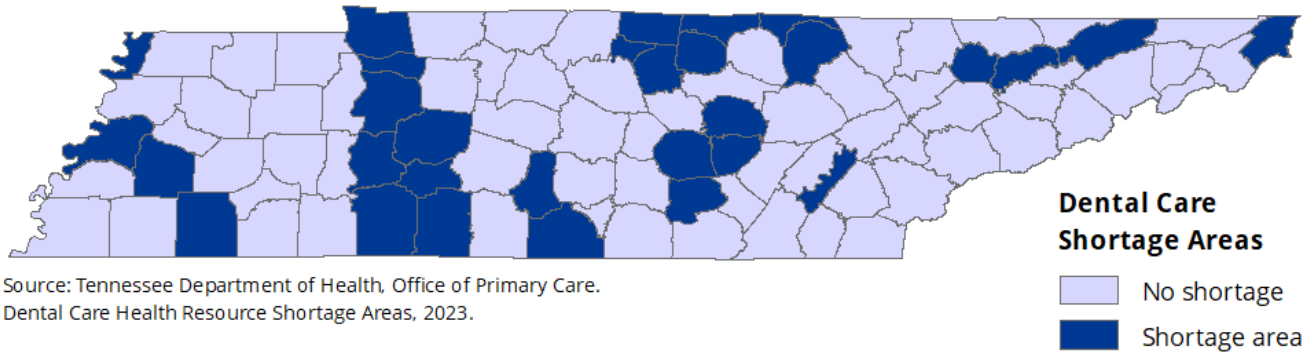
Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2021.

Figure 34. Primary Care Health Resource Shortage Areas, Tennessee, 2023.



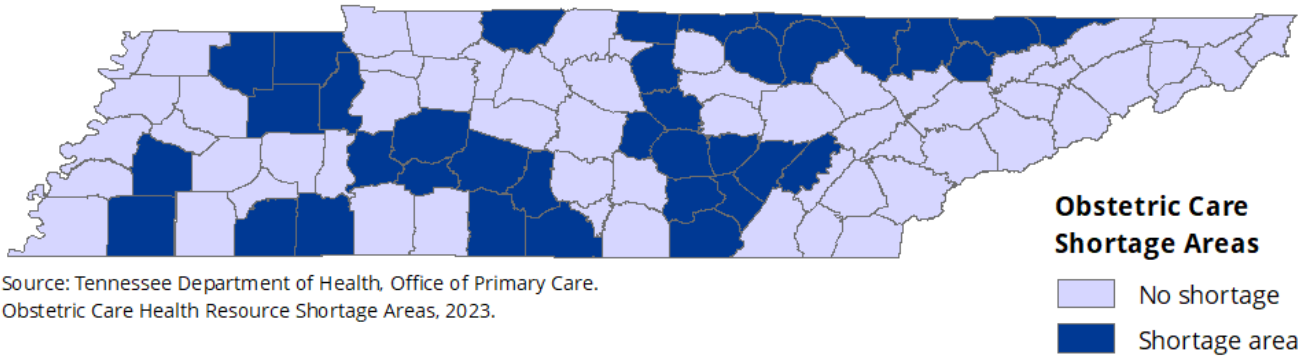
Source: Tennessee Department of Health, Office of Primary Care.
Primary Care Health Resource Shortage Areas, 2023.

Figure 35. Dental Care Health Resource Shortage Areas, Tennessee, 2023.



Source: Tennessee Department of Health, Office of Primary Care.
Dental Care Health Resource Shortage Areas, 2023.

Figure 36. Obstetric Care Health Resource Shortage Areas, Tennessee, 2023.



Source: Tennessee Department of Health, Office of Primary Care.
Obstetric Care Health Resource Shortage Areas, 2023.

Recommendations

Limited access to primary and specialized healthcare services and barriers to healthcare usage such as cost of care and lack of transportation present persistent challenges to Tennessee communities. The patterns of disparity noted here contrast the notion that healthcare access limitations are exclusively a rural phenomenon; indeed, there are areas of healthcare shortage and elevated rates of uninsured in some of the state's most populous counties as well. The observed disparities, both in rural and metro counties, broadly support the recent recommendations of the state's Rural Healthcare Task Force[10]. Specific recommendations include:

- Increase primary care and dental care access through expansion of the Uninsured Adult Healthcare Safety Net program.
- Establishment of a telemedicine infrastructure and platforms, beginning with existing Safety Net Clinics and developing additional sites to expand clinic availability in underserved areas.
- Support for proposed provider-focused networks including a Center of Excellence, Provider-to-Provider Consultation Program to improve access to specialty consultation, and pilot program to incentivize high-need specialty providers.
- Increase in capacity of the existing Tennessee State Loan Repayment Program to retain providers in resource shortage areas.
- Improve access to health insurance coverage through policies focused on identifying existing coverage sources and educating Tennesseans about available options
- Promote continuity of care practices to help patients establish medical and dental "homes" for long-term management of chronic conditions and improved patient communication and health education.
- Encourage existing TennCare pediatric dental providers to expand panels of TennCare patients to increase care capacity.

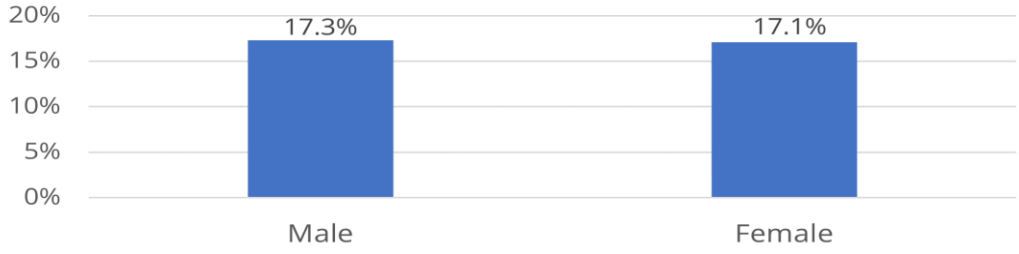
Mental Health & Trauma

Measures: Adverse Childhood Experiences, Suicide

Overview

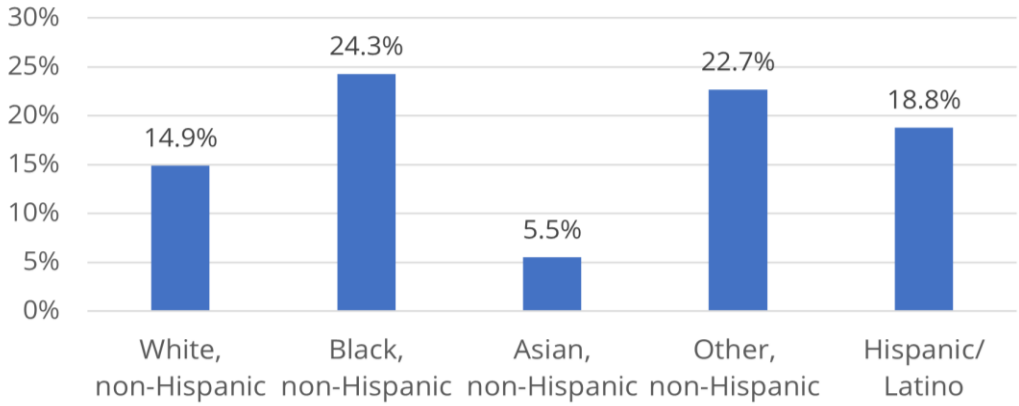
Early traumatic experiences such as parental separation or death, exposure to violence, substance abuse, mental illness, or other severe stressors, can detrimentally influence the mental health of individuals throughout the life course. **Tennessee is among states with the highest rates of adverse childhood experiences (ACEs), ranking 44th in the nation. Suicide rates in Tennessee are also above the national rate, with the state now ranking 29th.** There are significant differences in suicide rates by sex, age group, race/ethnicity, and geography.

Figure 37. Percentage of Children Who Have Experienced Two or More Adverse Childhood Experiences (ACEs) by Sex, Tennessee, 2020-2021.



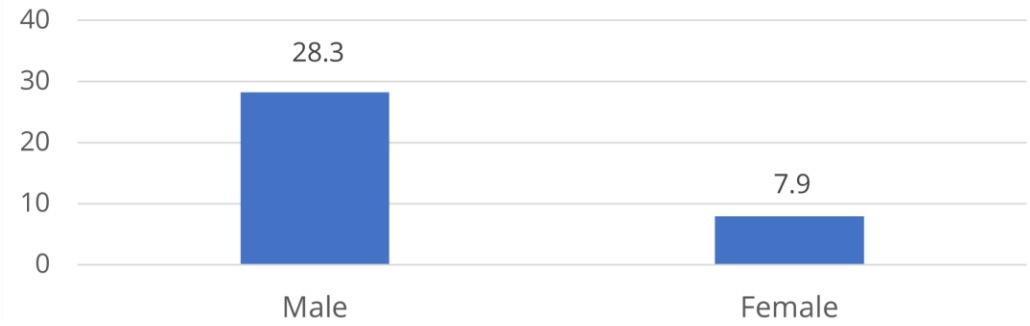
Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. National Survey of Children's Health, 2020-2021.

Figure 38. Percentage of Children Who Have Experienced Two or More Adverse Childhood Experiences (ACEs) by Race and Ethnicity, Tennessee, 2020-2021.



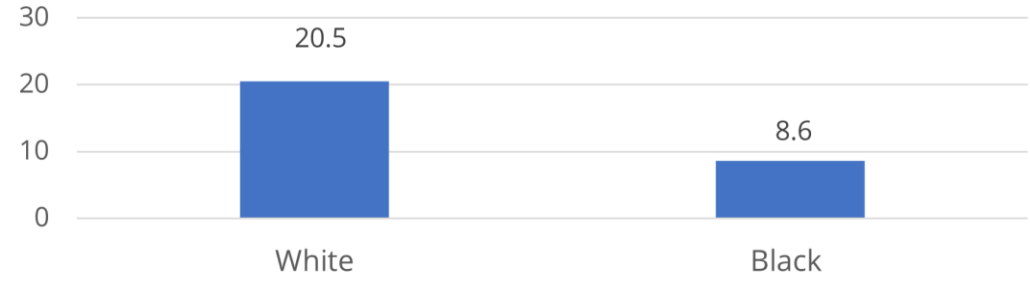
Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. National Survey of Children's Health, 2020-2021.

Figure 39. Rate of Adult Deaths Due to Intentional Self-Harm per 100,000 Population by Sex, Tennessee, 2021.



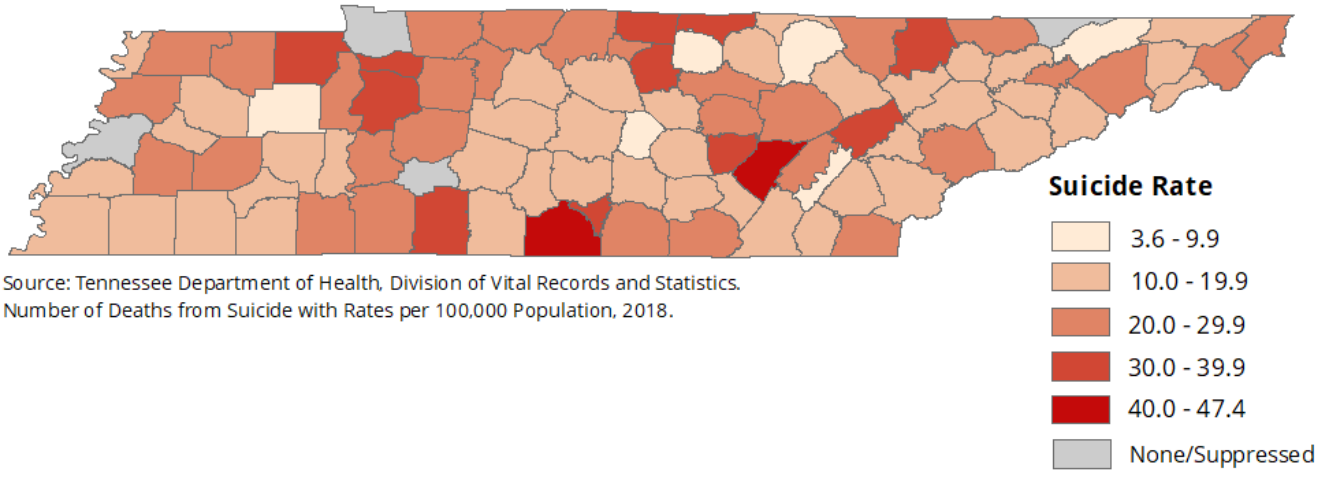
Source: Tennessee Department of Health, Division of Vital Records and Statistics. Tennessee Death Statistical File, 2021.

Figure 40. Rate of Adult Deaths Due to Intentional Self-Harm per 100,000 Population by Race and Ethnicity, Tennessee, 2021.



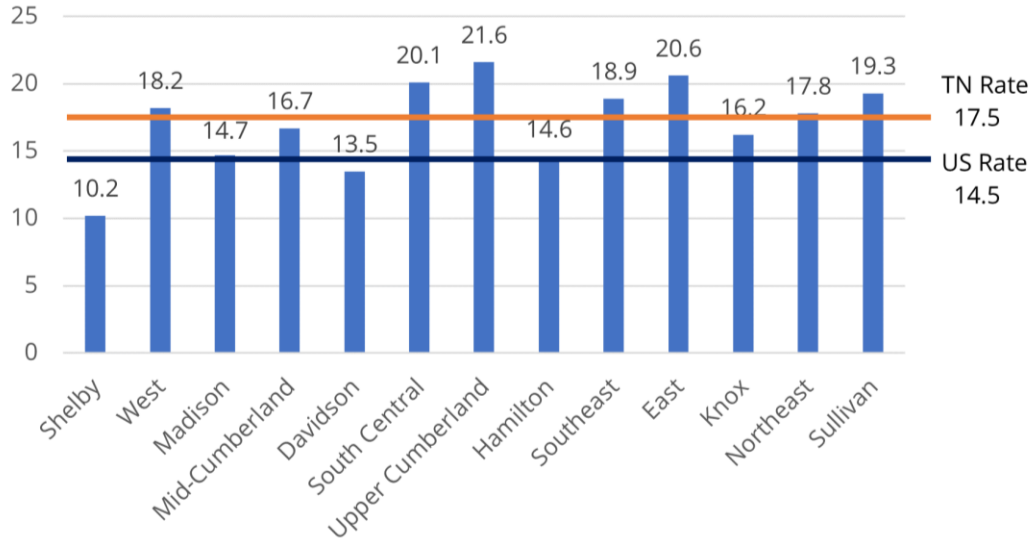
Source: Tennessee Department of Health, Division of Vital Records and Statistics. Tennessee Death Statistical File, 2021.

Figure 41. Rate of Adult Deaths Due to Intentional Self-Harm per 100,000 Population, Tennessee, 2018.



Source: Tennessee Department of Health, Division of Vital Records and Statistics. Number of Deaths from Suicide with Rates per 100,000 Population, 2018.

Figure 42. Rate of Adult Deaths Due to Intentional Self-Harm per 100,000 Population by State Health Region, Tennessee, 2021.



Source: Tennessee Department of Health, Division of Vital Records and Statistics.
Tennessee Death Statistical File, 2021.

Recommendations

Access to mental health services is key to reducing violence and bolstering suicide prevention efforts, yet behavioral health providers are in short supply across the state. Recommendations focus on increasing the availability of mental health services for adults and children, and draw from those of the Suicide Prevention Task Force, including:

- Fund community-led behavioral health projects, including non-clinical interventions such as after-school programs, anti-violence efforts, and art therapy opportunities.
- Expand funding for school counselors statewide; promote the establishment of mental health support groups within schools in high-burden areas.
- Increase the number of Behavioral Health Safety Net providers and establish tele-health infrastructure to improve access to clinical behavioral health services.
- Encourage utilization of screening tools by primary care and pediatric providers to assess all patients for risk of suicide and refer those at risk to mental health services.
- Develop community-centered mental health trainings to support short-term (e.g., de-escalation) and mid-term (e.g., peer counselors) violence reduction strategies.
- Raise awareness of the risk factors for suicide and provide community-based opportunities to attend suicide prevention gatekeeper trainings; reduce access to lethal means through safe storage of firearms and prescription medications.

Community Health & Prevention

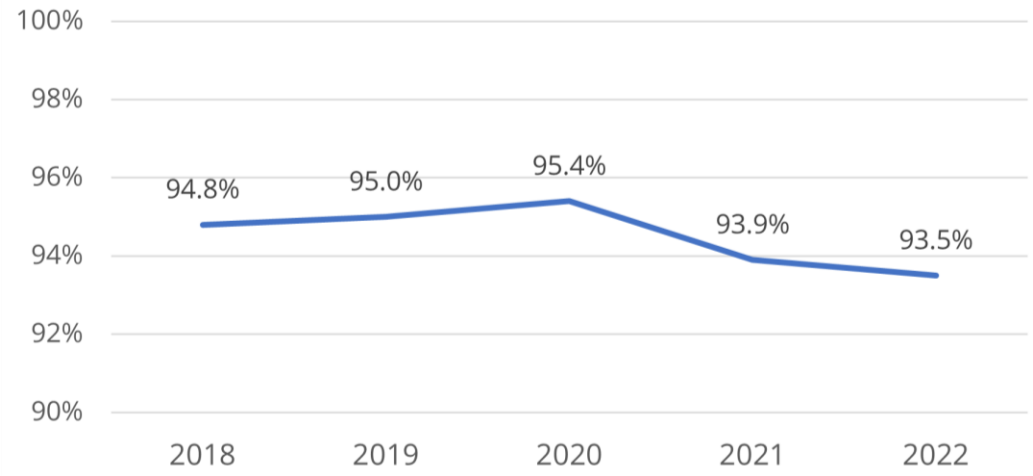
Measures: Childhood Vaccinations, Adult Vaccinations, Physical Activity

Overview

Tennessee has historically been above the national rate of early childhood immunizations, but **recent decreases in the 7-vaccine series rate have led to its current nationwide rank of 26th**. Adult vaccination for influenza has increased across the state in recent years, more quickly among older adults than younger adults, but Tennessee currently ranks 39th among states for overall adult influenza vaccination. There remains significant variation in adult vaccination by race and ethnicity, as well as geography.

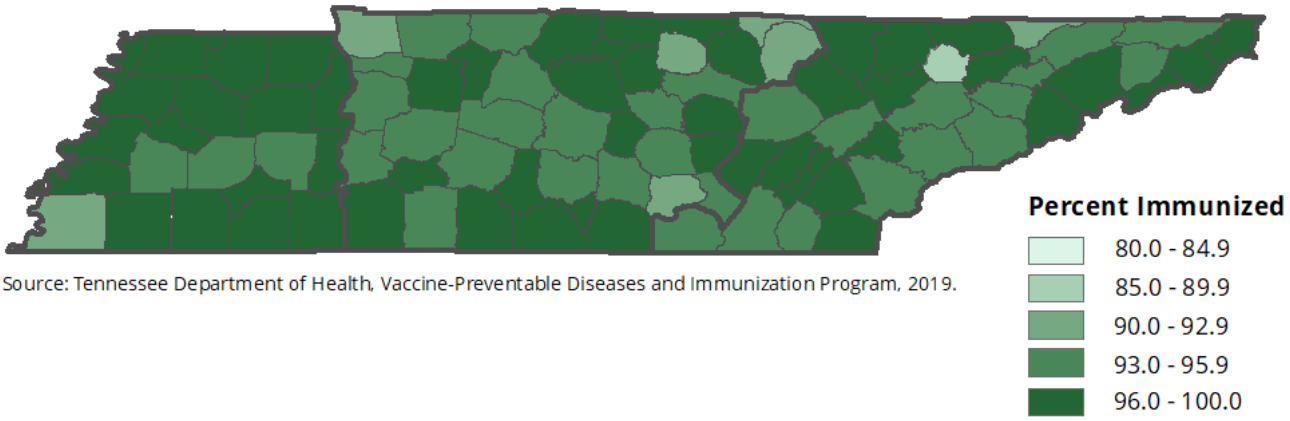
The rate of physical activity among adults in Tennessee lags far behind the national rate, and the state is currently ranked 44th in percentage of adults who report not engaging in any non-work physical activity or exercise. There is significant variation by sex, but limited variation by race or ethnicity.

Figure 43. Percentage of Children Who Received by Age 35 Months All Recommended Doses of Combined 7-Vaccine Series, Tennessee, 2018-2022.



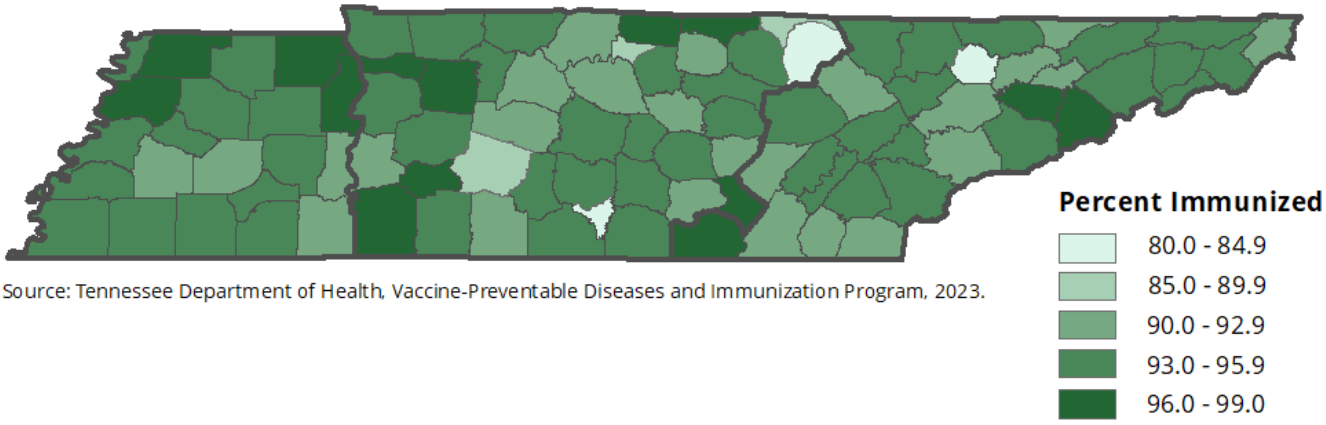
Source: Tennessee Department of Health, Vaccine-Preventable Diseases and Immunization Program, 2023.

Figure 44. Percentage of Children Who Received by Age 35 Months All Recommended Doses of Combined 7-Vaccine Series, Tennessee, 2019.



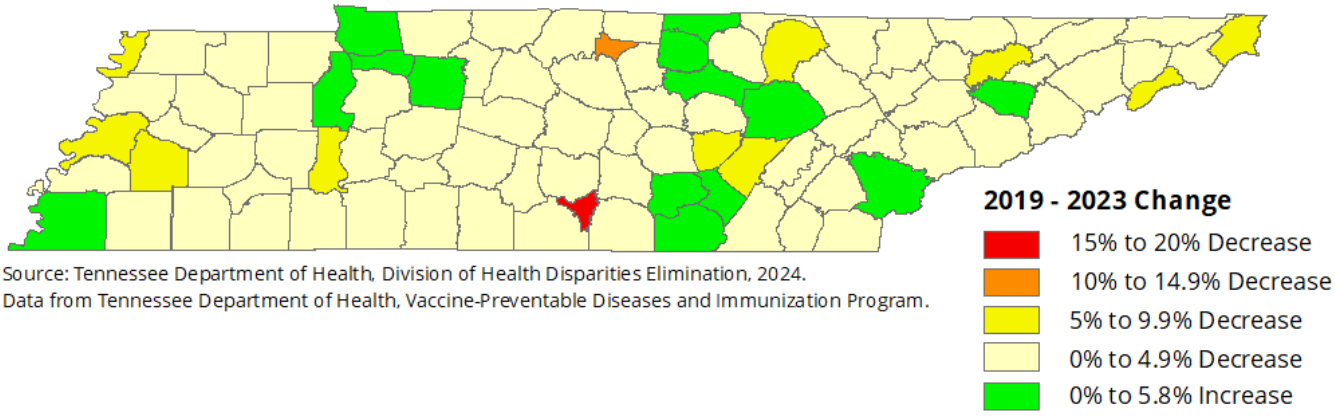
Source: Tennessee Department of Health, Vaccine-Preventable Diseases and Immunization Program, 2019.

Figure 45. Percentage of Children Who Received by Age 35 Months All Recommended Doses of Combined 7-Vaccine Series, Tennessee, 2023.



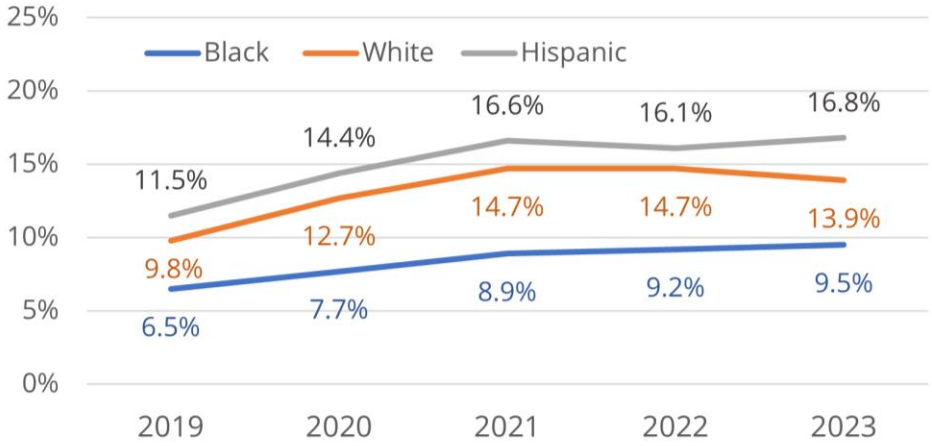
Source: Tennessee Department of Health, Vaccine-Preventable Diseases and Immunization Program, 2023.

Figure 46. Change in Percentage of Children Who Received by Age 35 Months All Recommended Doses of Combined 7-Vaccine Series, Tennessee, 2019 - 2023.



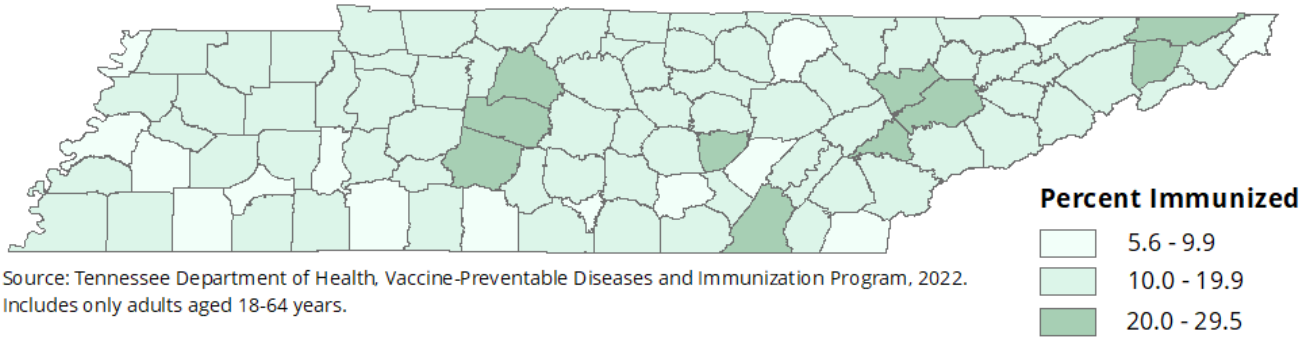
Source: Tennessee Department of Health, Division of Health Disparities Elimination, 2024.
Data from Tennessee Department of Health, Vaccine-Preventable Diseases and Immunization Program.

Figure 47. Percentage of Adults Aged 18-64 Vaccinated against Influenza by Race and Ethnicity, Tennessee, 2019-2023.



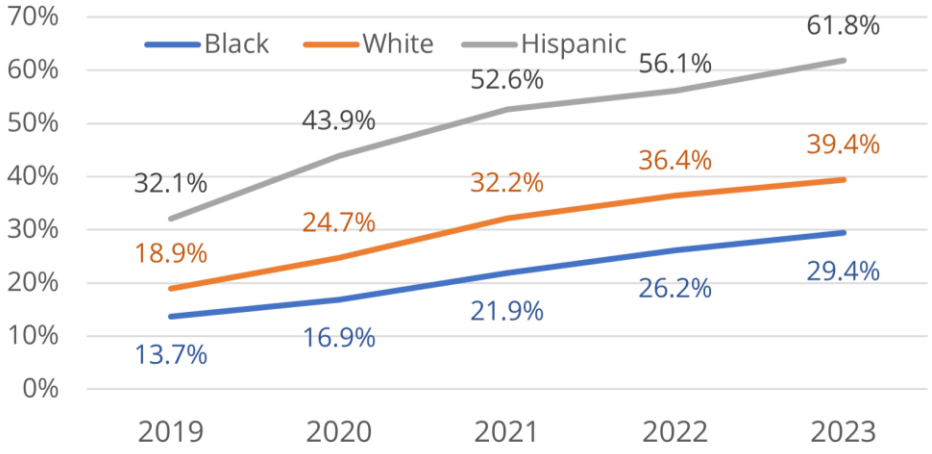
Source: Tennessee Department of Health, Vaccine-Preventable Diseases and Immunization Program, 2023.

Figure 48. Percentage of Adults Aged 18-64 Vaccinated against Influenza, Tennessee, 2022.



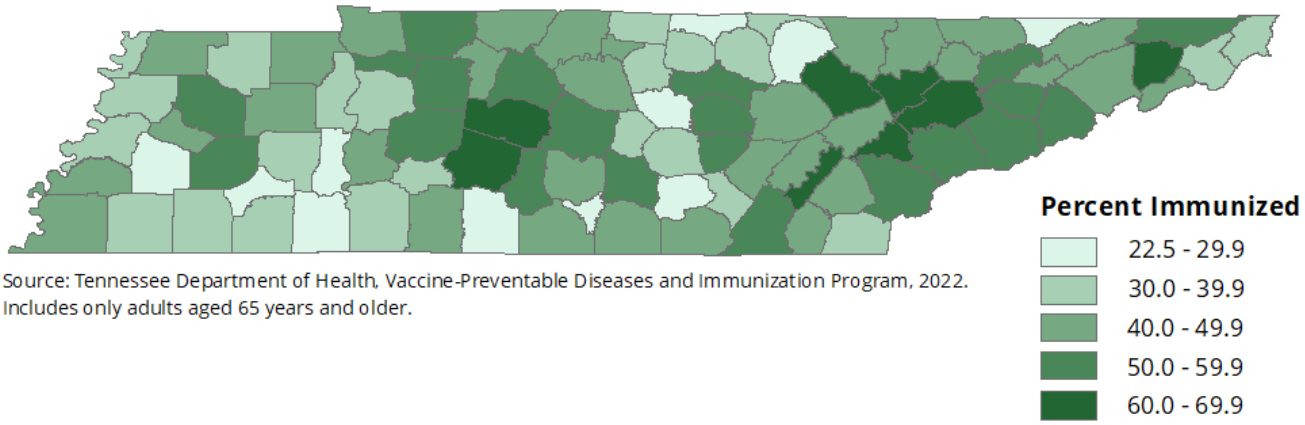
Source: Tennessee Department of Health, Vaccine-Preventable Diseases and Immunization Program, 2022.
Includes only adults aged 18-64 years.

Figure 49. Percentage of Adults Aged 65 and Older Vaccinated against Influenza by Race and Ethnicity, Tennessee, 2019-2023.



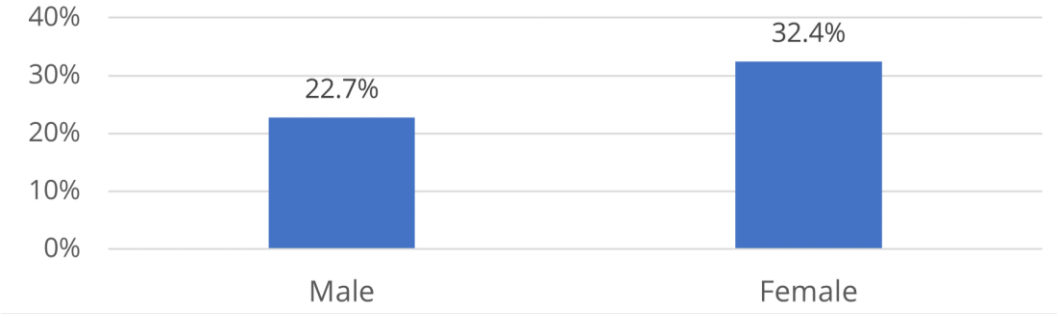
Source: Tennessee Department of Health, Vaccine-Preventable Diseases and Immunization Program, 2023.

Figure 50. Percentage of Adults Aged 65 and Older Vaccinated against Influenza, Tennessee, 2022.



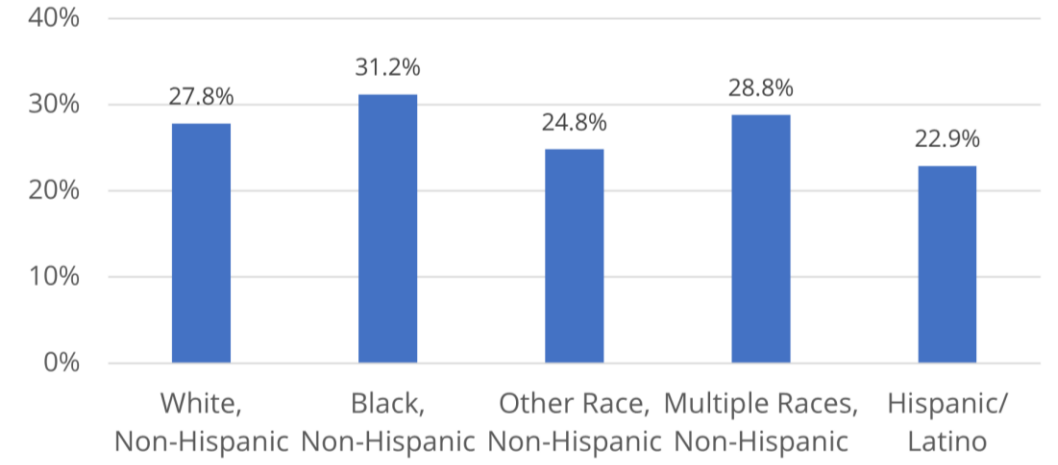
Source: Tennessee Department of Health, Vaccine-Preventable Diseases and Immunization Program, 2022.
Includes only adults aged 65 years and older.

Figure 51. Percentage of Adults Reporting No Non-Work Physical Activity or Exercise in the Past 30 Days by Sex, Tennessee, 2022.



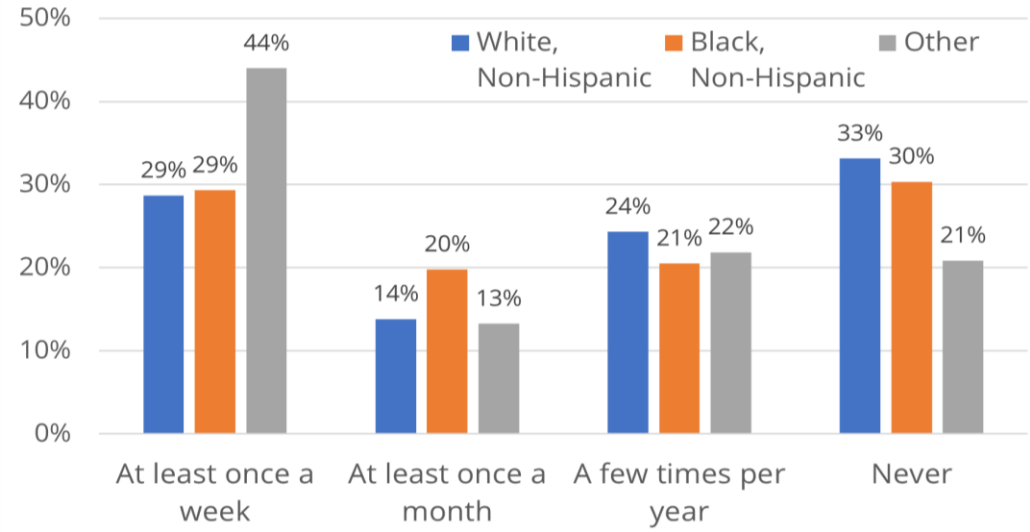
Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2022.

Figure 52. Percentage of Adults Reporting No Non-Work Physical Activity or Exercise in the Past 30 Days by Race and Ethnicity, Tennessee, 2022.



Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2022.

Figure 53. Self-Reported Frequency of Physical Activity Location Use by Race and Ethnicity, Tennessee, 2019.



Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2022.

Recommendations

Decreases in the vaccination rate of school-aged children have contributed to Tennessee's declining national rank. Lower vaccination rates in the school-aged population may lead to an increase in preventable illnesses, with the potential for broader spread. Regaining ground lost in pediatric vaccination while also increasing population-wide protection against emerging/re-emerging and entrenched respiratory illnesses will require education and vaccine normalization. Concurrent education regarding the associated risks of physical inactivity, obesity, and co-morbidities must be incorporated. Recommendations include:

- Partner with professional organizations to address vaccine hesitancy and improve vaccine confidence.
- Work with Coordinated School Health to establish voluntary immunization access in schools statewide.
- Promote the National Vaccine Advisory Committee's Standards for Adult Immunization Practice[11] to healthcare providers and encourage personalized identification of recommended vaccinations and discussion with patients.
- Engage organizations in design of physical activity "small steps", including school-based and non-school youth programs, community-wide campaigns, and ensuring equitable and inclusive recreational access to support physical activity.
- Encourage CHCs to utilize TDH resources to seek funding for built environment projects and develop locally-adapted multi-year strategies to meet the goals of their County Health Improvement Plans (CHIPs).

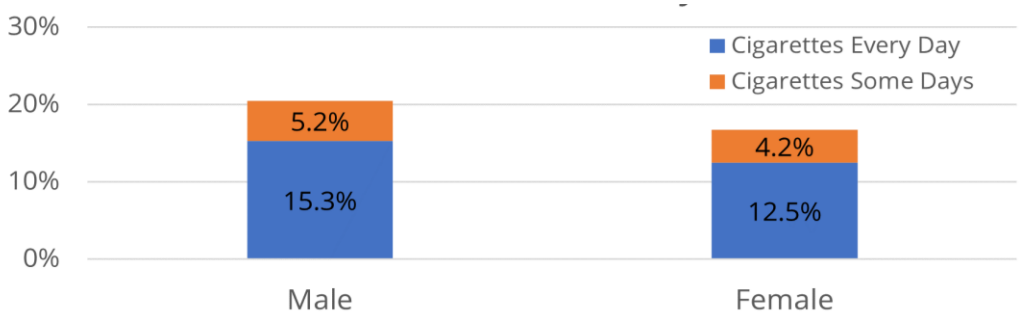
Health Behaviors

Measures: Tobacco Use, Fatal & Non-Fatal Overdose

Overview

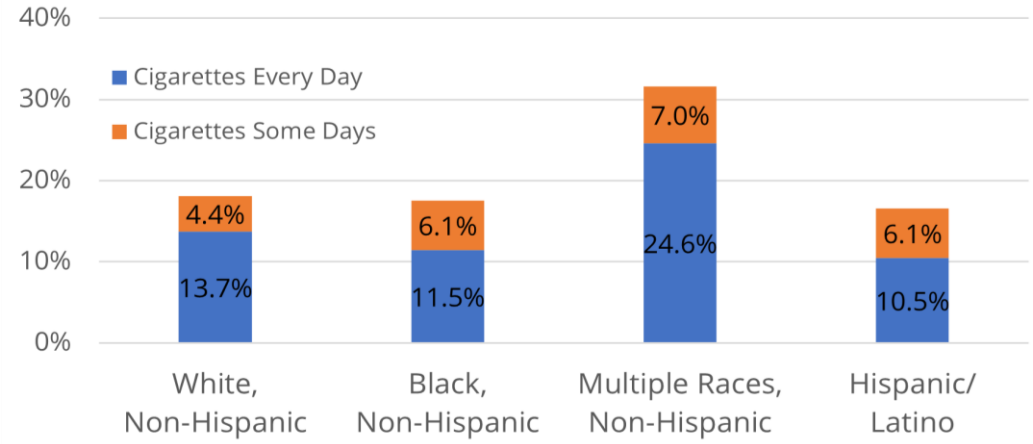
Substance use, including cigarette smoking, represents one of the primary causes of preventable deaths in the United States. **Tennessee falls near the bottom of U.S. states, ranking 48th for percentage of adults who smoke and 49th for all drug-associated deaths.** There is significant variation in both measures by sex and race. While there is increasing divergence in the rates of fatal overdose by sex, the rates by race have converged in the past five years. Although the number of fatal overdoses remains higher among Whites, the rate (number of events relative to population) has increased rapidly among Blacks and surpassed that of Whites.

Figure 54. Percentage of Adults Who Currently Smoke by Smoking Frequency and Sex, Tennessee, 2022.



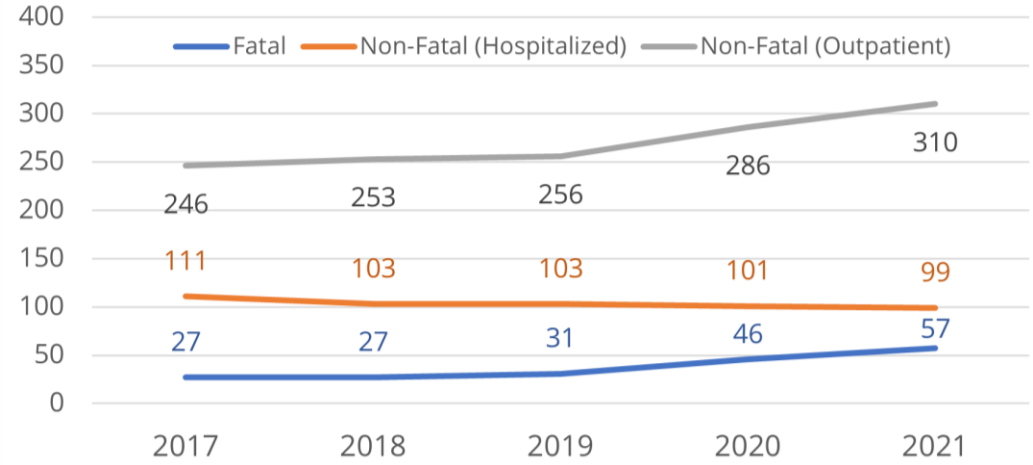
Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2022.

Figure 55. Percentage of Adults Who Currently Smoke by Smoking Frequency and Race and Ethnicity, Tennessee, 2022.



Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2022.

Figure 56. Rates of Fatal and Non-Fatal Overdoses (All Drugs) per 100,000 Population, Tennessee, 2017-2021.

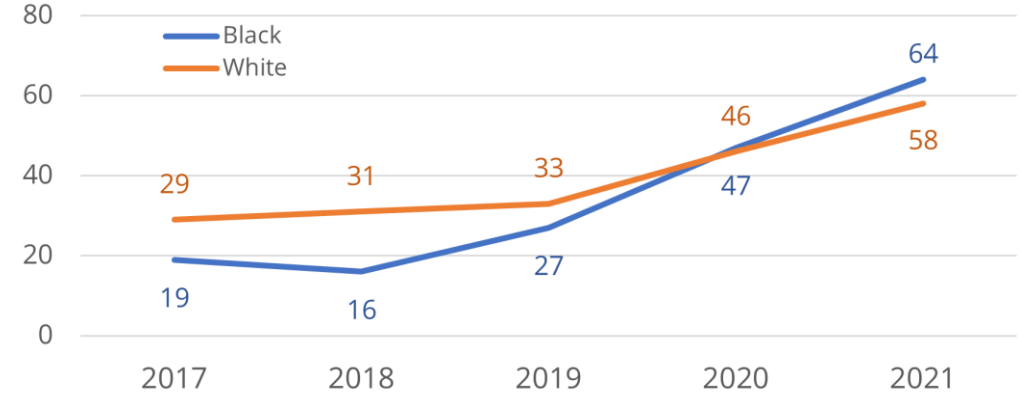


Source: Tennessee Department of Health, Office of Informatics and Analytics.
Data from Death Statistical File, 2017-2021; Hospital Discharge Data System, 2017-2021.

Figure 57. Rates of Fatal Overdose per 100,000 Population by Sex, Tennessee, 2017-2021.

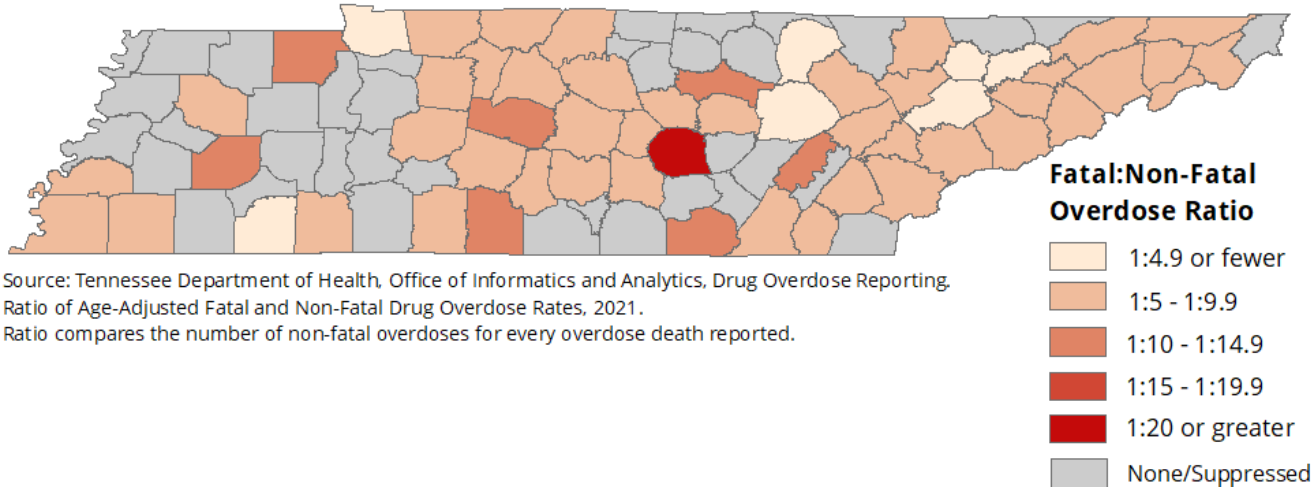
Source: Tennessee Department of Health, Office of Informatics and Analytics.
Data from Death Statistical File, 2017-2021; Hospital Discharge Data System, 2017-2021.

Figure 58. Rates of Fatal Overdose per 100,000 Population by Race, Tennessee, 2017-2021.



Source: Tennessee Department of Health, Office of Informatics and Analytics.
Data from Death Statistical File, 2017-2021; Hospital Discharge Data System, 2017-2021.

Figure 59. Ratio of Age-Adjusted Fatal and Non-Fatal Overdose Rates per 100,000 Population, Tennessee, 2021.



Source: Tennessee Department of Health, Office of Informatics and Analytics, Drug Overdose Reporting.
Ratio of Age-Adjusted Fatal and Non-Fatal Drug Overdose Rates, 2021.
Ratio compares the number of non-fatal overdoses for every overdose death reported.

Recommendations

The high prevalence of smoking and substance use disorder in Tennessee contribute significantly to the state's reduced life expectancy relative to other states. Cigarette smoking and use of other tobacco and nicotine delivery products do demonstrate variation by sex and race, but of greater concern is the disparate impact of these behaviors in terms of cancer diagnoses and deaths (see Cancer health measures section).

Ranking among states with the highest rates of smoking and drug-associated deaths, decisive preventive measures and compelling education campaigns are needed to improve the health outcomes of Tennesseans. Specific recommendations include:

- Revitalize Smoking Cessations Programs facilitated by county health departments.
- Invest upstream in youth-led smoking and vaping prevention programs, such as TNSTRONG.
- Promote access to harm reduction education and services offered by local organizations and support expansion of Syringe Services Programs.
- Expand specialized training in community health worker (CHW) curriculum to include harm reduction strategies, stigma reduction, and local service offerings including linkage to wraparound services and resource navigation.
- Integrate Regional Overdose Prevention Specialists (ROPS) into school systems and public platforms to offer naloxone training and disseminate educational materials concerning substance use.
- Extend funding for Behavioral Health Safety Net Program to expand client access.
- Provide supplemental funding for county drug coalition efforts.

Infectious Disease

Measures: Acute Hepatitis C Infections, Human Immunodeficiency Virus (HIV) Diagnoses, COVID Hospitalizations & Deaths

Overview

Tennessee has high levels of acute Hepatitis C infections, with a rate that was twice that of the national rate in 2021 and ranking 33rd of 41 states reporting cases. **The state also had high COVID-19 mortality during the pandemic, with its rate of deaths ranking 44th in the nation.** There is variation both by sex and race/ethnicity for both of these outcomes. However, while rates of HCV are significantly higher among non-Hispanic Whites, **the greatest burden of COVID-19 hospitalizations and deaths occurred among males and Black persons. Rural counties were also disproportionately impacted by COVID-19 deaths**.

Figure 60. Rates of Acute Hepatitis C Virus Infection per 100,000 Population by Race and Ethnicity, Tennessee, 2016-2020.

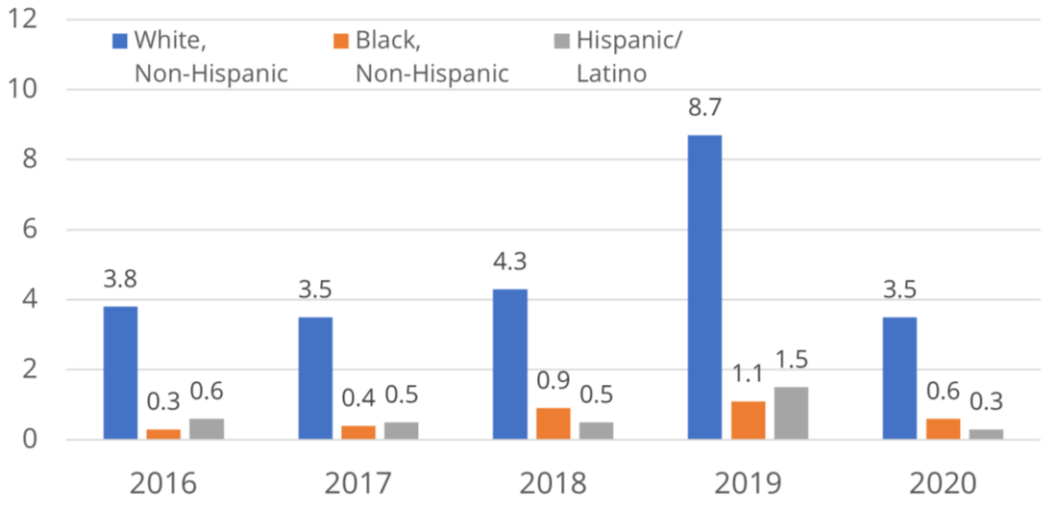
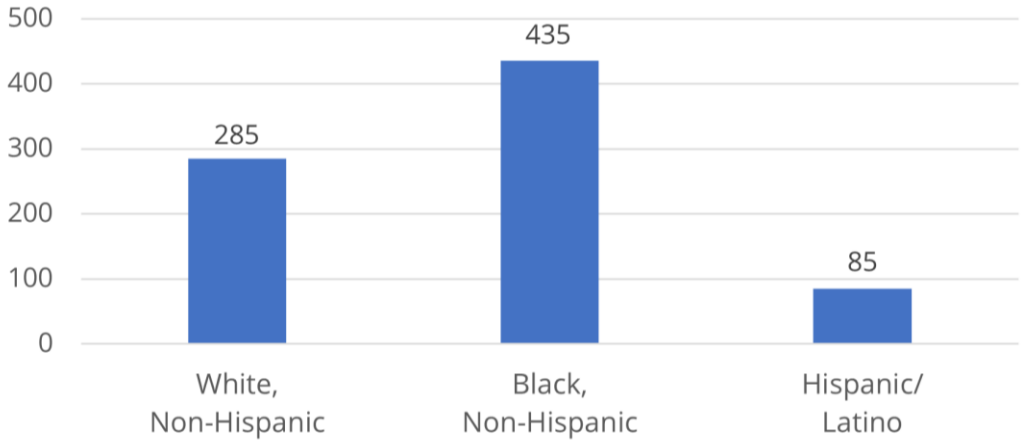
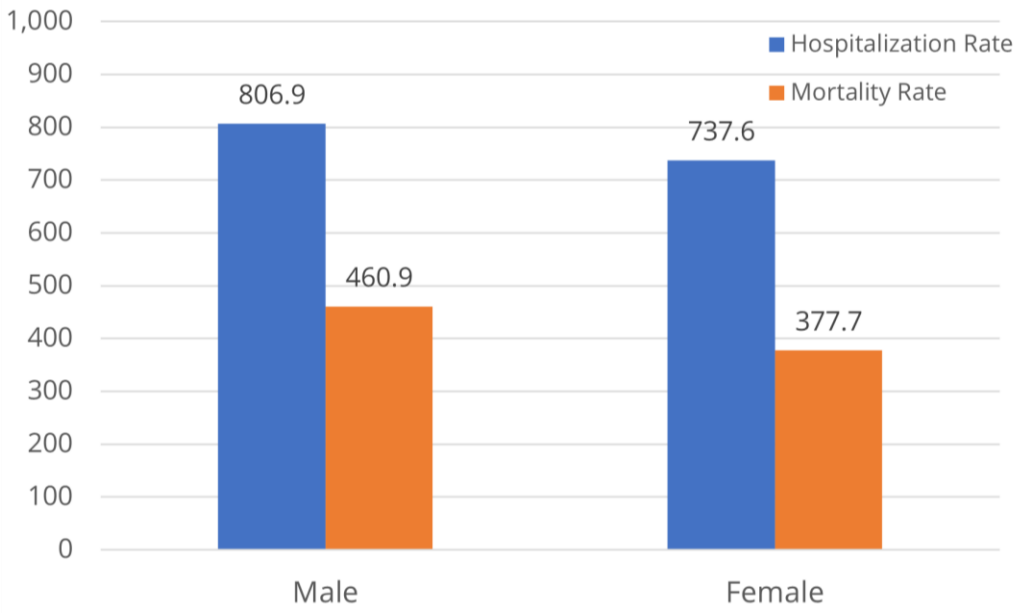


Figure 61. Number of Diagnoses of HIV among Persons Aged 13 and Older by Race and Ethnicity, Tennessee, 2021.



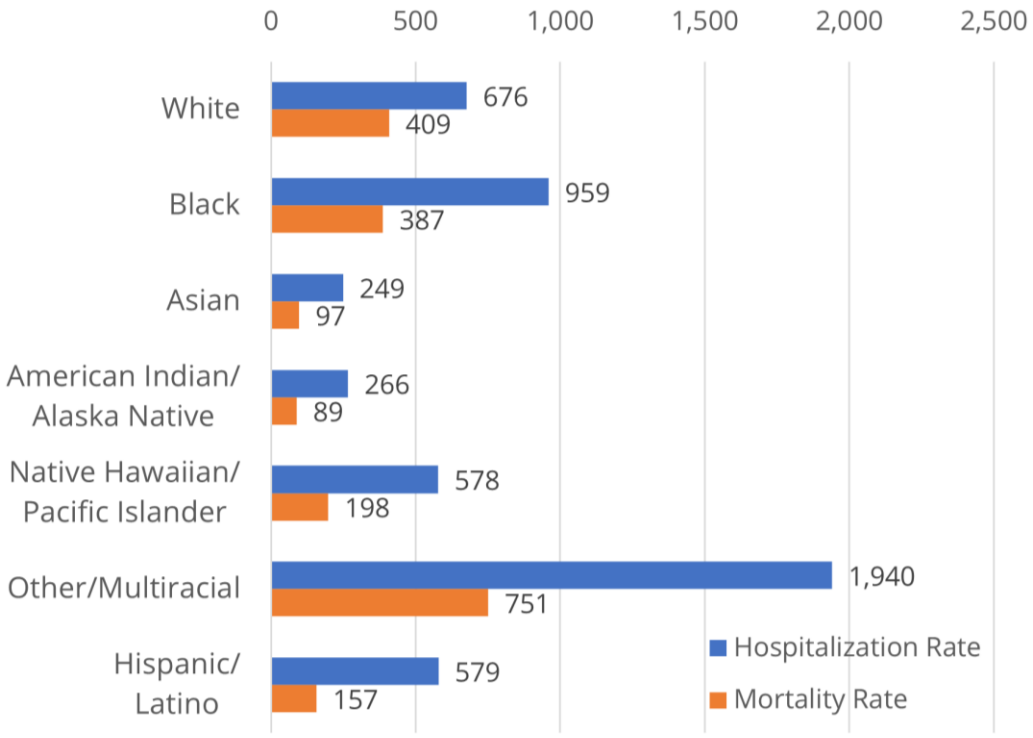
Source: Tennessee Department of Health, HIV Epidemiology and Surveillance Program. Tennessee HIV Epidemiological Profile, 2021.

Figure 62. Crude Rates of Cumulative Hospitalizations and Mortality due to COVID-19 per 100,000 Population by Sex, Tennessee, 2020 – 2022.



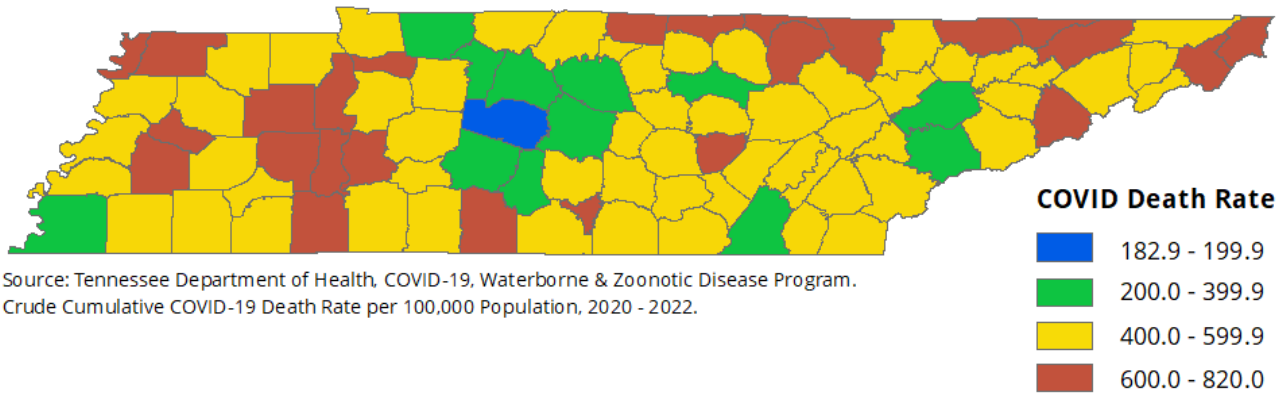
Source: Tennessee Department of Health, COVID-19, Waterborne & Zoonotic Disease Program, 2023.

Figure 63. Crude Rates of Cumulative Hospitalizations and Mortality due to COVID-19 per 100,000 Population by Race and Ethnicity, Tennessee, 2020 – 2022.



Source: Tennessee Department of Health, COVID-19, Waterborne & Zoonotic Disease Program, 2023.

Figure 64. Crude Rate of Cumulative COVID-19 Deaths per 100,000 Population, Tennessee, 2020 – 2022.



Source: Tennessee Department of Health, COVID-19, Waterborne & Zoonotic Disease Program.
Crude Cumulative COVID-19 Death Rate per 100,000 Population, 2020 - 2022.

Recommendations

The elevated levels of HIV and Hepatitis C virus noted, in combination with the high levels of injection drug use previously referenced, place many of the state's counties at high risk for outbreaks of these blood-borne pathogens. In 2021, TDH updated its statewide vulnerability assessment, which considers county-level factors likely to be driving the risk of an HIV or HCV outbreak, including socioeconomic status, opioid use, healthcare access, and selected health outcomes (see Appendix C: Additional Resources – HIV and Hepatitis C Syndemic). Areas of highest vulnerability were identified largely in the most rural counties of the state, in which lack of economic opportunity and lack of healthcare access play critical roles. Similarly, the areas of the state which experienced the highest rates of COVID-19 hospitalizations and deaths were those in which socioeconomic status and healthcare access were lowest. Thus, recommendations align with those of these program areas as well as those of the Substance Use and Healthcare Access sections of this report, including:

- Foster collaboration between local stakeholders, policymakers, and program planners, to commit additional resources for providing evidence-based services to prevent HIV and HCV transmission.
- Promote access to harm reduction education and services offered by local organizations and support expansion of Syringe Services Programs.
- Continue to improve access to mental health providers, including the Behavioral Health Safety Net Program for outpatients, and alternatives for in-patient treatment of substance use and mental health disorders.
- Expand specialized training in CHW curriculum to include harm reduction strategies, stigma reduction, and local service offerings including linkage to wraparound services and resource navigation.
- Promote Safety Net Clinics and county health departments as access points to preventive healthcare services such as adult vaccines, as well as healthcare referral for specialized healthcare resources and substance misuse treatment options.
- Partner with CHCs and local organizations to identify community resources/agencies providing blood-borne pathogen screenings for uninsured individuals, education regarding mental health and addiction, stigma, risks, and treatment options available.
- Develop public service announcements promoting vaccination for high-impact respiratory illnesses including influenza, COVID-19, and respiratory syncytial virus. Continue collaboration with local agencies to conduct outreach events aimed at improving adult vaccination coverage among high-risk populations.

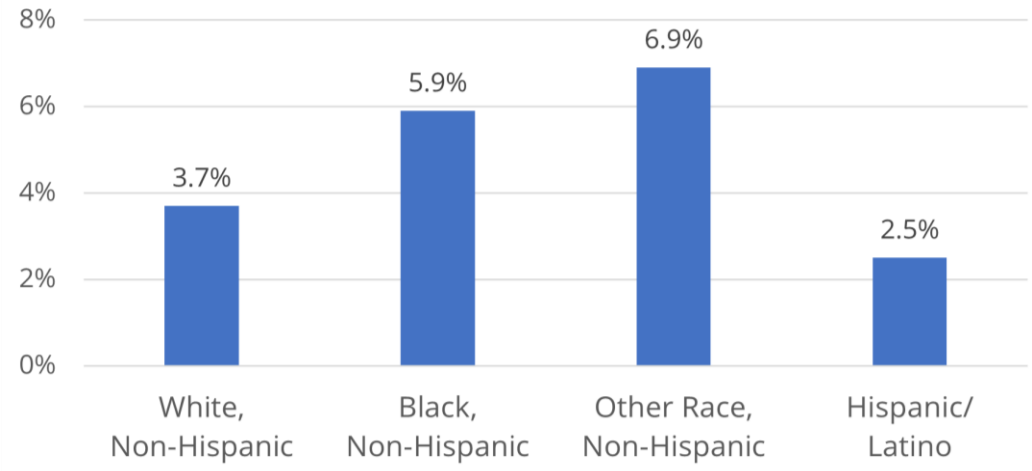
Chronic Disease

Measures: Pediatric Asthma, Rates of Heart Disease, Diabetes & Stroke

Overview

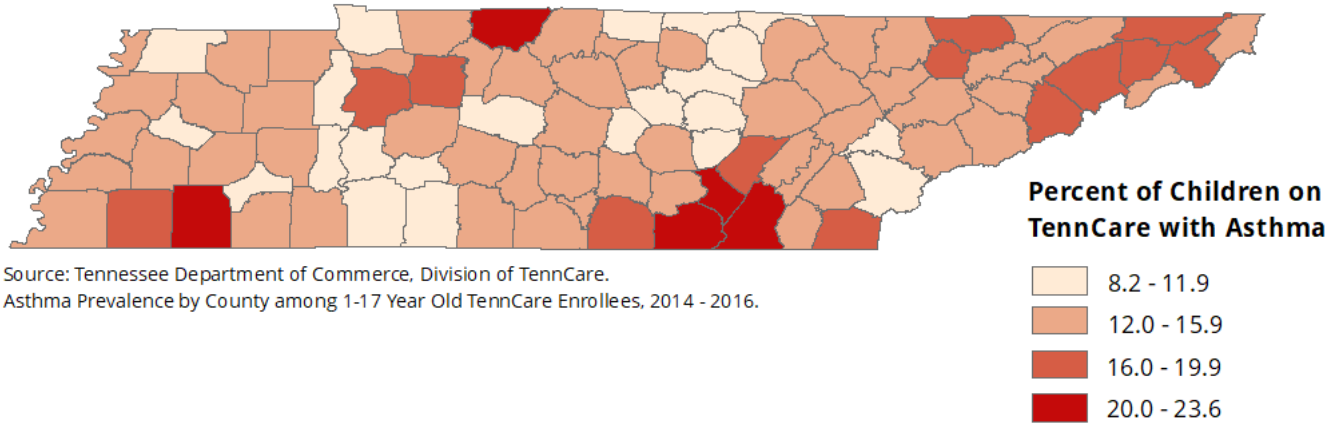
Tennessee has high rates of many chronic diseases including asthma, heart disease, diabetes, and stroke. **The state ranks 45th in the nation for percentage of the population with heart disease and 43rd in the nation for percentage of the population with diabetes. The state ranks 48th for percentage of adults who have multiple (3 or more) chronic conditions.** Although the percentages are high across the board, there is variation by race and ethnicity, with **higher rates of diabetes and stroke among non-Hispanic Blacks, but higher rates of heart disease among non-Hispanic Whites**.

Figure 65. Percentage of Children Aged 0-17 with Asthma by Race and Ethnicity, Tennessee, 2021.



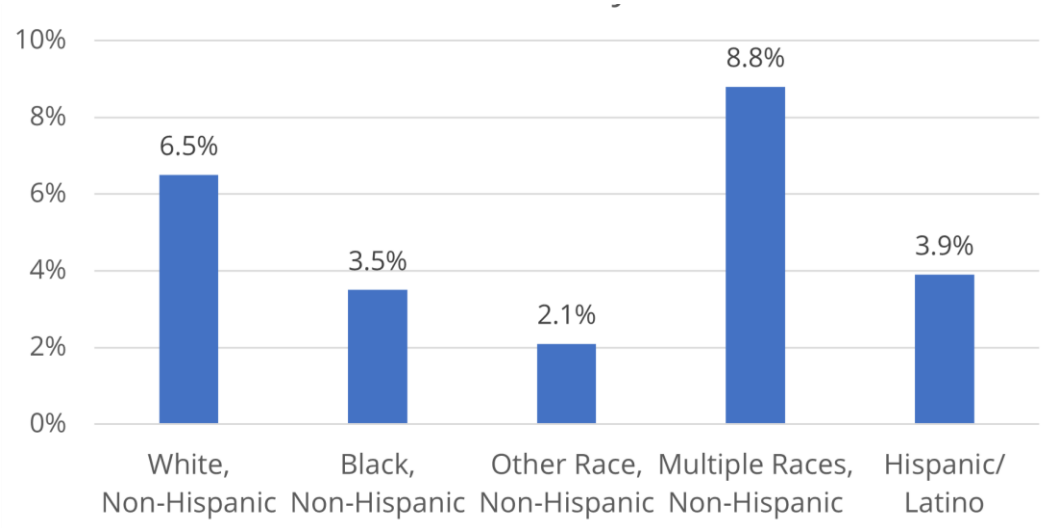
Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. National Survey of Children's Health, 2021.

Figure 66. Percentage of TennCare Enrollees Aged 1-17 with Asthma, Tennessee, 2014 - 2016.



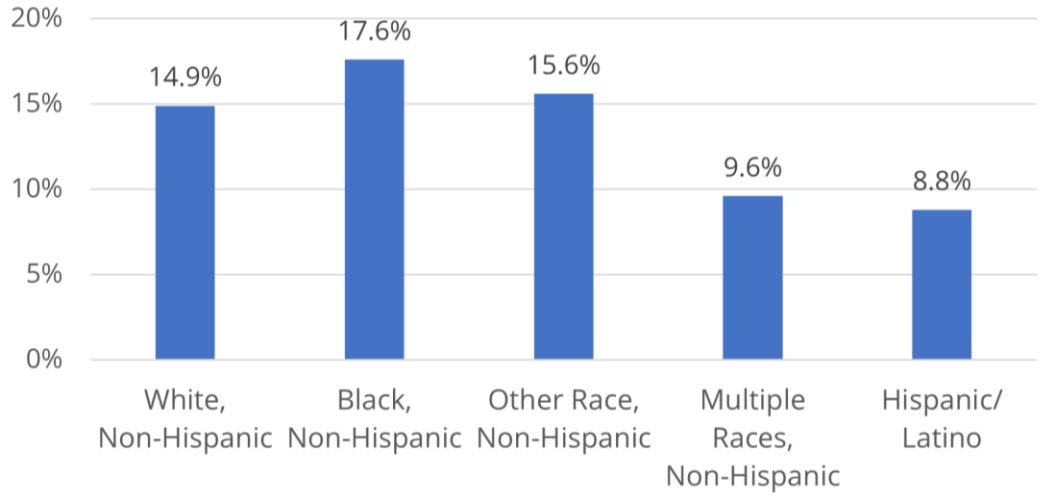
Source: Tennessee Department of Commerce, Division of TennCare.
Asthma Prevalence by County among 1-17 Year Old TennCare Enrollees, 2014 - 2016.

Figure 67. Percentage of Adults Who Report Having Heart Disease by Race and Ethnicity, Tennessee, 2022.



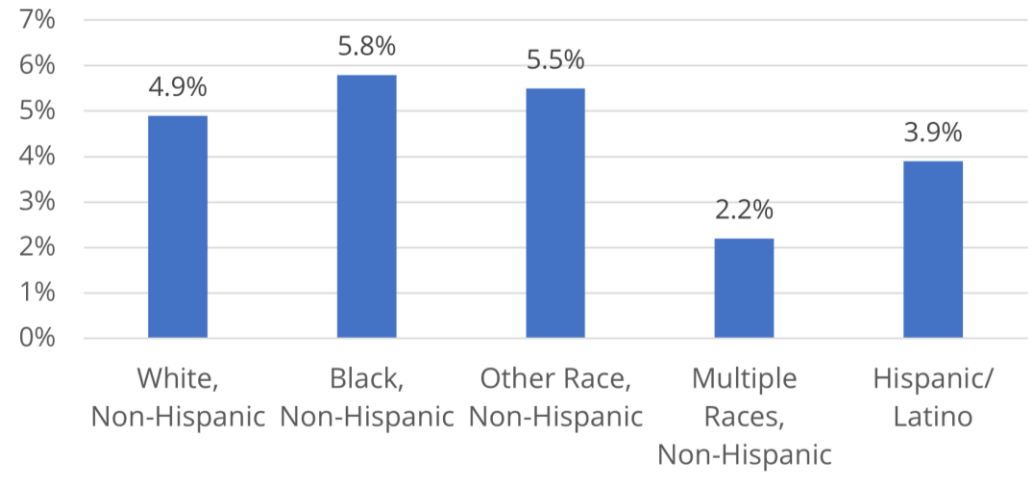
Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2022.

Figure 68. Percentage of Adults Who Report Having Diabetes by Race and Ethnicity, Tennessee, 2022.



Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2022.

Figure 69. Percentage of Adults Who Report Having a History of Stroke by Race and Ethnicity, Tennessee, 2022.



Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2022.

Recommendations

The high rates of chronic conditions experienced by Tennesseans reflect the dietary, preventive activity, and healthcare access challenges faced by the population. Developing strategies to address these challenges which are both culturally adapted and act at multiple points along the path of chronic disease progression is key to moving the needle on the rates of these significant health burdens. General recommendations include:

- Revitalize Smoking Cessations Programs facilitated by county health departments and promoted through community health programs and primary care physicians. Expand and strengthen youth smoking prevention programs.
- Promote nutritional security and healthy eating habits through expansion of community-wide cooking classes, neighborhood farmers' markets, fruit and vegetable prescription programs, and awareness and uptake of Senior Farmers' Market Nutrition Program. Consider development of mobile farmers' markets to increase access.
- Support expansion of programs offering health screenings for uninsured persons and assessment of risk factors including lifestyle factors and family history.
- Coordinate with community outreach workers and community organizations to promote family health history discussions to help individuals assess their risk. Include suggestions on conducting family conversations and documenting family health history in all educational materials on high-prevalence chronic conditions.
- Collaborate with community organizations to seek funding for built environment projects and promote walkability and regular, non-exercise physical activity.

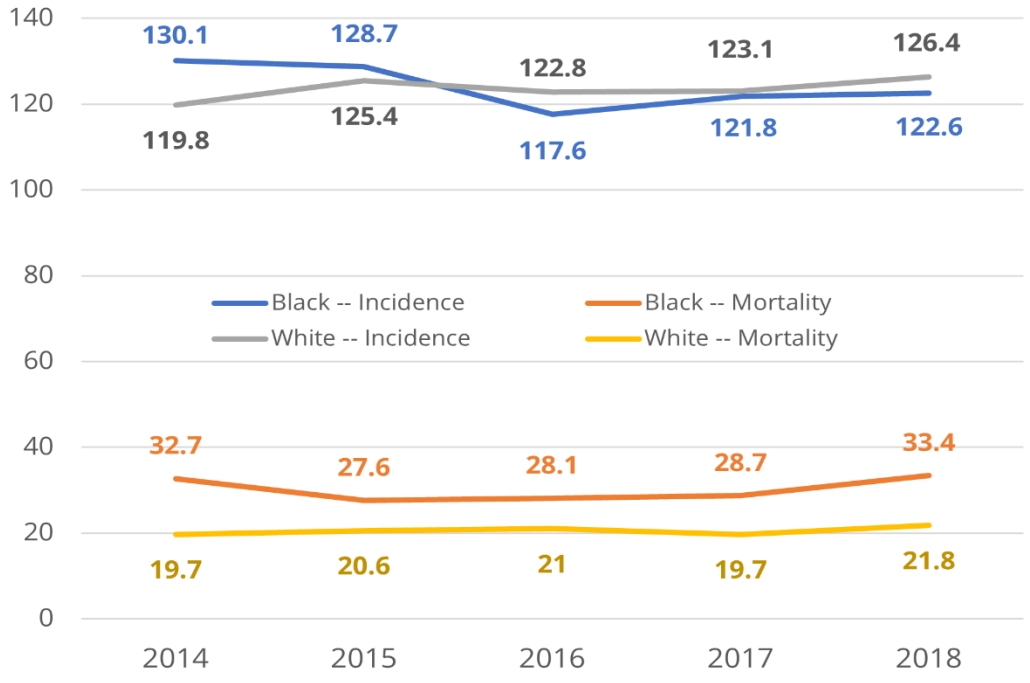
Cancer

Measures: Incidence & Mortality of Breast Cancer, Colorectal Cancer & Lung Cancer, Colorectal Cancer Screening

Overview

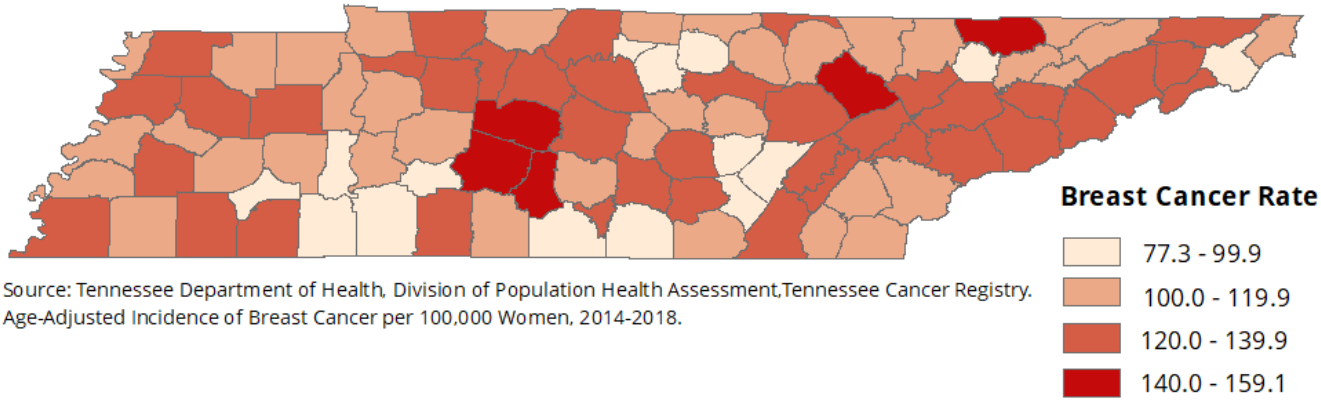
Tennessee has high rates of reported cancer diagnoses compared to other states. **The state ranks 39th in the nation for percentage of the population diagnosed with cancer (other than skin cancer) and 45th in the nation for the rate of female breast cancer deaths.** Tennessee has low rates of cancer screening, ranking 40th in the nation for percentage of the population ages 40-74 that has met recommended breast or colorectal cancer screening guidelines. There is variation by race and ethnicity, with higher rates of colon cancer incidence and mortality among non-Hispanic Blacks, but higher rates of lung cancer incidence and mortality among non-Hispanic Whites. **While breast cancer rates among Black and White women have remained steady and approximately equal in recent years, the mortality rate has been consistently and significantly higher among Black women.**

Figure 70. Age-Adjusted Breast Cancer Incidence and Mortality Rate per 100,000 Women by Race, Tennessee, 2014-2018.



Source: Tennessee Department of Health, Division of Population Health Assessment, Tennessee Cancer Registry. Cancer in Tennessee, 2014-2018.

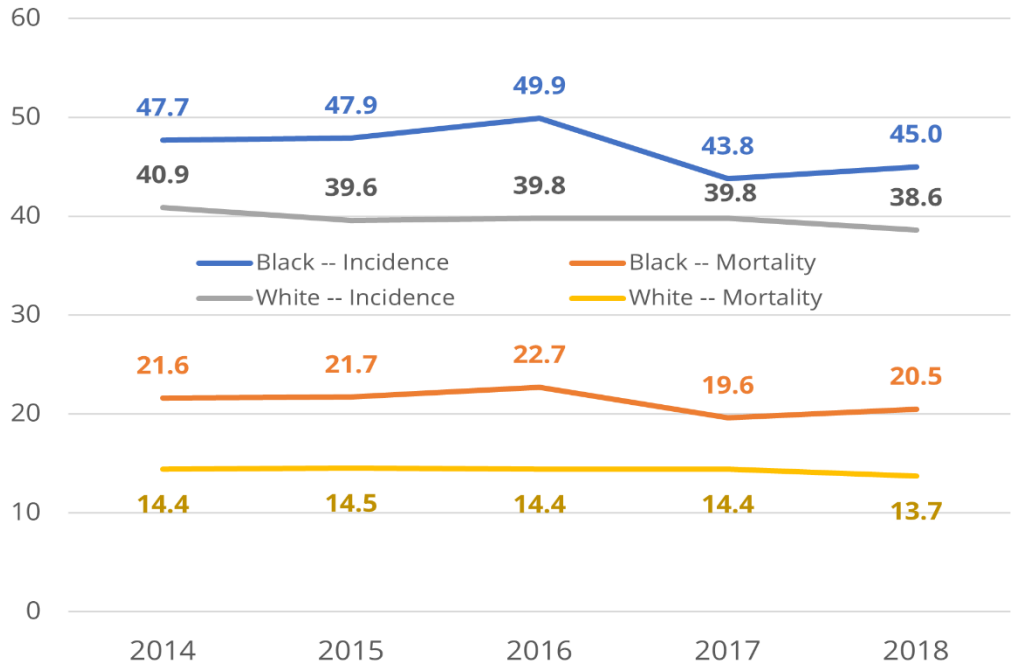
Figure 71. Age-Adjusted Incidence of Breast Cancer per 100,000 Women, Tennessee, 2014-2018.



Source: Tennessee Department of Health, Division of Population Health Assessment,Tennessee Cancer Registry. Age-Adjusted Incidence of Breast Cancer per 100,000 Women, 2014-2018.

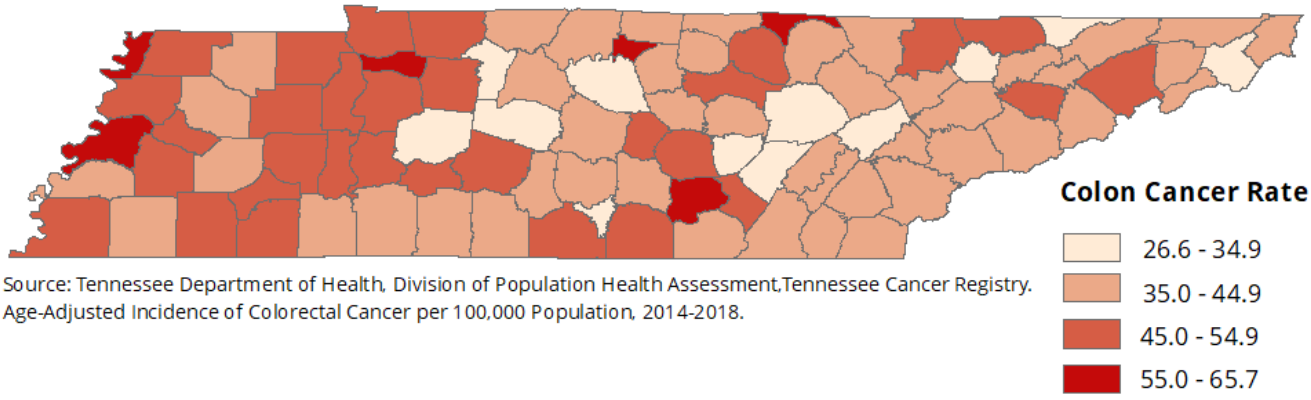
Note: Additional details regarding breast cancer screening via mammography is included in the section on Gender-specific Health measures.

Figure 72. Age-Adjusted Colorectal Cancer Incidence and Mortality Rate per 100,000 Population by Race, Tennessee, 2014-2018.



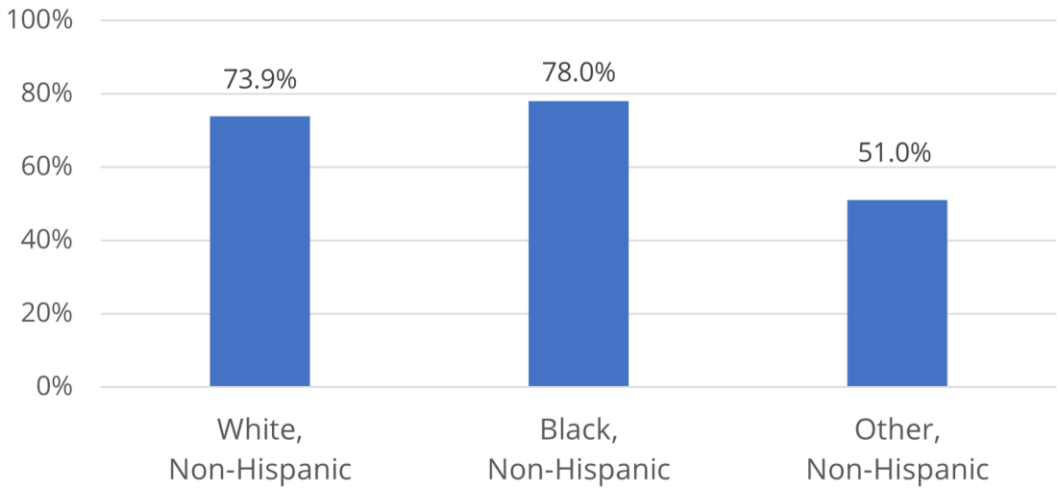
Source: Tennessee Department of Health, Division of Population Health Assessment, Tennessee Cancer Registry. Cancer in Tennessee, 2014-2018.

Figure 73. Age-Adjusted Incidence of Colorectal Cancer per 100,000 Population, Tennessee, 2014-2018.



Source: Tennessee Department of Health, Division of Population Health Assessment,Tennessee Cancer Registry. Age-Adjusted Incidence of Colorectal Cancer per 100,000 Population, 2014-2018.

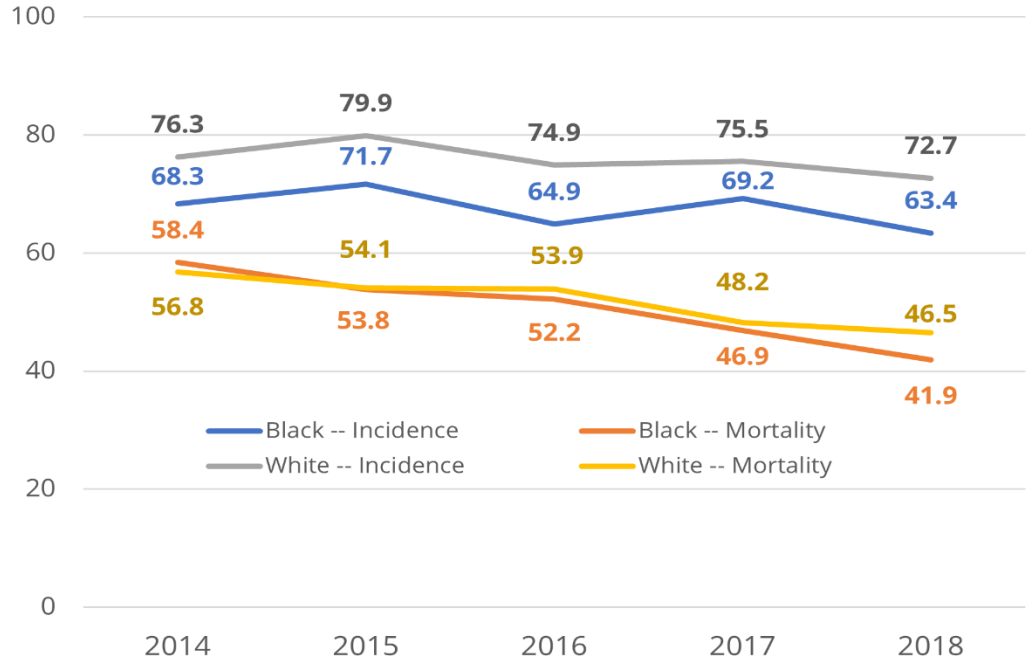
Figure 74. Self-Reported Prevalence of Colorectal Cancer Screening among Adults Aged 50-74 Years, Tennessee, 2022.



Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2022.

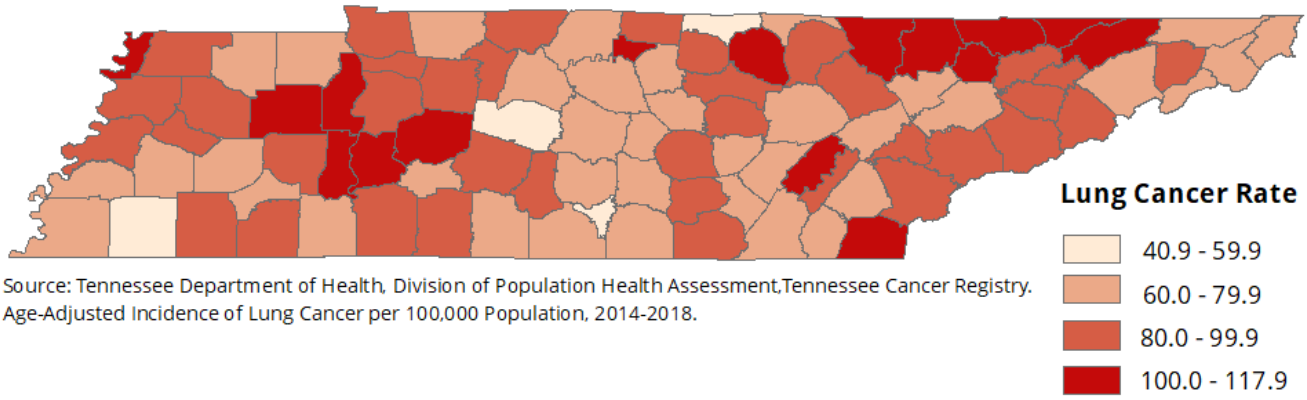
Note: There are insufficient data available to provide additional reporting on colorectal cancer screening by geography or time since last screening.

Figure 75. Age-Adjusted Lung Cancer Incidence and Mortality Rate per 100,000 Population by Race, Tennessee, 2014-2018.



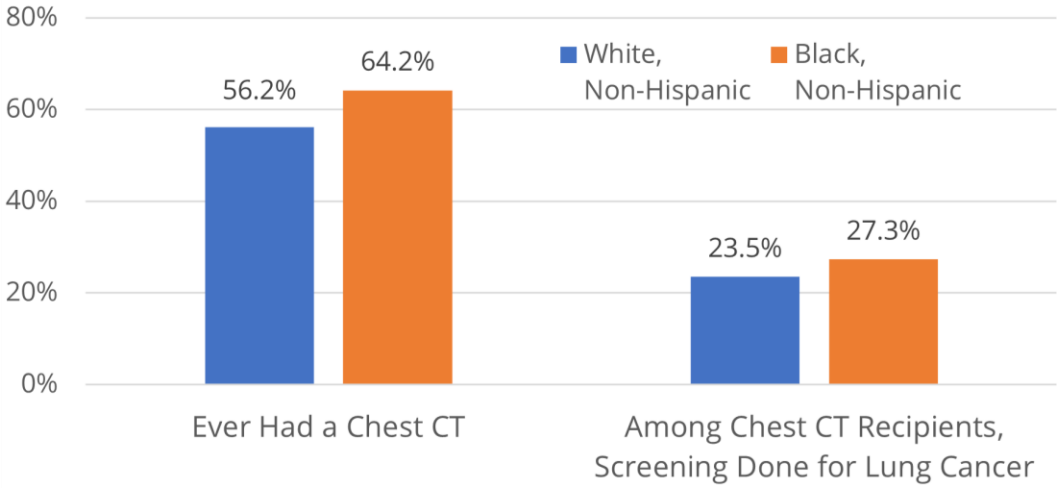
Source: Tennessee Department of Health, Division of Population Health Assessment, Tennessee Cancer Registry. Cancer in Tennessee, 2014-2018.

Figure 76. Age-Adjusted Incidence of Lung Cancer per 100,000 Population, Tennessee, 2014-2018.



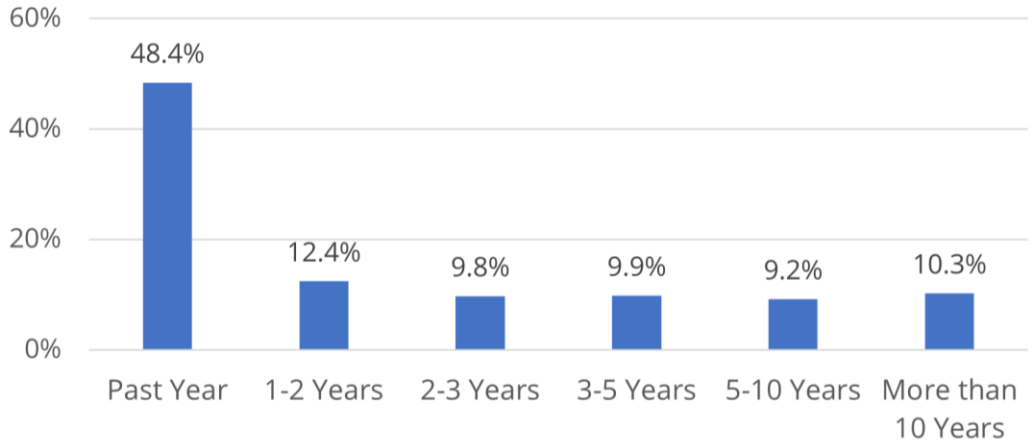
Source: Tennessee Department of Health, Division of Population Health Assessment,Tennessee Cancer Registry. Age-Adjusted Incidence of Lung Cancer per 100,000 Population, 2014-2018.

Figure 77. Self-Reported Prevalence of Chest CT Scan and Lung Cancer Screening among Adults Aged 50-74 Years, Tennessee, 2022.



Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2022.

Figure 78. Time Since Last Screening among Adults Aged 50-74 Years Who Report Having Had a Chest CT Scan to Screen for Lung Cancer, Tennessee, 2022.



Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2022.

Recommendations

Tennessee's cancer rates are exacerbated by the high rate of smoking, as well as nutritional inadequacy and gaps in healthcare access and utilization. Effective strategies must focus on reducing modifiable disease risk factors and improving early diagnosis and treatment options. Improvement in time-to-diagnosis and reductions in treatment delays may be expected to narrow the mortality rate disparities noted between demographic groups. Recommendations to address these challenges include:

- Revitalize Smoking Cessations Programs facilitated by county health departments and promoted through community health programs and primary care physicians. Expand and strengthen youth smoking prevention programs.
- Promote nutritional security and nutrition education through expansion of community-level initiatives including neighborhood farmers' markets, fruit and vegetable prescription programs, and cooking classes. Consider development of mobile farmers' markets to increase access in communities without access to such services.
- Provide educational messaging regarding the role of excess alcohol consumption in many types of cancer as well as other chronic conditions. Promote alcohol reduction strategies including availability of mental health services and treatment of substance use disorders.
- Support expansion of programs offering health screenings for breast, colorectal, and lung cancer, particularly among uninsured persons. Consider increasing availability of specialized screening through mobile clinic outreach.
- Coordinate with professional organizations to promote both clinician and patient education regarding cancer screening guidelines. Promote availability of screening and timely treatment through TennCare presumptive eligibility for patients diagnosed with breast and cervical cancer, as well as some pre-cancerous conditions.
- Coordinate with community outreach workers and partner organizations to promote assessment of risk factors including lifestyle factors and family history. Include suggestions in all cancer educational materials on conducting family health history discussions to help individuals assess their risk and documenting family health history identified.

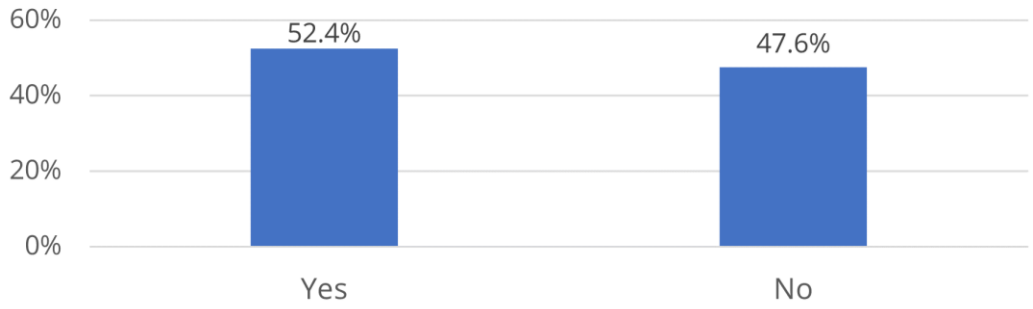
Gender-specific Health

Measures: Prostate Cancer Screening, Breast Cancer Screening, Cervical Cancer Screening

Overview

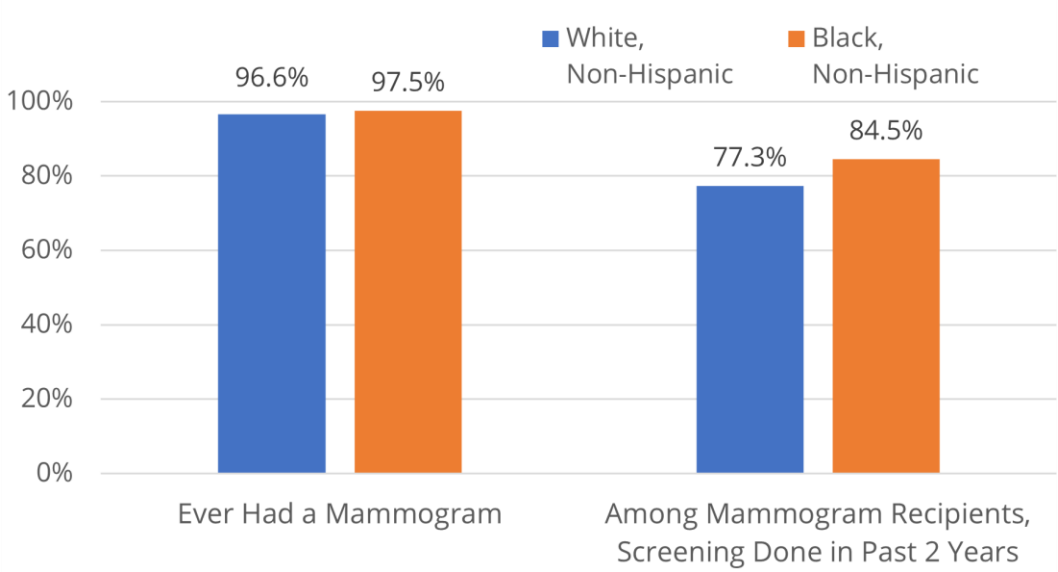
Overall, cancer screening rates in Tennessee are near the nationwide average. Rates of screening vary by race/ethnicity as well as geography, although data regarding some screening modalities do not allow detailed stratification. While self-reported rates of mammography do not differ between Black and White women, **the proportion who completed screening within the previous two years is higher among Black women. Self-reported cervical cancer screening demonstrates a difference by race/ethnicity, with non-Hispanic Black women having notably lower rates than non-Hispanic White women.**

Figure 79. Percentage of Adult Males Aged 50-74 Years Who Report Ever Having Had a Prostate-Specific Antigen (PSA) Test, Tennessee, 2020.



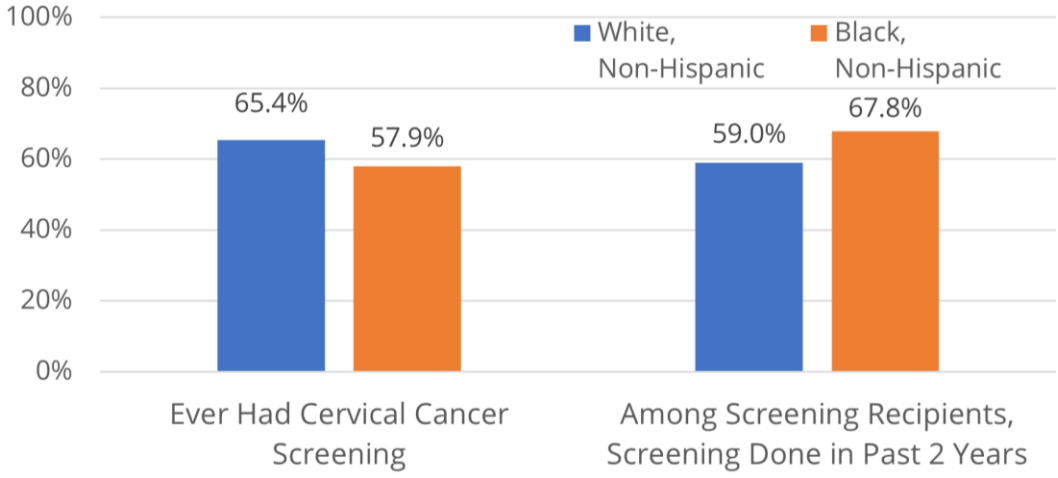
Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2020.

Figure 80. Percentage of Adult Females Aged 50-74 Years Who Report Ever Having Had a Mammogram and Percentage Screened in Past 2 Years, by Race and Ethnicity, Tennessee, 2022.



Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2022.

Figure 81. Percentage of Adult Females Aged 21-64 Years Who Report Ever Having Had a Cervical Cancer Screening and Percentage Screened in Past 2 Years, by Race and Ethnicity, Tennessee, 2022.



Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2022.

Recommendations

Preventive gender-specific cancer screenings are underutilized in Tennessee, contributing to delayed diagnoses and poor health outcomes. Improved healthcare access may help improve early detection and reduce the breast cancer mortality rate among Black women. Recommendations include:

- Promote Safety Net Clinics and county health departments as access points to healthcare and referral to women's health resources, such as reproductive life planning and adolescent risk reduction programs. Expand availability of telehealth options in women's health/obstetric health resource shortage areas.
- Support expansion of programs offering health screenings for breast and prostate cancer, particularly among uninsured persons. Consider increasing availability of specialized screening through mobile clinic outreach.
- Coordinate with professional organizations to promote both clinician and patient education regarding cancer screening guidelines. Promote availability of screening and timely treatment through TennCare presumptive eligibility for patients diagnosed with breast and cervical cancer, as well as some pre-cancerous conditions.
- Partner with local organizations promoting health equity throughout Tennessee to highlight the issue obstetric/women's healthcare deserts.

Reproductive Health

Measures: Chlamydia, Gonorrhea, Syphilis, Maternal Mortality

Overview

Tennessee ranks low in comparison to most other states in the arena of overall reproductive health. Within the state there are markedly different rates of sexually transmitted infections (STIs) by sex, race/ethnicity, and geography. Rates of STIs have increased across all regions of the state in recent years, with notable foci in the largest metro areas. While the rate of syphilis is significantly higher among males, the rate of increase in recent years has been more rapid among females. Sexually transmitted infections may impact reproductive health, particularly infections occurring among women of child-bearing age.

The rate of maternal mortality in Tennessee is exceptionally high, ranking the state 43rd (of 45 reporting jurisdictions)[12]. Furthermore, the rates differ significantly by race/ethnicity, with **the rate of pregnancy-related deaths among non-Hispanic Black women approximately 2.5 times higher than among non-Hispanic White women**. These deaths, defined as occurring during pregnancy or within one year of the end of pregnancy from a condition directly related to or aggravated by the pregnancy, are principally due to cardiovascular disease, hemorrhage, and mental health conditions[13].

Figure 82. Rate of Reported Chlamydia Cases per 100,000 Population by Sex, Tennessee, 2016 - 2020.

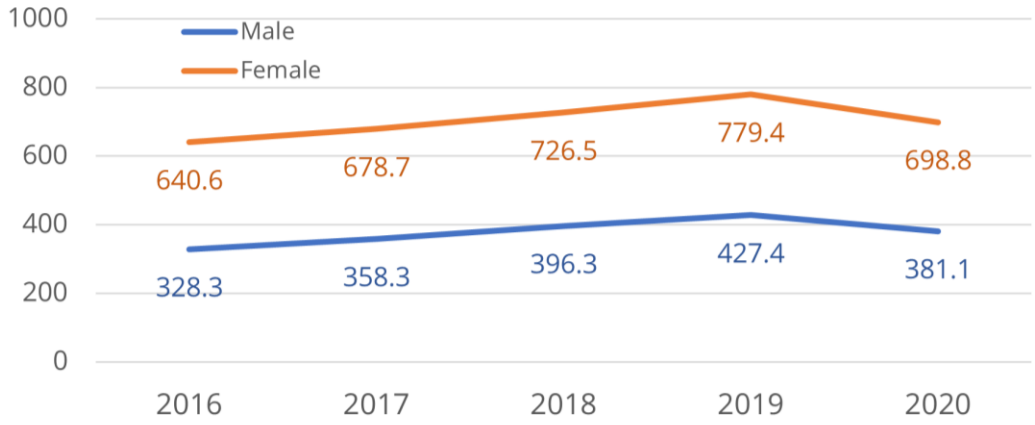
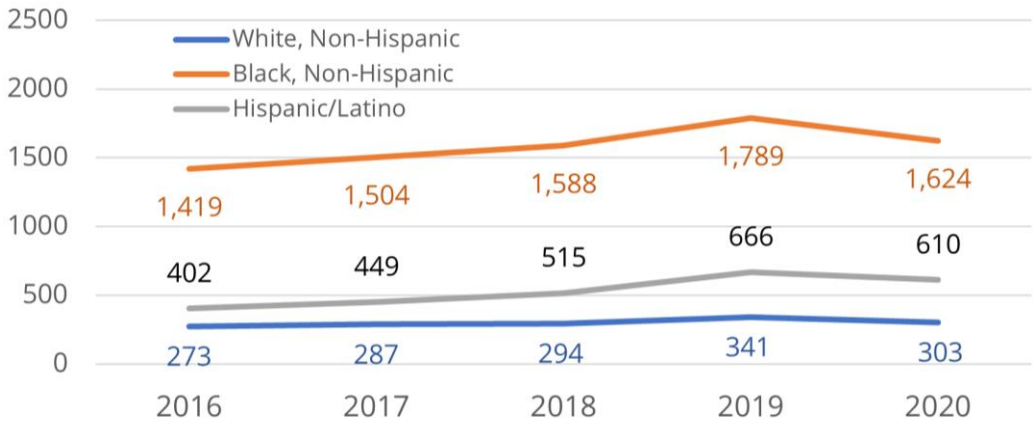
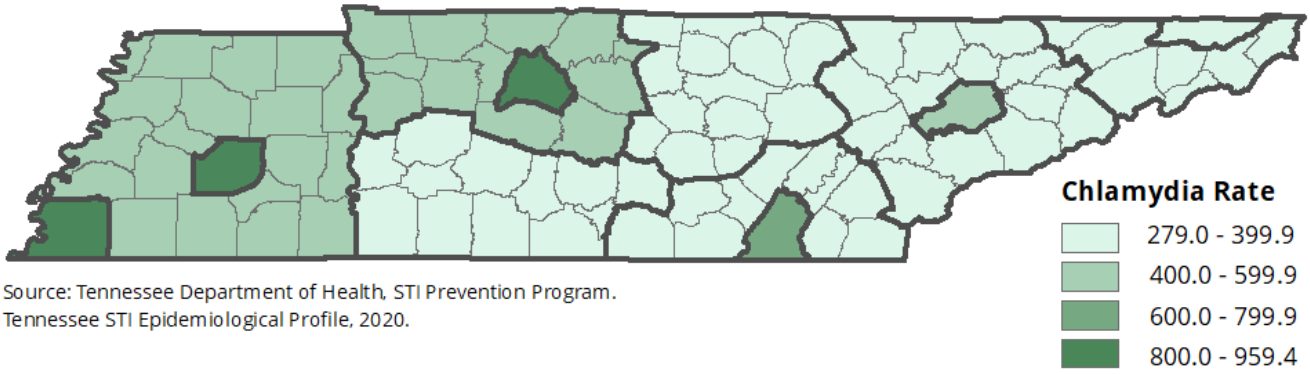


Figure 83. Rate of Reported Chlamydia Cases per 100,000 Population by Race and Ethnicity, Tennessee, 2016 - 2020.



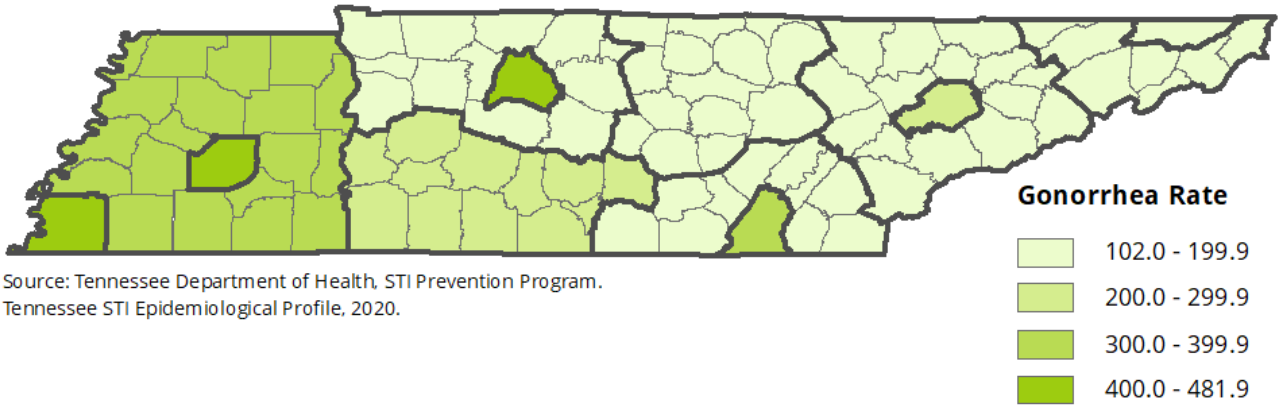
Source: Tennessee Department of Health, STI Prevention Program. Tennessee STI Epidemiological Profile, 2020.

Figure 84. Rate of Reported Chlamydia Cases per 100,000 Population by Health Region, Tennessee, 2020.



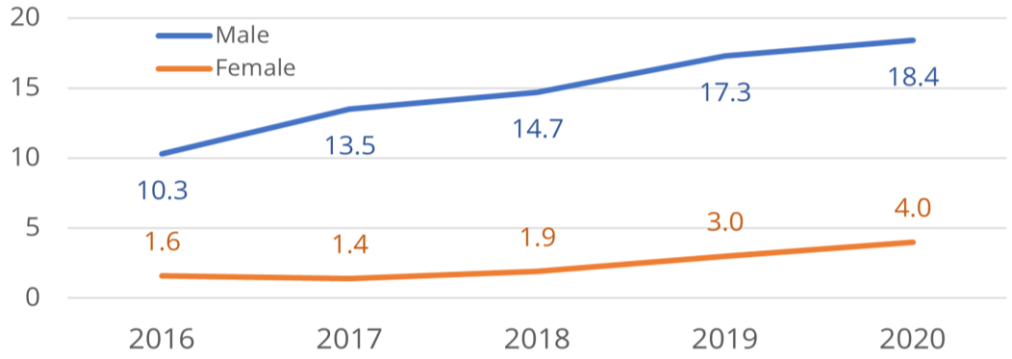
Source: Tennessee Department of Health, STI Prevention Program.
Tennessee STI Epidemiological Profile, 2020.

Figure 85. Rate of Reported Gonorrhea Cases per 100,000 Population by Health Region, Tennessee, 2020.



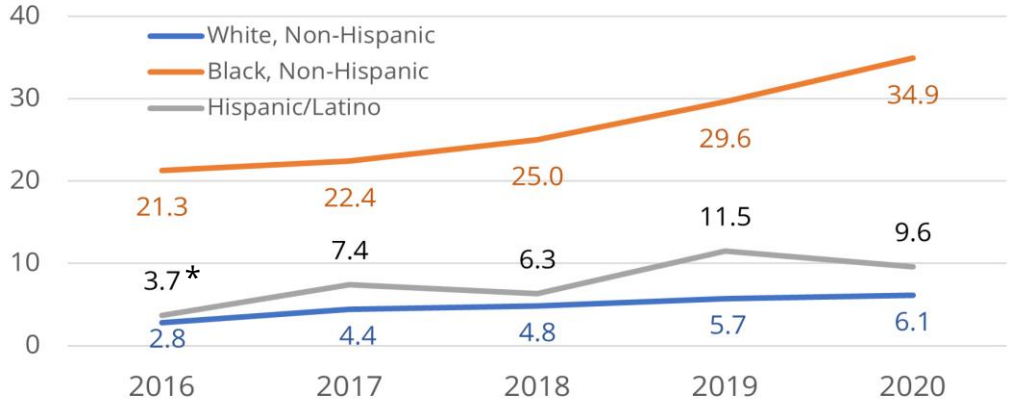
Source: Tennessee Department of Health, STI Prevention Program.
Tennessee STI Epidemiological Profile, 2020.

Figure 86. Rate of Reported Primary and Secondary Syphilis Cases per 100,000 Population by Sex, Tennessee, 2016 - 2020



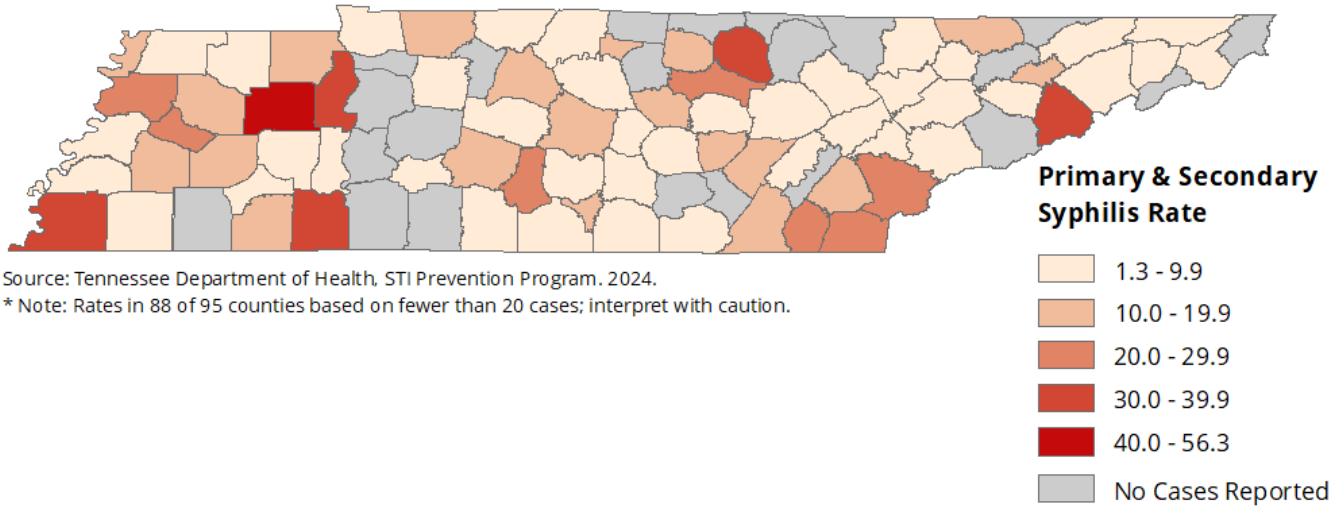
Source: Tennessee Department of Health, STI Prevention Program. Tennessee STI Epidemiological Profile, 2020.

Figure 87. Rate of Reported Primary and Secondary Syphilis Cases per 100,000 Population by Race and Ethnicity, Tennessee, 2016 - 2020



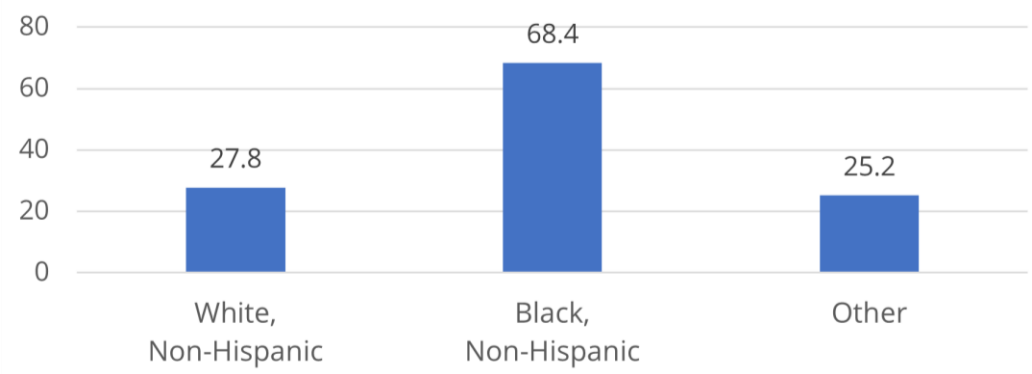
* Note: Hispanic/Latino category-specific rate based on small number of cases; interpret with caution.
Source: Tennessee Department of Health, STI Prevention Program. Tennessee STI Epidemiological Profile, 2020.

Figure 88. Rate of Reported Primary and Secondary Syphilis Cases per 100,000 Population by County, Tennessee, 2020



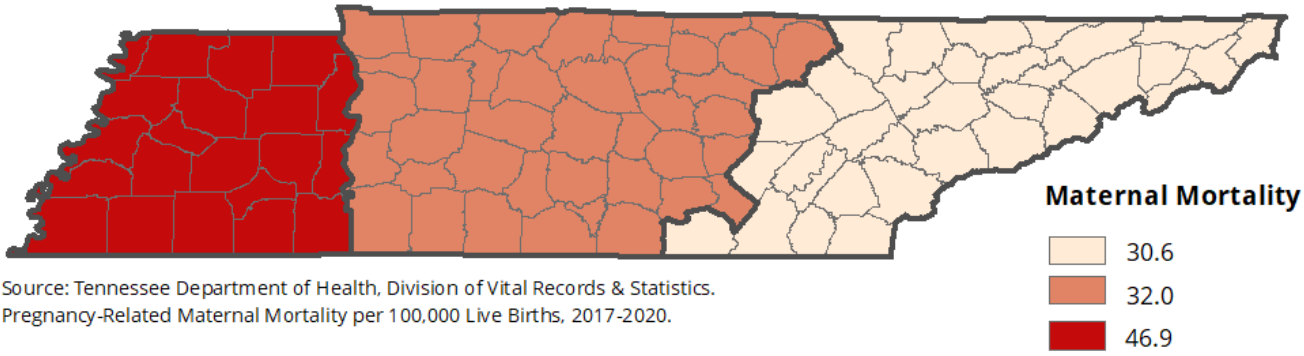
Source: Tennessee Department of Health, STI Prevention Program. 2024.
* Note: Rates in 88 of 95 counties based on fewer than 20 cases; interpret with caution.

Figure 89. Rate of Pregnancy-Related Maternal Deaths per 100,000 Births by Race, 2017 – 2020.



Source: Tennessee Department of Health, Division of Family Health and Wellness, Maternal Mortality Review Program.
Data from Tennessee Department of Health, Office of Vital Records and Health Statistics.
Birth Statistical File, 2017-2020.

Figure 90. Rate of Pregnancy-Related Maternal Deaths per 100,000 Live Births by State Grand Division, Tennessee, 2017-2020.



Source: Tennessee Department of Health, Division of Vital Records & Statistics.
Pregnancy-Related Maternal Mortality per 100,000 Live Births, 2017-2020.

Note: For a map of obstetric/women's health provider shortage areas, please refer to the Healthcare Access section.

Recommendations

The prevalence of chlamydia and syphilis infections indicates a need for expanded education and early detection strategies, which may decrease STI case rates and reduce associated impacts on reproductive health. The rate of syphilis among women is a particular focus given the association of maternal syphilis infections with stillbirths and infant mortality. Improved reproductive healthcare access may also help address the state's extremely high rate of pregnancy-related maternal deaths, particularly among women of color. Recommendations for screenings and mortality reduction align with those of the state's Maternal Mortality Review Committee[13], including:

- Promote Safety Net Clinics and county health departments as access points to reproductive healthcare and referral to women's health resources, such as reproductive life planning and adolescent pregnancy and sexual risk reduction programs, particularly in obstetric health resource shortage areas. Actively support referral to substance misuse treatment options.
- Expand outreach of WIC, Pregnancy Smoking Cessation, and other prenatal care programs offered through county health departments to support maternal health.
- Promote availability of prenatal care through TennCare prenatal presumptive eligibility and CoverKids Pregnant Woman coverage.
- Partner with CHCs and local organizations to identify community resources including mental health services, mobile clinics, and other health-related agencies providing STI screenings for uninsured individuals, and provide education regarding mental health and addiction, stigma, risks, and treatment options available to all pregnant and postpartum women.
- Continue to improve access to mental health providers for outpatient and in-patient treatment of substance use and mental health disorders among pregnant and postpartum women.
- Disseminate educational materials that highlight the importance of substance use disorder management, safe birth practices, and mortality prevention measures.
- Develop and implement training for obstetric providers (including physicians and midwives) to ensure trauma-informed and culturally appropriate care is provided to individuals with substance use disorder and other mortality risk factors through the duration of prenatal and postnatal care.

- Partner with local organizations promoting perinatal health equity throughout Tennessee to highlight the issue of maternal mortality and develop community-guided prevention activities.
- Support care coordination/case management for pregnant and postpartum women, particularly in rural settings, which addresses obstetric provider availability, substance misuse needs, and transportation access. Ensure continued support for the Community Health Access and Navigation in Tennessee (CHANT) integrated care coordination program provided through local health departments.

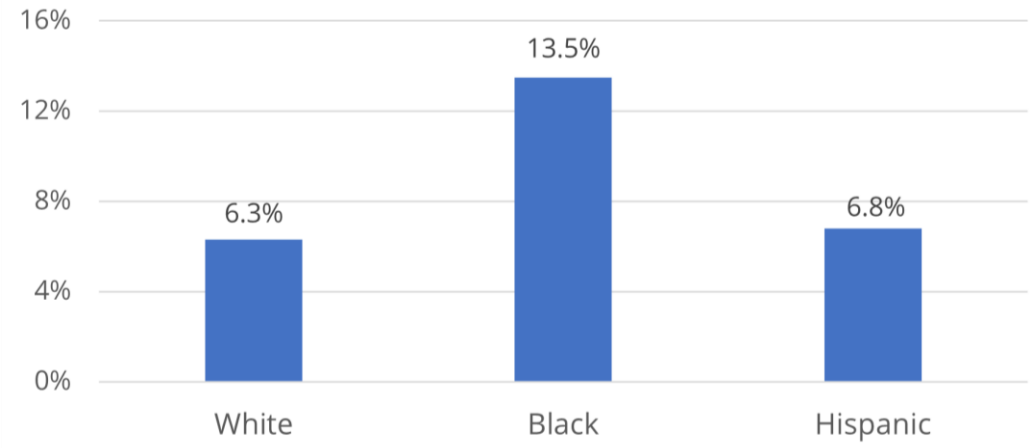
Age-specific Health

Measures: Low Birthweight, Infant Mortality, Breastfeeding Initiation, Adolescent Obesity, Adolescent Pregnancy, Cognitive Decline

Overview

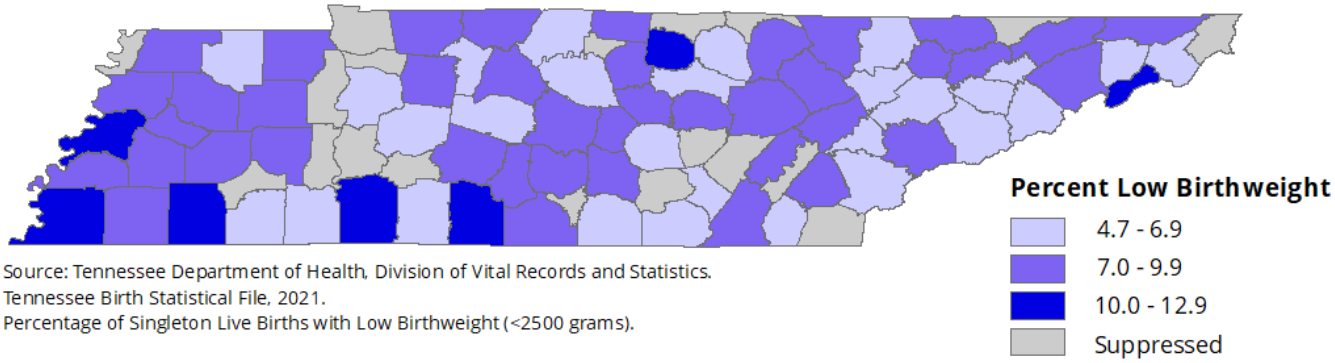
Low birth weight and prematurity are the chief drivers of infant mortality in Tennessee and the state ranks 38th for the percentage of low birthweight births. The elevated rate of infant mortality, for which Tennessee ranks 46th in the nation, contributes to the state's poor life expectancy ranking. There is significant variation in both measures by race, with **the rates of both low birthweight and infant mortality among babies born to non-Hispanic Black mothers more than twice those of the rates for babies born to non-Hispanic White mothers**. Racial variation is noted for rates of adolescent obesity and adolescent pregnancy, for both of which Tennessee ranks 45th in the nation. Additionally, there is racial variation in the reported rate of cognitive decline among older adults.

Figure 91. Percentage of Low Birthweight Births by Mother's Race, Tennessee, 2021.



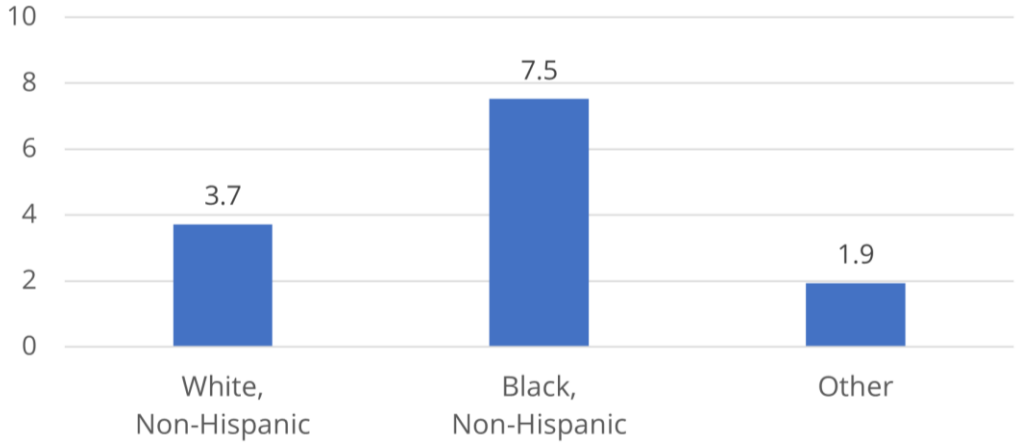
Note: Includes only singleton live births. Data were reported using separate race and ethnicity categories.
Source: Tennessee Department of Health, Division of Vital Records and Statistics.
Tennessee Birth Statistical File, 2021.

Figure 92. Percentage of Low Birthweight Births, Tennessee, 2021.



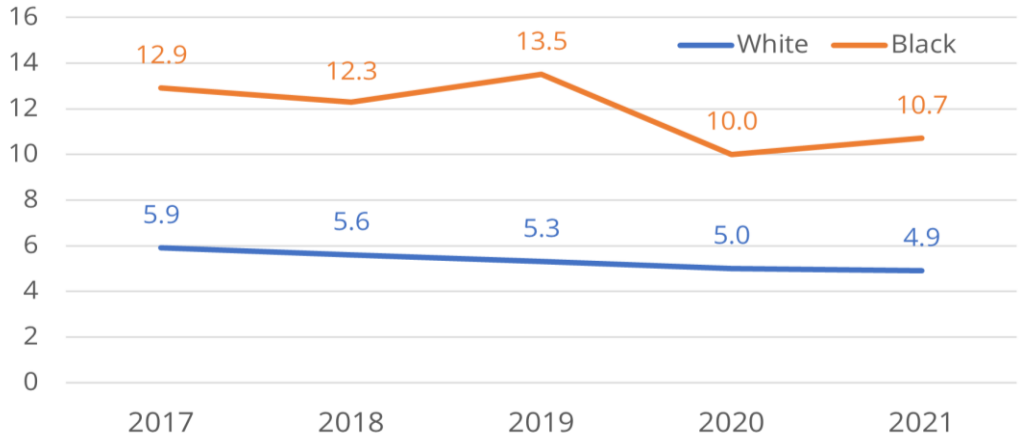
Source: Tennessee Department of Health, Division of Vital Records and Statistics.
Tennessee Birth Statistical File, 2021.
Percentage of Singleton Live Births with Low Birthweight (<2500 grams).

Figure 93. Odds of Repeat Low Birthweight Birth by Mother's Race, Tennessee, 2019 - 2021.



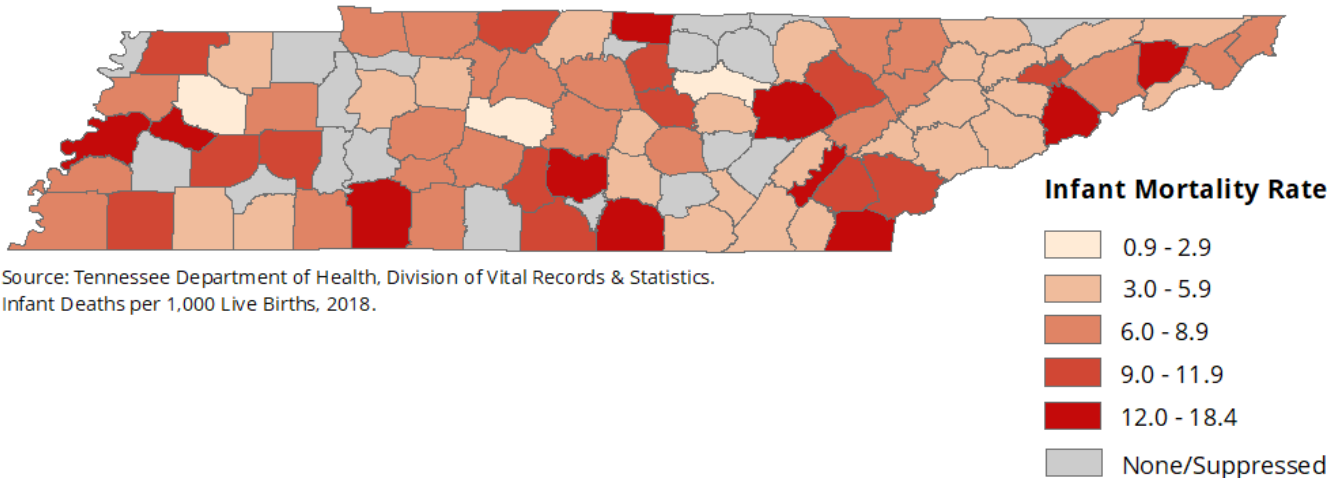
Source: Tennessee Department of Health, Division of Population Health Assessment.
Pregnancy Risk Assessment Monitoring System, 2019 - 2021.

Figure 94. Rate of Infant Mortality per 1,000 Live Births by Race, Tennessee 2017 – 2021.



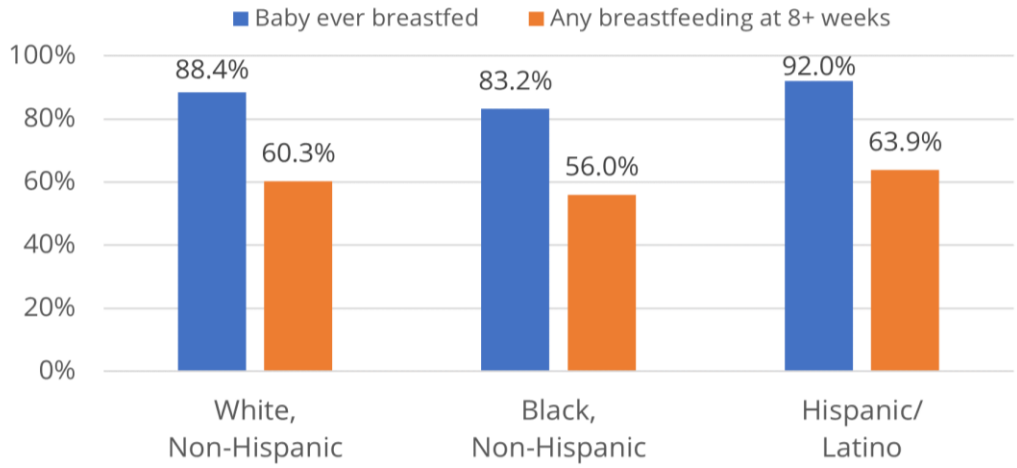
Source: Tennessee Department of Health, Division of Vital Records and Statistics.
Tennessee Birth and Death Statistical Files, 2017 - 2021.

Figure 95. Rate of Infant Mortality per 1,000 Live Births, Tennessee 2018.



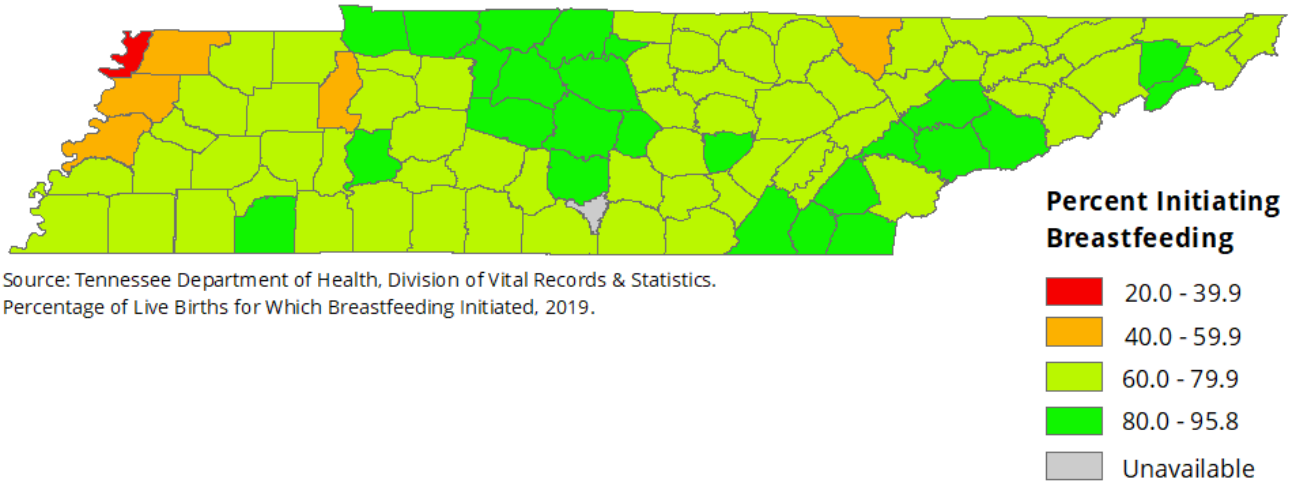
Source: Tennessee Department of Health, Division of Vital Records & Statistics.
Infant Deaths per 1,000 Live Births, 2018.

Figure 96. Percentages of Breastfeeding Initiation and Duration by Mother's Race, Tennessee, 2020.



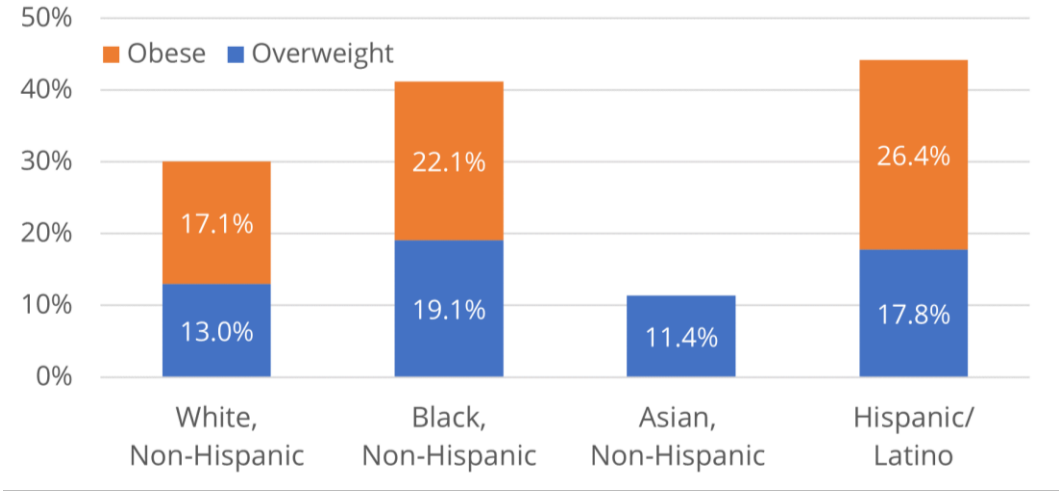
Source: Tennessee Department of Health, Division of Population Health Assessment. Pregnancy Risk Assessment Monitoring System Summary Report, 2020.

Figure 97. Percentage of Breastfeeding Initiation, Tennessee, 2019.



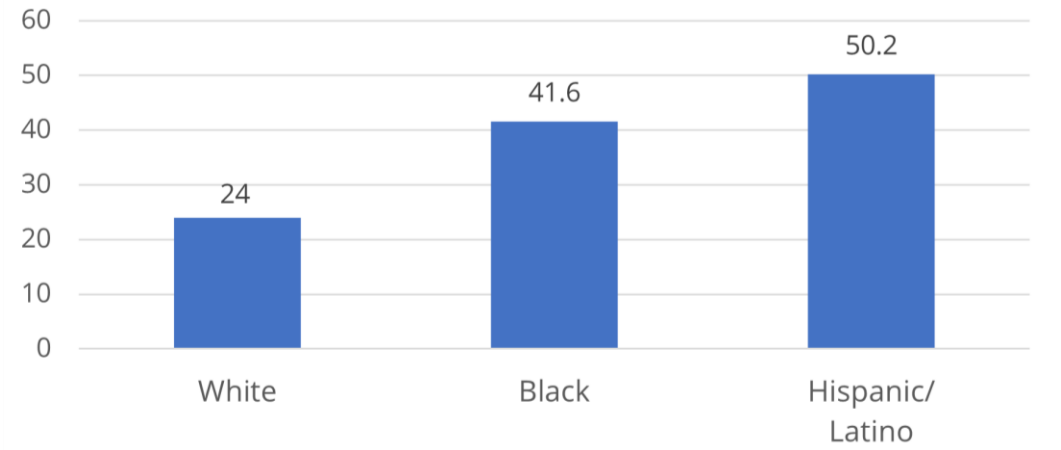
Source: Tennessee Department of Health, Division of Vital Records & Statistics.
Percentage of Live Births for Which Breastfeeding Initiated, 2019.

Figure 98. Percentage of Adolescent (Aged 10-17) Overweight and Obesity by Race and Ethnicity, Tennessee, 2022.



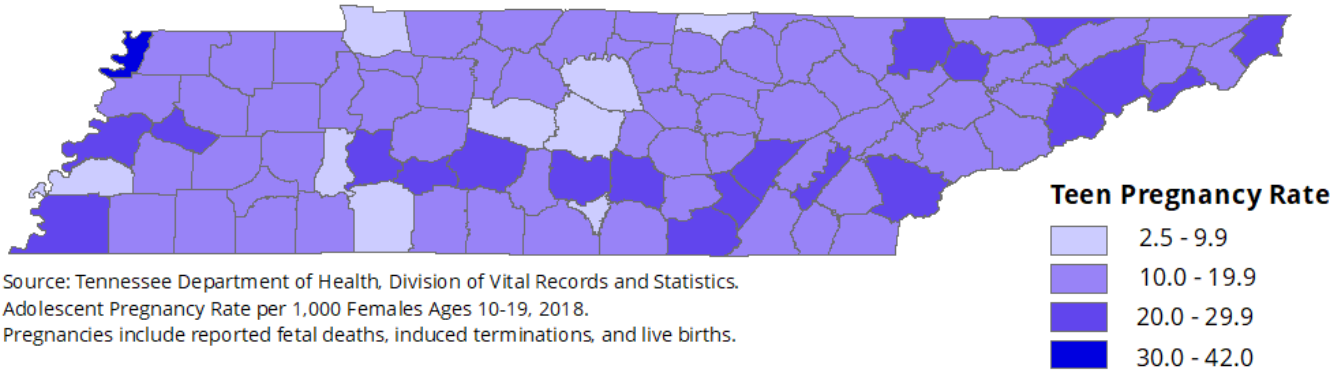
Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. National Survey of Children's Health, 2022.

Figure 99. Rate of Births per 1,000 Women Aged 15 – 19 Years by Race, Tennessee, 2020.



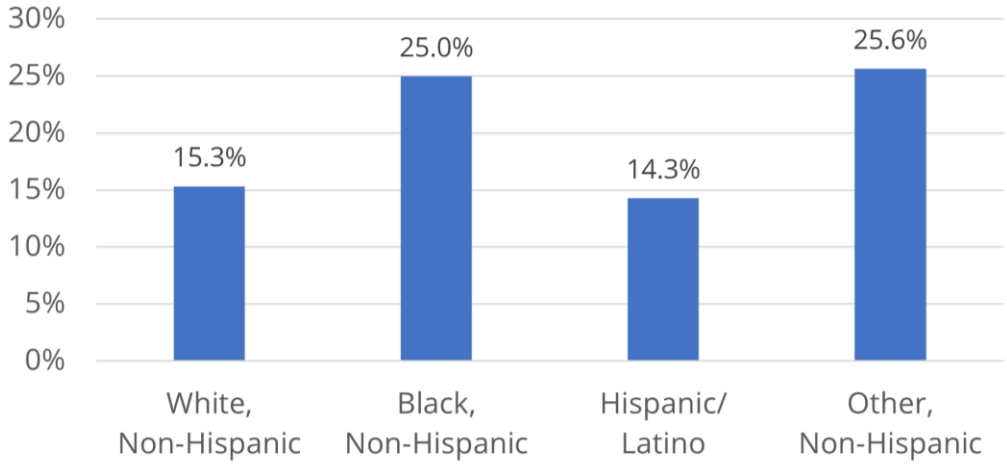
Source: Tennessee Department of Health, Division of Vital Records and Statistics. Tennessee Birth Statistical File, 2020.

Figure 100. Rate of Pregnancies per 1,000 Women Aged 10 – 19, Tennessee, 2018.



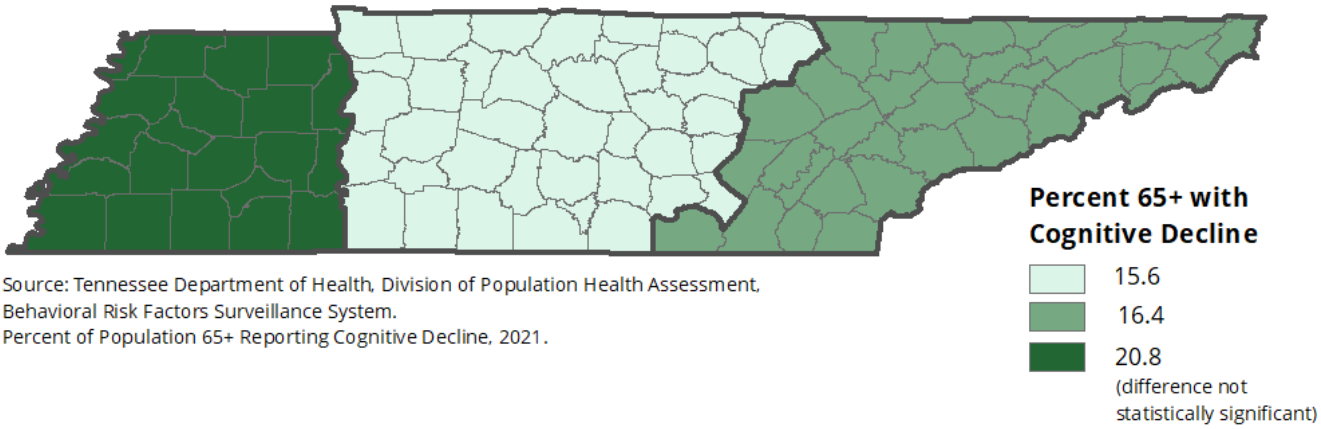
Source: Tennessee Department of Health, Division of Vital Records and Statistics.
Adolescent Pregnancy Rate per 1,000 Females Ages 10-19, 2018.
Pregnancies include reported fetal deaths, induced terminations, and live births.

Figure 101. Percentage of Adults Aged 65 Years and Older Reporting Cognitive Decline by Race and Ethnicity, Tennessee, 2021.



Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System, 2021.

Figure 102. Percentage of Adults Aged 65 Years and Older Reporting Cognitive Decline by Grand Division, Tennessee, 2021.



Source: Tennessee Department of Health, Division of Population Health Assessment, Behavioral Risk Factors Surveillance System.
Percent of Population 65+ Reporting Cognitive Decline, 2021.

Recommendations

The many potential serious outcomes associated with low birthweight and the low ranking of Tennessee in this measure indicate a need for significant improvements in prenatal care and nutritional supplementation. The likelihood of low birthweight reinforces the need to provide early and intensive support around nutrition, substance misuse, pregnancy spacing, and smoking cessation. Healthy infant birthweights decrease poor health outcomes for at-risk infants. Continuing to reduce the persistently high rate of infant mortality requires ongoing pre- and post-natal maternal education as well as caregiver educational interventions. Likewise, culturally adapted interventions to address the high rates of adolescent obesity and adolescent pregnancy are urgently needed. General age-related health recommendations include:

- Promote pre-conception healthcare and planning, including birth spacing, ensuring nutritional adequacy, and supporting avoidance of substance use.
- Encourage pregnant women to access the broad range of WIC services, including not only supplemental nutrition resources but also evidence-based nutrition counseling. Promote the program to women's healthcare providers, emphasizing that infants of WIC-enrolled women have higher birthweight and less prematurity than their unenrolled counterparts.
- Support the expanded availability of lactation consultants within hospitals to ensure all mothers receive lactation support to encourage breastfeeding initiation.
- Collaborate more closely with Coordinated School Health program to review nutrition and physical activity policies and actively design structures for physical activity, healthy nutritional choices, and behavioral health support.
- Promote community involvement in adolescent pregnancy prevention efforts, through increased awareness of the developmental needs of youth and teens as well as existing community resources.
- Continue and expand coordinated efforts to implement built environment projects supporting physical activity in schools, after-school programs, and community locations to increase non-exercise activity.
- Expand nutritional security screening and referrals for at-risk individuals of all ages.
- Expand Medicare availability to provide mobile clinics / home health care / care coordination for adults with diagnosed cognitive decline.

Section 4: Initiatives and Partnerships

Division of Health Disparities Elimination Priority Areas

The Division of Health Disparities Elimination (DHDE) was organized to coordinate and expand the scope of community outreach services provided by TDH and provide leadership for TDH around health equity initiatives. The priority work areas of the Division are illustrated in Figure 96. The DHDE comprises three offices, each with a distinct mandate:

- **The Office of Minority Health**
  The Office of Minority Health (OMH) strives to improve the health of racially and ethnically minoritized populations through the development of health policies and programs which help eliminate health disparities. OMH leads the development and delivery of health equity trainings, partners with internal and external agencies to implement nutrition security initiatives, and participates in TDH efforts to address equitable data collection standards. OMH also oversees numerous grant-funded programs addressing workforce development and health equity strategies.

- **The State Office of Rural Health**
  The State Office of Rural Health (SORH) administers programs directed at increasing healthcare access, including the Uninsured Adult Safety Net Program established by the Tennessee General Assembly to provide medical, dental, and mental health care services to individuals lacking insurance. Other programs administered by SORH include the State Loan Repayment Program, J1Visa Program, Office of Primary Care (Health Resource Shortage Areas), and Small Rural Hospital Improvement Program.

- **The Office of Faith-Based and Community Engagement**
  The Office of Faith-Based and Community Engagement (OFBCE) conducts outreach activities engaging a wide range of community and faith-based partners. OFBCE chairs the Tennessee Health Disparities Advisory Group, which brings together partners from across the state to address disparities highlighted during the COVID-19 pandemic. The Advisory Group has been recognized by CDC as a best practice for building community trust and battling health misinformation. OFBCE also leads development of disparity-focused health education campaigns.

Figure 103. Division of Health Disparities Elimination Priority Work Areas.

Successes in the Reduction of Health Disparities

Identifying and addressing health disparities is at the core of public health practice. Although the goal of eliminating health disparities did not begin with the creation of the DHDE, the formation of a Division within TDH dedicated to coordinating and expanding the Department's capacity to outreach, engage and support minoritized, rural and vulnerable populations has produced many success stories. Some of the recent successes which TDH has achieved through collaboration with internal and external partners include:

Community Outreach and Engagement

- In response to the well-documented disparities in health outcomes associated with the COVID-19 pandemic, the **Tennessee Health Disparities Advisory Group** (HDAG; formerly the Tennessee Health Disparities Task Force) was founded in 2020. Between its founding and the present, the HDAG has grown steadily and currently **brings together more than 3,000 community partners statewide to focus on concerning health disparities in the areas of mental health, chronic disease, infectious disease and environmental justice**. Membership includes representatives of academic, faith-based, and non-profit organizations, as well as small businesses and local, state, and federal agencies.
- The **engagement of vulnerable populations including the aging, persons with disabilities, immigrants/refugees, and unhoused individuals** has been a special priority of community outreach efforts. Coordination with community groups representing these and other vulnerable populations has provided opportunities for health education and vaccine administration opportunities across the state as well as linking of these community groups to the Health Disparities Advisory Group.
- TDH participation in the CDC-funded "National Initiative to Address COVID-19 Health Disparities Among Populations at High-Risk and Underserved" resulted in the **distribution of funding to more than 60 community organizations in 74 counties across the state to expand local capacity to address COVID-19 related health disparities** and advance health equity. The ongoing initiative seeks to reduce COVID risk in underserved and rural communities across Tennessee and provide linkages to wraparound social services.
- TDH has taken on more than 200 **Cooperative Agreements with organizations representing rural health, academic institutions, and immigrant/refugee and other community interests**, as well as local and state governmental agencies.

- Each state Health Region has **hired Healthy Development Coordinators to engage in cross-sector collaboration addressing the social and environmental determinants of health** and collaborating with a wide range of local stakeholders to prioritize health in decisions related to land use planning, transportation, housing, greenspace, food access, and economic development. The coordinators work primarily in the state's suburban and rural areas and work closely with TDH's Office of Primary Prevention to inventory built environment assets, seek funding for novel built environment projects, and develop and implement funded projects.
- A youth-focused anti-tobacco campaign, **TN Strong**, coordinated by TDH's Division of Family Health and Wellness and facilitated by local health departments has built significant community engagement since its inception. The project has collaboratively **developed resources for students, parents, and educators, and created youth councils across the state which work to promote and support a tobacco-free lifestyle including prevention of youth vaping or use of other nicotine-containing products.**

Expanded External Primary Care Access

- The State Office of Rural Health, housed within DHDE, has extended primary care access to thousands of Tennesseans through the **Uninsured Adult Healthcare Safety Net Program**. **The network of 162 Primary Care providers and 40 Dental providers includes service locations in 93 counties**, offering primary care, behavioral healthcare, dental care, and care coordination services to uninsured Tennesseans ages 19-64. In FY23, more than 190,000 unduplicated patients received primary medical care and dental care services through the program.
- **Expansion and retention of healthcare providers in underserved areas** through the Tennessee Student Loan Repayment Program (TSLRP), the Conrad J1Visa Waiver Program, and Dental and other Specialty Provider Programs. Over 75% of loan repayment recipients remain in their community of service once their contract period ends, resulting in a net increase in healthcare access. Current Loan Repayment program participants are expected to result in an additional 1,000-2,000 people with access to primary care.
    - Since FY19, TSLRP has provided **loan repayment support for 133 providers** in 5 healthcare disciplines, with an additional 20 service years contributed by providers continuing with the program for two or more years. The program was expanded to include nurses in FY22.

    - Since FY18, the State Conrad J1 Visa Waiver Program has recruited and facilitated the **placement of 145 primary care physicians and physician specialists to work in medically underserved areas of 20 counties**, including a full complement of 30 allowed visas in both FY22 and FY23.

- Biannual updating of all primary care and critical specialty providers is conducted by the Primary Care Office. The Office **identifies and maps Health Resource Shortage Areas throughout the state**, defined as the 30 counties with the highest population-to-provider ratios. (Figures 34 & 35)

- The Uninsured Adult Healthcare Safety Net Program **administers a Community Dental Health Coordinator Training Program providing dental professionals with case management and care navigation specialization** to help older adults improve their oral health. The program, funded through the Healthy Smiles Initiative, has provided services to individuals from 79 counties across Tennessee since FY22.

Workforce Development and Health Equity Strategies

- The **Community Health Worker (CHW) program funds the recruitment, training, hiring, and retention of CHWs within Tennessee's network of community health centers, county health departments, and other community/faith-based organizations**. The program has supported academic institutions providing CHW training as well as supported the state CHW Association in implementing and sustaining evidence-based projects to improve health outcomes and reduce healthcare worker shortages.

- **Implemented a Nurse Residency program for Critical Access Hospitals** which provides improved training opportunities for new nurses and seeks to reduce staff turnover in small rural hospitals.

- **Community grant-writing trainings have been conducted across the state to help build local capacity to access external funding**. During 2023, a total of 98 individuals representing community organizations from all three grand divisions of the state participated in trainings. TDH has provided follow-up support for the development of grant proposals by participating community organizations.

- The **HBCU Wellness Program administered by Meharry Medical College** in partnership with TDH has provided students leadership and service opportunities since 2006. The program's primary goal is to **addresses health disparities in Tennessee by leveraging educational and service-oriented resources at HBCUs**.

Building upon direct funding support received from the DHDE, since FY20, 248 students have participated as student health ambassadors, developing and implementing projects to positively impact the health and well-being of residents in their surrounding communities.

- **TDH has incorporated Health Equity into its Strategic Plan and established a Health Equity Advisory Team** (HEAT) to help the Department applying a health equity lens as it vigorously resumes public health work in the wake of the pandemic. Utilizing the Strategies to Restore Equity and Transform Community Health (STRETCH) framework as a basis, the HEAT team has created a Health Equity Roadmap to guide coordination of a health equity training series for the Department. A training corps was hired in FY23 and development of the training modules is ongoing.
- As outlined in statute, regular reviews of the health status of Tennesseans are conducted across the four areas of the State Health Plan Framework: A Healthy Start, A Healthy Life, a Healthy Environment, and a Healthy System of Care. **The annual State Health Plan report has been augmented by a new online dashboard which allows the public to explore the more than 100 metrics included in the assessment.** The data may be used to develop informed and actionable plans which align with the State Health Plan recommendations.
- **Development and production of the "Our Voices" campaign was undertaken to highlight disparities in the impact of COVID on minoritized and vulnerable populations in Tennessee.** The series of TDH-branded health prevention public service announcements sharing the stories of impacted individuals in their own words are available in multiple languages, and incorporate inclusive language and representation.

Improved Health Outcomes

- The **Small Rural Hospital Improvement Program (SHIP) has provided funding assistance to such hospitals for operational improvements directly impacting patient care**. Improvements include the purchase of hardware, software, or training to support value-based payment and care goals. Currently 19 Tennessee hospitals participate in SHIP quality improvement activities such as advancing patient care information, promoting interoperability, and payment bundling.
- In FY23, the Uninsured Adult Healthcare Safety Net Program implemented a Quality Improvement Incentive Program in which half of the providers have elected to

participate. Through unique clinic plans, **participating Safety Net providers demonstrate improvements in measurable clinical outcomes, service provision, and increased access for uninsured adults seeking care in Safety Net clinics.**

- **Community agencies were awarded funding in FY22 to implement proposed projects based on the recommendations of previous Maternal Mortality Review Annual Reports.** Examples of funded projects have included a "Train-the Trainer" model for implicit biases within obstetrical care implemented at six hospitals across the state, development and distribution of toolkits including information on preventing firearm injuries and drug overdose for women receiving care through antenatal programs at East Tennessee State University, development and distribution of educational flyers on preeclampsia and cardiovascular disease to mitigate the number of deaths from these causes during or after pregnancy, and staff training modules on recognizing and overcoming implicit bias, recognizing and addressing signs of pre-eclampsia, recognizing and addressing substance use disorders, and recognizing and addressing mental health disorders.
- Improving birth outcomes and infant health is an important area of focus for TDH, as the state rates of both low birthweight births and infant mortality have been persistently higher than national rates. **TDH has developed and deployed campaigns to encourage early prenatal care entry, decrease maternal risk factors such as smoking during pregnancy, and broaden knowledge of safe sleep practices.** Such efforts have contributed to the slow but steady decreases in percentage of low birthweight births and the rate of infant mortality over the past decade, with the state reaching its strategic goal of fewer than 6.7 deaths per 1,000 live births by 2023.
- Within the scope of improving health outcomes, TDH has **developed the Community Health Access and Navigation in Tennessee (CHANT) integrated model of care coordination provided through the local health departments**. The program provides enhanced patient-centered engagement, assistance with navigating complex systems, and care coordination and reimbursement of medical and social service needs to eligible families and individuals. Goals for the CHANT program include increasing EPSDT rates, medical and dental home access, pregnancy, birth, maternal and child outcomes, and positively impacting overall outcomes related to SDOH.

Key Partnerships

Design of successful health interventions requires identification of underlying differences in a wide range of factors associated with health, as well as knowledge of the communities most impacted. Coordination with community partners to identify areas for intervention is therefore key to this process. TDH partners closely with county and metro health departments, as well as external partners, to implement a wide range of projects in the arenas of disparities elimination and healthcare access.

Some of these external partners are:

- The Rural Health Association of Tennessee (RHAT), whose mission is to lead the way for a healthy tomorrow throughout Rural Tennessee and improve the health of rural Tennesseans through advocacy, communication, education, and legislation. https://rhat.memberclicks.net
- The Tennessee Primary Care Association (TPCA), which aims at improving access to high-quality care through community health centers serving nearly 427,000 patients in 72 Tennessee counties. https://www.tnpca.org
- The Tennessee Charitable Care Network (TCCN), whose mission is to support, educate, and represent non-profit organizations that provide charitable dental, medical, mental health, and care coordination services to low-income, uninsured, and underserved Tennesseans. https://www.tccnetwork.org
- The Tennessee Community Engagement Alliance Against COVID-19 (TN CEAL), which is part of a nationwide effort to conduct targeted community outreach ensuring underserved Black, Hispanic/Latino, and American Indian populations receive accurate, up-to-date, and trusted health information regarding the leading causes of morbidity and mortality for socially vulnerable populations.
- University Medical Centers, including those run by:
    - Meharry Medical College – a global academic health sciences center advancing health equity through innovative research, transformative education, exceptional and compassionate health services. https://home.mmc.edu
    - The University of Tennessee Health Sciences Center – whose mission is to serve all Tennesseans and beyond through education, discovery and outreach that enables strong economic, social and environmental well-being. https://uthsc.edu
    - Vanderbilt University Medical Center – whose mission is personalizing the patient experience through their caring spirit and distinctive capabilities. https://www.vanderbilthealth.org

    - East Tennessee State University -- whose mission is to advance health and well-being for all through innovative teaching, research, and community engagement. https://www.etsu.edu/
- Community partners, including, but not limited to:
    - Healthcare Facilities and Administrators
    - Professional Clinical Organizations
        - Physicians / Dentists
        - Physician Extenders
        - Nurses / Dental Hygienists
        - Clinical Social Workers
        - Community Health Workers
        - Medical Interpreters
    - Faith-based Organizations
    - Advocacy Organizations
        - Organizations focusing on a specific condition
        - Organizations representing vulnerable populations
        - Cultural/ethnic alliance groups
    - Non-profits providing direct patient services, support, and education
    - County Health Councils
    - Coordinated School Health and School Administrators
    - After-school and Youth Advocacy Programs
    - Law Enforcement Entities
        - County Courts
        - Correctional Facilities
    - Substance Abuse Treatment Programs

Future Directions

In spite of improvements in many health outcomes and successes in health disparities reduction achieved by TDH, much work remains in order to realize a state of health equity across Tennessee. Ongoing programs throughout the Department continue to address many facets of health disparity. Additionally, the development of new initiatives which improve the capacity of TDH and its partners to engage and support minoritized, rural and vulnerable populations are expected to yield significant results. Upcoming health disparities reduction projects in collaboration with internal and external partners include:

Community Outreach and Engagement

- **Tennessee Food and Nutrition Security Summit**
  The strong correlation between nutrition security and health has long been understood, yet it is only recently that a paradigm shift has taken place from focusing solely on the quantity of food to prioritizing the quality of food available in communities. Despite the existence of funded programs providing nutritional assistance, uptake and utilization of such programs is suboptimal in Tennessee and the rate of food insecurity remains high. Because challenges to food security include issues of disconnected response programs as well as variable geographic availability, a unified strategy must be developed. Thus, **TDH is partnering with the University of Tennessee to organize and host the inaugural Food and Nutrition Security Summit in February 2024**. The event will bring together a range of stakeholders including food producers, service providers, charitable foundations, nonprofits, and government entities who are engaged in addressing nutrition security and recognize its importance as a social driver of health. **It is anticipated that the Summit will lead to the development of strategic partnerships and will help integrate programs to significantly improve healthy food access among vulnerable populations.** Additionally, future Food and Nutrition Security Summits will regularly bring together these stakeholders to share best practices, strengthen networks, build support for policy solutions, and spark collaboration across the state.

- **Tennessee Department of Health Data Website**
  TDH has developed a dedicated health data website to facilitate data access and empower community involvement in the analysis of health data. The data portal also **allows TDH Divisions and Offices increased access to shared data, improving the range of county- and regional-level factors available for inclusion in health outcome modeling**. As additional programs upload data to the

portal, the pace of collaboration between TDH and both internal and external partners will increase and allow accelerated completion of projects to further decrease the health disparities present in Tennessee.

Expanded External Primary Care Access

- **Uninsured Adult Safety Net Expansion**
  The State Office of Rural Health will continue development of strategies to increase health access to uninsured Tennessee residents by contracting additional Community- and Faith-Based clinics and Federally Qualified Health Centers to serve as Safety Net providers. The Safety Net Provider Quality Improvement Incentive Program is slated to expand, providing support for increased and improved healthcare delivery. The program is also **developing a new interactive map on the TDH website to assist uninsured individuals with locating Safety Net clinics**.

Workforce Development and Health Equity Strategies

- **Health Equity 101 Training Series**
  DHDE houses the Access, Engagement & Opportunity Training Corps charged with developing and delivering the Health Equity 101 Training Series to TDH employees and requesting partner institutions. The training series **will provide foundational knowledge around the use equitable practices in data collection and service provision.** Participants will practice engaging in and leading conversations around equity to grow understanding and confidence around equity concepts.
- **CHW Training Program**
  The CHW program will continue to fund efforts to improve recruitment, training, and retention of CHWs at community health centers and other community/faith-based organizations across the state. The program **plans to expand its partnership with the Tennessee Community Health Worker Association to sustain evidence-based CHW projects to reduce healthcare worker shortages**, improve health outcomes, develop career pathways for community members in the healthcare field, and continue to build community resilience.

Improved Health Outcomes

- **Racial and Ethnic Approaches to Community Health (REACH) Grant**
  The CDC-funded REACH Grant will focus on **promotion of food and nutrition security through the expansion of fruit and vegetable voucher incentives,**

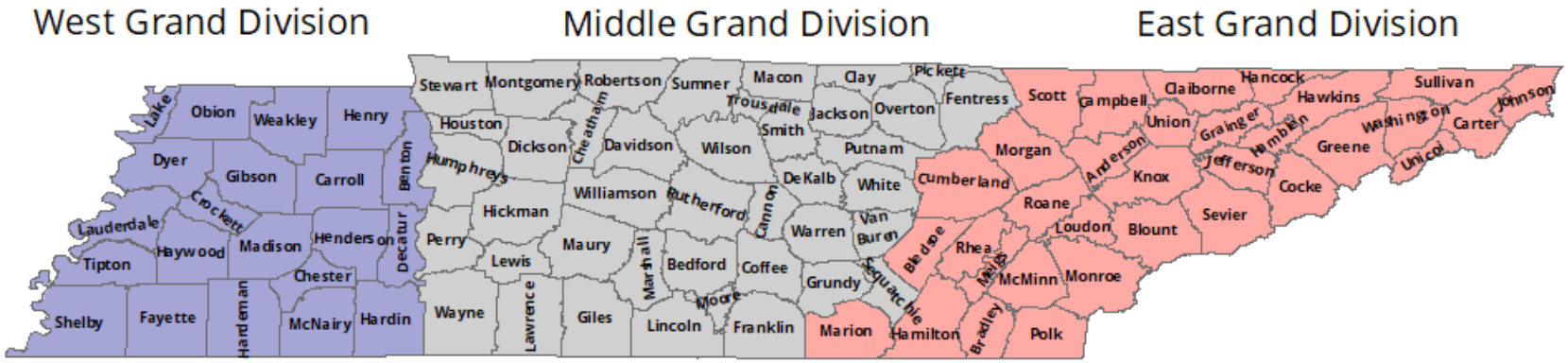
accessible and safe physical activity, continuity of maternal health care, early care and education, and family healthy weight programs. The aim is to improve health, prevent chronic disease and reduce health disparities among racial and ethnic populations with the highest risk or burden of chronic disease.

- **Maternal Mortality Reduction**
  TDH will continue to actively implement strategies to reduce maternal deaths in the perinatal period through **funding of community organizations using evidence-based interventions that align with the Maternal Mortality Review Committee's recommendations and Maternal Health Strategic Plan priority areas**. Tennessee was awarded $1,000,000 to fund six organizations which will pilot a Doula Services Project for Medicaid-eligible recipients, providing comprehensive doula services throughout pregnancy, delivery, and the postpartum period. In 2024, the Tennessee Initiative for Perinatal Quality Care (TIPQC) will offer training on perinatal mood disorders, improving healthcare providers' ability to identify, address, and provide linkage to resources for women experiencing these conditions.

- **Syringe Service Program/Harm Reduction**
  The use of syringe services programs (SSPs) not only decreases individual risk of overdose and blood-borne infections for substance users, but also reduces associated harms to the community at large through safe disposal for used syringes, HIV/Hepatitis C virus (HCV) testing and linkage to care, overdose prevention education, naloxone distribution, and referrals to substance use disorder treatment, mental health services, and other medical care. Thus, **TDH will continue to support and expand efforts at harm reduction through SSPs, focusing particularly on counties designated as areas of high vulnerability for HIV/HCV infections**.

- **Low Birthweight and Infant Mortality Reduction**
  Continued improvement of birth outcomes and infant health is an important area of focus for improving health across the life course and improving life expectancy more broadly. Thus, TDH will continue to implement a multi-faceted approach through strategic partnerships and **funding of successful projects including regional perinatal centers providing regionalized care for high-risk pregnancies and infants, metabolic, hearing, and critical congenital heart disease screening and follow-up, support for quality improvement projects to improve perinatal health outcomes through TIPQC, and the CHANT engagement and care coordination system** which addresses medical and social determinants of health for infants at highest risk for infant mortality in all 95 counties in the state.

Appendix A: Map of Tennessee Counties



West Grand Division Counties

Benton	Henderson
Carroll	Henry
Chester	Lake
Crockett	Lauderdale
Decatur	Madison
Dyer	McNairy
Fayette	Obion
Gibson	Shelby
Hardeman	Tipton
Hardin	Weakley
Haywood	

Middle Grand Division Counties

Bedford	Humphreys	Robertson
Cannon	Jackson	Rutherford
Cheatham	Lawrence	Sequatchie
Clay	Lewis	Smith
Coffee	Lincoln	Stewart
Davidson	Macon	Sumner
DeKalb	Marshall	Trousdale
Dickson	Maury	Van Buren
Fentress	Montgomery	Warren
Franklin	Moore	Wayne
Giles	Overton	White
Grundy	Perry	Williamson
Hickman	Pickett	Wilson
Houston	Putnam	

East Grand Division Counties

Anderson	Hamblen	Monroe
Bledsoe	Hamilton	Morgan
Blount	Hancock	Polk
Bradley	Hawkins	Rhea
Campbell	Jefferson	Roane
Carter	Johnson	Scott
Claiborne	Knox	Sevier
Cocke	Loudon	Sullivan
Cumberland	Marion	Unicoi
Grainger	McMinn	Union
Greene	Meigs	Washington

Appendix B: Definitions

Age-Adjustment: A statistical process applied to rates of disease, death, injuries, or other health outcomes which allows communities with different age structures to be compared.
(New York State Department of Health. *Age-Adjusted Rates - Statistics Teaching Tools.* https://www.health.ny.gov/)

Bias: The thoughts and feeling that people hold regarding others. These may be implicit (unconscious biases) or explicit (stereotypes). Bias may be based on culture, race, age, physical traits, or other characteristics. Biases may result in healthcare inequalities when a provider evaluates one group differently in comparison to another.
(Psychology Today. *Bias.* https://www.psychologytoday.com/us/basics/bias;
Hall et al., *Implicit Racial/Ethnic Bias Among Health Care Professionals and Its Influence on Health Care Outcomes: A Systematic Review.* Am J Public Health. 2015 Dec;105(12):e60-76.)

Culture: The shared patterns of behaviors and interactions, cognitive constructs, and affective understanding that are learned through a process of socialization.
(University of Minnesota Center for Advanced Research on Language Acquisition (CARLA). 2019, April 9. *What is Culture?* https://carla.umn.edu/culture/definitions.html)

Environmental Justice: The fair treatment and involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies; Ensuring everyone has the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work.
(United States Environmental Protection Agency. *Environmental Justice.* https://www.epa.gov/environmentaljustice)

Gender: A set of socially constructed characteristics of persons that includes norms, behaviors, and roles. Gender is often categorized as male, female or nonbinary. Gender may or may not correspond directly to sex (biological attributes such as chromosomes, anatomy, or hormones).
(U.S. Census Bureau. *About Age and Sex.* https://www.census.gov/topics/population/age-and-sex/about.html.)

Harm Reduction: Community-driven public health strategies that aim to minimize the negative health, social, and legal impacts associated with drug use, drug policies, and drug laws. Harm reduction employs evidence-based approaches to engage with people who use drugs and equip them with life-saving tools and information to create positive change in their lives and potentially save their lives.
(U.S. Substance Abuse and Mental Health Services Administration. *Harm Reduction.* https://www.samhsa.gov/find-help/harm-reduction.)

Health Disparities: Preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health experienced by populations that have been disadvantaged by their social or economic status, geographic location, or environment.
(Centers for Disease Control and Prevention. *Health Disparities: Adolescent and School Health.* https://www.cdc.gov/healthyyouth/disparities/)

Health Equity; Health Equity Lens: The state in which everyone has a fair and just opportunity to attain their highest level of health. Applying a health equity lens is intentionally looking at the potential positive and negative impacts of proposed messages or interventions on communities.
(Centers for Disease Control and Prevention. *Health Equity.* https://www.cdc.gov/healthequity/; *Using a Health Equity Lens.* https://www.cdc.gov/healthcommunication/health_equity_lens.html/.)

Health Resource Shortage Areas (HRSAs): Geographic areas within Tennessee lacking sufficient healthcare resources to meet the healthcare needs of the area's population.
(Tennessee Department of Health State Office of Rural Health. *Uninsured Adult Healthcare Safety Net 2023 Annual Report.* https://www.tn.gov/content/dam/tn/health/division-of-health-disparities/Safety%20Net%20Annual%20Report%202023_FINAL.pdf.)

Inclusivity; Inclusive Language: Including and embracing different people from various backgrounds. The recognition that words matter, and that word choice can be used, intentionally or unintentionally, to include or exclude others; the use of care in selecting wording which is inclusive of all communities.
(Brodzik, C. *The Power of Inclusive Language: Building Diversity and Inclusion in the workplace*. 2021, June 29. Deloitte. https://www2.deloitte.com/us/en/blog/human-capital-blog/2021/inclusive-workplace-language.html.)

Intersectionality: The overlap between layers of discrimination, stigma, or oppression which individuals may experience as a result of their unique combination of different social identities. These could include race, sex, religion, class, or other distinguishing traits.

Participatory Research: Research strategies which emphasize the active involvement of participants and community members in the design, conduct, and analysis of studies.
(Cornwall, A. and Jewkes, R. *What is participatory research?* Social Science & Medicine, Volume 41, Issue 12, 1995, Pages 1667-1676. https://doi.org/10.1016/0277-9536(95)00127-S.)

Racial and Ethnic Identity: The self-categorization of persons based on physical attributes as well as social and cultural characteristics. Current federal standards include five race categories (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White) and two ethnicity categories (Hispanic or Latino and Not Hispanic or Latino.)
(U.S. Office of Management and Budget. *Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity.* https://www.govinfo.gov/content/pkg/FR-1997-10-30/pdf/97-28653.pdf.)

Social Drivers of Health: Non-medical factors that influence health outcomes. Often used interchangeably with "social determinants of health." However, whereas "social determinants of health" implies the factors inevitably determine the outcome, "social drivers of health" preferentially highlights the opportunity of individuals and communities to improve outcomes despite predisposing health factors.
(U.S. Department of Health and Human Services. *Social Determinants of Health.* https://health.gov/healthypeople/priority-areas/social-determinants-health.)

Stratification: The act of dividing or arranging populations into subgroups for analysis.

Appendix C: Additional Resources

As with the Health Disparities Report as a whole, the list of resources below is not intended to be an exhaustive inventory but rather provide a key website that will provide additional details and serve as an entry point for each topic.

Topic Area	Site/Report Title	Website
Access to Health Built Environment Grants	*Healthy Development Coordinators*	https://www.tn.gov/content/dam/tn/health/program-areas/primary-prevention/HDC%20Overview.pdf
Adolescent Pregnancy Prevention	*About Adolescent Pregnancy Prevention Program*	https://www.tn.gov/health/health-program-areas/fhw/tappp/about-program.html
Advancing Health Equity	*Social Determinants of Health, Health Equity and Its Relationship to Built Environment and Human Behavior*	https://www.tn.gov/health/health-program-areas/office-of-primary-prevention/redirect-opp/built-environment-and-health/advancing-health-equity.html
Birth Outcomes and Pregnancy Exposures	*Pregnancy Risk Assessment Monitoring System Combined Summary Report 2018-2019*	https://www.tn.gov/content/dam/tn/health/program-areas/prams/PRAMSSummaryReport-2018-19.pdf
Cancer Diagnoses and Deaths	*Tennessee Cancer Registry Data*	https://www.tn.gov/health/health-program-areas/tcr/tennessee-cancer-registry-data.html
Care Coordination	*About Community Health Access and Navigation in Tennessee (CHANT)*	https://www.tn.gov/health/health-program-areas/fhw/chant/about-chant.html
County Health Councils	*Tennessee Vitality Toolkit*	https://www.tn.gov/health/health-program-areas/county-health-councils/tn-vitality-toolkit.html

Health Disparities Priorities	*Tennessee Health Disparities Task Force Survey of Priorities 2022.*	https://www.tn.gov/content/dam/tn/health/program-areas/division-of-health-disparities-elimination/documents/03.23.2023%20-%20%20Health%20Disparities%20Task%20Force%20Meeting%20Minutes.pdf
HIV and Hepatitis C Syndemic	*County-Level Vulnerability to HIV and Hepatitis C Outbreaks Due to Injection Drug Use – Tennessee, 2021 Update*	https://www.tn.gov/health/health-program-areas/std/std/vulnerability-assessment.html
Inclusive/Bias-Free Language	*Bias Free Language*	https://apastyle.apa.org/style-grammar-guidelines/bias-free-language/
Infant Mortality	*Tennessee Public Health Strategic Plan to Improve Birth Outcomes and Reduce Infant Mortality 2018 - 2023*	https://www.tn.gov/content/dam/tn/health/documents/mch/IM_Strategic_Plan_final_2019.pdf
Life Expectancy	*County Health Rankings Model of Life Expectancy*	https://www.countyhealthrankings.org/explore-health-rankings/county-health-rankings-model/health-outcomes/length-of-life/life-expectancy?year=2023
Maternal Mortality in Tennessee	*About Maternal Mortality Review (MMR)*	https://www.tn.gov/health/health-program-areas/fhw/maternal-mortality-review/about-maternal-mortality-review.html
Measures of Social Vulnerability	*CDC/ATSDR Social Vulnerability Index 2020 Database*	https://www.atsdr.cdc.gov/placeandhealth/svi/interactive_map.html
Rural Healthcare in Tennessee	*Tennessee Rural Health Care Task Force Report*	https://www.tn.gov/content/dam/tn/health/program-areas/rural-health/Final-TN-Rural-Health-Care-Task-Force-Report-6-27-23.pdf

State Health Outcomes	*Tennessee State Health Plan 2023*	https://www.tn.gov/health/health-program-areas/state-health-plan/redirect-state-health-plan/the-state-of-health-in-tennessee.html
STRETCH Framework	*Strategies to Restore Equity and Transform Community Health (STRETCH) Initiative*	https://www.cdcfoundation.org/programs/stretch
Suicide Prevention	*Suicide Prevention in Tennessee, 2022 Annual Report*	https://www.tn.gov/content/dam/tn/health/program-areas/vipp/2022-Suicide-Prevention-Annual-Report.pdf
Supplemental Nutrition Program for Women, Infants, and Children (WIC)	*About WIC Program*	https://www.tn.gov/health/health-program-areas/fhw/wic/about-ssnp-for-wic.html
Syringe Services Program / Harm Reduction Strategies	*Tennessee Annual Syringe Services Program Highlights, 2022*	https://www.tn.gov/content/dam/tn/health/documents/2022SSPAnnualReport_FINAL.pdf
TennCare Presumptive Eligibility	*TennCare Presumptive Eligibility Program Website*	https://www.tn.gov/health/health-program-areas/fhw/presumptive-eligibility.html
Uninsured Adult Safety Net Program	*Uninsured Adult Healthcare Safety Net 2023 Annual Report*	https://www.tn.gov/content/dam/tn/health/division-of-health-disparities/Safety%20Net%20Annual%20Report%202023_FINAL.pdf

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8 Centers for Disease Control and Prevention/ Agency for Toxic Substances and Disease Registry/ Geospatial Research, Analysis, and Services Program. *CDC/ATSDR Social Vulnerability Index 2020 Database, Tennessee*. https://www.atsdr.cdc.gov/placeandhealth/svi/data_documentation_download.html.

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12 Robert Wood Johnson Foundation. *Maternal Mortality in United States*. https://www.americashealthrankings.org/explore/measures/maternal_mortality_c.

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