The State of Health in Tennessee

2024 Annual Report to the 113th Tennessee General Assembly

Tennessee Department of Health | DIVISION OF HEALTH PLANNING | August 2024

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Executive Summary

Introduction

The Division of Health Planning (the Division) was created by the General Assembly and is tasked with multiple responsibilities that assist the Tennessee Department of Health (TDH or the Department) in its mission "To protect, promote and improve the health and well-being of all people in Tennessee." As Tennessee's statewide health assessment, the State of Health Report serves multiple purposes including:

- Meeting the Division's statutory requirement to review "the health status of Tennesseans" and provide "an annual report for the General Assembly." (Appendix A)
- Serving as a key component of the State Health Plan development and implementation processes.
- Promoting data-informed decision making within the Department and among partners.

The 2024 State of Health Report seeks to provide data the Department and its internal and external partners can use to guide decision-making, prioritize initiatives, and ultimately move towards the Healthy Tennessee envisioned in the Department's Vision: "Healthy People, Healthy Communities, Healthy Tennessee."

The Current State of Health in Tennessee

The 2024 State of Health Report overviews over 100 metrics across the four areas of the State Health Plan framework to assess the health status of Tennesseans.

1. A Healthy Start: What is the state of health among Tennessee's children and youth? How can we ensure Tennesseans are able to have "A Healthy Start" in life?
2. A Healthy Life: What is the state of health among Tennessee's adults and older adults? How can we promote Tennesseans' health across the lifespan?
3. A Healthy Environment: What is the state of health in Tennessee's communities? How can we ensure Tennesseans are able to thrive where they live, work, and play?
4. A Healthy System of Care: What is the state of Tennessee's healthcare system? How can we ensure Tennesseans have access to quality and affordable healthcare when they need it?

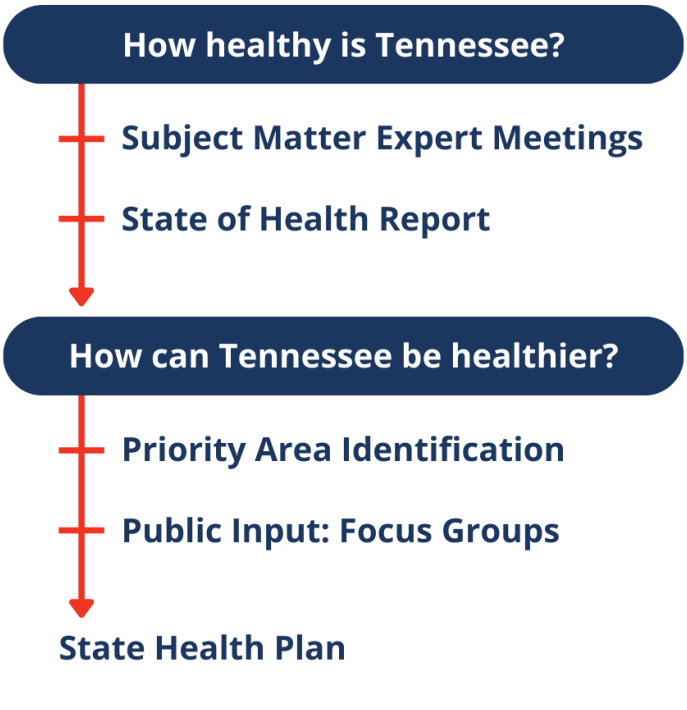
Introduction and the State of Health Overview

The Division of Health Planning (the Division) was created by the General Assembly and is tasked with multiple responsibilities that assist the Tennessee Department of Health (TDH or the Department) in its mission, "To protect, promote and improve the health and well-being of all people in Tennessee." This State of Health Report serves to provide the General Assembly with a comprehensive overview of health in the state including health outcomes of individuals and information on the health of the state's healthcare system.

As Tennessee's statewide health assessment, the State of Health report serves multiple purposes including:

- Meeting the Division's statutory requirement to review "the health status of Tennesseans" and provide "an annual report for the General Assembly." (Appendix A)
- Serving as a key component of the State Health Plan development and implementation processes.
- Promoting data-informed decision making within the Department and among partners.

Nationally, state health assessments and state health plans, also known state health improvement plans, are linked and inform each other to guide health improvement.[1] In Tennessee, the state health assessment, known as the "State of Health Report," seeks to answer the question "How healthy is Tennessee?" The state health improvement plan, known as the "Tennessee State Health Plan," then seeks to answer the question "How can Tennessee be healthier?" Together the State of Health Report and the Tennessee State Health Plan provide a pathway to achieving the Department's vision "Healthy People, Healthy Communities, Healthy Tennessee."



State Health Plan Process. Tennessee's state health assessment, known as the "State of Health Report," seeks to answer the question "How healthy is Tennessee?" and supports the development and implementation of the State Health Plan.

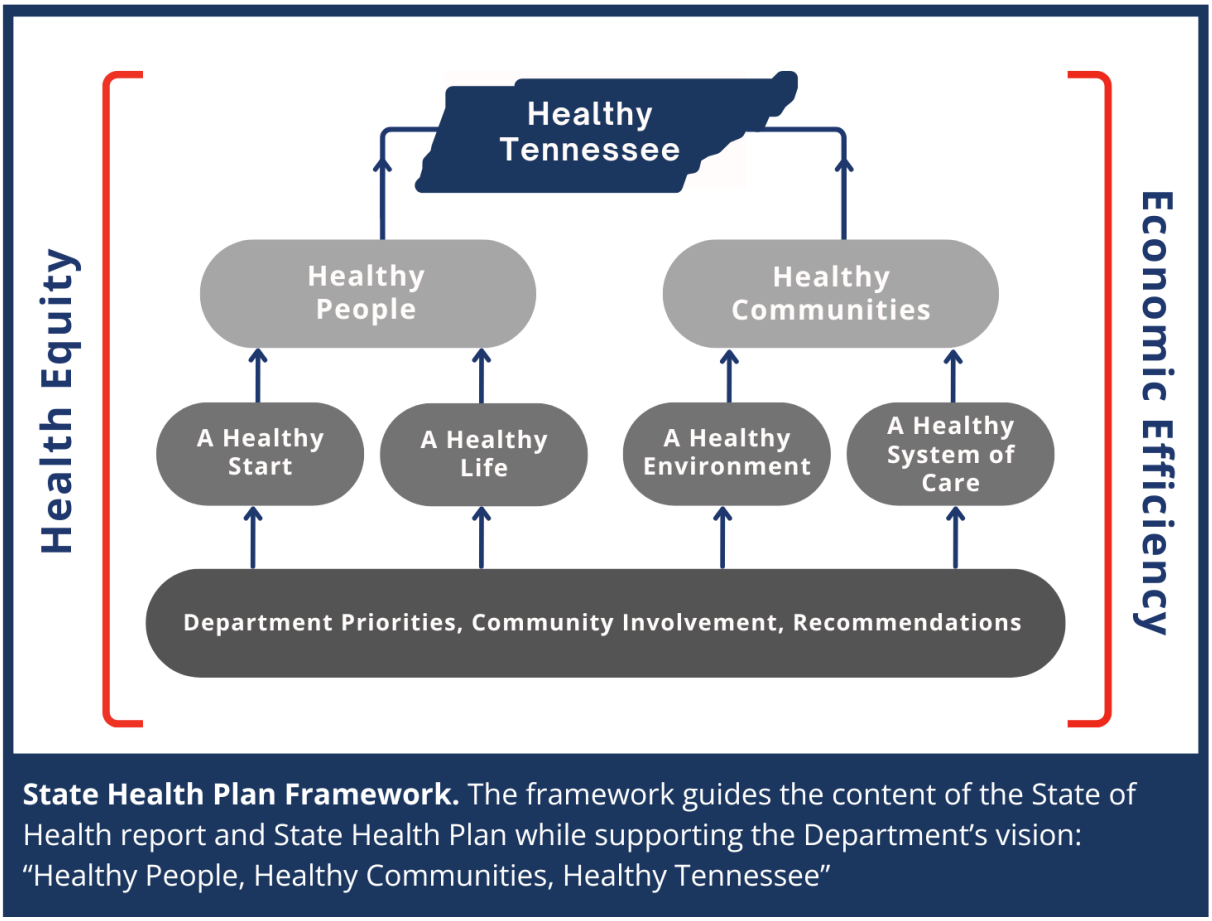
The first State of Health Report was issued in January 2023 after meeting with subject matter experts and conducting a thorough data review. The data from the report then informed the Commissioner's selection of eight priority areas for targeted health improvement efforts. Focus groups then created recommendations on how to improve health in those eight areas. The Division engaged with internal and external partners (Appendix B) across the State through a series of in-person and virtual focus groups where participants assisted in crafting data-informed and actionable

[1] Association of State and Territorial Health Organizations. State Health Assessment Guidance. https://www.astho.org/globalassets/pdf/state-health-assessment-guidance.pdf

recommendations issued in March 2024 as part of the 2024-2026 State Health Plan (Appendix C).

The 2024 State of Health Report further supports the 2024-2026 State Health Plan by ensuring updated data is available to internal and external partners working on State Health Plan recommendations. Additionally, the State of Health Report continues to provide data on key areas important to health improvement that were not selected as priorities for the 2024-2026 State Health Plan. By continuing to provide a comprehensive assessment of the health status of Tennesseans, the State of Health Report ensures all Tennesseans can see themselves in the vision and mission of the Department. Throughout the implementation of the 2024-2026 State Health Plan, the State of Health Report will continue to be updated annually to provide up to date data on the health status of Tennesseans until metrics are re-selected prior to the next edition of the State Health Plan.

Due to the linked relationship between the State of Health Report and the State Health Plan, the State of Health Report uses the same framework as the State Health Plan to ensure relationships between data and recommendations are clear. The State Health Plan framework supports the vision of the Department "Healthy People, Healthy Communities, Healthy Tennessee" by first recognizing that A Healthy Tennessee is composed of Healthy People and Healthy Communities. Healthy People should have a Healthy Start in life and be supported to have a Healthy Life while aging. Healthy Communities are composed of both a Healthy Environment and a Healthy System of Care.



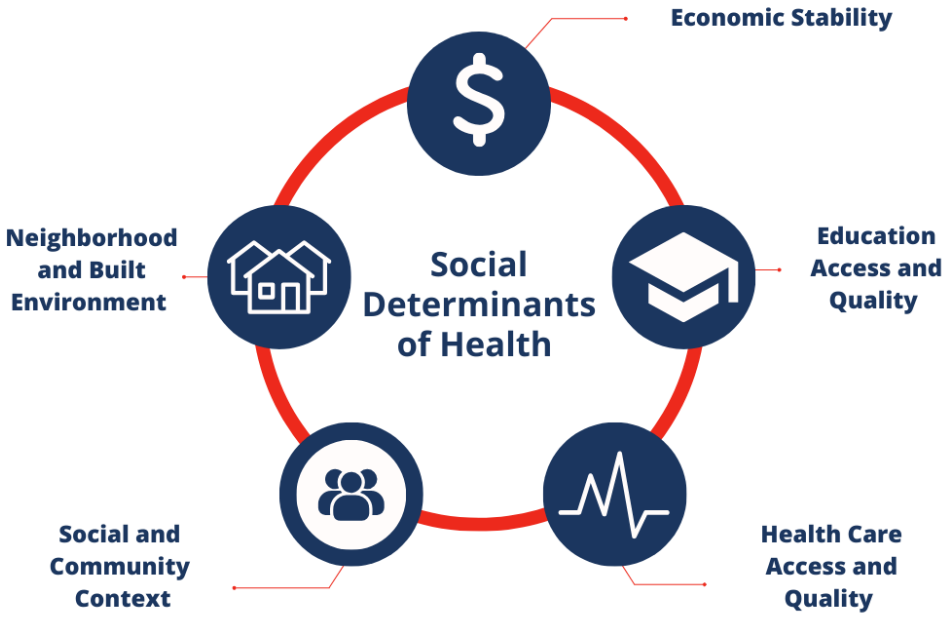
State Health Plan Framework. The framework guides the content of the State of Health report and State Health Plan while supporting the Department's vision: "Healthy People, Healthy Communities, Healthy Tennessee"

Two cross-cutting themes of the State Health Plan framework are economic efficiency and health equity. Economic efficiency and fiscal responsibility are integral to the functioning of the Tennessee Department of Health and Tennessee State Government. By promoting data-informed decision making, and focusing upstream on primary prevention efforts, the

State of Health Report promotes economic efficiency as outlined in the State Health Plan Statute. Similarly, health equity is integrated across the entire Department to ensure that the opportunity to live a healthy life is accessible to all Tennesseans. Health equity as defined in the Department's 2024 "Health Disparities in Tennessee" report is "the state in which everyone has a fair and just opportunity to attain their highest level of health."[2] Applying a health equity lens to the State of Health Plan and State of Health Report includes identifying health disparities, or "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."[3] Through acknowledging disparities and identifying ways to reduce disparities, the State Health Plan seeks to ensure health equity across all demographics including race and ethnicity, rural and urban settings, special populations such as older adults and persons with disabilities, and more (Appendix D). More information on health equity, including health disparities data on many State of Health metrics, can be found in the Department's 2024 "Health Disparities in Tennessee" report.

Social Determinants of Health

Social determinants, or drivers, of health (SDOH) contribute to the health of individuals and the population, and include economic stability, education access and quality, health care access and quality, social and community context, and neighborhood and built environment.[4] By focusing upstream on the SDOH the Department can build cross-sector collaboration to directly address the factors that most impact health outcomes.



Metrics within the State of Health Report that are social determinants of health are denoted throughout the report using the icons depicted in the graphic above.

[2] TN Department of Health. Health Disparities in Tennessee. 2024 Report. https://www.tn.gov/content/dam/tn/health/program-areas/division-of-health-disparities-elimination/documents/HD_Report_FINAL_06122024.pdf
[3] TN Department of Health. Health Disparities in Tennessee. 2024 Report. https://www.tn.gov/content/dam/tn/health/program-areas/division-of-health-disparities-elimination/documents/HD_Report_FINAL_06122024.pdf
[4] Healthy People 2030. Social Determinants of Health. https://health.gov/healthypeople/priority-areas/social-determinants-health

The Current State of Health in Tennessee

The health of Tennesseans remains among the lowest in the nation. In the 2023 America's Health Rankings Report, Tennessee ranked 44th in the nation on key indicators of health. Since the inception of the Rankings in the 1990s, Tennessee has consistently ranked among the bottom 10 states in the United States.[5] As the Department seeks to improve the health of Tennesseans, taking action informed by high-quality data is essential to seeing improvements among national rankings and in the lives of Tennesseans. In total, the State of Health Report considers over 100 metrics to assess the State of Health in Tennessee (Appendix D). The 2024 State of Health Report seeks to provide data the Department and its internal and external partners can use to guide decision-making, prioritize initiatives, and ultimately move towards the Healthy Tennessee envisioned in the Department's Vision: "Healthy People, Healthy Communities, Healthy Tennessee." All data in the State of Health Report are also available online in the form of data dashboards and infographics.[6]

Healthy People

The World Health Organization defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."[7] Considering this definition and the role of social determinants of health in determining health outcomes, the metrics reviewing A Healthy People include not only disease incidence and mortality, but the factors that influence Tennesseans' health and quality of life. By holistically assessing both existing health challenges and the circumstances surrounding those challenges, a path for improving health can be forged.

A Healthy Start

To assess if Tennessee's children and youth are having a healthy start in life, the State of Health report considers metrics across three areas: social determinants of health such as poverty and education, health behaviors and conditions such as vaccination and mental health, and specific metrics around pregnancy and childbirth.

A Healthy Start				
Children in Poverty*	Child Food Insecurity*	WIC Coverage	SNAP Participation	Foster Care
Child Care	School Nurses	School Counselors	Third Grade Reading Level	ACEs*
Neighborhood Violence	Physical Dating Violence	Childhood Vaccinations*	HPV Vaccinations	Congenital Syphilis*
Youth Obesity*	Asthma*	Electronic Vapor Usage	Drugs on School Property	Hopelessness
Suicide Attempt	Suicide Mortality*	Prenatal Care	Smoking During Pregnancy	Preterm Births
Low Birthweight *	Breastfeeding*	Postpartum Depression	Infant Mortality*	Pregnancy-Related Mortality*
Pregnancy-Associated, not related, deaths*	Teen Births*			

[5] America's Health Rankings https://www.americashealthrankings.org/
[6] Tennessee Department of Health. The State of Health in Tennessee. https://www.tn.gov/health/health-program-areas/state-health-plan/redirect-state-health-plan/the-state-of-health-in-tennessee.html
[7] World Health Organization. Constitution. https://www.who.int/about/governance/constitution

*Related information on health disparities included in the Department's 2024 "Health Disparities in Tennessee" report.[8]

Social Determinants of Health

Poverty and Food Insecurity

- In 2022, 17.6% of Tennessee's children were **Children in Poverty.**[9]
- In 2022, 17.9% of TN children were estimated to be **Food Insecure** according to Feeding America**.**[10]
- In 2021, 30.5% of children eligible for **WIC** in Tennessee received WIC benefits**.**[11]
- In 2019, 88% of Tennesseans who were eligible for **SNAP** were receiving benefits.[12]

Child poverty is associated with chronic illness, environmental exposure and overall "lifelong hardship."[13] The percentage of **Children in Poverty** in Tennessee and the United States has decreased since 2018. In 2022, 17.6% of Tennessee's children were living below the poverty level compared to 16.3% in the United States.[14] Poverty also leads to poor nutrition and **Child Food Insecurity**. According to a 2019 study, "children in food-insecure households had rates of lifetime asthma diagnosis and depressive symptoms that were 19.1% and 27.9% higher, rates of foregone medical care that were 179.8% higher, and rates of emergency department use that were 25.9% higher."[15] In 2022, 17.9% of TN children were estimated to be food insecure, compared to 18.5% in the United States according to Feeding America's annual Map the Meal Gap report.[16]

Programs that seek to combat the impacts of poverty and food insecurity include the Special Supplemental Nutrition Program for Women, Infants, and Children (**WIC**) and Special Nutrition Assistance Program (**SNAP**). Despite being eligible, many families may have difficulty accessing the benefits offered through these programs. Child WIC coverage is defined as the percentage of children ages 1-4 eligible for the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) who received WIC benefits in an average month. From 2017-2021, Tennessee had a lower percentage of eligible children receiving WIC benefits compared to the United States. Overall WIC Coverage, defined as the percentage of women, infants and children eligible for WIC who received WIC benefits, was below 50% across all years. Only 41% of all persons eligible for WIC received WIC benefits in an average month in 2021 in Tennessee. However, the continuation of virtual WIC appointments that started in 2020 has reduced barriers such as time and transportation and is leading to an increase in WIC participation. Tennessee's WIC participation has increased 12% from federal fiscal year (FFY) 2020 to FFY 2023 compared to the Southeast Region states' 5% increase and the Nation's 4% increase in participation.[17] Child

[8] TN Department of Health. Health Disparities in Tennessee. 2024 Report. https://www.tn.gov/content/dam/tn/health/program-areas/division-of-health-disparities-elimination/documents/HD_Report_FINAL_06122024.pdf
[9] United States Census Bureau. American Community Survey 1-Year Public Use Estimates.
[10] Feeding America. 2024 Map the Meal Gap. United States Department of Agriculture, Economic Research Service - Current Population Survey, Food Security Supplement. Accessed via https://map.feedingamerica.org/county/2022/child/tennessee
[11] United States Department of Agriculture Food and Nutrition Service, National and State Level Estimates of WIC Eligibility and Program Reach in 2021. Retrieved from https://www.fns.usda.gov/research/wic/eligibility-and-program-reach-estimates-2021
[12] United States Department of Agriculture Food and Nutrition Service. Retrieved from www.fns.usda.gov
[13] Gitterman, BA et al. Poverty and Child Health in the United States. *American Academy of Pediatrics. Pediatrics* (2016) 137 (4): e20160339. https://doi.org/10.1542/peds.2016-0339
[14] United States Census Bureau. American Community Survey 1-Year Public Use Estimates.
[15] Thomas, MMS, Miller, DP, Morrissey, TW. Food Insecurity and Child Health. *Pediatrics* (2019) 144 (4): e20190397. https://doi.org/10.1542/peds.2019-0397
[16] Feeding America. 2024 Map the Meal Gap. United States Department of Agriculture, Economic Research Service - Current Population Survey, Food Security Supplement. Accessed via https://map.feedingamerica.org/county/2022/child/tennessee
[17] United States Department of Agriculture Food and Nutrition Service, WIC Data Tables. https://www.fns.usda.gov/pd/wic-program. Data Note: Data from FFY 2023 is preliminary and includes October 2022 – May 2023.

participation in Tennessee WIC increased 25% from FFY 2020 to FFY 2023.[18] Participation in SNAP in Tennessee was higher than WIC. In 2019, 88% of Tennessee who were eligible for SNAP were receiving benefits compared to 82% in the United States.[19] However, nationally, "nearly 50% of people facing hunger are unlikely to quality for SNAP," suggesting that these programs alone are not sufficient to address food insecurity.[20]

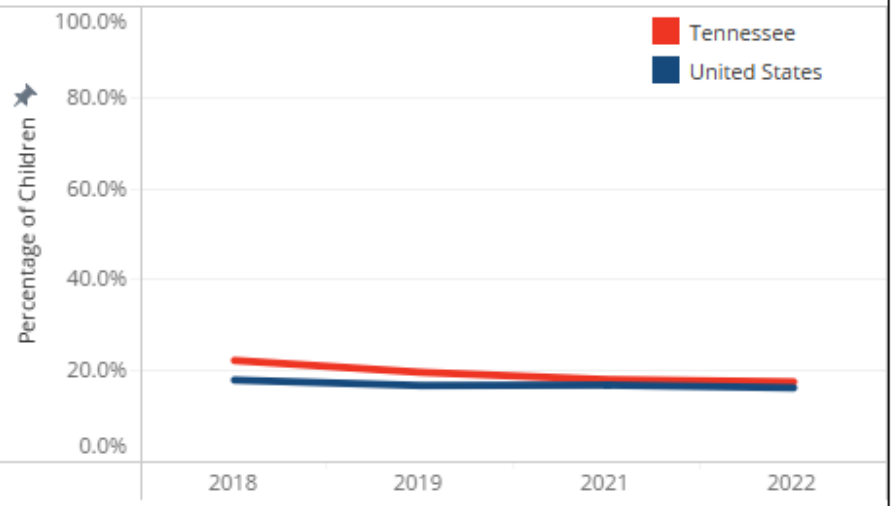
[18] United States Department of Agriculture Food and Nutrition Service, WIC Data Tables. https://www.fns.usda.gov/pd/wic-program. Data Note: Data from FFY 2023 is preliminary and includes October 2022 – May 2023.

[19] United States Department of Agriculture Food and Nutrition Service. Retrieved from www.fns.usda.gov

[20] Map the Meal Gap 2024 Report. May 2024. https://www.feedingamerica.org/sites/default/files/2024-05/MMG%202024%20Executive%20Summary%20%281%29.pdf

Children in Poverty

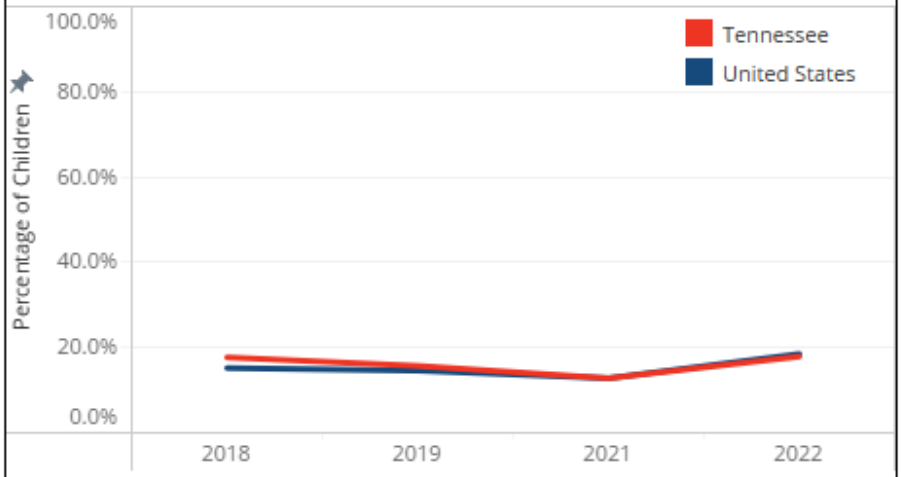
Percentage of all persons under 18 years of age whose income in the past 12 months is below the poverty level.



Data Source: United States Census Bureau. American Community Survey 1-Year Public Use Estimates. 2020 data not available.

Food Insecurity in Children

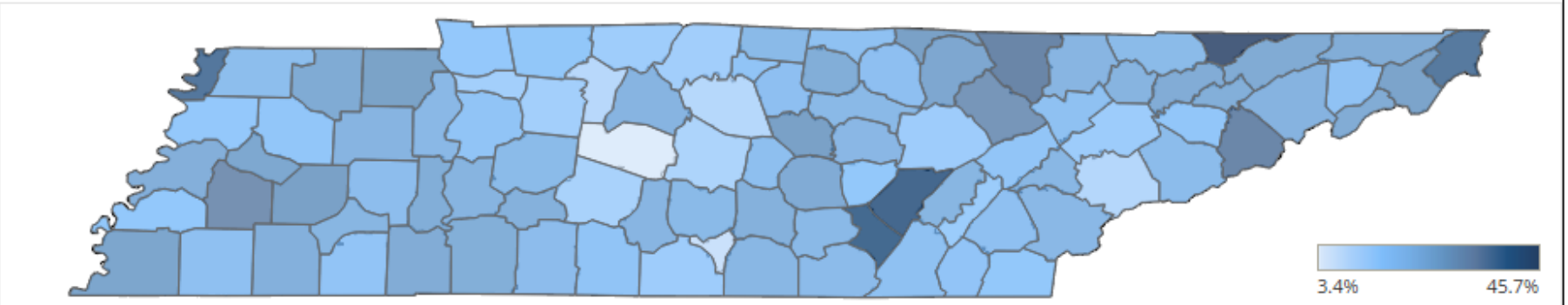
Percentage of children who are food insecure according to Feeding America's annual Map the Meal Gap report.



Data Source: Feeding America. 2024 Map the Meal Gap. United States Department of Agriculture, Economic Research Service - Current Population Survey, Food Security Supplement.

Children in Poverty

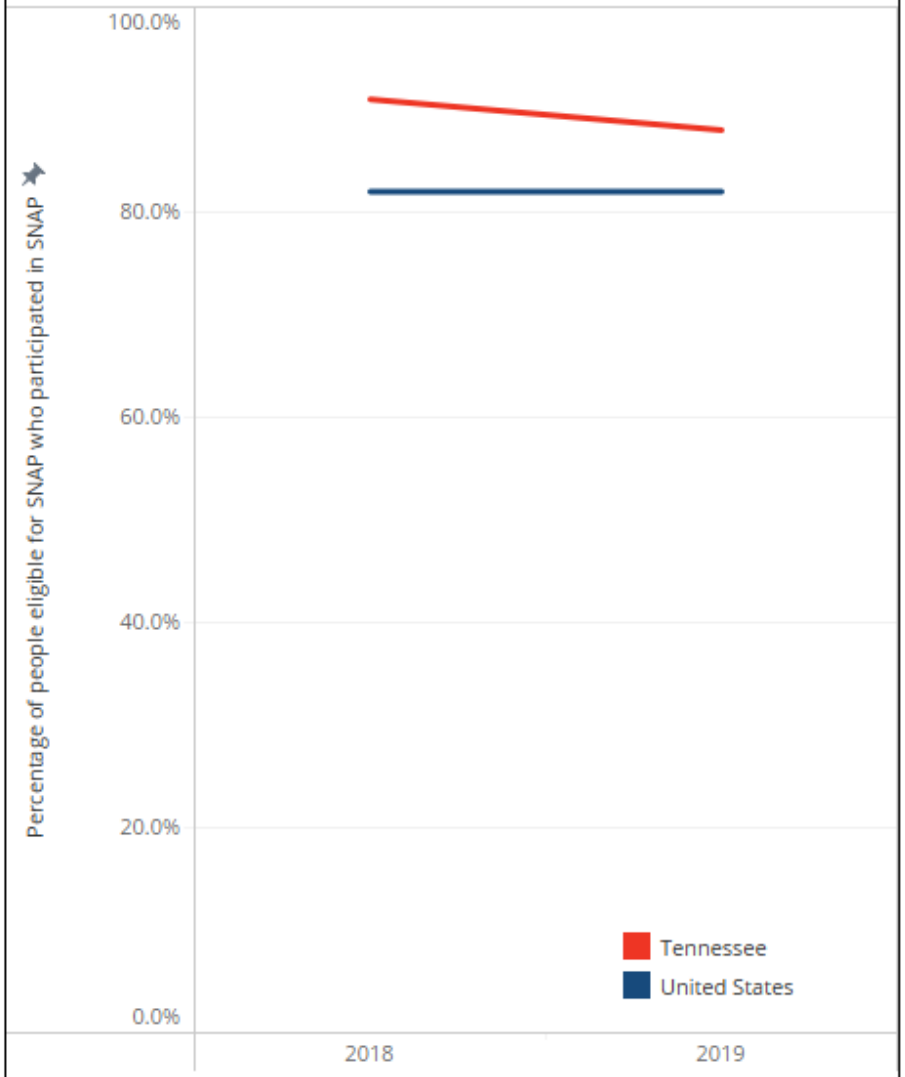
Percentage of all persons under 18 years of age whose income in the past 12 months is below the poverty level from 2018-2022.



Data Source: United States Census Bureau. American Community Survey 5-Year Public Use Estimates.

SNAP Participation

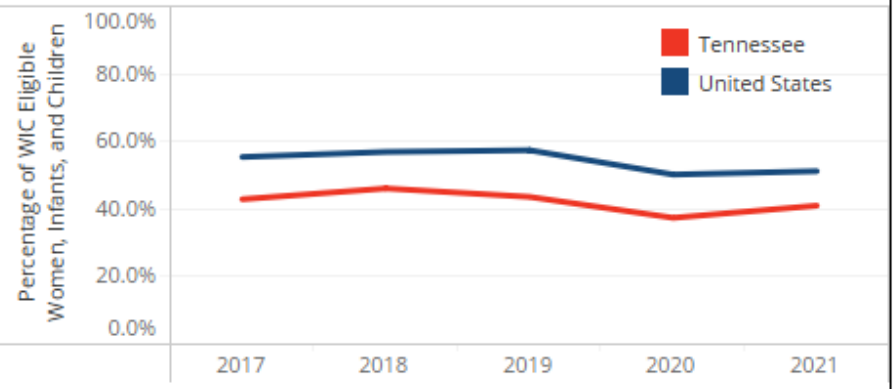
Percentage of people who were eligible for SNAP who actually participated in the program.



Data Source: United States Department of Agriculture Food and Nutrition Service. Retrieved from www.fns.usda.gov

Overall WIC Coverage

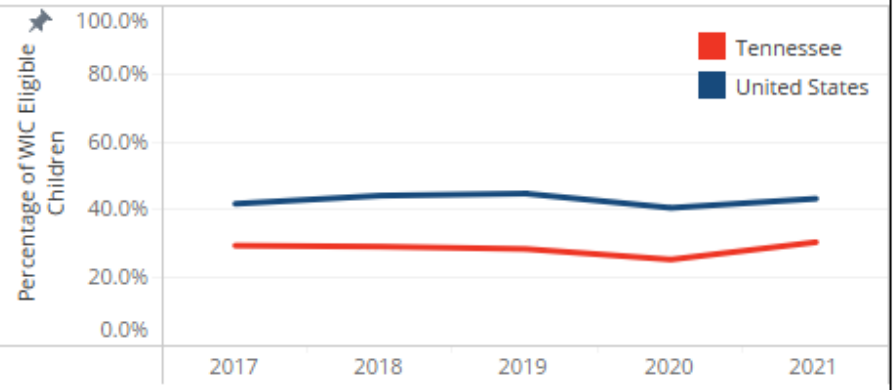
Percentage of women, infants, and children eligible for the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) who received WIC benefits in an average month.



Data Source: United States Department of Agriculture Food and Nutrition Service, National and State Level Estimates of WIC Eligibility and Program Reach in 2021.

Child WIC Coverage

Percentage of children ages 1-4 eligible for the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) who received WIC benefits in an average month.



Data Source: United States Department of Agriculture Food and Nutrition Service, National and State Level Estimates of WIC Eligibility and Program Reach in 2021.

Child Care Systems and Education

- In 2021, 24.3% of children entering **Foster Care** in Tennessee were re-entering after a prior episode. Of those, half were re-entering after less than 12 months.[21]
- In 2023, 17.9% of Tennessee counties did not have a **Child Care** facility that offered at least one type of discount (multi-child discount, sliding fee scale, scholarship, or other).[22]
- During the 2022-2023 school year, 72% of public schools employed a full-time **School Nurse**.[23]
- In the 2022-2023 school year, 84% of Tennessee schools met the recommendation of one **School Counselor** per 500 students.[24]
- In 2023, 40.5% of Tennessee public school students in grade 3 were reading at the **Third Grade Reading Level.**[25]

Children in **Foster Care** are at greater risk of mental, physical, and social health issues.[26] Additionally, experiencing instability within the foster care system, such as experiencing multiple placements within a short amount of time, can lead to the development of behavioral issues such as difficulty forming attachments and low self-esteem.[27] In 2021, 24.3% of children entering foster care in Tennessee were re-entering after a prior episode. Of those, half were re-entering within 12 months of a prior episode.

Child Care availability, capacity, and cost are significant barriers to Tennessee families and may impact a parent's ability participate in the labor force. An analysis by the Economic Policy Institute in 2020 showed that infant care in Tennessee costs approximately 16.7% of median family income ($52,325).[28] Depending on income, parents may be priced out of accessing child care altogether. In Tennessee, the median child care worker salary is $19,760 and annual child care costs $8,732. Therefore, if a child care worker sought care for their own child, they would spend 44.2% of their salary on child care. One way to mitigate cost of child care for families is through use of discounts such a multi-child discount, sliding fee scale, or scholarship. In 2023, 17.9% of Tennessee counties did not have a DHS licensed child care facility that offered a discount. Even in counties where a discount program may be present, availability can still be limited. For example, in 2023 in Cocke County, only 4.7% of children attending a DHS licensed childcare facility would have had potential access to a discount.[29] Access to affordable, high-quality child care can positively impact families economically by enabling more adults

[21] US Department of Health and Human Services, Administration of Children and Families. Child Welfare Outcomes Tennessee. Accessed via Tennessee Commission on Children and Youth. 2023 State of The Child Report.
[22] Licensed childcare facility list accessed on December 15, 2023 on the Tennessee Department of Human Services website.
[23] Tennessee Coordinated School Health Annual School Health Services Report. Retrieved from www.tn.gov/education
[24] Tennessee Coordinated School Health Annual Report; Note: Recommended student to counselor ratio varies by state and therefore U.S. and state comparison is not available. Retrieved from www.tn.gov/education
[25] (3rd grade): Tennessee Department of Education
[26] Turney K, Wildeman C. Mental and Physical Health of Children in Foster Care. Pediatrics. 2016 Nov;138(5):e20161118. doi: 10.1542/peds.2016-1118. Epub 2016 Oct 17. PMID: 27940775.
[27] Rubin DM, O'Reilly AL, Luan X, Localio AR. The impact of placement stability on behavioral well-being for children in foster care. Pediatrics. 2007 Feb;119(2):336-44. Doi: 10.1542/peds.2006-1995. PMID: 17272624; PMCID: PMC2693406.
[28] Economic Policy Institute. Child Care Costs in the United States. October 2020. https://www.epi.org/child-care-costs-in-the-united-states/
[29] Licensed childcare facility list accessed on December 15, 2023 on the Tennessee Department of Human Services website.

to fully participate in the workforce. Additionally, participation in child care and early education programs can result in health benefits for children. Such benefits may include improvements in blood-pressure, reduction in smoking as adults, and reduction in depression throughout childhood and adulthood.[30]

According to the TN Department of Education, "**School Nurses** provide services such as assessment, planning, care-coordination, critical thinking skills, quality improvement, health education and promotion which benefit schools, families, and children with acute and chronic health conditions." In the 2022-2023 school year, 72% of public schools employed a full-time nurse, down from 81% in the 2021-2022 school year.[31] **School Counselors** play an important role in meeting the needs of Tennessee's school children through supporting academic, career, and social and emotional development. Recommended student to counselor ratio varies by state with Tennessee's standard being one certified counselor per 500 students. In the 2022-2023 school year, 84% of Tennessee schools met this recommendation. [32] More information on the role of school counselors in Tennessee is available within the Tennessee State Board of Education's School Counseling Model and Standards Policy.[33]

Tennessee has assessed **Third Grade Reading Level** as both a measure of health and education for years. Literacy level impacts everything from lifetime earning potential to adherence to medical advice.[34] In 2023, 40.5% of Tennessee public school students in grade 3 "met" or "exceeded expectations" on English Language Arts TN Ready testing.[35] Nationally 4th grade reading level is used to compare testing. In 2022, 30% of Tennessee 4th graders were reading proficiently compared to 32% in the United States overall.[36] Reading proficiency in Tennessee and the United States have decreased in part due to COVID-19 related impacts. However, Tennessee's recent ELA scores are better than 2019, when 36.7% of third graders were reading at grade level.[37]

[30] The Effects of Early Care and Education on Children's Health, " Health Affairs Health Policy Brief, April 25, 2019. DOI: 10.1377/hpb20190325.519221
[31] Tennessee Coordinated School Health Annual School Health Services Report. www.tn.gov/education
[32] Tennessee Coordinated School Health Annual Report; Note: Recommended student to counselor ratio varies by state and therefore U.S. and state comparison is not available. Retrieved from www.tn.gov/education
[33] Tennessee State Board of Education. School Counseling Model and Standards Policy 5.103. Revised August 4, 2023. https://www.tn.gov/content/dam/tn/stateboardofeducation/documents/2023-sbe-meetings/august-4%2c-2023-sbe-meeting/8-4-23%20IV%20A%20School%20Counseling%20Model%20and%20Standards%20Policy%205.103%20Clean.pdf
[34] TN Dept of Health. 3rd Grade Reading Level. https://www.tn.gov/health/health-program-areas/tennessee-vital-signs/redirect-tennessee-vital-signs/vital-signs-actions/3rd-grade-reading-level.html
[35] Tennessee Department of Education
[36] National Assessment of Educational Progress (NAEP) Report Card: Reading, State Achievement Level Results. Retrieved from www.nationsreportcard.gov
[37] TN Department of Education. Tennessee Makes Historic Gains in Third Grade Reading, Offers Strong Support for Students. May 22, 2023. https://www.tn.gov/education/news/2023/5/22/tennessee-makes-historic-gains-in-third-grade-reading--offers-strong-support-for-students-.html

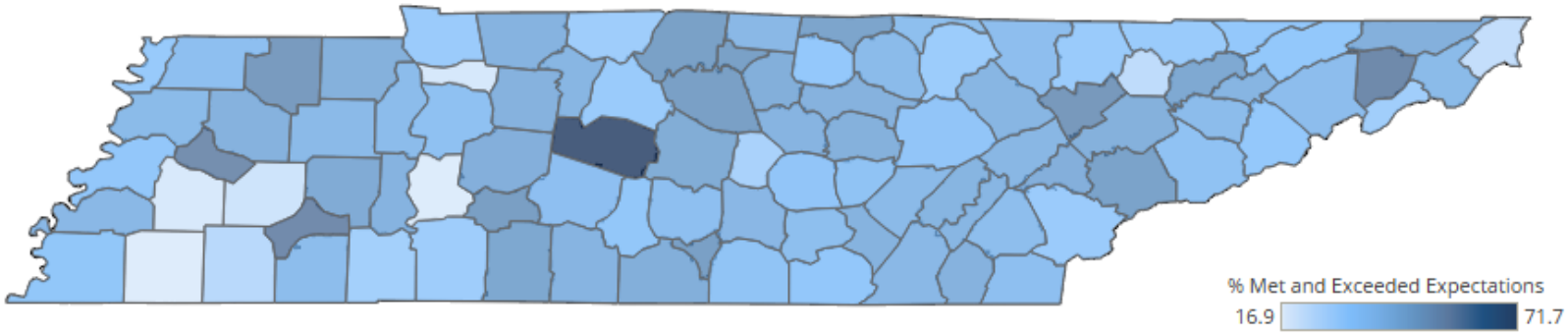
3rd Grade Reading Level

Percentage of public school students in Tennessee in grade 3 that test "met" and "exceeded expectations" for English Language Arts on TN Ready tests.

Data Source (3rd grade): Tennessee Department of Education. 2020 data missing because testing did not occur in 2020 due to COVID-19.
Data Source (4th grade): National Assessment of Educational Progress (NAEP) Report Card: Reading, State Achievement Level Results. Retrieved from www.nationsreportcard.gov

3rd Grade Reading Level in 2023

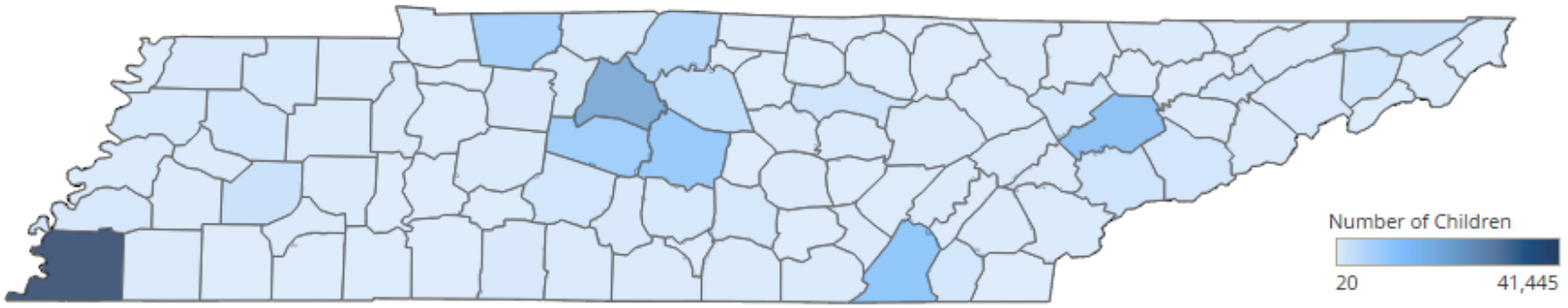
Percentage of public school students in Tennessee in grade 3 that test "met" and "exceeded expectations" for English Language Arts on TN Ready tests.



Data Source: Tennessee Department of Education

Capacity of Licensed Child Care Facilities

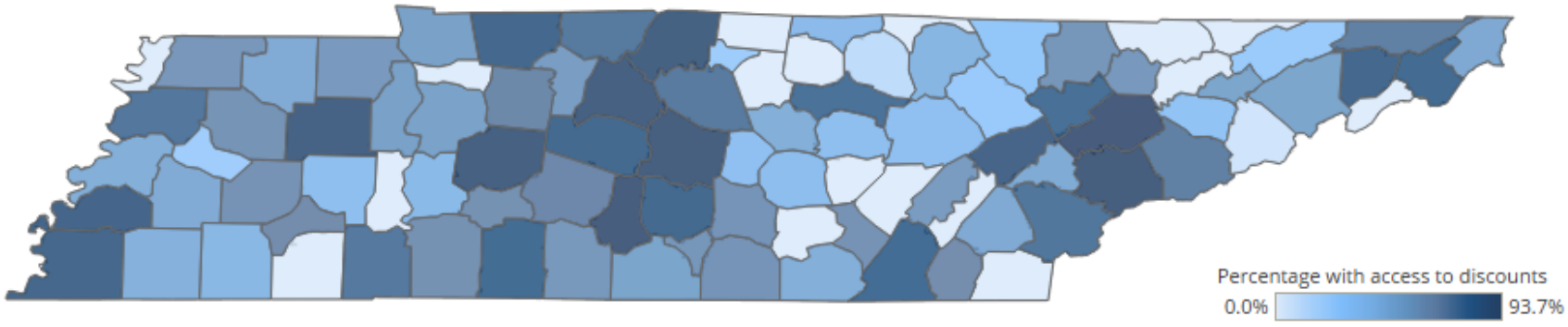
Number of children DHS licensed child care facilities have capacity to serve in 2023.



Data Source: Licensed child care facility list accessed on December 15th, 2023 on the Tennessee Department of Human Services website.

Child Care Discounts

Percentage of children attending a DHS licensed child care facility with potential acccess to at least one type of discount (multi-child discount, sliding fee scale, scholarship, or other) in 2023.



Data Source: Licensed child care facility list accessed on December 15th, 2023 on the Tennessee Department of Human Services website.

Trauma and Youth Safety

- In 2021, 21.5% of children in Tennessee experienced two or more **Adverse Childhood Experiences**, compared to 17.2% in the United States.[38]
- In 2021, Tennessee's youth were statistically more likely to have been exposed to **Neighborhood Violence** compared to the United States.[39]
- In 2021, the percent of youth who experienced **Physical Dating Violence** in Tennessee was 10.9% compared to 8.5% in the United States.[40]

Adverse Childhood Experiences, or ACEs, are closely linked to health outcomes and socioeconomic status later in life. Adverse Childhood Experiences may include but are not limited to "experiencing violence, abuse or neglect; witnessing violence in the home or community; having a family member attempt or die by suicide; growing up in a household with substance use problems, mental health problems, or instability due to parents' separation or incarceration of a household member."[41] Children with a higher number of ACEs are more likely to experience chronic health conditions, such as heart disease and depression, and negative impacts on lifetime earning potential. In 2021, 21.5% of children experienced two or more ACEs in Tennessee, compared to 17.2% in the United States. Evidence is emerging on how positive childhood experiencies (PCEs) act as protective factors against the health effects of ACEs and contribute to overall positive child well-being.[42] Positive childhood experiences include: being able to talk with family about feelings, feeling that family stood by during difficult times, enjoying participating in community traditions, feeling a sense of belonging in high school, feeling supported by friends, having at least two non-parent adults who take a genuine interest, and feeling safe and protected by an adult in the home. In 2021, 78.2% of Tennesseans had 5-7 positive childhood experiences.[43]

Exposure to **Neighborhood Violence** is an ACE that can have significant impacts on child development over time. In 2021, exposure to neighborhood violence, defined as the percentage of high school students who ever saw someone get physically attacked, beaten, stabbed, or shot in their neighborhood, was statistically higher in Tennessee than in the United States.[44] In 2021, 25.0% of youth in Tennessee were exposed to neighborhood violence compared to 19.9% in the United States.[45]

Further violence as children age impacts health including **Physical Dating Violence**. Physical dating violence is defined as being physically hurt on purpose through things such as being hit, slammed into something, or injured with an object or weapon by someone they were dating or going out with. According to the CDC, youth who are victims of dating violence are more likely to "experience depression and anxiety, engage in unhealthy behaviors such as using drugs or alcohol, exhibit

[38] National Survey of Children's Health. Retrieved from www.childhealthdata.org
[39] Centers for Disease Control, Youth Risk Behavior Surveillance System
[40] Centers for Disease Control, Youth Risk Behavior Surveillance System
[41] CDC. Violence Prevention Facts. ACEs. https://www.cdc.gov/violenceprevention/aces/fastfact.html
[42] Centers for Disease Control. Creating Positive Childhood Experiences. https://www.cdc.gov/injury/features/prevent-child-abuse/index.html
[43] TN Department of Health. Behavioral Health Risk Surveillance System. 2021.
[44] Centers for Disease Control, Youth Risk Behavior Surveillance System
[45] Centers for Disease Control, Youth Risk Behavior Surveillance System

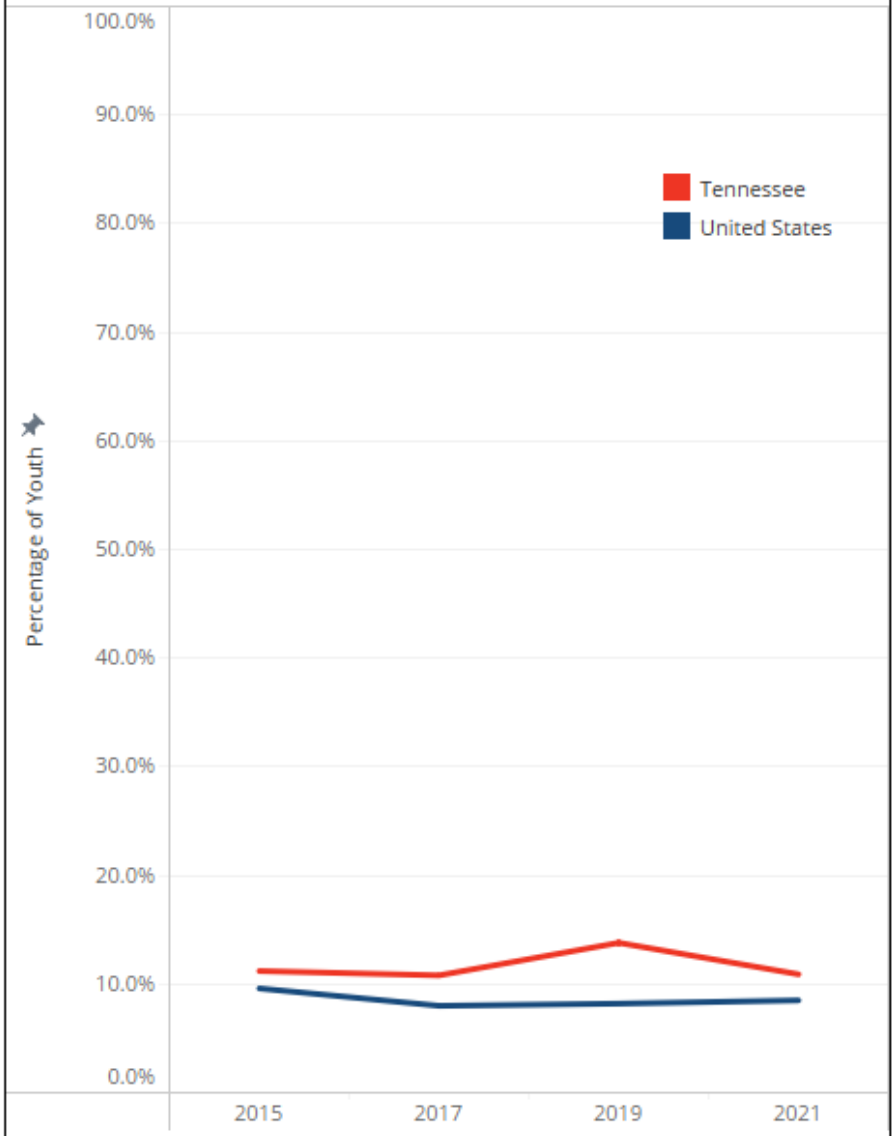
antisocial behaviors like bullying, and think about suicide."[46] In 2019, the percent of youth who experienced physical dating violence in Tennessee was statistically higher than the United States average. In 2021, the percent of youth who were dating someone and experienced physical dating violence in Tennessee (10.9%) was higher than in the United States (8.5%), but not statistically higher.[47]

[46] CDC. Violence Prevention. Teen Dating Violence. https://www.cdc.gov/violenceprevention/intimatepartnerviolence/teendatingviolence/fastfact.html#:~:text=Youth%20who%20are%20victims%20of,%2C%20theft%2C%20bullying%2C%20or%20hitting

[47] Centers for Disease Control, Youth Risk Behavior Surveillance System

Physical Dating Violence

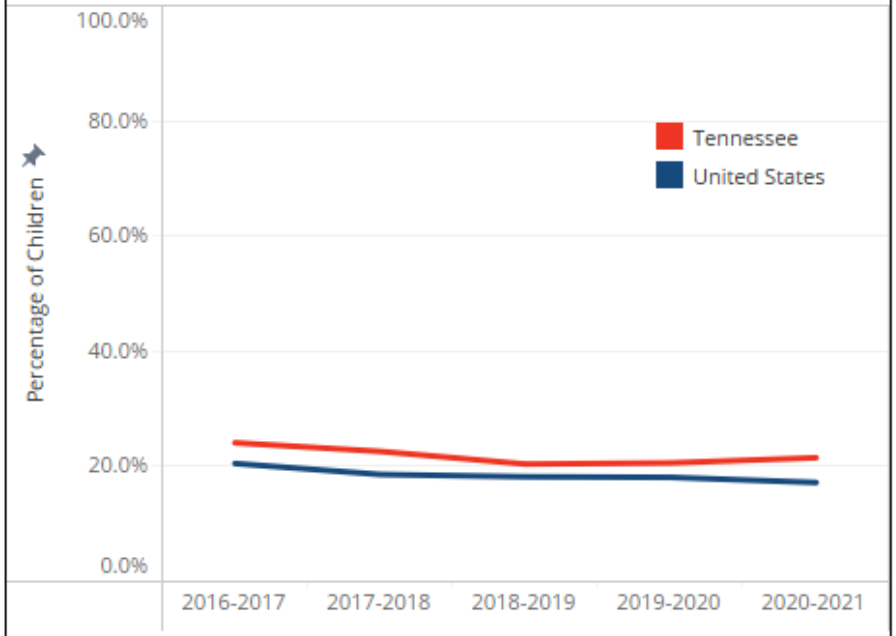
Percentage of those who experienced physical dating violence, one or more times, among students who dated or went out with someone during the 12 months before the survey.



Data Source: Centers for Disease Control, Youth Risk Behavior Surveillance System

Adverse Childhood Experiences

Percentage of children ages 0-17 who experienced two or more Adverse Childhood Experiences (ACEs).



Data Source: National Survey of Children's Health. Retrieved from www.childhealthdata.org

Exposure to Neighborhood Violence

Percentage of high school students who ever saw someone get physically attacked, beaten, stabbed, or shot in their neighborhood.

In 2021, Tennessee's youth were statistically more likely to have been exposed to neighborhood violence compared to the United States.

	2021
Tennessee	25.0%
United States	19.9%

Data Source: Centers for Disease Control, Youth Risk Behavior Surveillance System

Health Behaviors and Conditions

Infectious Disease

- 75.5% of children born in 2020 in Tennessee received the recommended **Childhood Vaccinations** by age 35 months.[48]
- In 2022, 64.4% of adolescents in Tennessee had received the **HPV** vaccine.[49]
- From 2017 to 2021, there was a 227% increase in **Congenital Syphilis** cases in Tennessee, compared to a 185% increase nationally. [50]

The 7-vaccine series recommended for all children protects against diphtheria, pertussis, tetanus, polio, measles, mumps, rubella, hepatitis B, Haemophilus influenza type b, varicella, and pneumococcal infections. For children born in 2020, 75.5% of children in Tennessee received the recommended **Childhood Vaccinations** by age 35 months. [51]

As children age, further vaccinations are recommended including the **Human Papillomavirus (HPV)** vaccination. HPV is the most common sexually transmitted infection (STI) in the United States and can lead to the development of genital warts and cancers of the cervix, vagina, vulva, penis, anus, and back of the throat (oropharyngeal).[52] The CDC recommends that all children aged 11-12 receive the HPV vaccine. Vaccination is recommended for anyone through age 26 if they are not vaccinated as a child, and unvaccinated adults over age 26 should consult with their clinician.[53] The percent of adolescents aged 13-17 receiving the HPV vaccination has increased in both Tennessee and the United States in recent years and in 2022, the percentage of adolescents with the HPV vaccine in Tennessee surpassed the US for the first time. In 2022, 62.6% of adolescents in the United States had received the HPV vaccine compared to 64.4% in Tennessee. [54] The CDC has a "Vaccines for Your Children" webpage complete with a "Childhood Vaccine Quiz" so parents can determine what vaccines are recommended for their child.[55]

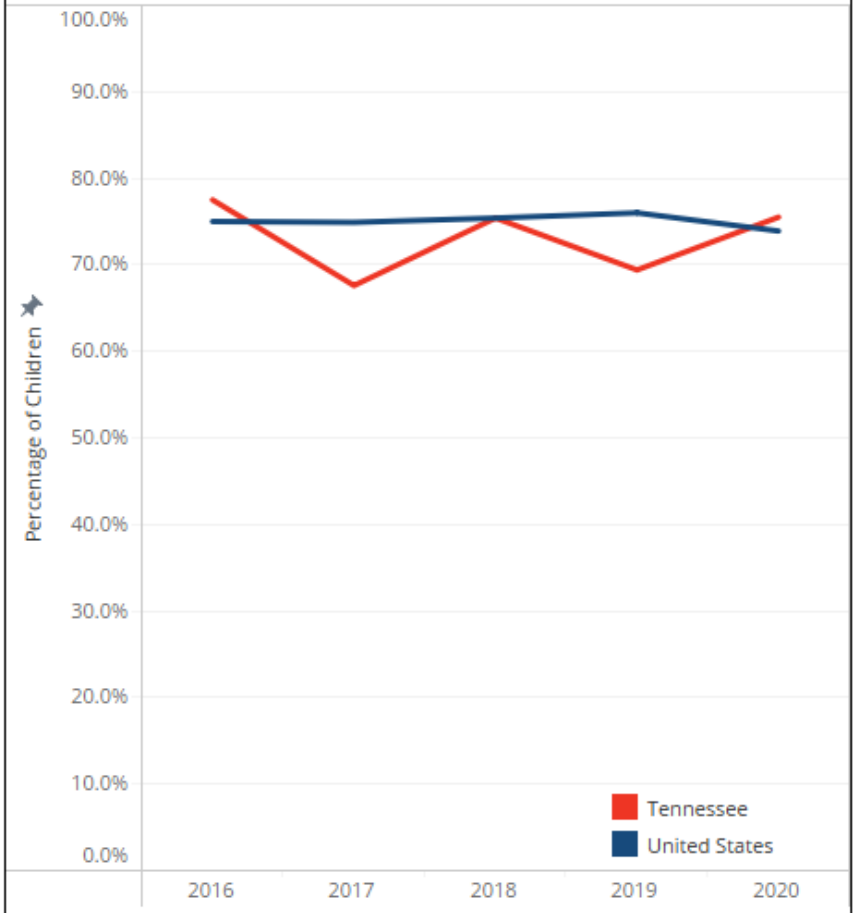
Congenital syphilis is an STI that can have a severe negative impact on children. Syphilis during pregnancy can result in miscarriage, stillbirth, preterm delivery as well as congenital infection, where syphilis is passed from the mother to the child. **Congenital Syphilis** can result in lifelong disabilities, development delays, and death. The rate of congenital syphilis per 100,000 live births has drastically increased in the United States and in Tennessee in recent years. From 2017 to 2021, there was a 227% increase in congenital syphilis cases in Tennessee, compared to a 185% increase nationally.[56] In 2021, there were 44.1 congenital syphilis cases per 100,000 live births in Tennessee compared to 77.9 cases per 100,000 live births in the United States. [57] While the number of pregnant women with syphilis in Tennessee has increased fivefold between 2012 to

[48] Centers for Disease Control and Prevention, National Immunization Survey-Child (Birth Cohort). Accessed via CDC Child Vax View.
[49] Centers for Disease Control and Prevention, National Immunization Survey-Teen. Accessed via CDC Child Vax View.
[50] Tennessee Department of Health. Marked Congenital Syphilis Increase in Tennessee. https://www.tn.gov/content/dam/tn/health/documents/cedep/CS-THAN-2023.pdf
[51] Centers for Disease Control and Prevention, National Immunization Survey-Child (Birth Cohort). Accessed via CDC Child Vax View.
[52] Centers for Disease Control. HPV Fact Sheet. Feb 2024. https://www.cdc.gov/sti/about/about-genital-hpv-infection.html?CDC_AAref_Val=https://www.cdc.gov/std/hpv/stdfact-hpv.htm
[53] CDC. Vaccines and Preventable Diseases. HPV Vaccination Recommendations. https://www.cdc.gov/vaccines/vpd/hpv/hcp/recommendations.html
[54] Centers for Disease Control and Prevention, National Immunization Survey-Teen. Accessed via CDC Child Vax View.
[55] To view the CDC's Vaccines for Your Children webpage: https://www.cdc.gov/vaccines/parents/index.html
[56] Tennessee Department of Health. Marked Congenital Syphilis Increase in Tennessee. https://www.tn.gov/content/dam/tn/health/documents/cedep/CS-THAN-2023.pdf
[57] Department of Health Division of Communicable and Environmental Diseases and Emergency Preparedness.

2021, syphilis testing and treatment during pregnancy has prevented many congenital syphilis cases. Screening to detect and treat syphilis during pregnancy remains key to preventing congenital syphilis cases from rising further.

Childhood Vaccinations

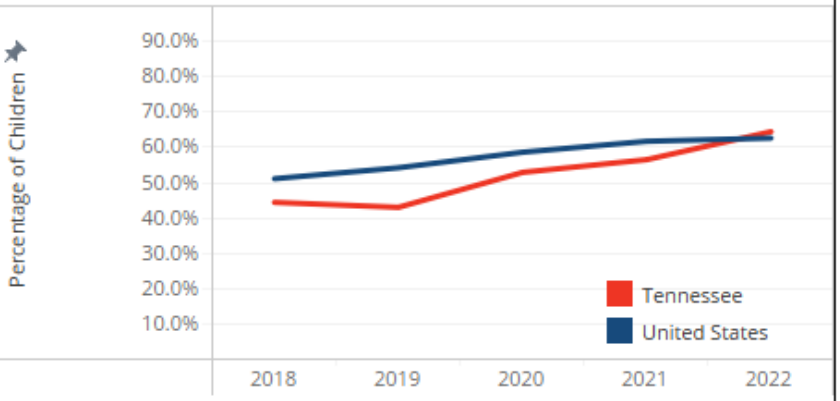
Percentage of children by birth year who received by age 35 months all recommended doses of the combined 7-vaccine series: (diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine; measles, mumps and rubella (MMR) vaccine; poliovirus vaccine; Haemophilus influenzae type b (Hib) vaccine; hepatitis B (HepB) vaccine; varicella vaccine; and pneumococcal conjugate vaccine (PCV)).



Data Source: Centers for Disease Control and Prevention, National Immunization Survey-Child (Birth Cohort). Accessed via CDC Child Vax View.

HPV Vaccination

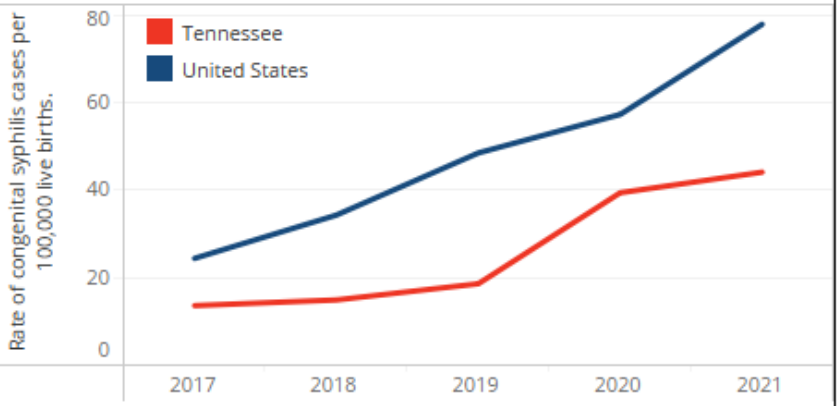
Percentage of adolescents ages 13-17 who received all recommended doses of the human papillomavirus (HPV) vaccine.



Data Source: Centers for Disease Control and Prevention, National Immunization Survey-Teen. Accessed via CDC Child Vax View.

Congenital Syphilis

Rate of congenital syphilis cases per 100,000 live births.



Data Source: (TN) Department of Health Division of Communicable and Environmental Diseases and Emergency Preparedness.
Data Note: 2016-2021 TN rates are based on counts <20 and should be interpreted with caution.

Health Indicators

- Tennessee saw a statistically significant increase in the prevalence of overweight and **obese youth** between the 2019-20 and 2021-22 school years.[58]
- In 2020-2021, 5.6% of children in Tennessee had **Asthma**.[59]
- In 2021, 39.5% of high school students in Tennessee reported ever using **Electronic Vapor Products**.[60]
- Since 2017, the percentage of high school students who were offered, sold, or given illegal **Drugs on School Property** has been statistically higher in Tennessee than in the United States.[61]

Youth Obesity can contribute to the development of health conditions such as Type 2 diabetes, high blood pressure, and joint pain.[62] Obesity in both children and adults can be influenced by genetics, disease or medications, and the physical environment as well as behaviors such as eating, physical activity and sleep.[63] The TN Department of Education and TN Department of Health have monitored trends of youth weight for years through the Coordinated School Health (CSH) program which issues an annual Body Mass Index (BMI) Data Report.[64] Tennessee saw a statistically significant increase in the number of students who had a BMI classifying them as overweight or obese between the 2019-20 and 2021-22 school years. In the 2019-20 school year, 39.7% of youth were overweight or obese compared to 42.8% in the 2021-22 school year. Children who are overweight or obese are also more likely to have **Asthma**.[65] In 2020-2021, 5.6% of children in Tennessee had Asthma, compared to 6.9% in the United States.[66] Addressing obesity as a public health priority is complex as the BMI is only a measure of body size, not of health or body fat, and was created using only certain body types. More public health entities are beginning the shift of how to approach obesity as a public health issue. For example, a recent Robert Wood Johnson Foundation report noted, "When we use BMI to put large-bodied people, including children, into categories of "obese" or "overweight," we inadvertently activate weight-based stigma. This can cause lasting psychological trauma in kids—manifested through low self-esteem, stress, anxiety, isolation, and eating disorders—which in turn contributes to poor health outcomes."[67] The 2024-2026 Tennessee State Health Plan acknowledges these complexities with a recommendation to, "Reduce weight-associated stigma by ensuring healthy living education for children and guardians focuses on how to establish a healthy relationship with food, eating, physical activity, and self-image without emphasizing weight change."[68]

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[58] Tennessee Department of Education Coordinated School Health Annual Body Mass Index Report
[59] National Survey of Children's Health, U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB).
[60] Centers for Disease Control, Youth Risk Behavior Surveillance System
[61] Centers for Disease Control, Youth Risk Behavior Surveillance System. Note: In 2015 Tennessee data was not collected.
[62] Mayo Clinic. Childhood Obesity. Accessed December 2022 from https://www.mayoclinic.org/diseases-conditions/childhood-obesity/symptoms-causes/syc-20354827
[63] Centers for Disease Control. Causes of Obesity. https://www.cdc.gov/obesity/basics/causes.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fobesity%2Fchildhood%2Fcauses.html
[64] To view the CSH BMI Reports visit: https://www.tn.gov/education/health-and-safety/coordinated-school-health/csh-reports-data.html
[65] Mayo Clinic. Childhood Obesity. Accessed December 2022 from https://www.mayoclinic.org/diseases-conditions/childhood-obesity/symptoms-causes/syc-20354827
[66] National Survey of Children's Health, U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB)
[67] Robert Wood Johnson Foundation. State of Childhood Obesity. Meeting the Moment. November 2022. https://stateofchildhoodobesity.org/wp-content/uploads/2022/11/Meeting-the-Moment-2022-final_WEB.pdf
[68] TN Department of Health. 2024-2026 State Health Plan. March 2024. https://www.tn.gov/content/dam/tn/health/program-areas/state-health-plan/2024-2026TNStateHealthPlan.pdf

The use of **Electronic Vapor Products** can expose users to nicotine and other harmful substances such as heavy metals, carcinogens, and ultrafine particles that can be inhaled deep into the lungs.[69,70] A recent study showed that "for cardiovascular disease, stroke, and metabolic dysfunction, the odds between of disease between current e-cigarette and cigarette use were similar.[71]" Additionally, the analysis indicated that dual use of electronic vapor products and cigarettes is especially harmful. In 2021, the percentage of Tennessee high school students who reported ever using electronic vapor products was 39.5%, compared to 36.2% in the United States.[72] Accessing electronic vapor products and other substances including illegal drugs can occur on school property**.** In 2021, 23.4% of Tennessee high school students were offered, sold, or given illegal **Drugs on School Property** compared to 13.9% in the United States. Since 2017, this percentage has been statistically higher in Tennessee compared to the United States.[73]

[69] CDC. Smoking and Tobacco Use. Quick Facts of the Risk of E-cigarettes for kids, teens, and young adults. Accessed December 2022 from https://www.cdc.gov/tobacco/basic_information/e-cigarettes/Quick-Facts-on-the-Risks-of-E-cigarettes-for-Kids-Teens-and-Young-Adults.html#:~:text=The%20use%20of%20e%2Dcigarettes,the%20early%20to%20mid%2D20s.&text=E%2Dcigarettes%20can%20contain%20other%20harmful%20substances%20besides%20nicotine..

[70] CDC. Electronic Nicotine Delivery Systems. Accessed January 2023 at Electronic Nicotine Delivery Systems | NIOSH | CDC

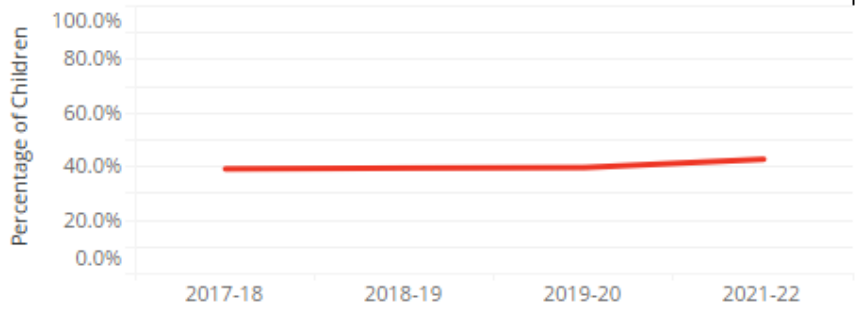
[71] Glantz, S. A., Nguyen, N., & Luiz, A. (2024). Population-Based Disease Odds for E-Cigarettes and Dual Use versus Cigarettes. NEJM Evidence, 3(3). https://doi.org/10.1056/evidoa2300229

[72] Centers for Disease Control, Youth Risk Behavior Surveillance System

[73] Centers for Disease Control, Youth Risk Behavior Surveillance System. Note: In 2015 Tennessee data was not collected.

Youth Obesity

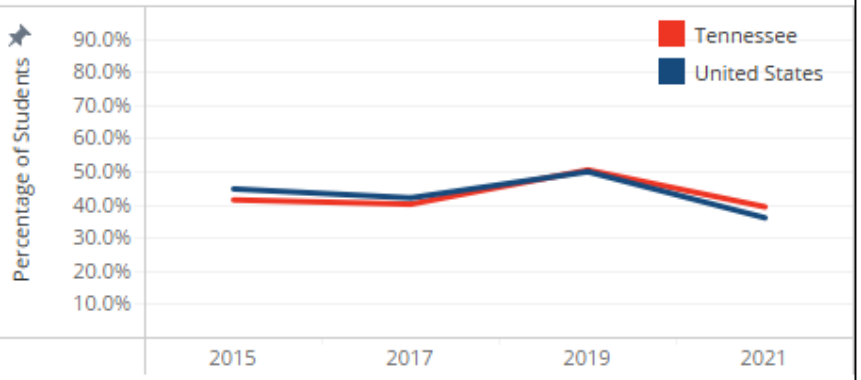
Percentage of public school students in Tennessee with a body mass index (BMI) greater than or equal to the 85th percentile for children of the same age and sex.



Data Source: Tennessee Department of Education Coordinated School Health Annual Body Mass Index Report.
Data Note: Data not collected in 2020-2021 school year.

Electronic Vapor Usage

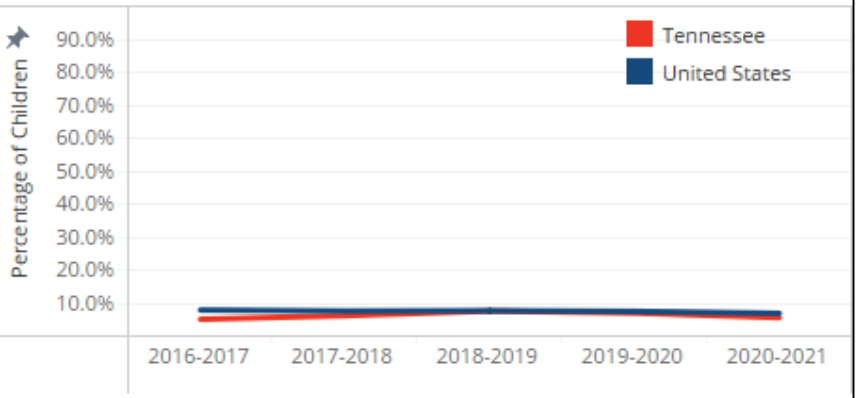
Percentage of high school students who reported ever using electronic vapor products (including e-cigarettes, vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods).



Data Source: Centers for Disease Control, Youth Risk Behavior Surveillance System

Asthma

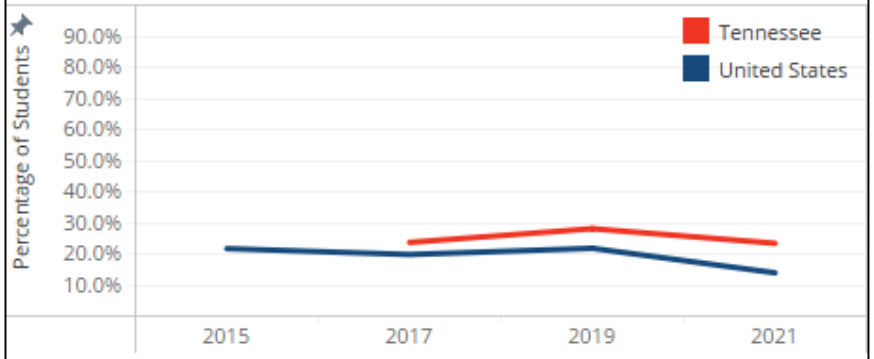
Percentage of children ages 0-17 who currently have asthma (2-year estimate)



Data Source: National Survey of Children's Health, U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB)

Drugs on School Property

Percentage of high school students who were offered, sold, or given an illegal drug on school property (during the 12 months before the survey). Since 2017, this percentage has been statistically higher in Tennessee compared to the United States.



Data Source: Centers for Disease Control, Youth Risk Behavior Surveillance System
Data Note: In 2015 Tennessee data was not collected.

Youth Mental Health

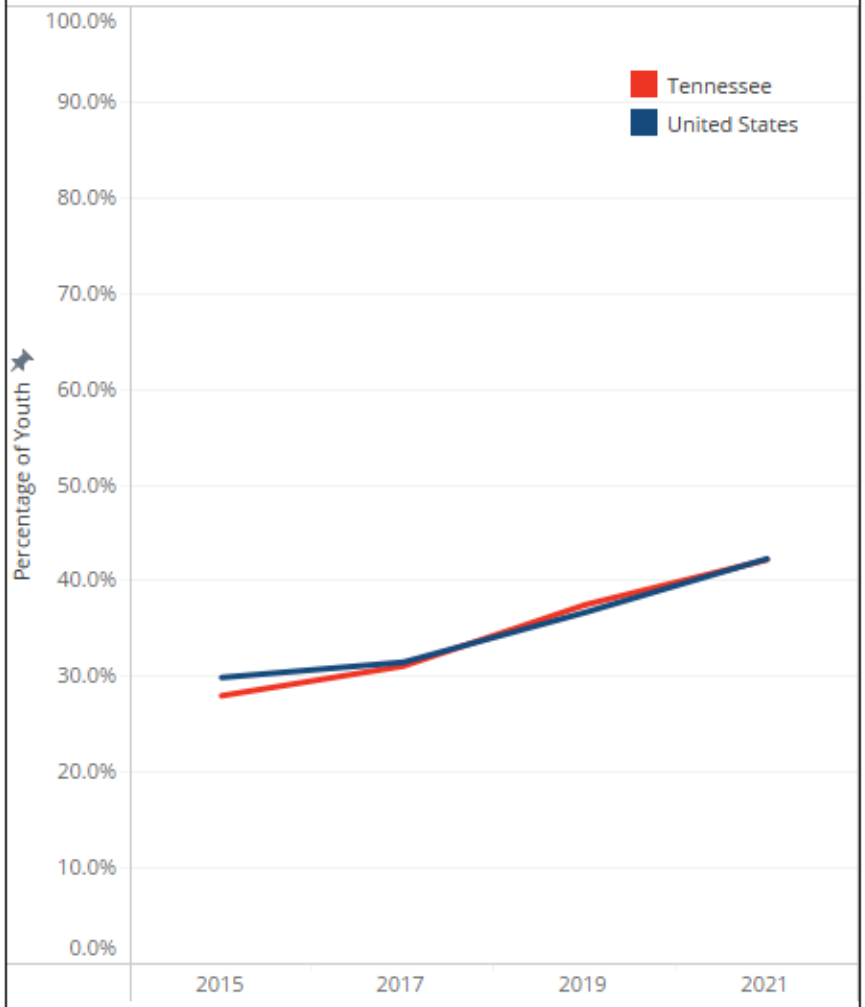
- In 2021, 42.2% of Tennessee high school students experienced **Hopelessness**, compared to 42.3% in the United States.[74]
- In 2021, 4.3% of youth in Tennessee had one or more **Suicide Attempt** resulting in an injury, poisoning, or overdose that had to be treated by a doctor or nurse.[75]
- In 2022, the youth **Suicide Mortality** rate was 2.49 deaths per 100,000 population (<18).[76]

In 2021, 42.2% of Tennessee high school students reported being sad or hopeless almost every day for two or more weeks in a row to the point that they stopped doing some usual activities. [77] In 2021, 4.3% of youth in Tennessee had one or more **Suicide Attempt** resulting in an injury, poisoning, or overdose that had to be treated by a doctor or nurse, compared to 2.9% in the United States.[78] Youth **Suicide Mortality** is defined as deaths due to intentional self-harm per 100,000 population (<18). In 2022, the youth suicide mortality rate in Tennessee was 2.49 deaths per 100,000 population. The Tennessee Department of Health's Suicide Prevention program releases detailed annual data reports on suicide with more information on suicide by age.[79]

[74] Centers for Disease Control, Youth Risk Behavior Surveillance System
[75] Centers for Disease Control, Youth Risk Behavior Surveillance System
[76] Data Source (TN): Tennessee Department of Health. Death Statistical File - TN Office of Vital Statistics.
[77] Centers for Disease Control, Youth Risk Behavior Surveillance System
[78] Centers for Disease Control, Youth Risk Behavior Surveillance System
[79] To access the Department of Health's Suicide Data and Surveillance Information: https://www.tn.gov/health/health-program-areas/fhw/suicide-prevention/data.html

Youth Hopelessness

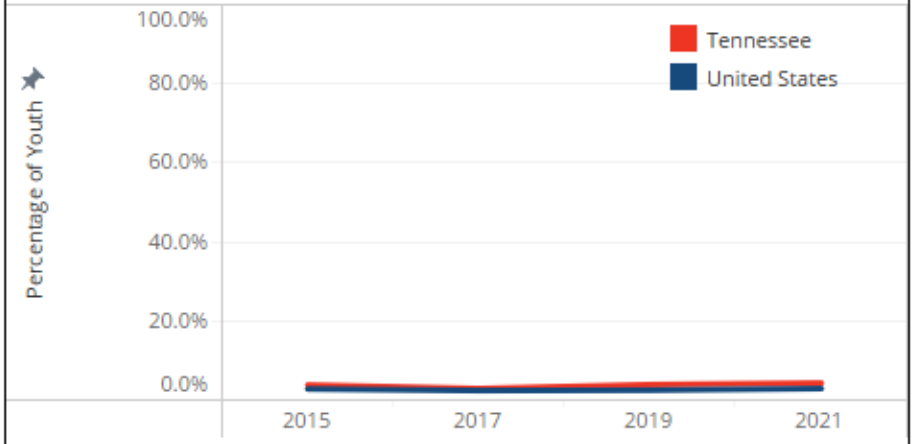
Percentage of high school students enrolled in grades 9 to 12 who reported being sad or hopeless almost every day for 2 or more weeks in a row so that they stopped doing some usual activities, during the 12 months before the survey.



Data Source: Centers for Disease Control, Youth Risk Behavior Surveillance System

Youth Suicide Attempt

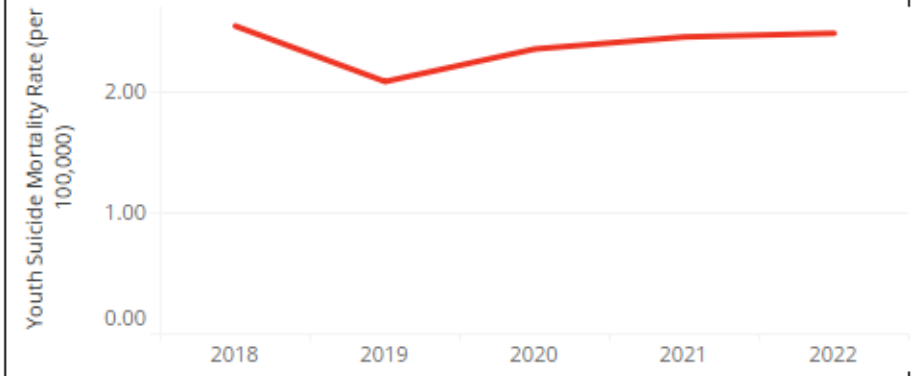
Percentage of youth with one or more suicide attempts resulting in an injury, poisoning, or overdose that had to be treated by a doctor or nurse (during the 12 months before the survey).



Data Source: Centers for Disease Control, Youth Risk Behavior Surveillance System

Youth Suicide Mortality

Rate of deaths due to intentional self-harm per 100,000 population (<18) in Tennessee.



Data Source: Data Source (TN): Tennessee Department of Health. Death Statistical File - TN Office of Vital Statistics.

Pregnancy and Childbirth

- In 2022, **Prenatal Care** was initiated in 92.2% of live births in Tennessee.[80]
- In 2022, the percent of mothers **Smoking During Pregnancy** in Tennessee (7.3%) was almost double the percent of mothers smoking during pregnancy in the United States (3.7%).[81]
- In 2022, 11.0% of live births in Tennessee were **Preterm Births.**[82]
- In 2022, 9.0% of live births in Tennessee had a **Low Birthweight.**[83]
- In 2022, **Breastfeeding** was initiated with 83.3% of live births in Tennessee.[84]
- In 2021, 13.0% of Tennessee women with a recent live birth reported experiencing **Postpartum Depression.**[85]
- In 2021, Tennessee's **Infant Mortality** rate was 6.18 infant deaths per 1,000 live births, compared to 5.44 in the United States. In 2022, Tennessee infant mortality rate was 6.60 infant deaths per 1,000 live births.[86]
- In 2021, the **Pregnancy-Related Mortality** Ratio was 64.9 deaths per 100,000 live births in Tennessee.[87]
- In 2021, there were 53 **Pregnancy-Associated, but not related Deaths**, defined as death within one year of pregnancy where pregnancy was not the aggravating factor.[88]
- In 2022, the **Teen Birth** rate in the United States was 13.6 compared to 21.0 in Tennessee.[89]

Prenatal Care, such as following a safe and healthy diet, reducing exposure to harmful substances, and controlling existing conditions such as high blood pressure, can reduce the risk of pregnancy complications.[90] In 2022, prenatal care was initiated in 92.2% of live births in Tennessee during the first and sixth month of pregnancy.[91] Nationally, initiation of prenatal care is measured by trimester. In 2022, 77% of all mothers initiated prenatal care during the first trimester in the US.[92] In 2022 in the US, 6.8% of women began prenatal care late (third trimester) or not at all, an 8% increase since 2021

[80] (TN): Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics.
[81] (TN) Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics. (US) CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.
[82] (TN) Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics. (US) CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.
[83] (TN) Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics. (US) CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.
[84] (TN) Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics. (US) CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.
[85] Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System or State Equivalent
[86] Tennessee Department of Health. Death Statistics - TN Office of Vital Statistics.
[87] Tennessee Department of Health. Death Statistics - TN Office of Vital Statistics. Accessed via the Tennessee Department of Health Maternal Mortality Review Annual Report.
[88] Tennessee Department of Health. Death Statistics - TN Office of Vital Statistics. Accessed via the Tennessee Department of Health Maternal Mortality Review Annual Report.
[89] (TN): Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics; (US): CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.
[90] National Institute of Child Health and Human Development. What is Prenatal Care and why is it important? Accessed December 2022. https://www.nichd.nih.gov/health/topics/pregnancy/conditioninfo/prenatal-care
[91] Data Source (TN): Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics. Data Source (US): CDC National Vital Statistics Report Vol. 70 No 17 February 7, 2022. US Value for 2020 available in report only.
[92] CDC National Vital Statistics Report. Vol 73. No 2. April 4, 2024. https://www.cdc.gov/nchs/data/nvsr/nvsr73/nvsr73-02.pdf

and the highest since national data became available.[93] **Smoking During Pregnancy** and secondhand smoke exposure can lead to births defects, preterm birth, and sudden infant death syndrome (SIDS).[94] In 2022, the percent of mothers smoking during pregnancy in Tennessee (7.3%) was almost double the percent of mothers smoking during pregnancy in the United States (3.7%).

Engaging in early prenatal care and not smoking during pregnancy can help prevent complications such as **Preterm Births** and **Low Birthweight.** In 2022, 11.0% of live births in Tennessee were preterm, defined as less than 37 weeks gestation.[95] In the United States, 10.4% of live births in 2022 were preterm. While nationally preterm births have declined, health disparities remain with preterm births among Black women being 50% higher than among White or Hispanic women in 2022.[96] Children born early may experience breathing problems, development delays, vision problems and hearing problems. In 2022, 9.0% of live births in Tennessee had a low birthweight, defined as less than 2,500 grams, compared to 8.6% in the United States.

After birth, **Breastfeeding** can play an important role in reducing the risk of health conditions in infants such as asthma, obesity, type 1 diabetes, and SIDS. Additionally, breastfeeding has positive health impacts for mothers including reduced risk of high blood pressure, type 2 diabetes, ovarian and breast cancer.[97] In 2022, breastfeeding was initiated with 85.2% of live births in the United States and 83.3% of live births in Tennessee.[98] Monitoring the mental health of mothers after birth is critical in addition to monitoring physical recovery. **Postpartum Depression** symptoms may include "feeling distant from your baby, thinking about hurting yourself or your baby, and doubting your ability to care for your baby."[99] In 2021, 13% of Tennessee women with a recent live birth reported experiencing depressive symptoms, compared to 12.7% in the United States.[100]

According to the CDC, in the United States in 2021, "preterm birth and low birth weight accounted for about 14.8% of infant deaths (deaths before 1 year of age)."[101] In 2021, Tennessee experienced 6.18 infant deaths per 1,000 live births, compared to 5.44 in the United States. In 2022, the **Infant Mortality** rate per 1,000 live births in Tennessee was 6.6.[102] **Pregnancy-Related Death** is defined as death within one year of pregnancy where pregnancy was the aggravating factor.[103] The pregnancy related mortality ratio (PRMR), defined as rate of pregnancy-related deaths per 100,000 live births, increased from 58.5 in 2020 to 64.9 in 2020. An increase in the PRMR seen after 2019 "may have occurred due to the increase of deaths from COVID-19, acute overdose, and the implementation of the Utah Criteria when determining the pregnancy-relatedness of overdose deaths."[104, 105] In 2021, COVID-19, cardiovascular disease, and substance use disorder were the top three leading causes of pregnancy related deaths.[106] Pregnancy related death is higher among women covered

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[93] CDC National Vital Statistics Report. Vol 73. No 2. April 4, 2024. https://www.cdc.gov/nchs/data/nvsr/nvsr73/nvsr73-02.pdf
[94] CDC. Tobacco. Outlook for Mother and Baby. https://www.cdc.gov/tobacco/campaign/tips/diseases/pregnancy.html
[95] Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics.
[96] CDC. Reproductive Health. Preterm Birth. https://www.cdc.gov/maternal-infant-health/preterm-birth/?CDC_AAref_Val=https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pretermbirth.htm
[97] CDC. Breastfeeding. Accessed December 2022 via https://www.cdc.gov/breastfeeding/about-breastfeeding/why-it-matters.html
[98] (TN) Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics. (US) CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.
[99] CDC Reproductive Health. Depression During and After Pregnancy. https://www.cdc.gov/reproductivehealth/features/maternal-depression/index.html.
[100] Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System or State Equivalent
[101] CDC. Reproductive Health. Preterm Birth. https://www.cdc.gov/maternal-infant-health/preterm-birth/?CDC_AAref_Val=https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pretermbirth.htm
[102] Tennessee Department of Health. Death Statistics - TN Office of Vital Statistics.
[103] Tennessee Department of Health. Death Statistics - TN Office of Vital Statistics. Accessed via the Tennessee Department of Health Maternal Mortality Review Annual Report.
[104] TN Department of Health. Maternal Mortality in Tennessee 2021. https://www.tn.gov/content/dam/tn/health/program-areas/maternal-mortality/MMR-Report-2023.pdf
[105] Smidt MC, Maeda J, Stone NM, Sylvester H, Baksh L, Debbink MP, Varner MW, Metz TD. Standardized Criteria for Review of Perinatal Suicides and Accidental Drug-Related Deaths. Obstet Gynecol. 2020 Oct;136(4):645-653. Doi: 10.1097/AOG.0000000000003988. PMID: 32925616; PMCID: PMC8086704
[106] TN Department of Health. Maternal Mortality in Tennessee 2021. https://www.tn.gov/content/dam/tn/health/program-areas/maternal-mortality/MMR-Report-2023.pdf

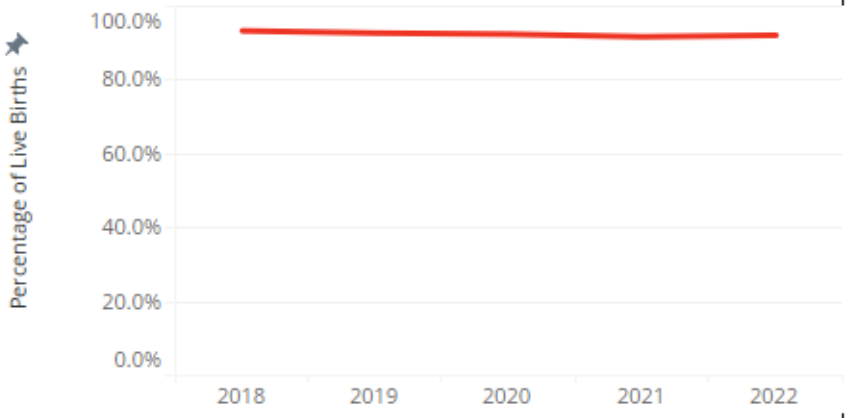
by TennCare, women in West TN, and non-Hispanic Black women, with non-Hispanic Black women 2.3x as likely to die as white women.[107] In 2021, there were 53 **Pregnancy-Associated, but not related Deaths**, defined as death within one year of pregnancy where pregnancy was not the aggravating factor.[108] In 2021, "acute overdose was the leading cause of death (39%) for pregnancy associated, but not related deaths," and mental health contributed to over one-third of deaths.[109] The Tennessee Maternal Mortality Review Committee issues a detailed report annually to the Tennessee General Assembly on maternal mortality and all data and reports are published online.[110]

Teens who become pregnant and have children are less likely to graduate from high school. Additionally, the children of teen parents are "more likely to have lower school achievement and to drop out of high school, have more health problems, be incarcerated at some time during adolescence, give birth as a teenager, and face unemployment as a young adult."[111] **Teen Births** in Tennessee have been decreasing in recent years. In 2022, there were 21.0 births per 1,000 women aged 15-19, down from 25.3 in 2018.[112] Despite this decrease, teen births in Tennessee remains higher than in the United States overall. In 2022, the teen birth rate in the United States was 13.6 compared to 21.0 in Tennessee. Tennessee is ranked 44th in the United States and therefore has one of the highest teen birth rates in the country.[113]

[107] TN Department of Health. Maternal Mortality in Tennessee 2021. https://www.tn.gov/content/dam/tn/health/program-areas/maternal-mortality/MMR-Report-2023.pdf
[108] Tennessee Department of Health. Death Statistics - TN Office of Vital Statistics. Accessed via the Tennessee Department of Health Maternal Mortality Review Annual Report.
[109] TN Department of Health. Maternal Mortality in Tennessee 2021. https://www.tn.gov/content/dam/tn/health/program-areas/maternal-mortality/MMR-Report-2023.pdf
[110] To access the TN Maternal Mortality Review Information please visit https://www.tn.gov/health/health-program-areas/fhw/maternal-mortality-review.html
[111] CDC. Teen Pregnancy. https://www.cdc.gov/reproductive-health/teen-pregnancy/?CDC_AAref_Val=https://www.cdc.gov/teenpregnancy/about/index.htm
[112] (TN): Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics; (US): CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.
[113] Teen Births. America's Health Rankings. https://www.americashealthrankings.org/explore/measures/TeenBirth_MCH

Prenatal Care

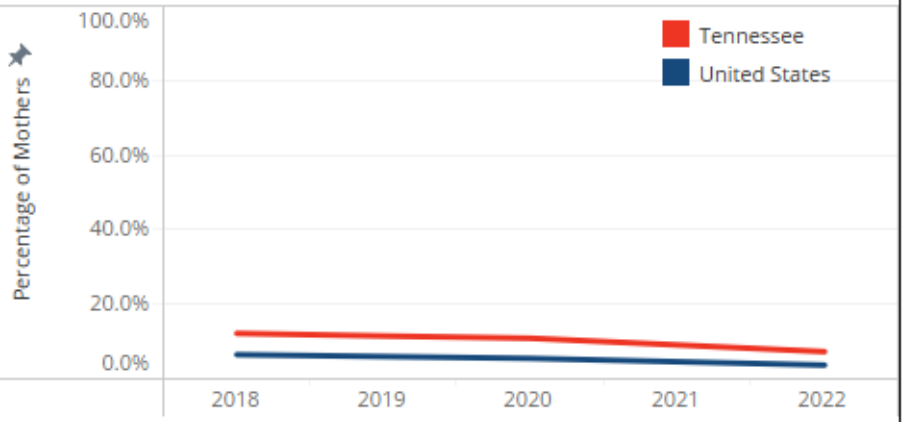
Percentage of live births in which the mother began prenatal care between the first and sixth month of pregnancy.



(TN): Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics

Smoking During Pregnancy

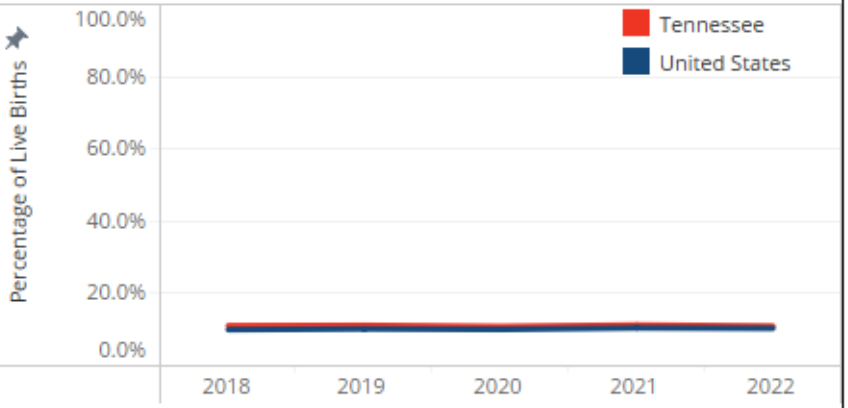
Percentage of mothers who reported smoking cigarettes during pregnancy.



(TN): Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics; (US): CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.

Preterm Births

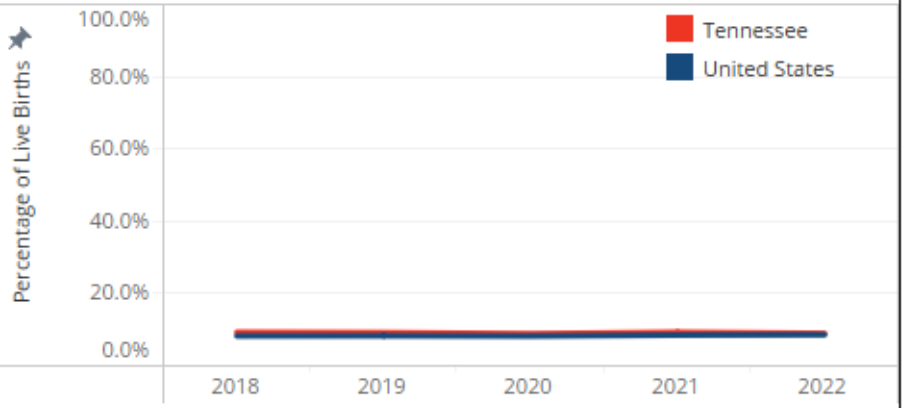
Percentage of live births preterm (<37 weeks gestation)



(TN): Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics; (US): CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.

Low Birthweight

Percentage of live births with low birthweight (<2,500 grams).

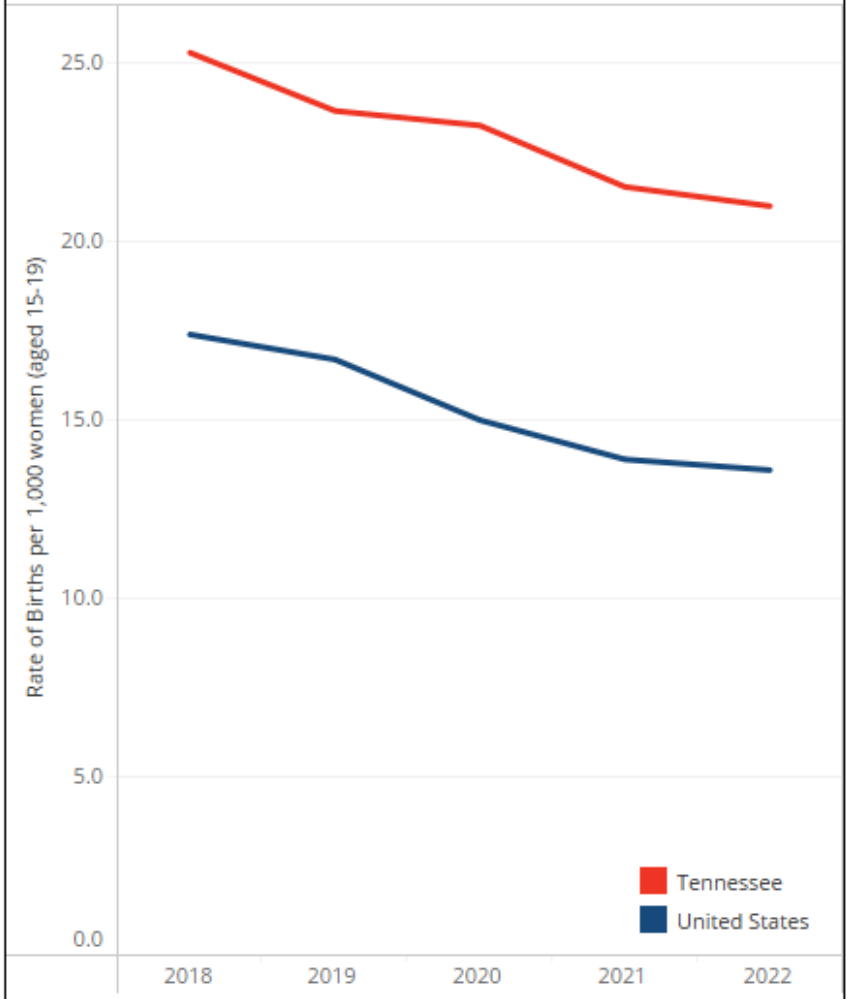


(TN): Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics; (US): CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.

Teen Births

Rate of births per 1,000 women aged 15-19 years.

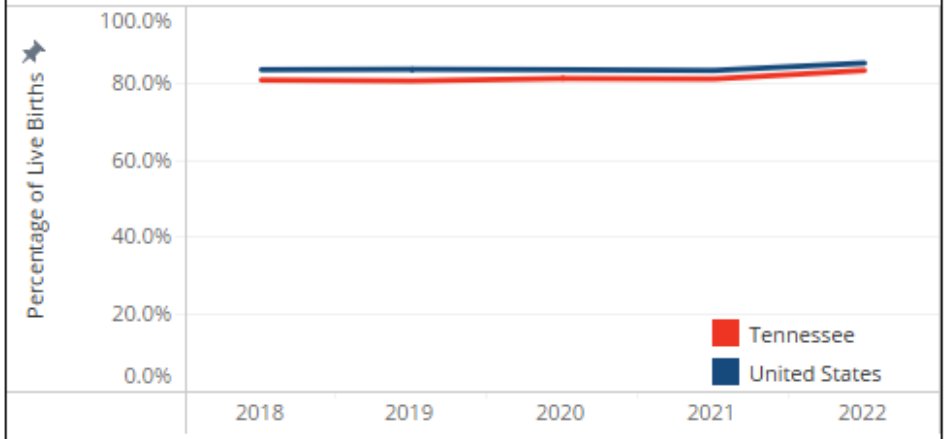
Tennessee is ranked 44th in the United States and therefore has one of the highest teen birth rates in the country.



(TN): Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics; (US): CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.

Breastfeeding

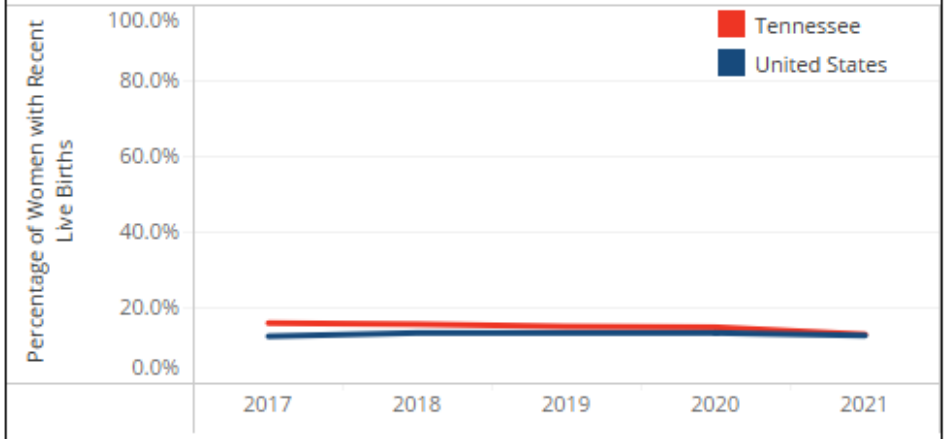
Percentage of live births where breastfeeding is initiated at birth.



(TN): Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics; (US): CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.

Postpartum Depression

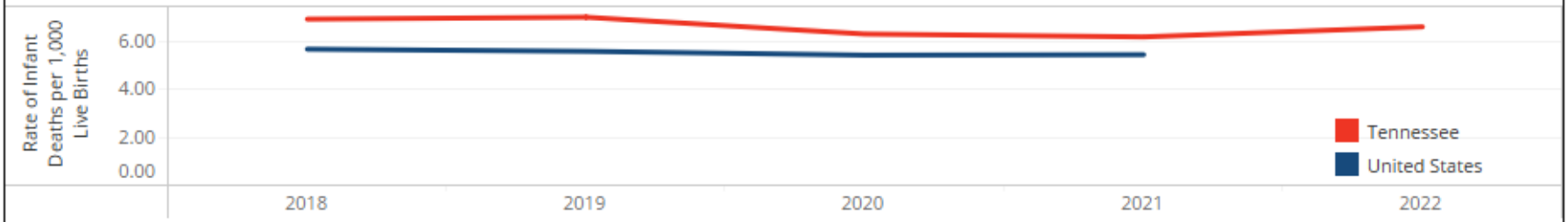
Percentage of women with a recent live birth who reported experiencing depressive symptoms.



Data Source: Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System or State Equivalent

Infant Mortality

Rate of infant deaths per 1,000 live births



(TN): Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics. (US): CDC National Vital Statistics Report Vol. 72 September 12, 2023. US Value for 2022 not listed.

Pregnancy-Related Mortality Ratio

Rate of deaths within one year of pregnancy where pregnancy was the aggravating factor per 100,000 live births in Tennessee.

COVID-19 was the leading cause of pregnancy-related deaths in 2021.

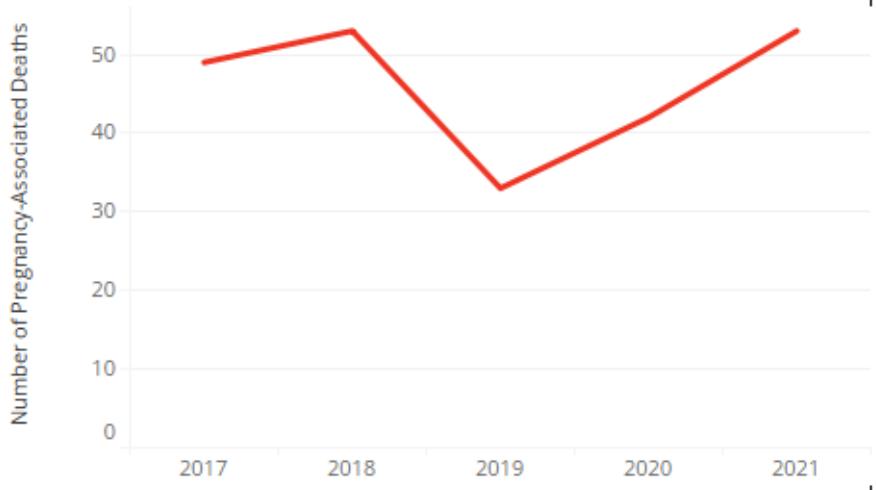
Note: The pregnancy related mortality ratio (PRMR) increased from 28.6 in 2019 to 58.5 in 2020. This increase may have occurred due to the increase of overall deaths due to COVID-19 and the implementation of the Utah Criteria when determining the pregnancy relatedness of overdose deaths.

Data Source: Tennessee Department of Health. Death Statistics - TN Office of Vital Statistics. Accessed via the Tennessee Department of Health Maternal Mortality Review Annual Report.

Pregnancy Associated (not related) Deaths

Number of deaths within one year of pregnancy where pregnancy was NOT the aggravating factor in Tennessee.

Acute overdose was the leading cause of pregnancy-associated, but not related deaths in 2021.



Data Source: Tennessee Department of Health. Death Statistics - TN Office of Vital Statistics. Accessed via the Tennessee Department of Health Maternal Mortality Review Annual Report.

A Healthy Life

To assess health in Tennessee's adult and older adult populations, the State of Health Report considers metrics on social determinants of health such as unemployment and adult literacy, health behaviors and conditions such as diabetes and suicide, as well as specific metrics to assess health in Tennessee's older adults including social isolation and caregiving.

A Healthy Life				
Per Capita Personal Income	Adult Poverty*	Food Insecurity*	Poverty and the Labor Force	Unemployment
Workplace Benefits	Fatal Occupational Injuries	Adult Numeracy	Adult Literacy	Violent Crime
Domestic Violence	Chlamydia*	HIV*	Hepatitis C*	COVID-19 Vaccinations*
Influenza Vaccinations*	Chronic Conditions	Adult Smoking*	Physical Activity*	Diabetes*
Binge Drinking	Nonfatal Drug Overdose*	Fatal Drug Overdose*	Frequent Mental Distress	Suicidal Ideation
Suicide Attempt	Suicide Mortality*	Premature Death	65+ Poverty	Grandparents Raising Grandchildren
Elder Abuse	Social Isolation	Falls 65+	Caregiving	Dementia*

*Related information on health disparities included in the Department's 2024 "Health Disparities in Tennessee" report.[114]

Social Determinants of Health

Income and Workforce

- While Tennessee's **Per Capita Personal Income** is increasing, it remains below the United States average.[115]
- In 2022, 12.1% of Tennessee adults were living in **Poverty.**[116]
- From 2020-2022, 11.5% of Tennesseans experienced **Food Insecurity**.[117]
- The 44% of Tennesseans aged 20-64 who are **living in poverty are participating in the labor force**.[118]
- In 2022, 3.4% of the labor force in Tennessee was **Unemployed** compared to 4.3% in the United States.[119]
- In 2020, 52% of employed workers used some type of paid time off as a **Workplace Benefit.**[120]

[114] TN Department of Health. Health Disparities in Tennessee. 2024 Report. https://www.tn.gov/content/dam/tn/health/program-areas/division-of-health-disparities-elimination/documents/HD_Report_FINAL_06122024.pdf
[115] United States Bureau of Economic Analysis. Retrieved from www.bea.gov
[116] United States Census Bureau, American Community Survey, 1-Year Public Use Estimates.
[117] USDA Economic Research Service
[118] United States Census Bureau, American Community Survey, 1-Year Public Use Estimates.
[119] United States Census Bureau, American Community Survey, 1-Year Public Use Estimates.
[120] U.S. Census Bureau, Current Population Survey (CPS), Annual Social and Economic Supplement (ASEC). Accessed via Trust for America's Health Ready or Not Report.

- In 2022, Tennessee experienced 5.7 **Fatal Occupational Injuries** per 100,000 full-time workers.[121]

In 2022, Tennessee's per capita personal income was $58,292 compared to $65,470 in the United States. While Tennessee's per capita personal income continues to increase, up from $47,006 in 2018, it remains below the United States average. Nationally, the per capita income increased from $53,817 in 2018 to $65,470 in 2022. In 2022, 12.1% of Tennessee adults were living in poverty, compared to 11.5% in the United States. The percentage of adults living in poverty in Tennessee has steadily decreased the past several years. As children in poverty are more likely to experience poverty as an adult, intergenerational cycles of poverty persist that last decades. Poverty is associated with "increased risk of mental illness, chronic disease, higher mortality, and lower life expectancy. One study found that men and women in the top one percent of income were expected to live 14.6 and 10.1 years longer respectively than men and women in the bottom one percent."[122] Additionally, individuals living in poverty are more likely to be food insecure. Food insecurity is associated with "decreased nutrient intakes, increased rates of mental health problems and depression, diabetes, hypertension," and more.[123] A 2024 study found that even low levels of food insecurity were significantly associated with premature death and lower life expectancy.[124] From 2020-2022, 11.5% of Tennesseans experienced **Food Insecurity** compared to 11.2% nationally.[125]

Of people aged 20-64 living in poverty in Tennessee, 44% were engaged in the labor force (employed or unemployed). The percentage of Tennesseans **in poverty while engaged in the labor force** was slightly below the United States in all years except 2018.[126] In 2022, 3.4% of Tennessee labor force was **Unemployed** compared to 4.3% in the United States.[127] For real time up to date data on the labor force in Tennessee, including information on poverty within the labor force and unemployment, visit the TN Department of Labor and Workforce Development's Labor Force Statistics webpage.[128]

Tennesseans engaged in the labor force consider access to **Workplace Benefits** and workplace safety when searching for employment opportunities. Between 2017-2022, 53% of employed workers in Tennessee used some type of paid time off compared to 55% in the United States.[129] In 2022, Tennessee experienced 5.7 **Fatal Occupational Injuries** per 100,000 full-time workers.[130]

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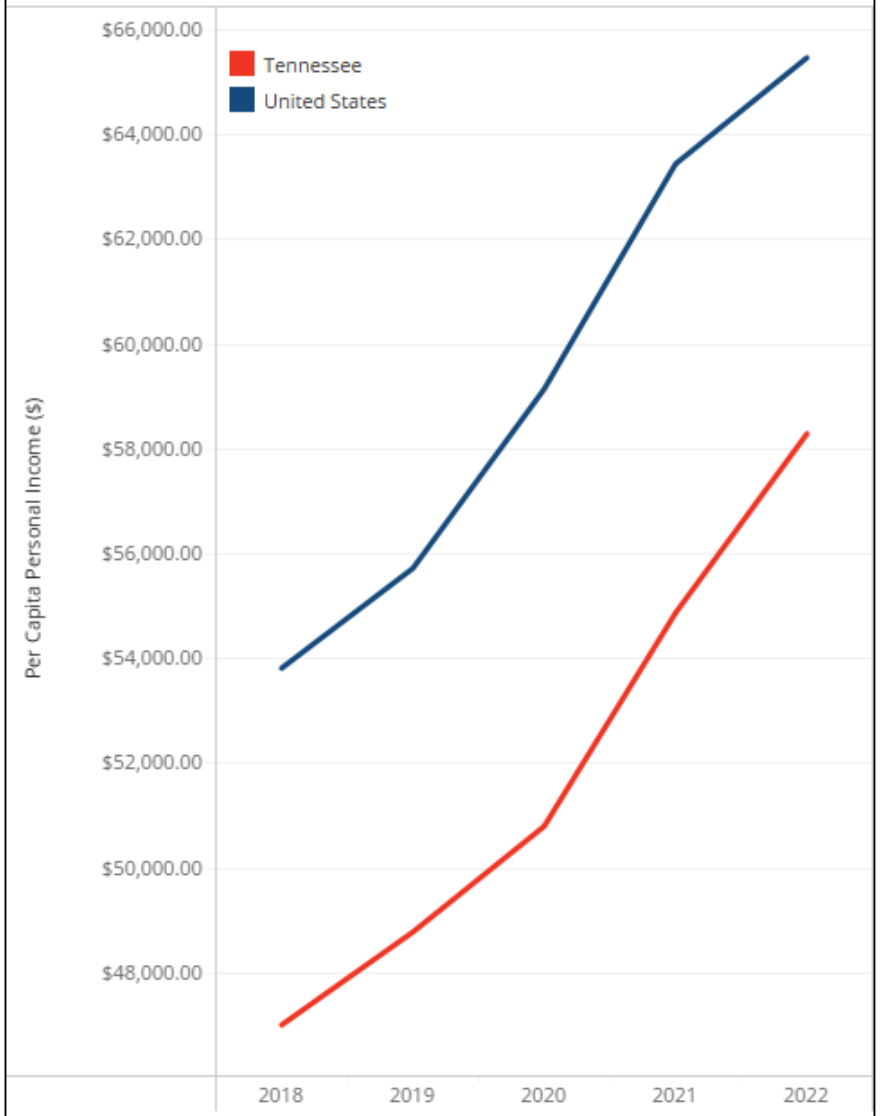
[121] U.S. Bureau of Labor Statistics, Census of Fatal Occupational Injuries, State Archive
[122] Healthy People 2030. Poverty Literature Summary. https://health.gov/healthypeople/priority-areas/social-determinants-health/literature-summaries/poverty#:~:text=In%20addition%20to%20lasting%20effects,substance%20use%2C%20and%20chronic%20stress.&text=Finally%2C%20older%20adults%20with%20lower,rates%20of%20disability%20and%20mortality.
[123] Gundersen, Craig. Ziliak, James. *Food Insecurity and Health Outcomes*. Health Affairs Vol. 34(11). November 2015. https://doi.org/10.1377/hlthaff.2015.0645
[124] Ma H, Wang X, Li X, et al. Food Insecurity and Premature Mortality and Life Expectancy in the US. *JAMA Intern Med.* 2024;184(3):301–310. https://jamanetwork.com/journals/jamainternalmedicine/article-abstract/2814488?resultClick=1
[125] USDA Economic Research Service
[126] United States Census Bureau, American Community Survey, 1-Year Public Use Estimates.
[127] United States Census Bureau, American Community Survey, 1-Year Public Use Estimates.
[128] To view the TN Dept of Labor and Workforce Development's Labor Force Statistics Webpage visit: https://www.tn.gov/workforce/tennessee-economic-data-/labor-force-statistics.html.
[129] US Census Bureau, Current Population Survey (CPS), Annual Social and Economic Supplement (ASEC). Accessed via Trust for America's Health Ready or Not Report.
[130] U.S. Bureau of Labor Statistics, Census of Fatal Occupational Injuries, State Archive

Per Capita Personal Income

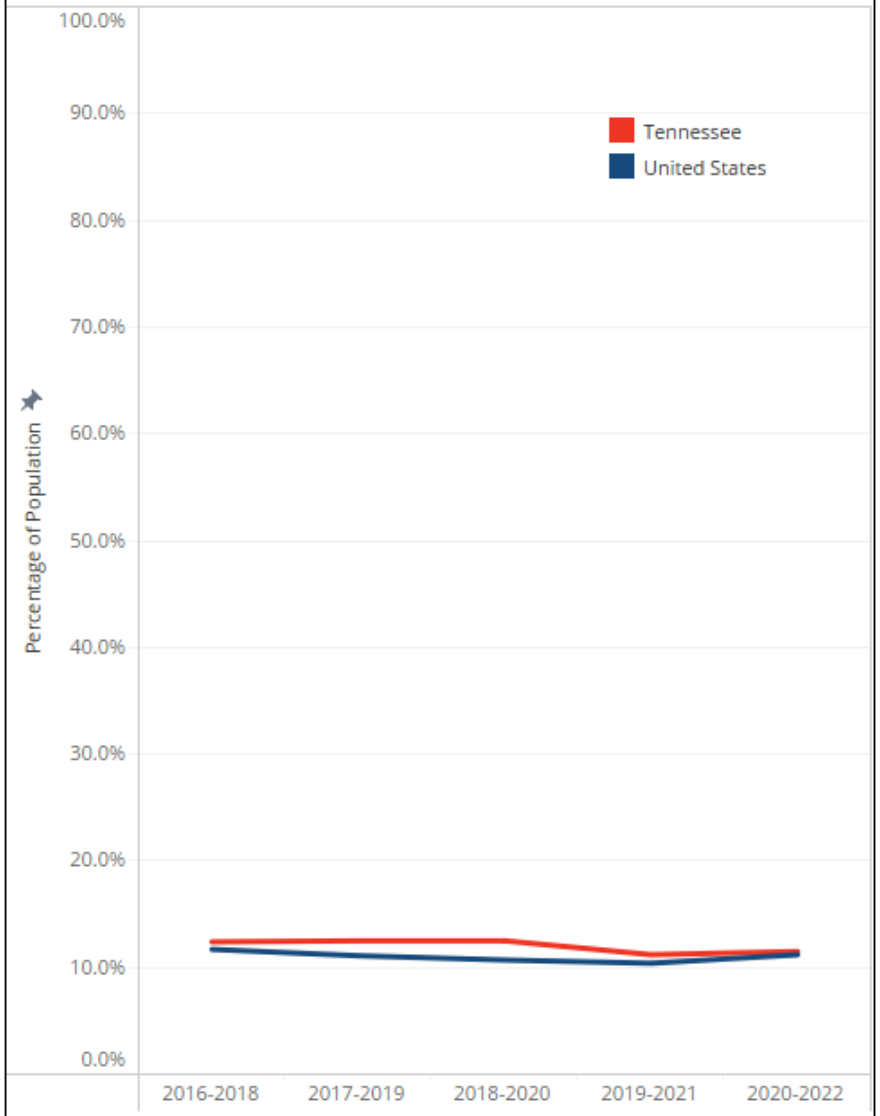
Annual, not seasonally adjusted, per capita personal income in dollars.



Data Source: United States Bureau of Economic Analysis. Retrieved from www.bea.gov

Food Insecurity

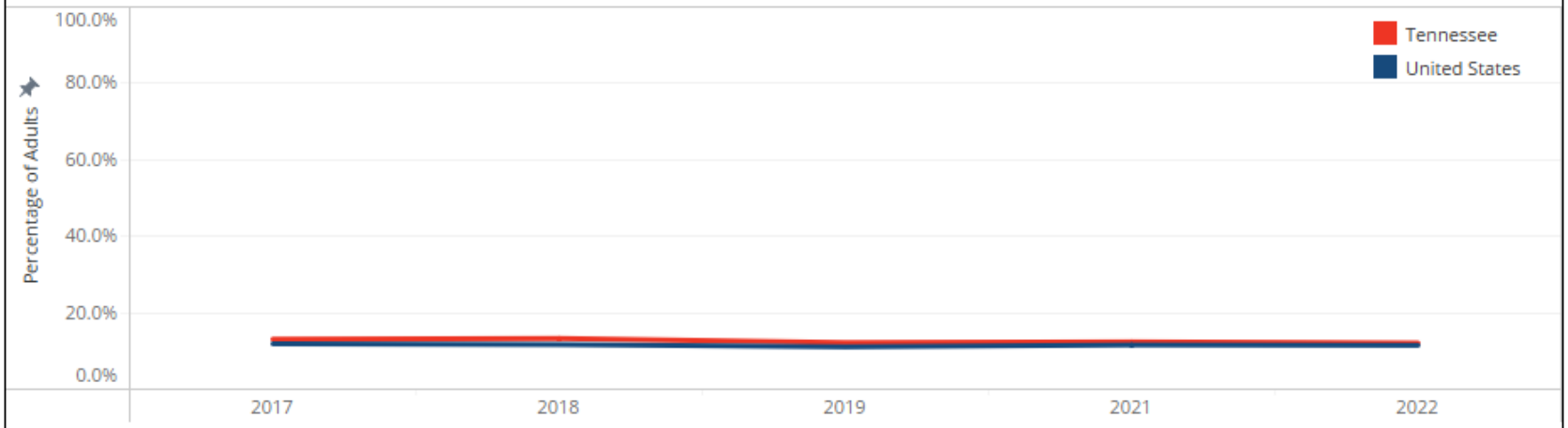
Percentage of population who lack adequate access to food (all ages).



Data Source: USDA Economic Research Service

Adult Poverty

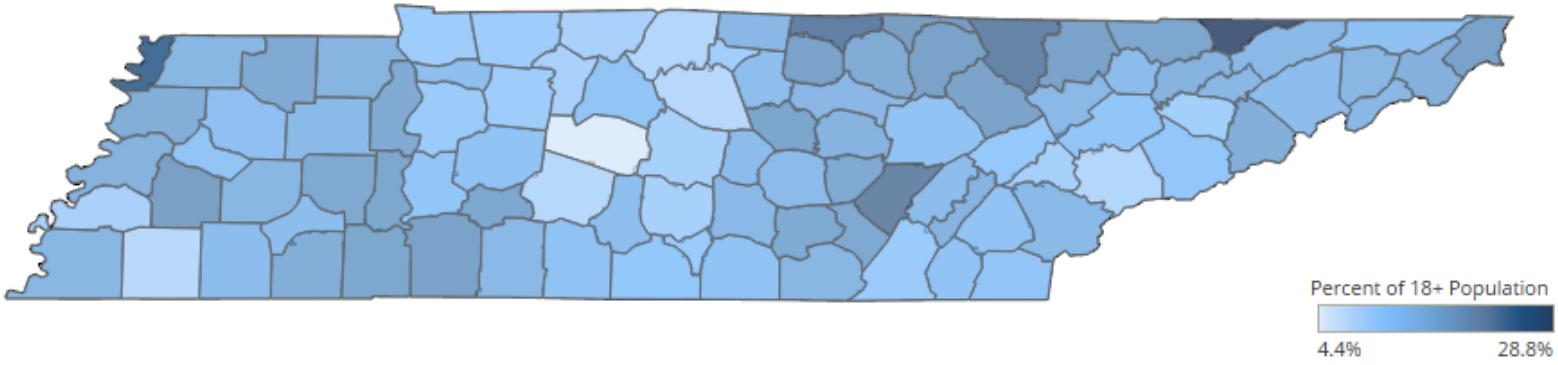
Percentage of all persons 18 years and over whose income in the past 12 months is below the poverty level.



Data Source: United States Census Bureau, American Community Survey, 1-Year Public Use Estimates. 2020 data not available.

Adult Poverty

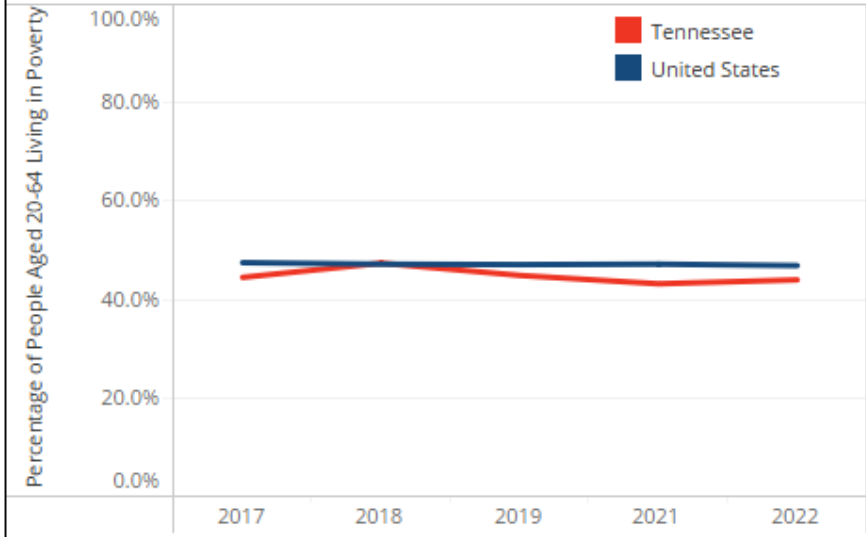
Percentage of all persons 18 years and over whose income in the past 12 months is below the poverty level from 2018-2022.



Data Source: United States Census Bureau, American Community Survey, 5-Year Public Use Estimates.

Poverty and the Labor Force

Percentage of people 20-64 years of age who are living below poverty level who are participating in the labor force.*



Data Source: United States Census Bureau, American Community Survey, 1-Year Public Use Estimates. 2020 data not available.
*Individuals who are participating in the labor force may be employed, or unemployed but actively looking for work.

Workplace Benefits

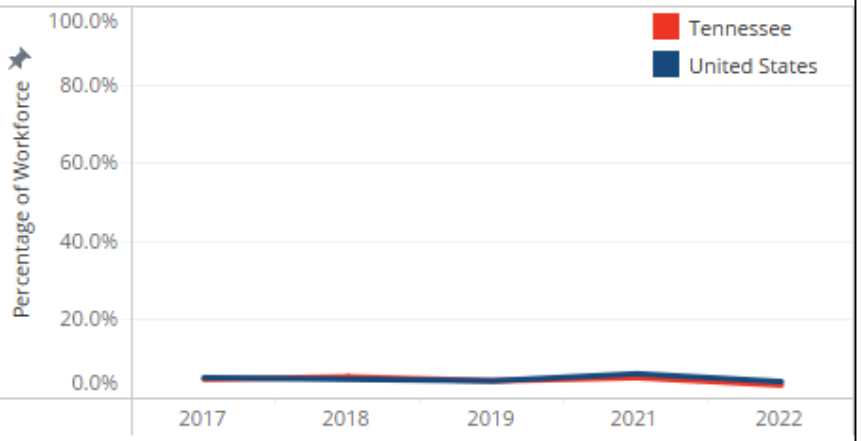
Percentage of employed workers who used some type of paid time off (PTO) benefit.

	2017-2022
Tennessee	53.0%
United States	55.0%

Data Source: US Census Bureau, Current Population Survey (CPS), Annual Social and Economic Supplement (ASEC). Accessed via Trust for America's Health Ready or Not Report.

Unemployment

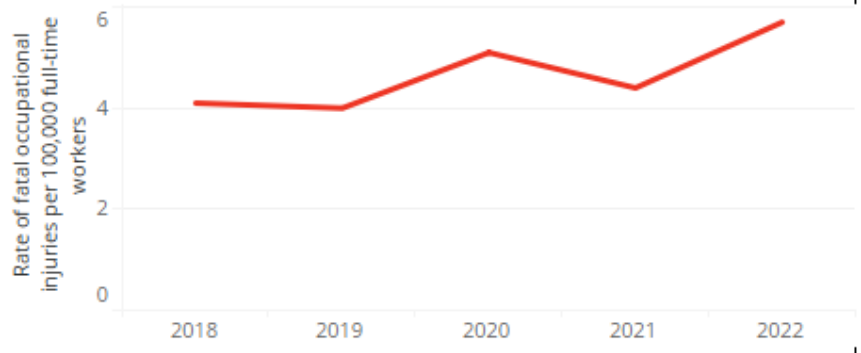
Percentage of the labor force who are unemployed.



Data Source: United States Census Bureau, American Community Survey, 1-Year Public Use Estimates. 2020 data not available.

Workplace Safety

Rate of fatal occupational injuries per 100,000 full-time equivalent (FTE) workers in Tennessee.



Data Source: U.S. Bureau of Labor Statistics, Census of Fatal Occupational Injuries, State Archive

Education

- **Adult Numeracy** in Tennessee is statistically lower than adult numeracy in the United States.[131]
- **Adult Literacy** in Tennessee is statistically lower than adult literacy in the United States.[132]

Understanding and digesting mathematical and textual information impacts everything from managing a household budget to health literacy and adherence to medical guidance. **Adult Numeracy** in Tennessee is statistically lower than adult numeracy in the United States.[133] In Tennessee. 31% of adults are considered proficient at working with mathematical information and ideas, compared to 36% in the United States. **Adult Literacy** in Tennessee is statistically lower than adult literacy in the United States.[134] In Tennessee, 40% of adults are considered proficient at working with information and ideas in text, compared to 46% in the United States.

Adult Numeracy

Average percentage of adults considered proficient at working with mathematical information and ideas from 2013-2017.

Tennessee	United States
31.0%	36.0%

Data Source: National Center for Education Statistics. 2013-2017. Updated data expected in 2024.

Adult Literacy

Average percentage of adults considered proficient at working with information and ideas in texts from 2013-2017.

Tennessee	United States
40.0%	46.0%

Data Source: National Center for Education Statistics. 2013-2017. Updated data expected in 2024.

[131] National Center for Education Statistics. 2013-2017. Updated data expected in 2024.
[132] National Center for Education Statistics. 2013-2017. Updated data expected in 2024.
[133] National Center for Education Statistics. 2013-2017. Updated data expected in 2024.
[134] National Center for Education Statistics. 2013-2017. Updated data expected in 2024.

Community Safety

- In 2022, the **Violent Crime** rate (number of offenses per 100,000 population) was higher in Tennessee (621.6) compared to the United States (380.7).[135]
- The number of **Domestic Violence** offenses in Tennessee has decreased since 2016 but remains high with 62,217 domestic violence offenses in 2022.[136]

In 2022, the **Violent Crime** rate (number of offenses per 100,000 population) was higher in Tennessee (621.6) compared to the United States (380.7). [137] Violent crime, defined as murder, rape, robbery, and aggravated assault, has remained higher in Tennessee than the United States for multiple years. **Domestic Violence** specifically is a problem in Tennessee. Domestic violence offenses include murder, kidnapping/abduction, forcible rape, forcible sodomy, sexual assault with object, forcible fondling, incest, statutory rape, aggravated assault, simple assault, intimidation, stalking, commercial sex acts or involuntary servitude."[138] Domestic violence victims can be: "adults or minors who are current or former spouses; adults or minors who live together or who have lived together; adults or minors who are dating or who have dated or who have or had a sexual relationship, but does not include fraternization between two individuals in a business or social context; adults or minors related by blood or adoption; adults or minors who are related or were formerly related by marriage; or adult or minor children of a person in a relationship" previously listed.[139] The number of domestic violence offenses in Tennessee has decreased since 2016 with 62,217 domestic violence offenses in 2022.[140] Healthy People 2030 notes, "In addition to the potential for death, disability, and other injuries, people who survive violent crime endure physical pain and suffering and may also experience mental distress and reduced quality of life. Specific examples of detrimental health effects from exposure to violence and crime include asthma, hypertension, cancer, stroke, and mental disorders."[141]

Another important component of community safety to consider is the cyclical relationship between justice involvement, social determinants of health, and individual health. [142] Individuals who are socially and economically disadvantaged are more likely to become involved in the criminal justice system. Similarly, individuals with health challenges, particularly behavioral and mental health challenges, are more likely to become justice involved. Justice involvement itself then contributes to poorer health and socioeconomic outcomes. Even for individuals never convicted of a crime, justice involvement can have consequences such as economic losses due to disruptions in work schedules and poorer mental health. Formerly incarcerated individuals face reentry challenges including limited access to job opportunities, housing, and education, which can lead to high recidivism. In June of 2021, Governor Bill Lee created the Tennessee Office of Reentry to increase support for justice-involved individuals and reduce recidivism.[143]

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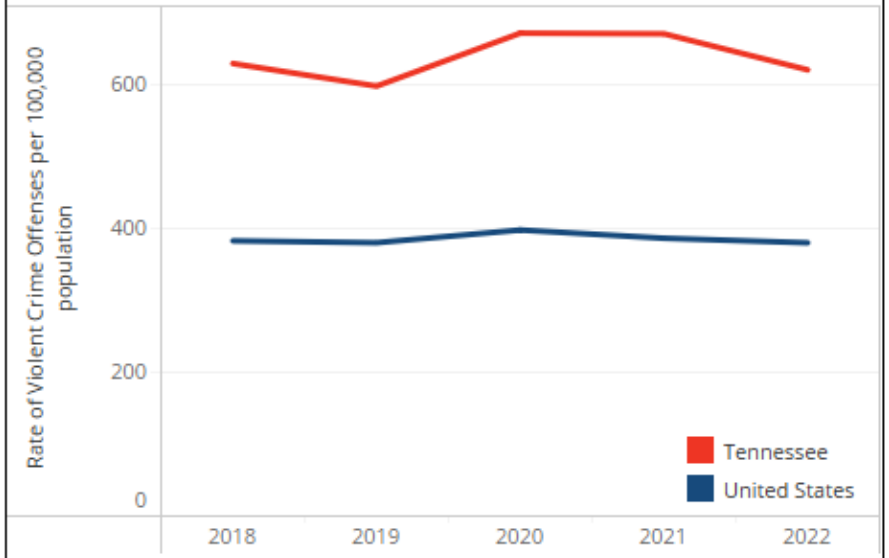
[135] Federal Bureau of Investigation
[136] TN Bureau of Investigation, Annual Domestic Violence Report
[137] Federal Bureau of Investigation
[138] TN Bureau of Investigation, Annual Domestic Violence Report
[139] 2010 TN Code Title 39 – Criminal Offenses Chapter 13 – Offenses Against Person Part 1- Assaultive Offenses 39-13-111 – Domestic Assault. Accessed December 2022 https://law.justia.com/codes/tennessee/2010/title-39/chapter-13/part-1/39-13-111.
[140] TN Bureau of Investigation, Annual Domestic Violence Report
[141] Healthy People 2030. Crime and Violence Literature Summary. Accessed December 2022. https://health.gov/healthypeople/priority-areas/social-determinants-health/literature-summaries/crime-and-violence
[142] Human Impact Partners. A Framework Connecting Criminal Justice and Public Health. 2016. https://humanimpact.org/a-framework-connecting-criminal-justice-and-public-health/
[143] TN Department of Labor and Workforce Development. Tennessee Office of Reentry. https://www.tn.gov/workforce/reentrytn.html#:~:text=%22Justice%20Involved%20Individual%22&text=This%20means%20that%20anyone%20who,a%20person%20by%20their%20past.

Violent Crime

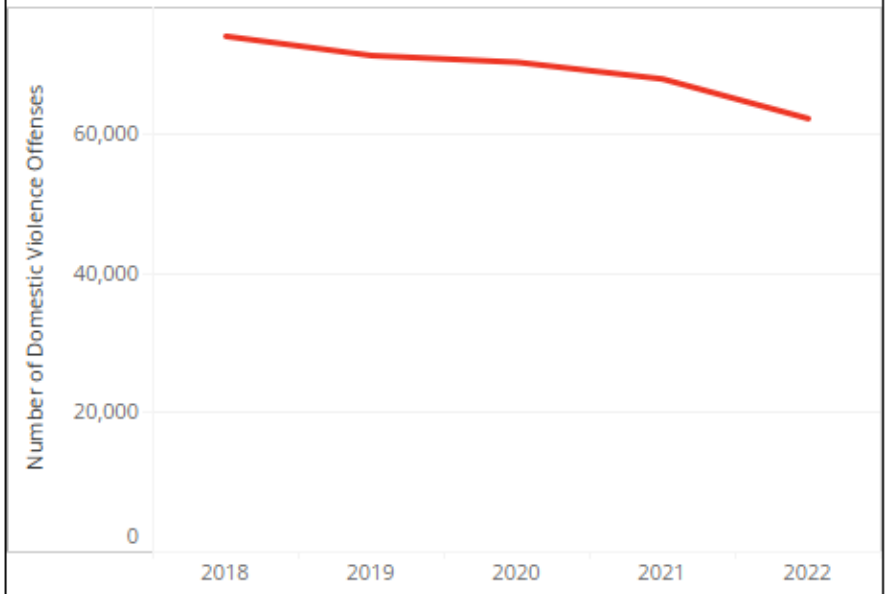
Rate of Violent Crime Offenses (offenses of murder, rape (legacy definition), robbery, and aggravated assault) per 100,000 population.



Data Source: Federal Bureau of Investigation

Domestic Violence

Number of domestic violence offenses in Tennessee.



Data Source: TN Bureau of Investigation , Annual Domestic Violence Report

Health Indicators and Disease

Infectious Disease

- In 2021, the rate of newly diagnosed **Chlamydia** cases in Tennessee was 562.4 cases per 100,000 persons, compared to 495.5 in the United States.[144]
- In 2021, the rate of newly diagnosed **HIV** infections in Tennessee was 14.1 per 100,000 persons age 13+, compared to 12.7 in the United States.[145]
- In 2021, the rate of acute vital **Hepatitis C** in Tennessee was 3 reported cases per 100,000 persons, compared to 1.6 in the United States.[146]
- As of October 2023, 45.9% of Tennesseans are fully vaccinated against **COVID-19.**[147]
- In 2022, 42.5% of adults in Tennessee received a seasonal **Influenza** vaccine, compared to 67.8% in the United States.[148]

In 2021, the rate of newly diagnosed **Chlamydia** cases in Tennessee was 526.4 cases per 100,000 persons, compared to 495.5 in the United States.[149] Chlamydia can be treated easily with antibiotics, but many people remain unaware they are infected if they do not experience symptoms and do not access testing. In 2021, the rate of diagnoses of human immunodeficiency virus, or **HIV,** infection in Tennessee was 14.1 per 100,000 persons aged 13+, compared to 12.7 in the United States.[150] For both Tennessee and the United States, the HIV rate was lower than usual in 2020. However, 2020 HIV data reflect the impact of COVID-19 (intermittent clinic closures, reduction in availability of services resulting in delays in accessing HIV Prevention and care, limited staff capacity to investigate HIV laboratory reports) and should be interpreted with caution. While no cure for HIV currently exists, if appropriately treated HIV can be managed well for individuals living with HIV. The Tennessee Department of Health HIV/STD Program houses a site that provides "practical information on many of the HIV, AIDS, and STD prevention and care activities in Tennessee. You can use this site to gather basic disease facts, information regarding counseling and testing, or infection statistics. In addition, this site provides information valuable to health care professionals including reporting, treatment, and legal information."[151]

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[144] Department of Health Division of Communicable and Environmental Diseases and Emergency Preparedness; (US) CDC STD Surveillance Report, 2021.

[145] CDC, National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention. Note: 2020 HIV data reflect the impact of COVID-19 (intermittent clinic closures, reduction in availability of services resulting in delays in accessing HIV Prevention and care, limited staff capacity to investigate HIV laboratory reports) and should be interpreted with caution.
[146] CDC, National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention
[147] Tennessee Department of Health, TennIIS. Note: TennIIS does not include vaccination records from the Veterans Health Administration (prior to 2023), Bureau of Prisons, Department of Defense, or Indian Health Services. The 2023 State of Health Report used CDC data for COVID-19 vaccination information and values may differ.
[148] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[149] Department of Health Division of Communicable and Environmental Diseases and Emergency Preparedness; (US) CDC STD Surveillance Report, 2021.

[150] CDC, National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention. Note: 2020 HIV data reflect the impact of COVID-19 (intermittent clinic closures, reduction in availability of services resulting in delays in accessing HIV Prevention and care, limited staff capacity to investigate HIV laboratory reports) and should be interpreted with caution.
[151] To access the TN Dept of Health HIV/STD Program website visit: https://www.tn.gov/health/health-program-areas/std.html

The **Hepatitis C Virus (HCV)** is spread through exposure to infected blood, primarily through injection-drug use. In 2021, the rate of acute viral Hepatitis C in Tennessee was 3 reported cases per 100,000 persons, compared to 1.6 in the United States.[152] HCV can become chronic in more than half of infected individuals, infecting the liver, and leading to cirrhosis.[153] In 2022, the case rate for chronic HCV was 81.5 confirmed cases per 100,000 population. The TN Department of Health Viral Hepatitis Epidemiologic Profile Report can be viewed online with more local data.[154]

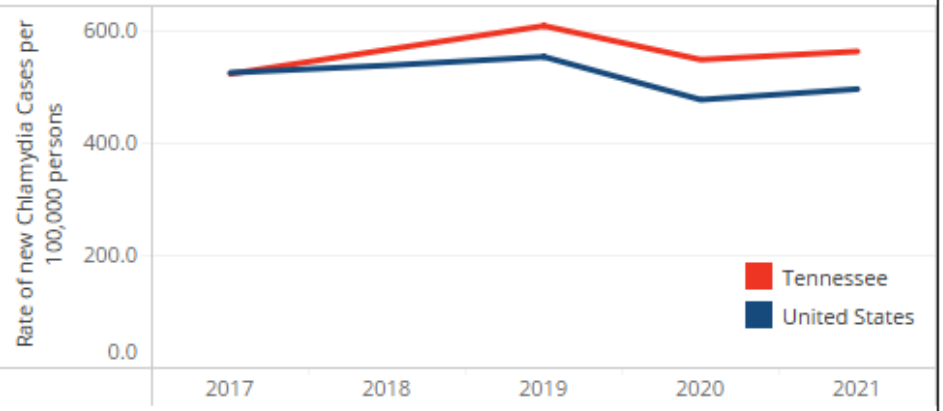
Influenza can lead to serious illness, hospitalization and death, accounting for 1,330 deaths in 2022 making it the 10th leading cause of death in Tennessee.[155] In 2022, Tennessee had the fifth highest influenza/pneumonia mortality rate in the country (15.6 deaths per 100,000 population). **Influenza Vaccination** is the best way to protect against severe illness and death associated with the flu. In 2022, 42.5% of adults in Tennessee received a seasonal flu vaccine, compared to 67.8% nationally.[156]

In 2022, COVID-19 caused 5,400 deaths in Tennessee and was the state's 4th leading cause of death.[157] COVID-19 was also the leading cause of pregnancy-related death in Tennessee in 2021.[158] **COVID-19 Vaccination** protects against the effects of COVID-19 as serious illness, hospitalizations, and deaths are higher among those not fully vaccinated. As of October 2023, only 45.9% of Tennesseans are fully vaccinated (2 doses of Pfizer/Modern OR 1 dose of Janssen).[159] Detailed data on COVID-19 vaccination including booster data is available through the Tennessee Department of Health and through the CDC.[160, 161]

[152] CDC, National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention
[153] CDC, Viral Hepatitis, Overview of Viral Hepatitis. https://www.cdc.gov/hepatitis/resources/healthprofessionaltools/ABCofViralHepatitis.htm
[154] To view the TN Dept of Health TN Viral Hepatitis Epidemiologic Profile, 2022 Report visit https://www.tn.gov/content/dam/tn/health/documents/2022%20Viral%20Hepatitis%20Epidemiological%20Profile_FINAL_01112024.pdf
[155] CDC. National Center for Health Statistics. WISQARS Leading Causes of Death Visualization Tool. https://wisqars.cdc.gov/lcd/?o=LCD&y1=2022&y2=2022&ct=10&cc=ALL&g=47&s=0&r=0&ry=0&e=0&ar=lcd1age&at=groups&ag=lcd1age&a1=0&a2=199
[156] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[157] [157] CDC. National Center for Health Statistics. WISQARS Leading Causes of Death Visualization Tool. https://wisqars.cdc.gov/lcd/?o=LCD&y1=2022&y2=2022&ct=10&cc=ALL&g=47&s=0&r=0&ry=0&e=0&ar=lcd1age&at=groups&ag=lcd1age&a1=0&a2=199
[158] TN Department of Health. Maternal Mortality in Tennessee 2021. https://www.tn.gov/content/dam/tn/health/program-areas/maternal-mortality/MMR-Report-2023.pdf
[159] Tennessee Department of Health, TennIIS. Note: TennIIS does not include vaccination records from the Veterans Health Administration (prior to 2023), Bureau of Prisons, Department of Defense, or Indian Health Services. The 2023 State of Health Report used CDC data for COVID-19 vaccination information and values may differ.
[160] Tennessee Department of Health. Novel Coronavirus. https://www.tn.gov/health/cedep/ncov.html
[161] CDC, COVID Vax View. https://www.cdc.gov/vaccines/imz-managers/coverage/covidvaxview/index.html

Chlamydia

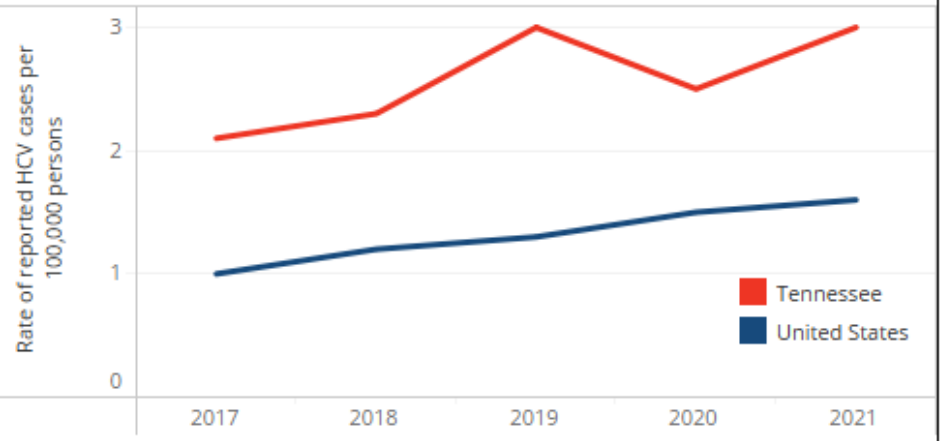
Rate of newly diagnosed chlamydia cases per 100,000 persons.



Data Source: (TN) TN Department of Health Division of Communicable and Environmental Diseases and Emergency Preparedness. (US) CDC STD Surveillance Report, 2021.

Hepatitis C

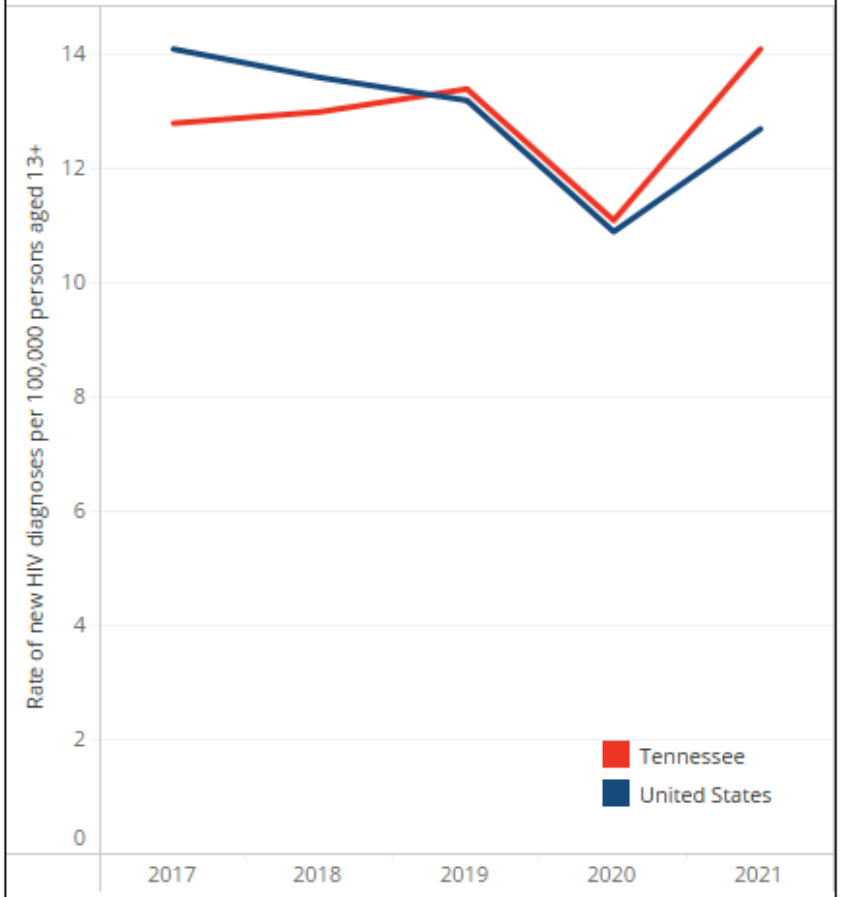
Rate of reported cases of acute viral Hepatitis C per 100,000 persons.



Data Source: CDC, National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention

HIV

Rate of new HIV diagnoses per 100,000 persons aged ≥13 years.

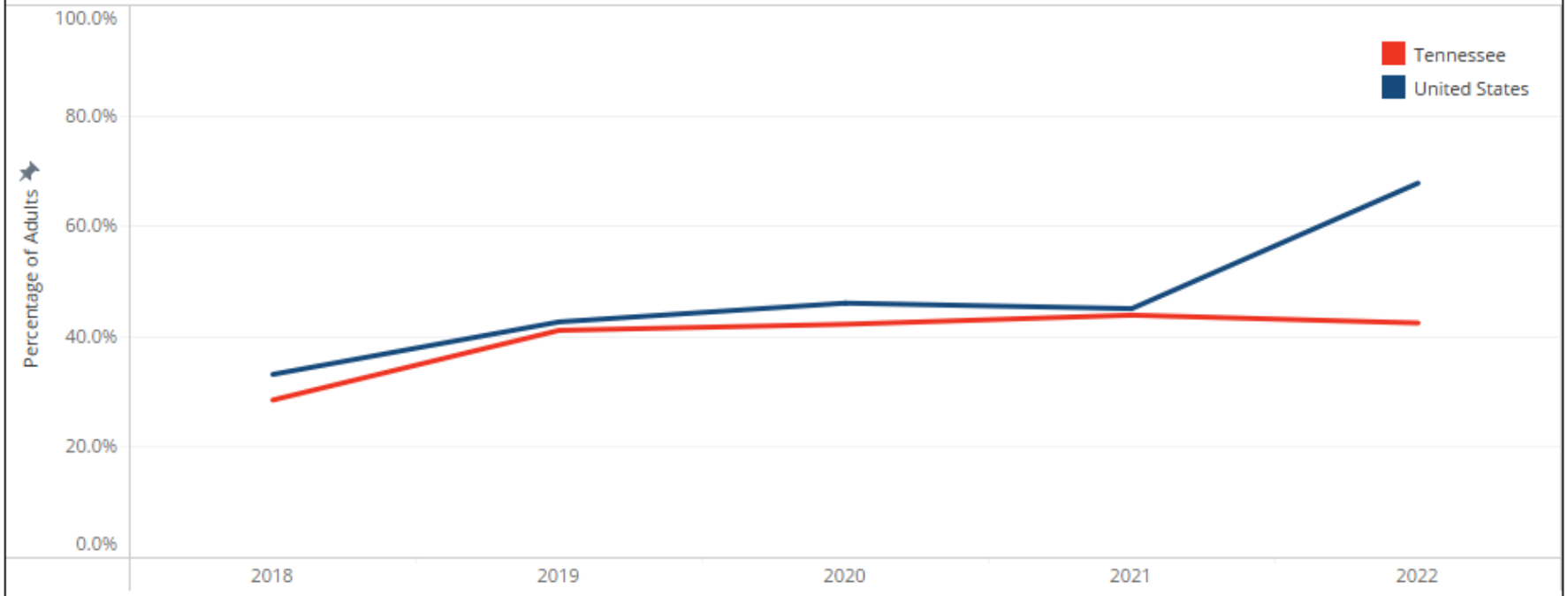


Data Source: CDC, National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention

Data Note: 2020 HIV data reflect the impact of COVID-19 (intermittent clinic closures, reduction in availability of services resulting in delays in accessing HIV Prevention and care, limited staff capacity to investigate HIV laboratory reports) and should be interpreted with caution.

Influenza Vaccination

Percentage of adults in Tennessee who reported receiving a seasonal flu vaccine in the past 12 months.



Data Source: Tennessee Department of Health, Behavioral Risk Factor Surveillance System

COVID-19 Vaccinations

Percentage of Tennesseans fully vaccinated (2 doses of Pfizer/Moderna OR 1 dose of Janssen) against COVID-19 as of October 1, 2023.

45.9%

Data Source: Tennessee Department of Health. TennIIS. Note: TennIIS does not include vaccination records from the Veterans Health Administration (prior to 2023), Bureau of Prisons, Department of Defense, or Indian Health Services. The 2023 State of Health Report used CDC data for COVID-19 vaccination information and values may differ.

Health Indicators

- In 2022, 16.8% of Tennesseans have three or more **Chronic Conditions**, compared to 11.2% in the United States.[162]
- In 2022, 14.8% of adults in Tennessee had **Diabetes**, compared to 11.5% in the United States.[163]
- In 2022, 72.3% of Tennessee adults reported doing **Physical Activity** or exercise during the past month outside their regular job.[164]
- In 2022, 18.8% of adults in Tennessee currently **Smoke**, compared to 14.0% in the United States.[165]
- In 2022, 15.1% of adults in Tennessee reported **Binge Drinking**.[166]
- **Nonfatal drug overdoses** resulting in hospital discharges (outpatient visits or inpatient stays) increased in 2021 to a total of 27,573.[167]
- There were 3,814 **fatal drug overdoses** in Tennessee in 2021, up from 1,818 in 2018.[168]
- **Premature Death** is defined as the Years of Potential Life Lost (YPLL) before aged 75 per 100,000 persons. Tennesseans lost 11,588 years per 100,000 persons in 2022, compared to 8,308 in the United States.[169]

In 2022, 16.8% of Tennesseans had three or more **Chronic Conditions**, compared to 11.2% in the United States.[170] Managing multiple chronic conditions such as arthritis, diabetes and cardiovascular disease is complex and costly for both patients and health care systems. **Diabetes is** specifically costly, with people with diagnosed diabetes having "medical expenditures 2.6 times higher than what would be expected without diabetes."[171] In 2022, 14.8% of adults in Tennessee had diabetes, compared to 11.5% in the United States.[172]

Key behaviors that impact health in adults include physical activity, smoking, and drinking. **Physical Activity** improves overall health and can prevent health conditions such as obesity and heart disease. In 2022, 72.3% of Tennessee adults reported doing physical activity or exercise during the past month outside their regular job.[173] In the United States, 76.6% of adults were physically active in 2022. Smoking can lead to cancer, heart disease, diabetes and more. As of 2022, 18.8% of adults in Tennessee currently **Smoke**, compared to 14.0% in the United States. While the percent of adult smokers in Tennessee has decreased slightly since 2017, the percentage of current smokers in Tennessee has remained higher than the

[162] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[163] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[164] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[165] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[166] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[167] Tennessee Department of Health, Hospital Discharge Data System
[168] Tennessee Department of Health, Death Statistical File
[169] Centers for Disease Control and Prevention, National Center for Health Statistics - WISQARS
[170] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[171] American Diabetes Association. Statistics. The Cost of Diabetes. https://diabetes.org/about-us/statistics/cost-diabetes#:~:text=People%20with%20diagnosed%20diabetes%20incur,in%20the%20absence%20of%20diabetes.
[172] Tennessee Department of Health, Behavioral Risk Factor Surveillance System. Data Note: U.S. Data for 2018 is missing.
[173] Tennessee Department of Health, Behavioral Risk Factor Surveillance System

United States.[174] In 2022, 15.1% of adults in Tennessee reported **Binge Drinking** compared to 17% nationally.[175] Binge-drinking is defined as males having five or more drinks on one occasion or females having four or more drinks on one occasion. In the United States, the percent of adults who are binge drinkers has slightly increased from 13.14% in 2017 to 14.2% in 2021. According to the SAMHSA, "Among people aged 12 or older in Tennessee, the annual average percentage of alcohol use disorder in the past year decreased between 2002–2004 and 2017–2019."[176]

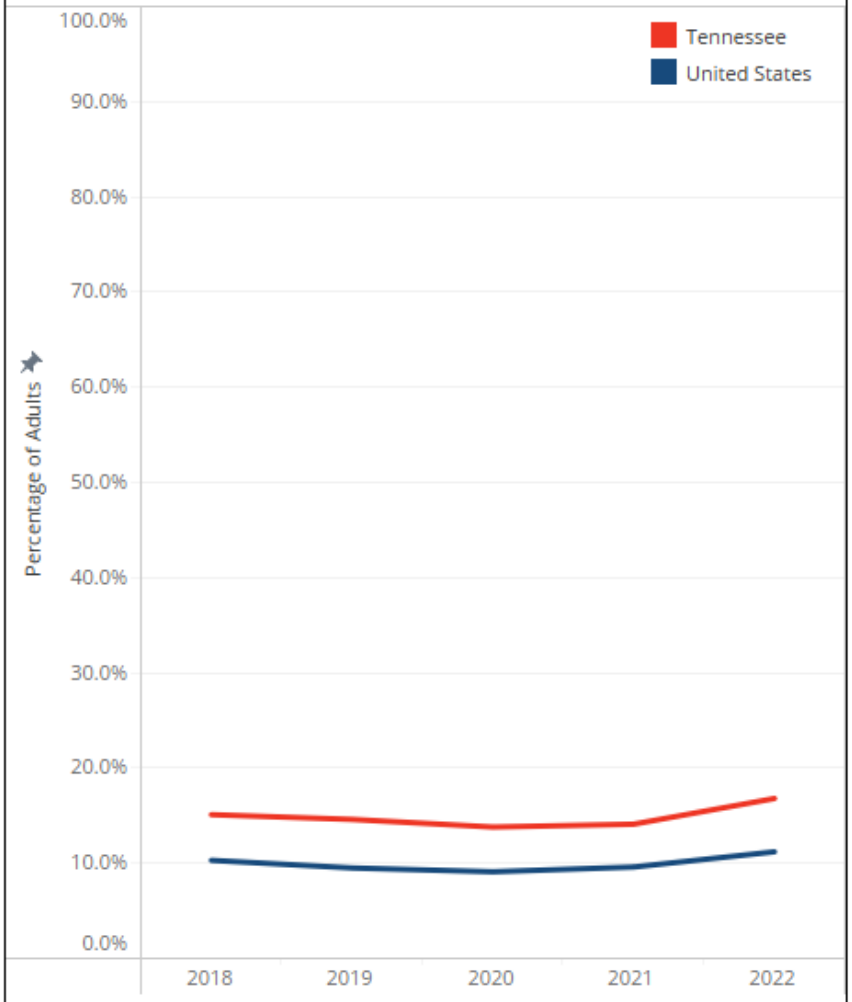
Drug overdoses continue to increase in both the United States and in Tennessee, but overdoses in Tennessee are increasing at a higher rate.[177] **Nonfatal drug overdoses** resulting in hospital discharges (outpatient visits or inpatient stays) increased in 2021 to a total of 27,573.[178] From 2017-2019, the number of nonfatal drug overdoses remained below 24,000. Nonfatal drug overdoses that do not result in hospitalization are not reported using this data set and therefore this data is expected to be a significant undercount of the total number of nonfatal drug overdoses occurring across Tennessee. There were 3,814 **Fatal Drug Overdoses** in Tennessee in 2021, up from 1,776 in 2017.[179]

Fatal overdoses contribute to **Premature Death**, defined as the Years of Potential Life Lost (YPLL) before aged 75 per 100,000 persons. In 2022, Tennesseans lost 11,588 years per 100,000 persons before age 75 compared to 8,308 in the United States. In 2022, unintentional injuries, including unintentional poisonings such as overdoses, caused 24.3% of all years of potential life lost in Tennessee making it the leading cause of YPLL. The other leading causes of YPLL in Tennessee in 2022 were heart disease (15%), malignant neoplasms (13.7%), suicide (4.5%) and COVID-19 (4.2%).

[174] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[175] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[176] SAMHSA. Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2015-2019. https://www.samhsa.gov/data/sites/default/files/reports/rpt32859/Tennessee-BH-Barometer_Volume6.pdf
[177] Kaiser Family Foundation. Mental Health and Substance Use State Fact Sheet: Tennessee. 2022 https://www.kff.org/statedata/mental-health-and-substance-use-state-fact-sheets/tennessee/#:~:text=Substance%20use%20disorder%20is%20using,substance%20use%20during%20the%20pandemic
[178] Tennessee Department of Health, Hospital Discharge Data System
[179] Tennessee Department of Health, Death Statistical File

Chronic Conditions

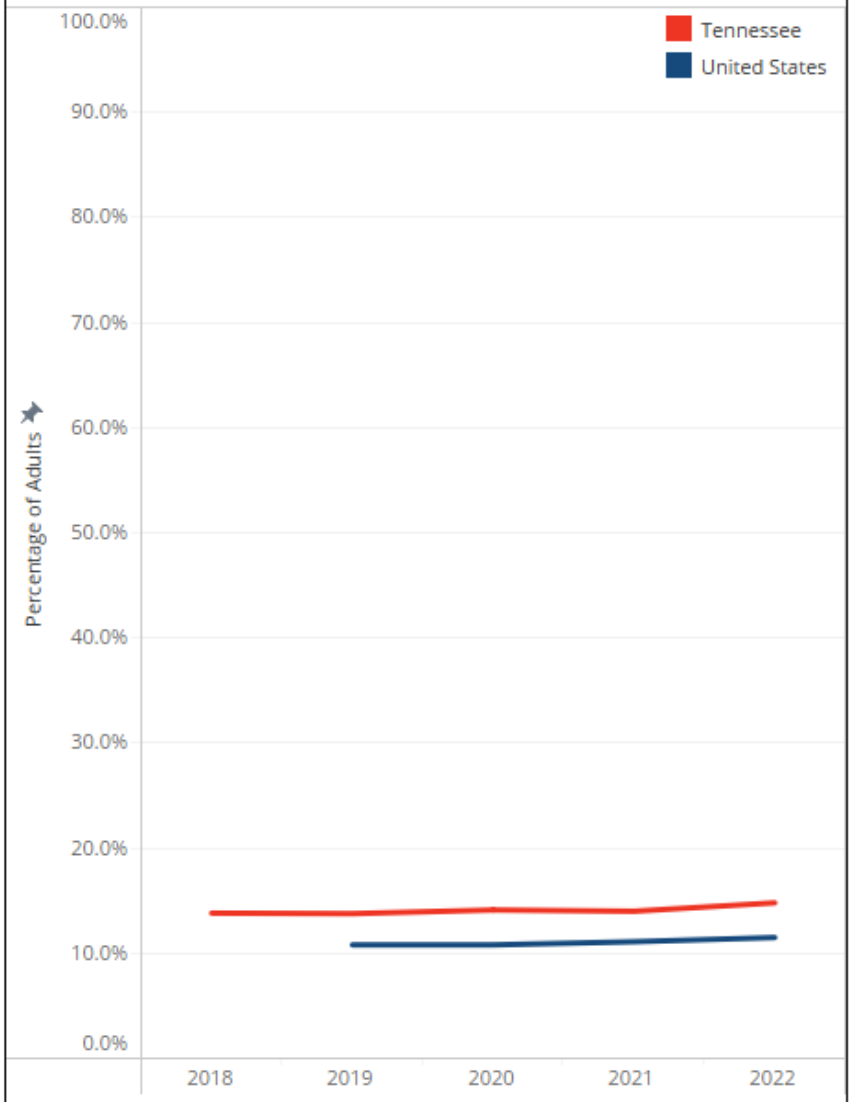
Percentage of adults who have three or more of the following chronic health conditions: arthritis; asthma; chronic kidney disease; chronic obstructive pulmonary disease; cardiovascular disease (heart disease, heart attack or stroke); cancer (excluding skin); depression; diabetes



Data Source: Tennessee Department of Health, Behavioral Risk Factor Surveillance System

Diabetes

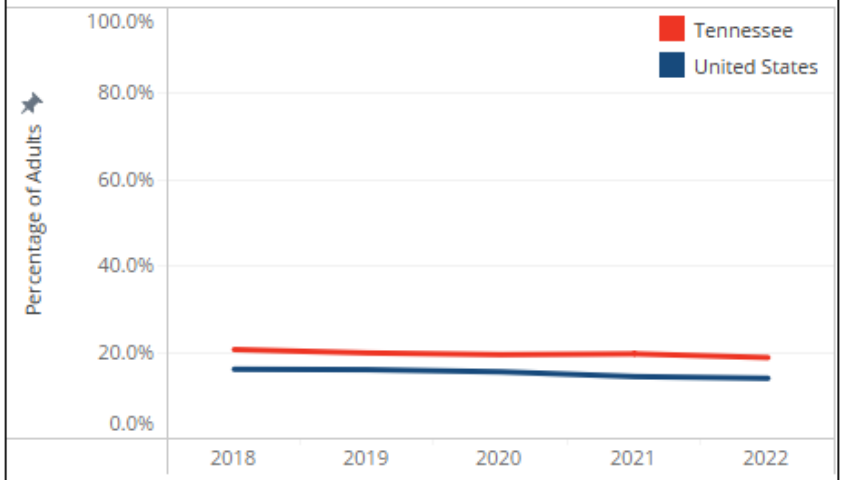
Percentage of adults who have diabetes.



Data Source: Tennessee Department of Health, Behavioral Risk Factor Surveillance System. Data Note: US Data for 2018 is missing.

Adult Smoking

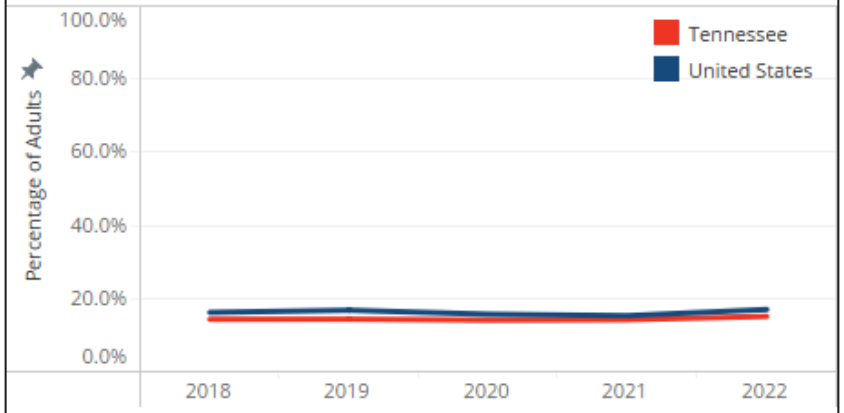
Percentage of adults who are current smokers.



Data Source: Tennessee Department of Health, Behavioral Risk Factor Surveillance System

Binge Drinking

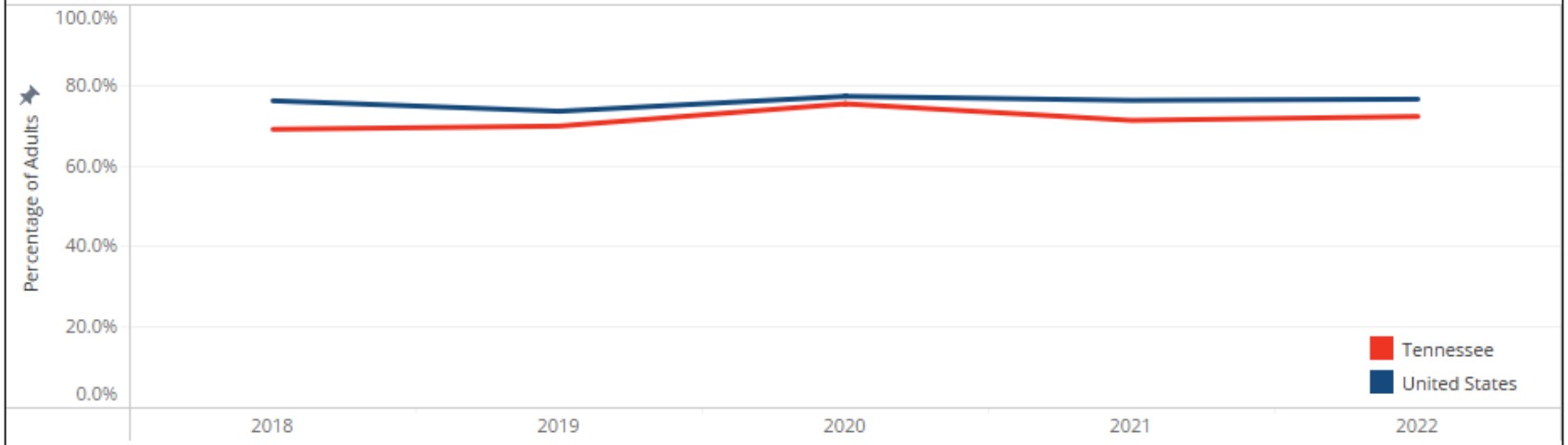
Percentage of adults who are binge drinkers (males having five or more drinks on one occasion, females having four or more drinks on one occasion).



Data Source: Tennessee Department of Health, Behavioral Risk Factor Surveillance System

Physical Activity

Percentage of adults who reported doing physical activity or exercise during the past 30 days other than their regular job.



Data Source: Tennessee Department of Health, Behavioral Risk Factor Surveillance System

Nonfatal Overdoses

Number of drug overdose hospital discharges caused by nonfatal acute poisonings due to the effects of drugs, regardless of intent in Tennessee.

Data Source: Tennessee Department of Health, Hospital Discharge Data System
Data Note: Nonfatal drug overdoses that do not result in hospitalization are not reported using this data set and therefore this data is expected to be a significant undercount of the number of nonfatal drug overdoses occurring across Tennessee

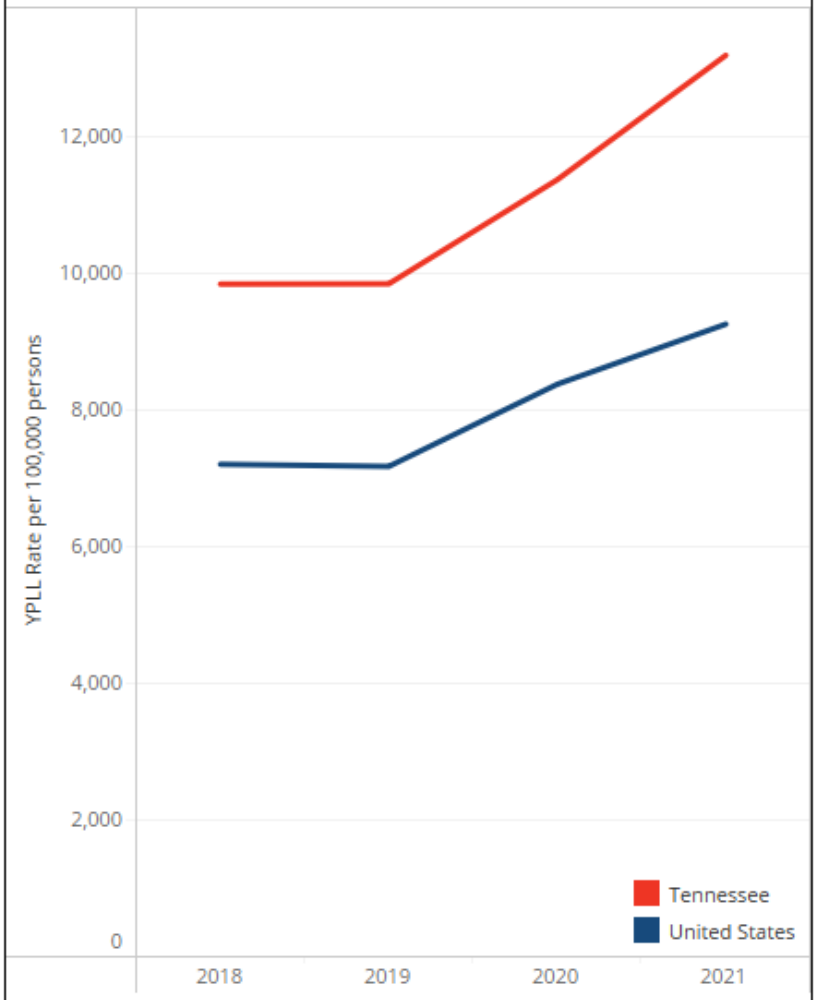
Fatal Overdoses

Number of all drug overdose deaths in Tennessee.

Data Source: Tennessee Department of Health, Tennessee Death Statistical File, 2017-2020

Premature Death

Crude Rate of Years of Potential Life Lost (YPLL) before Age 75 for 10 Leading Causes of Death (All Causes) per 100,000 persons.



Data Source: Centers for Disease Control and Prevention, National Center for Health Statistics - WISQARS

Mental Health

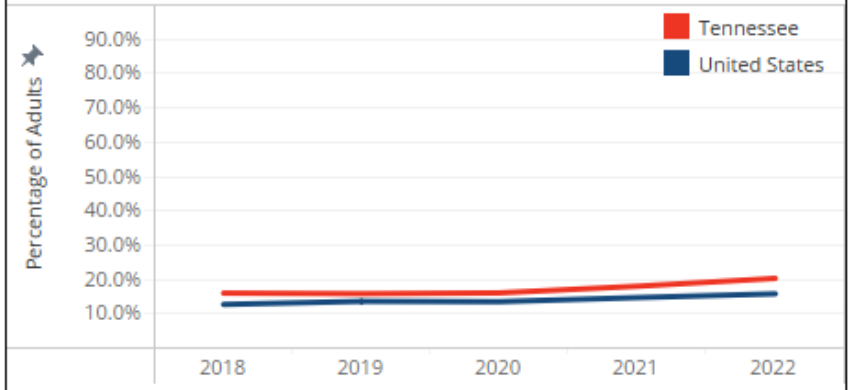
- In 2022, 20.3% of Tennessee adults reported **Frequent Mental Distress**, compared to 15.8% nationally.[180]
- The **Suicidal Ideation rate** in Tennessee was 61.3 emergency department visits/Inpatient hospitalizations per 10,000 persons in 2021.[181]
- In 2021, there were 13.5 emergency department visits and inpatient hospitalizations for intentional self-harm injury, or **Suicide Attempt**, per 10,000 persons in Tennessee.[182]
- In 2022, Tennessee's adult **Suicide Mortality** rate was 21.5 deaths due to intentional self-harm per 100,000 adults.[183]

Frequent Mental Distress[184] in adults has increased in both Tennessee and the United States in recent years. In 2022, 20.3% of Tennessee adults reported their mental health was not good for at least 14 days of the past 30 days, up from 13.72% in 2017. In the United States, 15.8% of adults reported frequent mental distress, up from 12.40% in 2017. Mental illness including depression can lead to increased suicidal ideation. The **Suicidal Ideation rate** in Tennessee was 61.3 emergency department visits/Inpatient hospitalizations per 10,000 persons in 2021.[185] In 2021, there were 13.8 emergency department visits and inpatient hospitalizations for intentional self-harm injury, or **Suicide Attempts,** per 10,000 persons in Tennessee.[186] Suicide attempts not requiring hospitalization are not reported in this data and therefore these values are expected to be an undercount of the true number of suicide attempts in Tennessee. In 2021, the **Suicide Mortality** rate was 21.5 deaths due to intentional self-harm per 100,000 adults (>18) in Tennessee.[187] The Tennessee Department of Health's Suicide Prevention program releases detailed annual data reports on suicide with more information on suicide by age.[188]

[180] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[181] Tennessee Department of Health, Hospital Discharge Data System
[182] Tennessee Department of Health, Hospital Discharge Data System
[183] Tennessee Department of Health. Death Statistics - TN Office of Vital Statistics
[184] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[185] Tennessee Department of Health, Hospital Discharge Data System
[186] Tennessee Department of Health, Hospital Discharge Data System
[187] Tennessee Department of Health. Death Statistics - TN Office of Vital Statistics
[188] To access the Department of Health's Suicide Data and Surveillance Information: https://www.tn.gov/health/health-program-areas/fhw/suicide-prevention.html

Frequent Mental Distress

Percentage of adults who reported their mental health was 'not good' 14 or more days during the past 30 days.



Data Source: Tennessee Department of Health, Behavioral Risk Factor Surveillance System

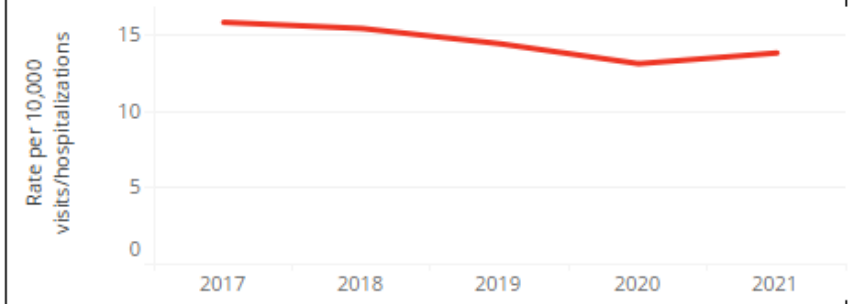
Suicidal Ideation

Rate of visits/hospitalizations with suicidal ideation per 10,000 emergency department visits and inpatient hospitalizations in Tennessee.

Data Source: Tennessee Department of Health , Hospital Discharge Data System
Data Note: Suicidal ideation not requiring hospitalization are not reported in this data and therefore these values are expected to be an undercount of the true number of suicide attempts in Tennessee.

Nonfatal Intentional Self-Harm Injury

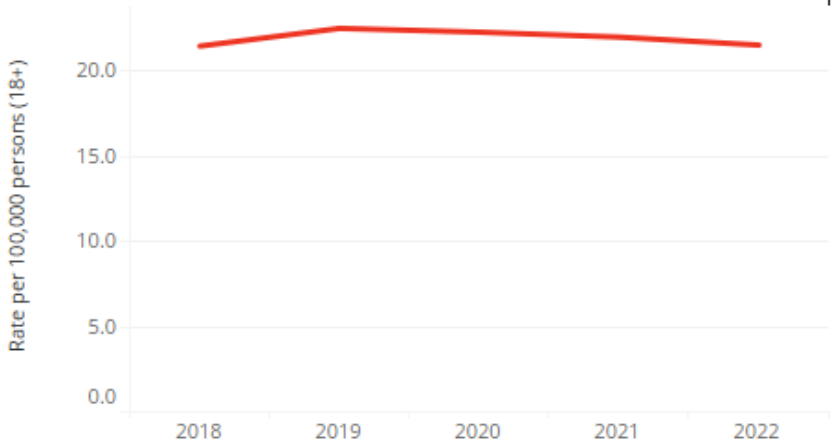
Rate of visits/hospitalizations for nonfatal intentional self-harm injury per 10,000 emergency department visits and inpatient hospitalizations in Tennessee.



Data Source: Tennessee Department of Health , Hospital Discharge Data System.
Data Note: Suicide attempts not requiring hospitalization are not reported in this data and therefore these values are expected to be an undercount of the true number of suicide attempts in Tennessee.

Suicide Mortality

Rate of deaths due to intentional self-harm per 100,000 persons (18+).



Data Source: Tennessee Department of Health Death Statistics

Older Adults

- In 2022, 11% of **older adults were living in poverty** in Tennessee.[189]
- In 2022, an estimated 155,742 **Grandparents were Living with Grandchildren** in Tennessee.[190]
- In 2022-2023, there were 10,445 Adult Protective Services abuse investigations, including investigations into **Elder Abuse.**[191]
- In 2022 among households with an older adult in Tennessee, 41.1% were an older adult living alone, a key risk factor for **Social Isolation.**[192]
- In 2018 and 2020, almost 30% of Tennesseans aged 65 and older reported a **Fall**.[193]
- In 2021, 26.32% of Tennesseans over age 45+ were serving as a **Caregiver** to a loved one, including older adults.[194]
- In 2021, almost 17% of Tennesseans aged 45 years and older reported experiencing **Subjective Cognitive Decline**, compared to 13% in 2019.[195]

Assessing the health of older adults and factors that influence aging is of the utmost importance as the proportion of older adults is expected to grow in the coming decades. The increase in the older adult population will also increase the demand for health care and long-term support services. A 2022 report by the Tennessee Comptroller stated "The number of Tennessee seniors aged 60 and over is expected to increase by 30 percent from 1.6 million in 2020 to 2.1 million in 2040. The number of those aged 80 and over in Tennessee is forecast to double during this time."[196]

In 2022, 11% of older adults in Tennessee were living below the poverty level. The percentage of adults in poverty has stayed constant for the past several years and has not differed significantly from the United States. **Poverty** can have a significant impact on an older adult's ability to access critical medical care, purchase prescription drugs, and be food secure. For many older adults living on a fixed income, caring for others can further strain finances. Older adults may become the primary caregiver for children in situations such as parental incarceration. The number of older adults serving as primary caregivers for children has likely increased in recent years because of the increase in opioid use disorder and drug overdoses affecting mid-aged adults. In 2022, an estimated 155,742 **Grandparents were Living with their Grandchildren** in

[189] U.S. Census Bureau, American Community Survey
[190] US Census Bureau, American Community Survey. Data in report revised April 2023.
[191] Tennessee Department of Human Services Annual Report
[192] US Census Bureau, American Community Survey
[193] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[194] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[195] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[196] Tennessee Comptroller of the Treasury – Office of Research and Education Accountability. Senior Long-Term Care in Tennessee: Trends and Options. April 2022. https://comptroller.tn.gov/content/dam/cot/orea/advanced-search/2022/LTSSExecutiveSummary.pdf

Tennessee. Of those living with their grandchildren, 46.5% were responsible for grandchildren. Of the grandparents living with their grandchildren who were responsible for their grandchildren, 46.6% were over 60 years of age.

Adult Protective Services (APS) investigates reports of abuse, neglect (including self-neglect) and financial exploitation among adults and older adults. Adults and cases must meet certain criteria for the allegation of maltreatment to be investigated, and criteria varies state to state. For example, in 2020, 98.2% of states investigated neglect allegations, but only 39.3% of states investigated abandonment allegations.[197] Tennessee's Adult Protective Services manual can be viewed on the TN Department of Human Services' website.[198] In 2022-2023, Tennessee's APS investigated 10,445 reports, including allegations of **Elder Abuse**. Additionally, in 2022, the Tennessee Elder Abuse Task Force released a report "identifying the financial exploitation of older adults, reviewing best practicing, and sharing recommendations to address regulatory gaps." The full report including additional data on elder abuse is available online.[199]

Social Isolation in older adults is a risk factor for serious health problems including dementia and premature death. Older adults who lose loved ones, have chronic illness, hearing loss, or live alone are more likely to be socially isolated. In 2022 among households with an older adult in Tennessee, 41.1% were an older adult living alone. The other 58.9% of households with an older adult may be an older adult living with a spouse, other family, or non-family such as a friend or non-married partner. Living alone can be additionally dangerous for older adults at risk of **Falls.** Falls in older adults can lead to severe injuries such as hip fractures and even death. In the United States in 2019, "emergency departments recorded 3 million visits for older adults falls" and falls cost "$50 billion in medical costs annually, with ¾ paid by Medicare and Medicaid."[200] In 2018 and 2020, almost 30% of Tennesseans aged 65 and older reported falling.[201]

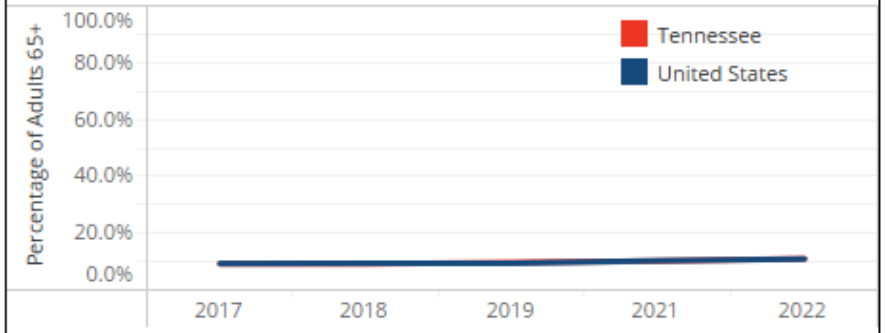
Caregivers, most often family members such as an adult child or spouse, may take on care responsibilities for their aging loved one. In 2021, 26.32% of Tennesseans over age 45+ were serving as a caregiver to a loved one, including older adults. **Caregiving** is particularly prevalent among families of individuals living with dementia. Caregivers of individuals with dementia are more likely to experience stress and chronic health conditions such as high blood pressure compared to non-dementia caregivers. In 2022, 369,000 dementia caregivers in Tennessee provided 499 million hours of unpaid care valued at $7.804 billion. In 2021, there were 2,879 deaths from Alzheimer's Disease in Tennessee, making it one of the state's leading causes of death, and the 7th highest Alzheimer's death rate in the United States.[202]

Individuals with **Subjective Cognitive Decline** are more likely to develop dementia later in life. Therefore, monitoring the number of adults with subjective cognitive decline can be a predictor of disease burden in future years. In 2021, almost 17% of Tennesseans aged 45 years and older reported experiencing subjective cognitive decline, compared to 13% in 2019.[203] For county specific data, the TN Department of Health's Office of Patient Care Advocacy houses county profiles on Alzheimer's and older adults.[204]

[197] Administration for Community Adult Maltreatment Report 2020. https://acl.gov/sites/default/files/programs/2021-10/2020_NAMRS_Report_ADA-Final_Update2.pdf
[198] TN Department of Human Services. Publications and Manuals. https://www.tn.gov/humanservices/information-and-resources/dhs-publications.html
[199] To view the 2022 TN Elder Abuse Task Force Report visit: https://www.tn.gov/aging/publication-reports/elder-abuse-task-force-report.html
[200] CDC. Older Adult Fall Prevention. https://www.cdc.gov/falls/index.html
[201] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[202] Alzheimer's Association. 2024 Facts and Figures Report. https://www.alz.org/media/Documents/alzheimers-facts-and-figures.pdf
[203] Tennessee Department of Health, Behavioral Risk Factor Surveillance System
[204] To access the TN Department of Health's Alzheimer's County Profiles visit: https://www.tn.gov/health/health-program-areas/office-of-patient-care-advocacy/alzheimer-s-disease/redirect-alzheimers-disease/alzheimers-research.html

65+ Poverty

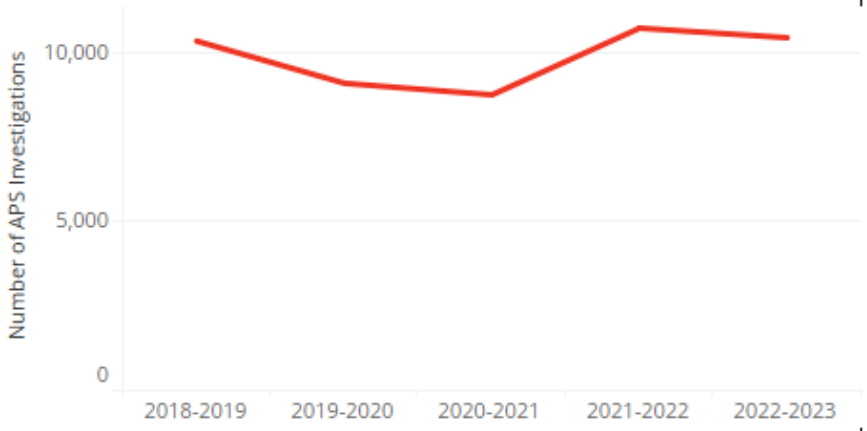
Percentage of adults ages 65 and older who live below the poverty level. In 2022, 11.0% of older adults in Tennessee were living in poverty compared to 10.9% in the US.



Data Source: US Census Bureau, American Community Survey. 1-year estimates. 2020 data not available.

Elder Abuse

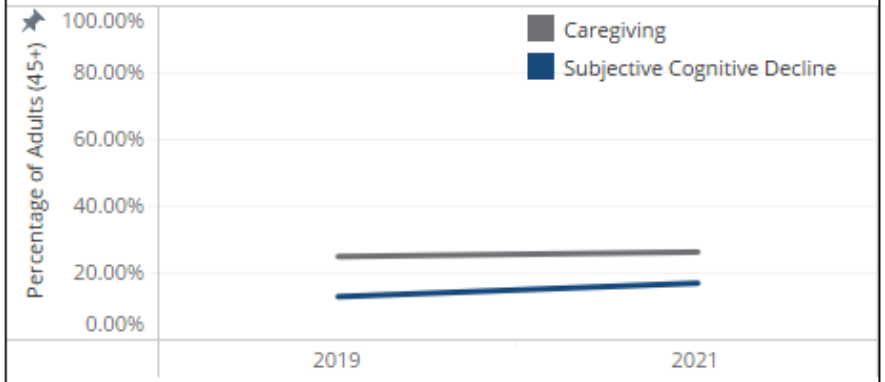
Number of Adult Protective Services (APS) abuse investigations.



Data Source: Tennessee Department of Human Services Annual Report

Caregiving and Subjective Cognitive Decline

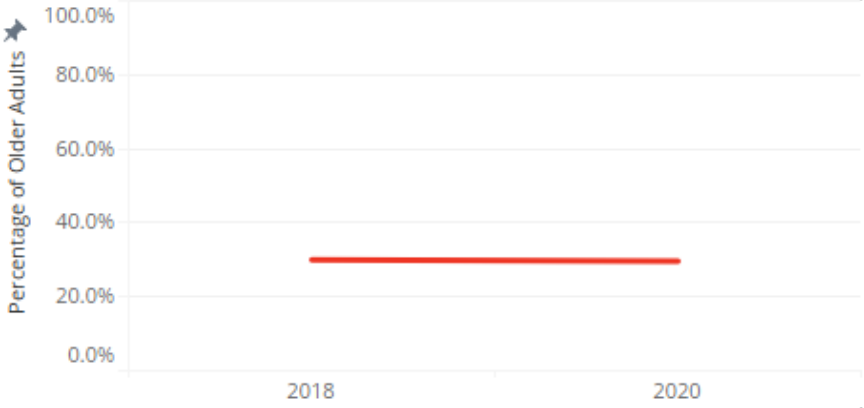
Percentage of adults aged 45 and older serving as a caregiver.
Percentage of adults aged 45 and older who experience subjective cognitive decline (SCD).



Data Source: Tennessee Department of Health, Behavioral Risk Factor Surveillance System

Falls in Older Adults

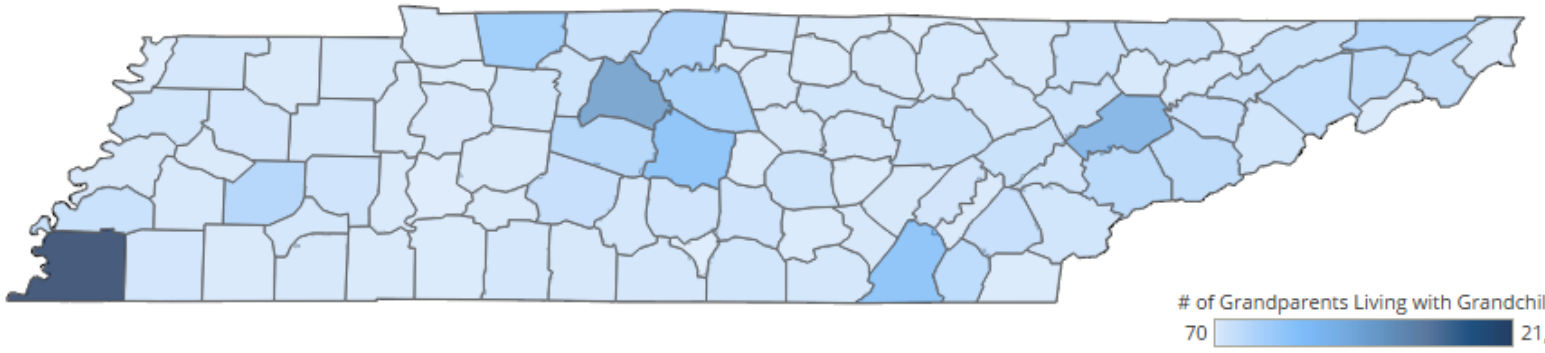
Percentage of adults ages 65 and older who reported falling in the past 12 months in Tennessee.



Data Source: Tennessee Department of Health, Behavioral Risk Factor Surveillance System. Data Note: Question not asked in 2022 BRFSS

Grandparents Living With Grandchildren

Number of grandparents living with own grandchildren under 18 years. Percent of grandparents fully responsible for their grandchildren.
In 2022, an estimated 155,742 grandparents in Tennessee were living with their own grandchildren. Of those living with their grandchildren, 46.5% were fully responsible for their grandchildren.

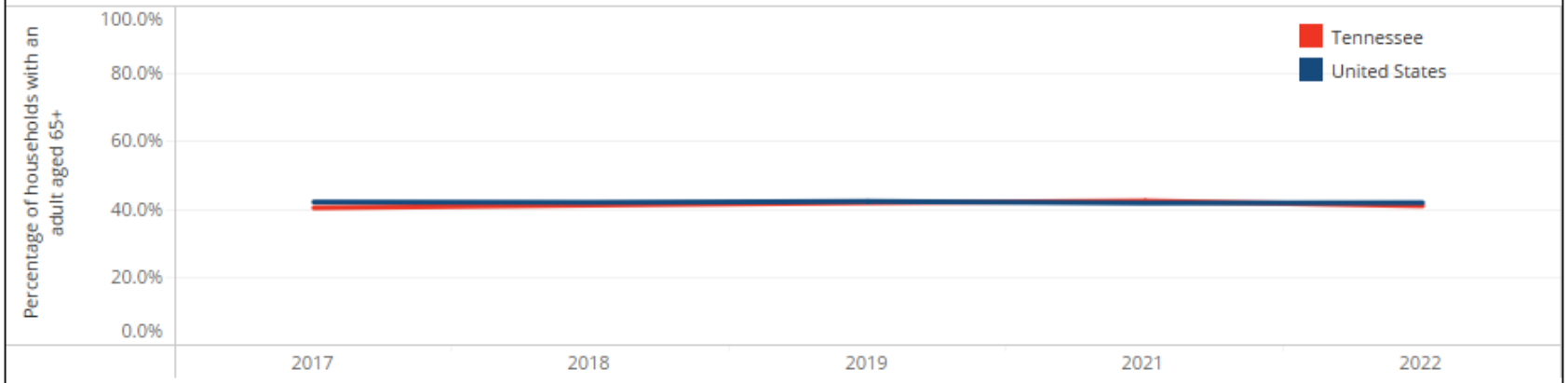


Data Source: United States Census Bureau, American Community Survey. 5-Year Estimates.

Social Isolation

Percentage of households with an adult aged 65+ living alone, among households with an adult aged 65+.

In 2022 among households with an older adult in Tennessee, 41.1% were an older adult living alone. The other 58.9% of households with an older adult may be an older adult living with a spouse, other family, or non-family such as a friend or non-married partner.



Data source: US Census Bureau American Community Survey. 2020 data missing. 1-year estimates.

Healthy Communities

The second component of the Department's vision of a Healthy Tennessee is Healthy Communities. A supportive and healthy community should have a healthy environment and a healthy system of care. The communities we live in influence every facet of our lives including our health behaviors, how we get to work or school, and which hospital we access in an emergency. By assessing the health of communities and considering how community health impacts individual health outcomes, larger efforts to improve health at the population health can be identified.

A Healthy Environment

To assess the health of Tennessee's environment, the State of Health Report considers metrics across two areas: the built environment, including housing and transportation; and environmental health including the air we breathe and the water we drink. The CDC defines the built environment as "the physical makeup of where we live, learn, work, and play—our homes, schools, businesses, streets and sidewalks, open spaces, and transportation options."[205] However, the built environment can only be as healthy as the physical environment in which it is built. For example, a neighborhood may have adequate proximity to a park or greenway, but usability could still be limited by environmental health factors such as poor air quality. The health of the environment affects the air we breathe, the water we drink, and the land we live on. Additionally, environmental emergency events such as floods, tornados, and heat waves can negatively impact our health and communities.

A Healthy Environment				
Severe Housing Problems	Severe Housing Cost Burden	Homelessness*	Broadband Access	Access to Parks and Greenways
Transportation Disadvantaged Communities	Access to Vehicle	Driving Alone to Work	Long Commute-Driving Alone	Roadway Safety
Voter Participation	Civic Organizations	Social Advocacy Organizations	Volunteering	Water Quality
Community Water Fluoridation	Air Pollution-Particulate Matter*	Heat Related ED Visits*	Heat Related Hospitalizations	

*Related information on health disparities included in the Department's 2024 "Health Disparities in Tennessee" report.[206]

[205] CDC. Division of Nutrition, Physical Activity and Obesity. Built Environment Assessment. https://www.cdc.gov/nccdphp/dnpao/state-local-programs/built-environment-assessment/index.htm#:~:text='The%20built%20environment%20includes%20the,physical%20activity%20and%20healthy%20eating. Accessed December 2022.

[206] TN Department of Health. Health Disparities in Tennessee. 2024 Report. https://www.tn.gov/content/dam/tn/health/program-areas/division-of-health-disparities-elimination/documents/HD_Report_FINAL_06122024.pdf

Built Environment

- In 2023, more than 9,215 Tennesseans were experiencing **Homelessness.**[207]
- From 2016-2020, 13.3% of Tennessee households had **Severe Housing Problems**.[208]
- From 2016-2020, 11.1% of Tennessee households experienced a **Severe Housing Cost Burden.**[209]
- In 2022, 89.6% of households in Tennessee had **Broadband Internet Connection.**[210]
- In 2023, 68.0% of Tennessee had adequate access to **Parks and Greenways.**[211]
- In 2023, 36% of Tennessee communities were **Transportation Disadvantaged Communities.**[212]
- In 2022, 2.2% of Tennessee workers aged 16 and over had **No Access to a Vehicle.**[213]
- In 2022, 75% of workers in Tennessee aged 16 years and older were **Driving Alone to Work.**[214]
- In 2022, 36% of those driving alone to work in Tennessee had a **Long Commute.**[215]
- In 2023, there were approximately 7,405 persons fatally or seriously injured in vehicle crashes in Tennessee, a key indicator of **Safety.**[216]
- In 2022, Tennessee's **Voter Participation** was 33.3%.[217]
- In 2021, there were 393 **Civic Organizations** in Tennessee.[218]
- In 2020, there were 339 **Social Advocacy Organizations** in Tennessee.[219]
- In 2021, 23.8% of Tennesseans aged 16 and older reported **Volunteering**.[220]

Safe and stable housing is one of humanity's most basic needs but remains out of reach for many Tennesseans. In 2023, more than 9,215 Tennesseans were experiencing **Homelessness** during the annual point-in-time count conducted to assess homelessness. As this data is collected at one specific time annually, it is expected to significantly undercount the persons in Tennessee who experience homelessness during a given year. The relationship between health and homelessness is cyclical.

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[207] Housing and Urban Development Exchange CoC Homeless Populations and Subpopulations Reports
Data Note: As a point-in-time count, this number severely undercounts the number of persons experiencing homelessness.
[208] U.S. Department of Housing and Urban Development Comprehensive Housing Affordability Strategy (CHAS) Data
[209] U.S. Department of Housing and Urban Development Comprehensive Housing Affordability Strategy (CHAS) Data
[210] U.S. Census Bureau, American Community Survey, 2015-2019
[211] Business Analyst, Delorme map data, ESRI, & U.S. Census Tigerline Files. Accessed through County Health Rankings.
[212] U.S. Department of Transportation, Transportation Disadvantaged Census Tract Data
[213] United States Census Bureau, American Community Survey, 1-Year Public Use Estimates
[214] United States Census Bureau, American Community Survey, 1-Year Public Use Estimates
[215] United States Census Bureau, American Community Survey, 1-Year Public Use Estimates
[216] Tennessee Department of Safety and Homeland Security. Fatal and Serious Injury Data. Data Note: 2022 and 2023 data is provisional.
[217] United States Election Project, General Election Turnout Rates.
[218] U.S. Census Bureau, 2016-2020
[219] Data Source: U.S. Census Bureau, 2016-2020
[220] U.S. Census Bureau, Current Population Survey (CPS), Volunteer Supplement Data. Accessed via America's Health Rankings.

Poor health increases risk of experiencing homelessness and experiencing homelessness increases risk of poor health.[221] As noted by the National Health Care for the Homeless Council, "no amount of health care can substitute for stable housing." Even for individuals who are housed, significant housing challenges that impact health can remain. From 2016-2020, 13.3% of Tennessee households had **Severe Housing Problems**, defined as having at least one of four problems (overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities) compared to 16.7% in the United States during the same time. High housing cost specifically has been associated with increased odds of poor health including hypertension, arthritis, and cost-related health and prescription nonadherence.[222] In Tennessee from 2016-2020, 11.1% of Tennessee households experienced a **Severe Housing Cost Burden**, defined as spending more than 50% of their income on housing. Severe Housing Cost Burden in the U.S. was 13.3% during the same period. An additional challenge to ensuring housing meets the needs of today's Tennesseans is **Broadband Internet Connection.** Broadband is necessary for accessing everything from educational classes, job opportunities, and telehealth appointments to staying connected with family and friends. Broadband access in Tennessee has been increasing in recent years, and in 2022, 89.6% of households in Tennessee had broadband internet connection. The physical makeup of the community outside the front door also impacts health. For example, individuals with **Access to Parks and Greenways** are more likely to be physically active. In 2023, 68.0% of Tennessee had adequate access to parks and greenways.

Reliable transportation is essential to fully participate in society and affects individuals' ability to get to work and doctor's appointments as well as to social events such as birthday parties and Friday night football. The United States Department of Transportation (US DOT) tracks communities that are considered **Transportation Disadvantaged Communities.** These communities, or census tracts, are identified as disadvantaged using data that evaluates social vulnerability, risk, resilience, and other community-level factors. Transportation disadvantaged communities spend more and take longer to get where they need to go. In 2023, 36% of Tennessee's census tracts were considered transportation disadvantaged communities. Specific census tract designations and indicators can be viewed using the U.S. DOT's mapping tool.[223]

Many communities in Tennessee do not have access to traditional public transit and rely heavily on a personal vehicle. **Access to a Vehicle** is essential where access to traditional public transit is absent or limited. In 2022, 2.2% of Tennessee workers aged 16 and over lived in households with no vehicle available, compared to 4.4% in the U.S.[224] While in Tennessee access to a vehicle is largely needed to get from one place to another, relying on a personal vehicle can have negative impacts on the environment by increasing carbon emissions as well as negative effects on individual health. In 2022, 75% of workers aged 16 years and older were **Driving Alone to Work** and 36% of those driving alone had a **Long Commute**, defined as more than 30 minutes.[225, 226] In the United States in 2022, 68.7% of workers were driving alone to work and 36.3% of those driving alone had a long commute.[227, 228] Driving alone to work and having a long commute can impact health by decreasing physical activity and increasing the risk of health conditions such as obesity and hypertension. Comparatively using public transit increases physical activity and can improve overall health of individuals and environments.

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[221] National Health Care for the Homeless Council. Homeless & Health: What's the Connection?. February 2019. https://nhchc.org/wp-content/uploads/2019/08/homelessness-and-health.pdf
[222] Pollack, C. Griffin, B.A. Lynch, J. (2010). Housing Affordability and Health Among Homeowners and Renters. *American Journal of Preventative Medicine*, *39*,(6), 515-521. https://doi.org/10.1016/j.amepre.2010.08.002
[223] To view local data on Transportation Disadvantaged Communities visit: https://experience.arcgis.com/experience/0920984aa80a4362b8778d779b090723/page/Understanding-the-Data/
[224] United States Census Bureau, American Community Survey, 1-Year Public Use Estimates
[225] United States Census Bureau, American Community Survey, 1-Year Public Use Estimates
[226] United States Census Bureau, American Community Survey, 1-Year Public Use Estimates
[227] United States Census Bureau, American Community Survey, 1-Year Public Use Estimates
[228] United States Census Bureau, American Community Survey, 1-Year Public Use Estimates

In 2023, there were 7,405 persons fatally or seriously injured in vehicle crashes in Tennessee.[229] Factors such as traffic density, road infrastructure, and driving habits may contribute to the higher incidence of fatal car accidents. The Tennessee Department of Transportation's Division of Multimodal Transportation looks closely at roadway **Safety** and has local data available publicly through the Pedestrian Safety Prioritization Tool. The Tool identifies the number of injuries and fatalities, presence of sidewalks and bike lanes, speed limits and more for roadways across the state.[230] In 2021, Tennessee ranked 16th among the states with the highest pedestrian fatality rates. Tennessee's rate was 2.54, while the national average was 2.23.[231]

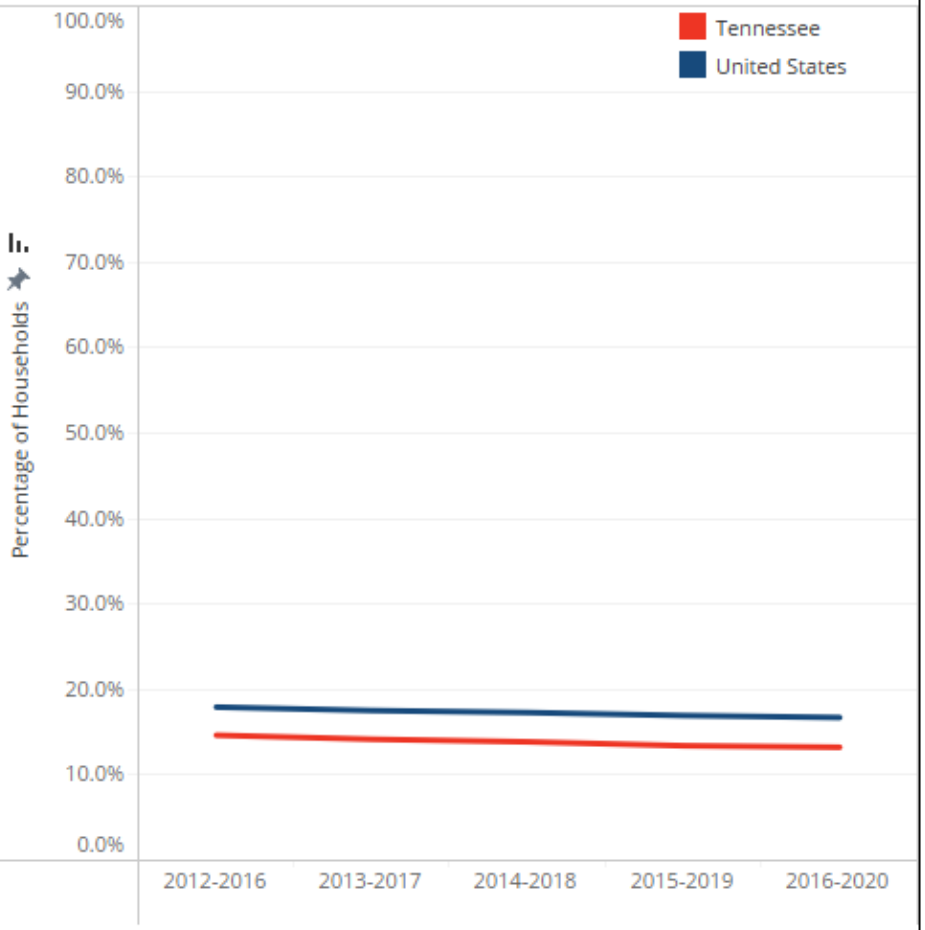
Social cohesion refers to a community or population's investment in "community improvement, social networking, civic engagement, personal recreation, and other activities that create social bonds between individuals and groups."[232] Individuals living in a socially cohesive community experience trust, solidarity, connectedness, and a sense of belonging with one another. As a result, these communities experience more positive health outcomes including everything from lower rates of frailty in older adults to increased physical activity.[233] Increased civic engagement can increase a community's social cohesion. The relationship between democracy and health is closely linked, including through a recent Democracy and Health index released by Healthy Democracy Healthy People, a coalition of organizations such as the Association of State and Territorial Health Officials (ASTHO) and American Public Health Association (APHA). In Tennessee, **Voter Participation** is consistently below the U.S. average but follows U.S. trends with higher participation in presidential election years. In 2022, 33.3% of the voting-eligible population participated in the highest office election in Tennessee, compared to 46.2% at the national level.

Civic Organizations and **Social Advocacy Organizations** can increase social cohesion by empowering individuals and through engaging with their broader communities**.** Civic organizations are defined as establishments engaged in "promoting the civic and social interests of their members" and include organizations such as parent-teacher associations, alumni associations, veterans' membership organizations and ethnic associations.[234] Social advocacy organizations promote a "particular cause or working for the realization of a specific social or political goal to benefit a broad or specific constituency" and include organizations such as community action advocacy organizations, human rights advocacy organizations, and wildlife preservation organizations.[235] In 2021, there were 393 civic organizations and 339 social advocacy organizations in Tennessee. Faith-based organizations are also an essential part of Tennessee's communities. As of 2020, Tennessee had over 13,000 religious congregations, defined as "parishes, churches, synagogues, mosques, temples or another site where a religious body has regularly scheduled worship services."[236] Civic organizations, social advocacy organizations, and faith-based organizations also play an important role in building social cohesion and community, including through facilitating **Volunteer** opportunities. In 2021, 23.8% of Tennesseans volunteered in their communities, down from 31.7% in 2019. In 2021, Tennessee ranked 28 in the nation for volunteerism.

[229] Tennessee Department of Safety and Homeland Security. Fatal and Serious Injury Data. Data Note: 2022 and 2023 data is provisional.
[230] To view local data from TDOT's Pedestrian Safety Prioritization Tool visit: https://tdot-lrp-mm.maps.arcgis.com/apps/webappviewer/index.html?id=47c1bf3ae8014d5893c2ed2f075b207e
[231] National Highway Traffic Safety Administration. 2021 Ranking of State Pedestrian Fatalities. https://www-fars.nhtsa.dot.gov/States/StatesPedestrians.aspx)
[232] CDC Healthy Places. Social Capital. Retrieved from: https://www.cdc.gov/healthyplaces/healthtopics/social.htm
[233] Miller HN, Thornton CP, Rodney T, Thorpe RJ Jr, Allen J. Social Cohesion in Health: A Concept Analysis. ANS Adv Nurs Sci. 2020 Oct/Dec;43(4):375-390. doi: 10.1097/ANS.0000000000000327. PMID: 32956090; PMCID: PMC8344069.
[234] United States Census Bureau North American Industry Classification System. Accessed via: https://www.census.gov/naics/?input=civic&year=2022&details=813410
[235] United States Census Bureau North American Industry Classification System. Accessed via: https://www.census.gov/naics/?input=8133&year=2022&details=81331
[236] The Association of Religion Data Archives. Tennessee State Membership Report. 2020. https://thearda.com/us-religion/census/congregational-membership?y=2010&y2=0&t=1&c=47

Severe Housing Problems

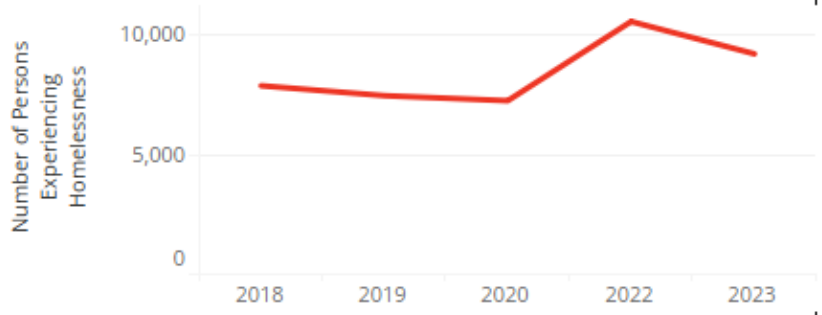
Percentage of households with at least 1 of 4 problems: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities.



Data Source: Census ACS Data accessed via US Department of Housing and Urban Development Comprehensive Housing Affordability Strategy (CHAS) Data

Homelessness

Annual point-in-time count of persons experiencing homelessness in Tennessee.

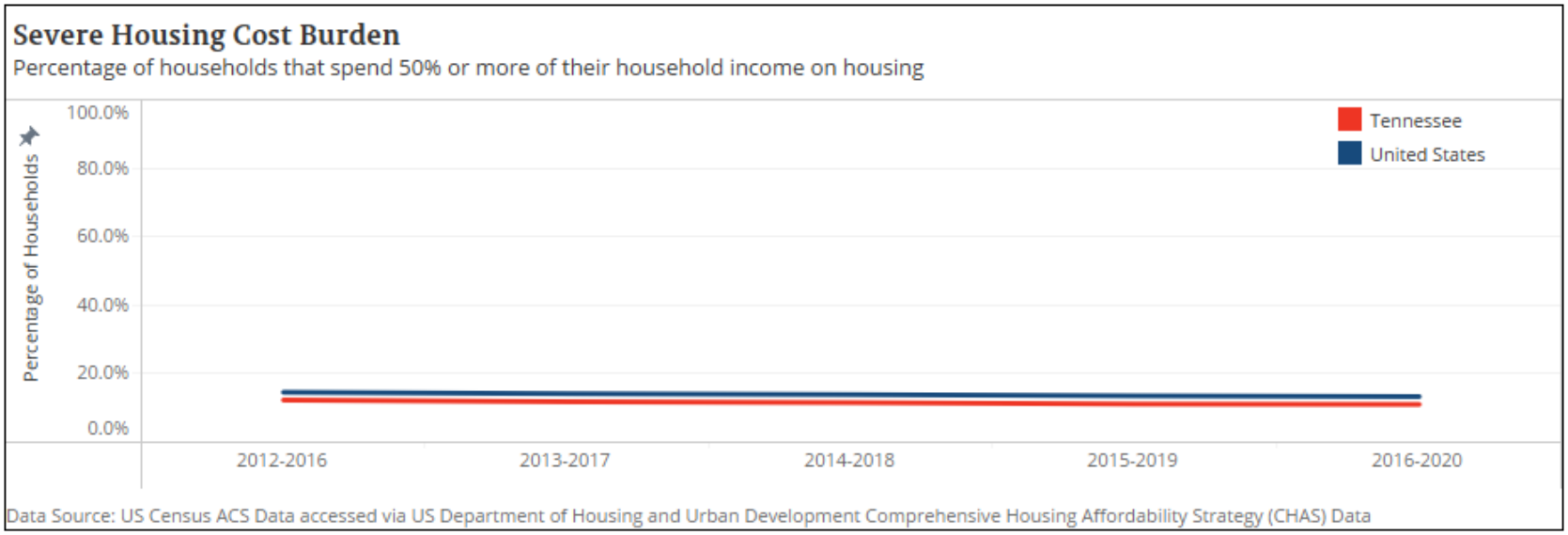


Data Source: Housing and Urban Development Exchange CoC Homeless Populations and Subpopulations Reports
Data Note: As a point-in-time count, this number severely undercounts the number of persons experiencing homelessness; 2021 data excluded due to COVID-19 related inconsistencies.

Access to Parks and Greenways

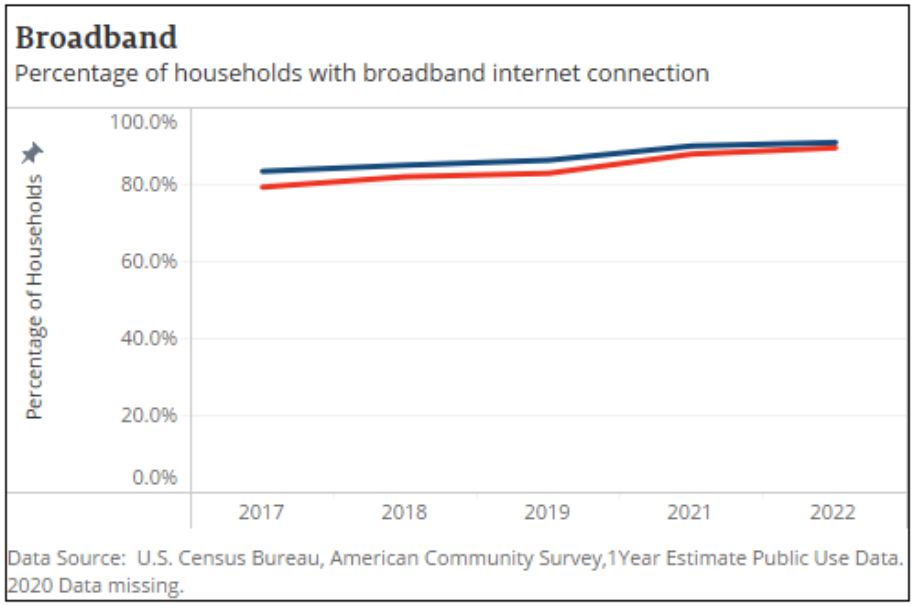
Percentage of population with adequate access to locations in Tennessee.

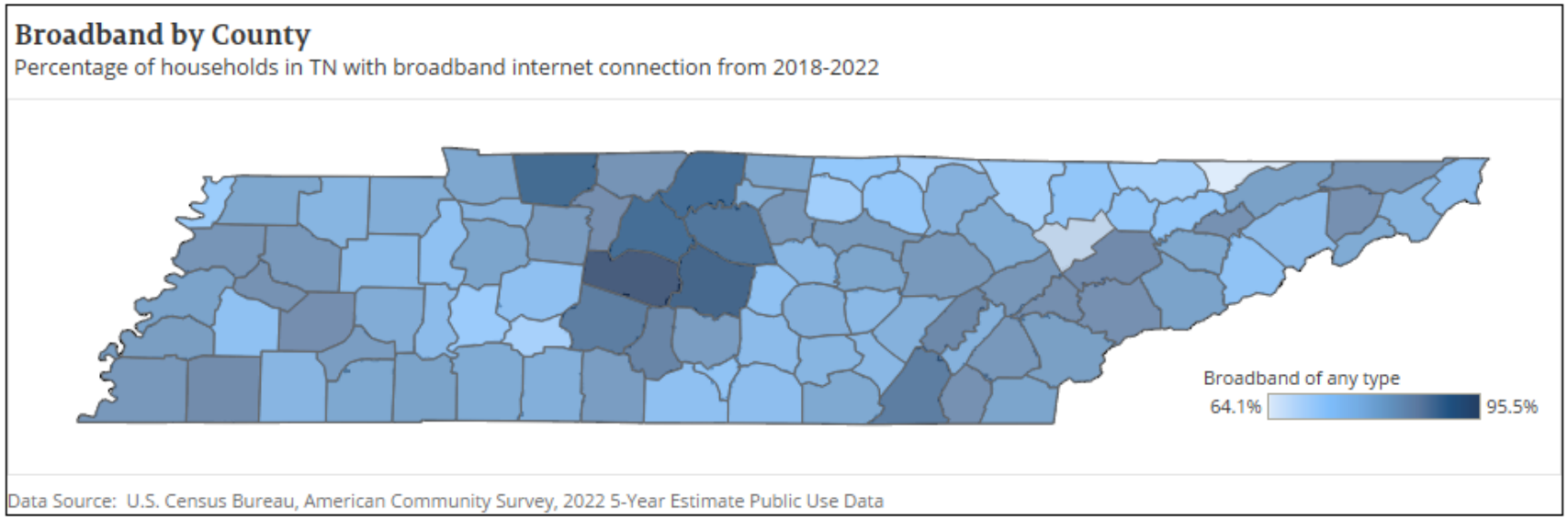
Data Source: Business Analyst, Delorme map data, ESRI, & US Census Tigerline Files. Accessed through County Health Rankings.

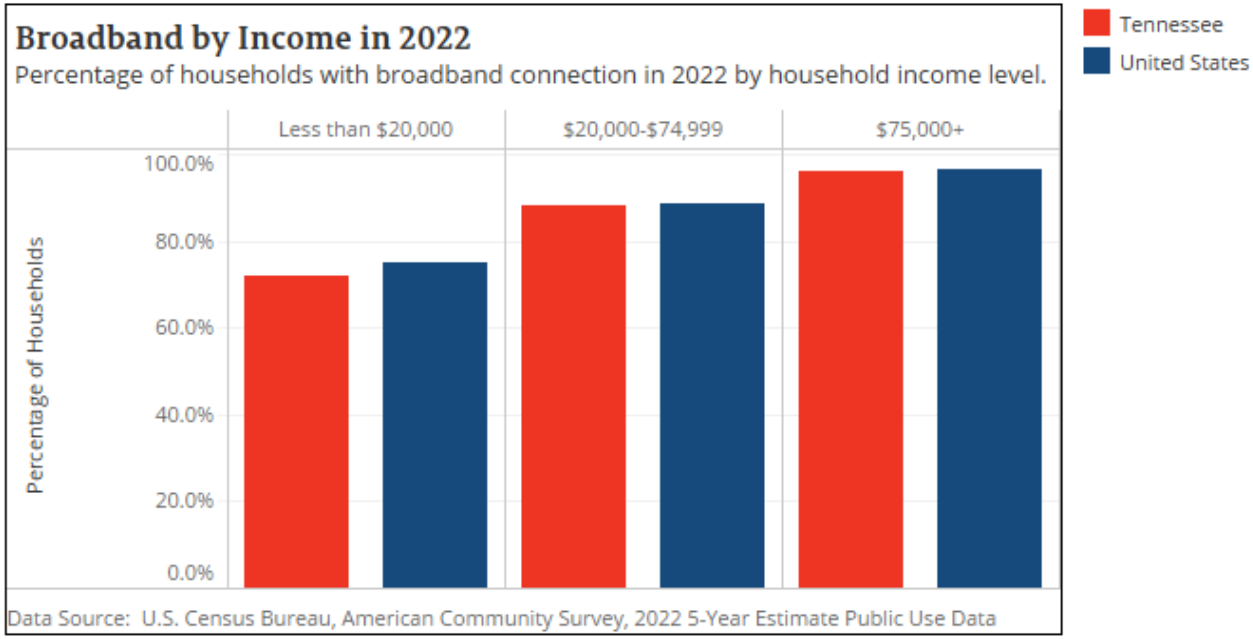


Housing cost burden county-maps are available on the State of Health webpages. [237]

[237] State of Health in Tennessee. https://www.tn.gov/health/health-program-areas/state-health-plan/redirect-state-health-plan/the-state-of-health-in-tennessee.html


Broadband
Percentage of households with broadband internet connection
Tennessee
United States
Percentage of Households
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
2017
2018
2019
2021
2022
Data Source: U.S. Census Bureau, American Community Survey,1Year Estimate Public Use Data.
2020 Data missing.


Broadband by County
Percentage of households in TN with broadband internet connection from 2018-2022
Broadband of any type
64.1%
95.5%
Data Source: U.S. Census Bureau, American Community Survey, 2022 5-Year Estimate Public Use Data



Broadband county maps by income level are available on the State of Health webpages.[238]

[238] State of Health in Tennessee. https://www.tn.gov/health/health-program-areas/state-health-plan/redirect-state-health-plan/the-state-of-health-in-tennessee.html

Transportation Disadvantaged Communities

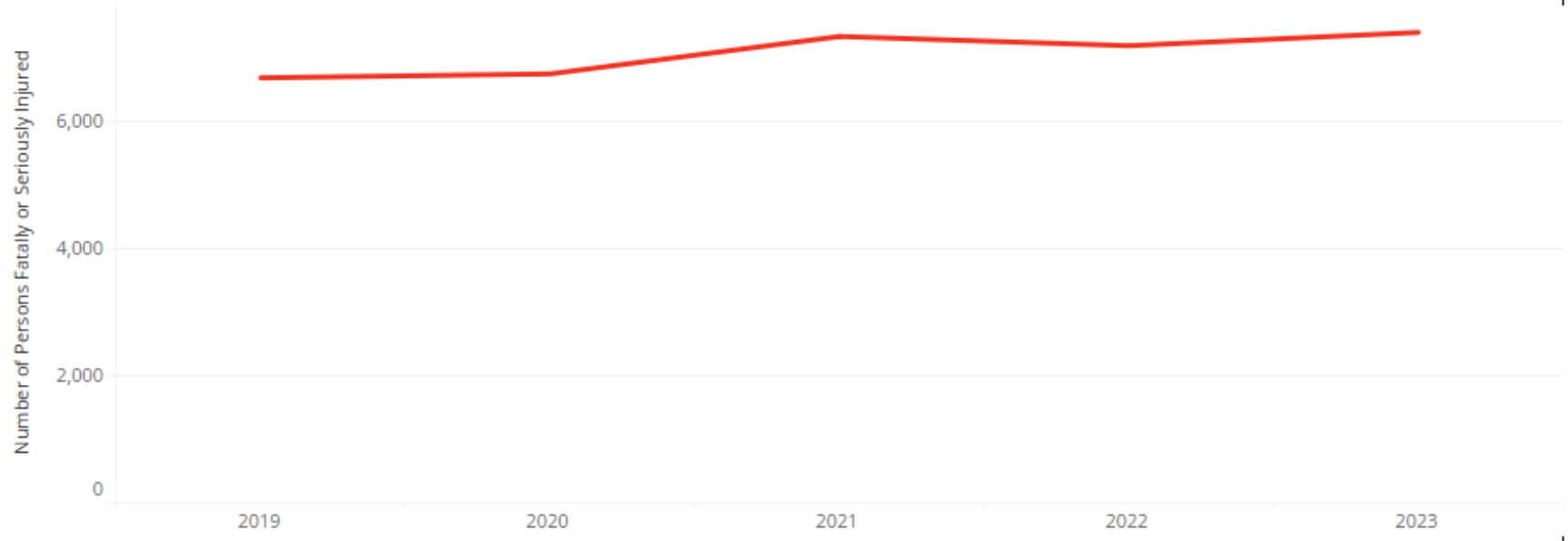
Percentage of Tennessee Communities that spend more and take longer, to get where they need to go.

2023	36.0%

Data Source: US Department of Transportation, Transportation Disadvantaged Census Tract Data

Safety

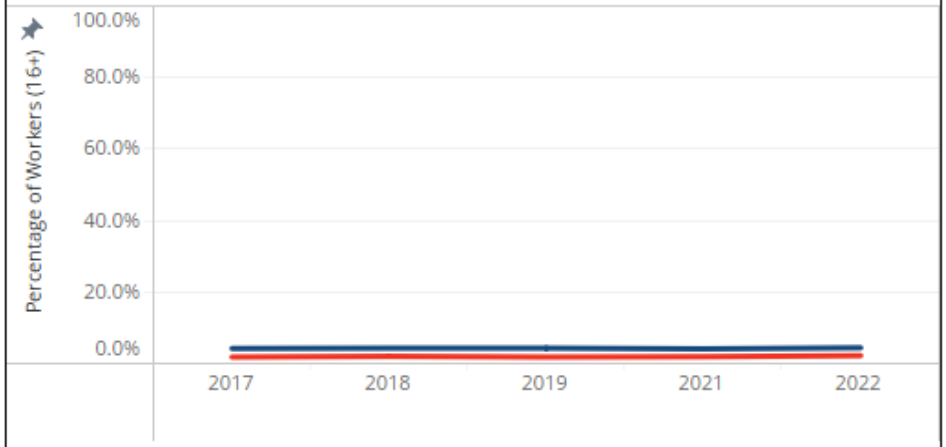
Annual number of persons fatally or seriously injured in vehicle crashes in Tennessee.



Data Source: Tennessee Department of Safety and Homeland Security. Fatal and Serious Injury Data. Data Note: 2022 and 2023 data is provisional.

Vehicle Access

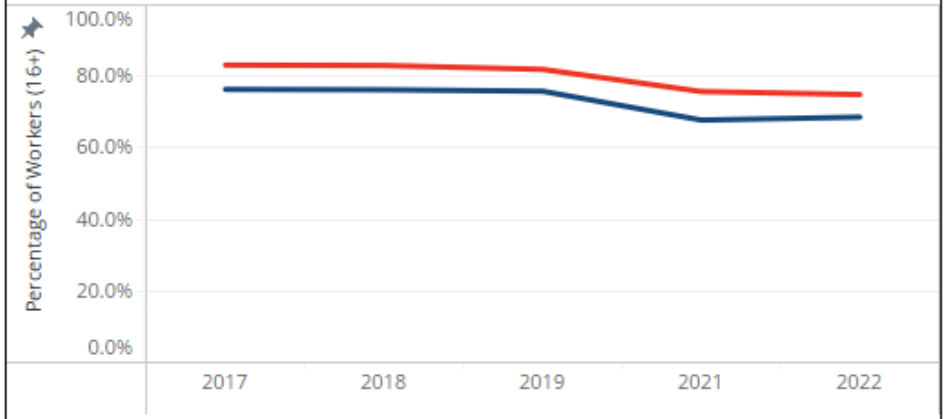
Percentage of workers 16 years and over in households with no vehicle available.



Data Source: United States Census Bureau, American Community Survey, 1-Year Public Use Estimates. Data Note: 2020 Data not available.

Driving Alone to Work

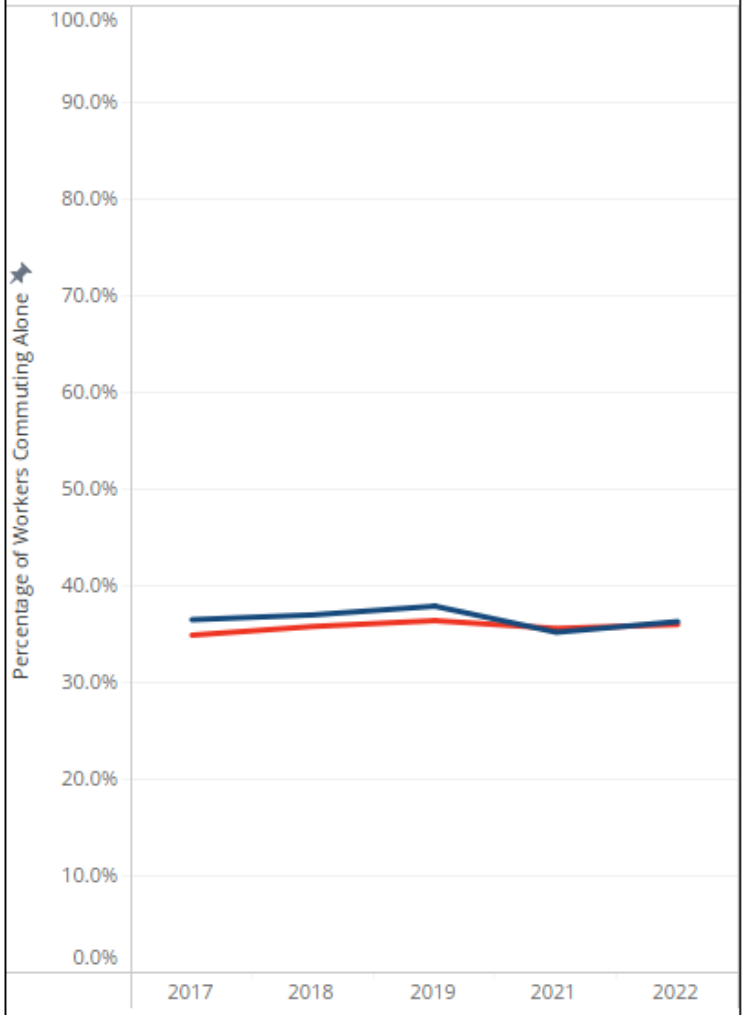
Percentage of workers 16 years and over that drive alone to work



Data Source: United States Census Bureau, American Community Survey, 1-Year Public Use Estimates. Data Note: 2020 Data not available.

Long Commute Driving Alone

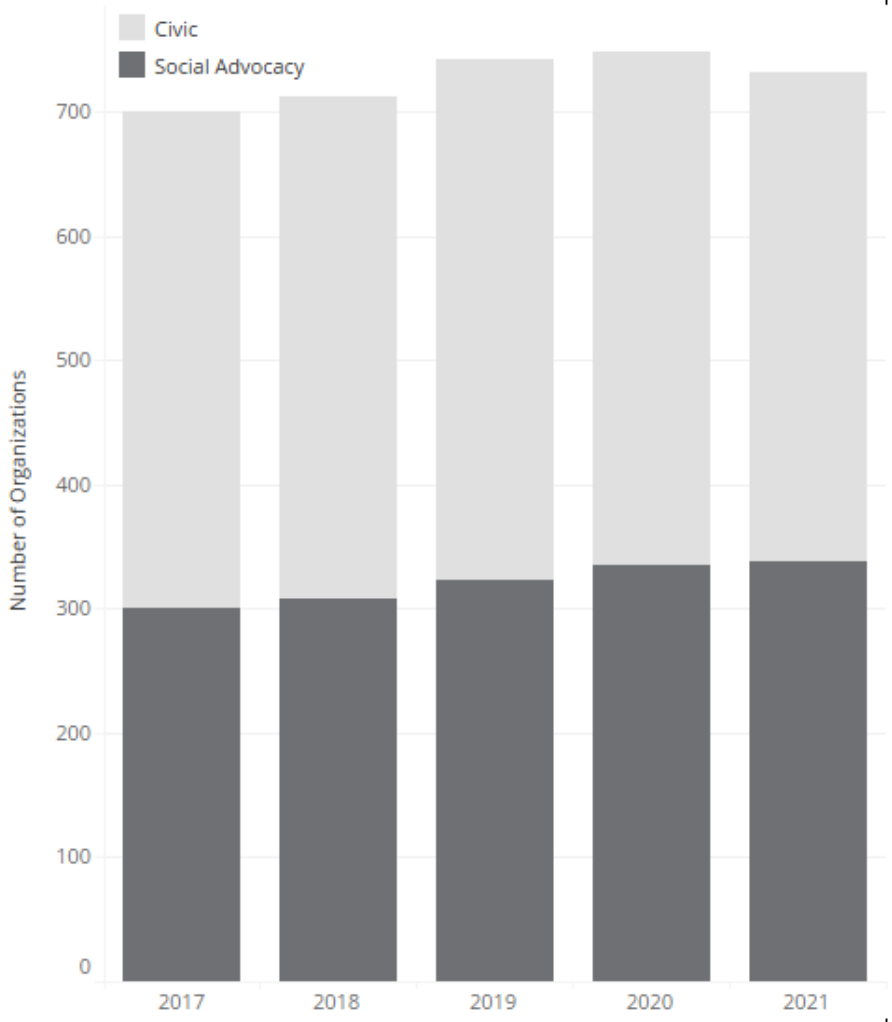
Among workers who commute in their car alone, the percentage that commute more than 30 minutes.



Data Source: United States Census Bureau, American Community Survey, 1-Year Public Use Estimates. Data Note: 2020 Data not available.

Civic and Social Advocacy Organizations

Number of civic organizations and social advocacy organizations in Tennessee.

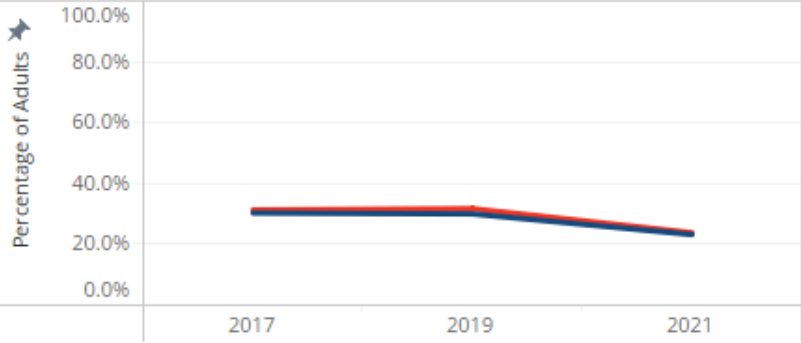


Data Source: United States Census Bureau

Tennessee United States

Volunteerism in Tennessee

Percentage of adults in the state who volunteer in their communities.

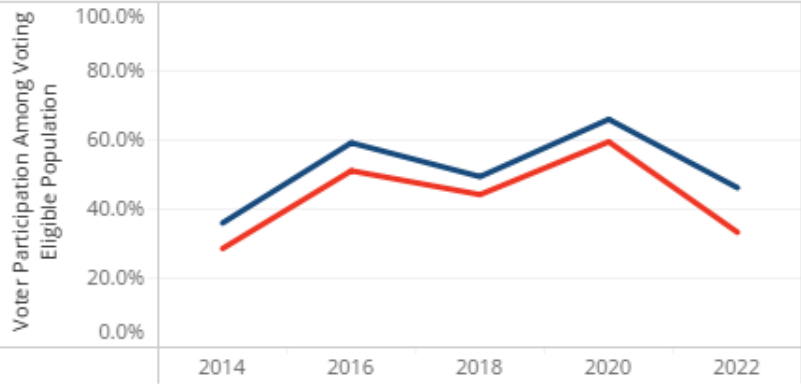


Data Source. US Census Bureau, Current Population Survey (CPS), Volunteer Supplement Data. Accessed via America's Health Rankings.

Voter Participation in Tennessee

Percentage of voting-eligible population in the state participating in the highest office election.

*Presidential Election Year: 2016, 2020



Data Source: United States Election Project, General Election Turnout Rates.

Environmental Health

Water and Air

- In 2021, 0.5% of Tennessee's population was served by community water systems with a serious drinking water violation in the past year, an indicator of **Water Quality.**[239]
- 88.7% of Tennessee's population is served by **Fluoridated Water.**[240]
- In 2019, Tennessee's annual average of fine **Particulate Matter** ($PM_{2.5}$) was 7.6 μg/m³.[241]

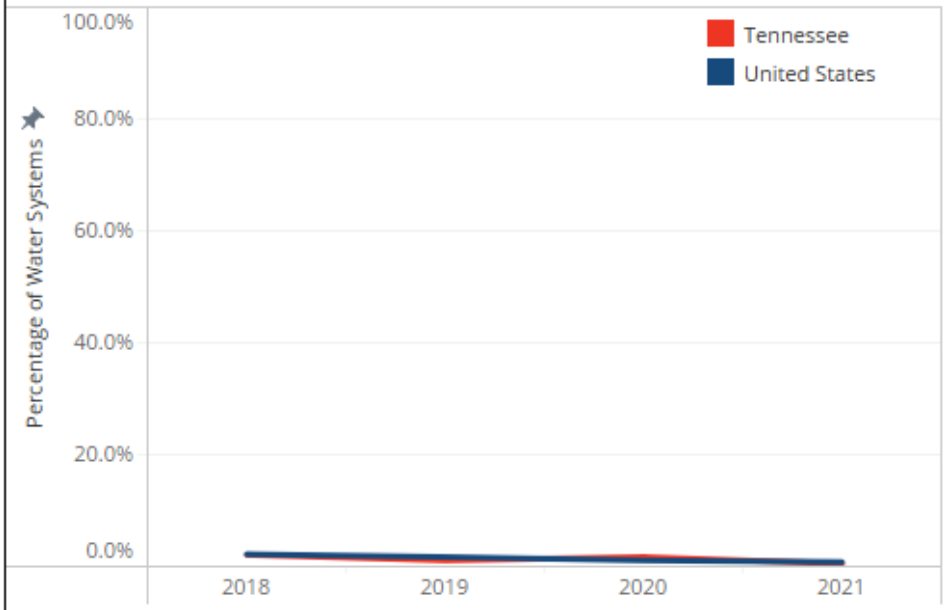
In 2021, only 0.5% Tennessee's population was served by community water systems with a serious drinking water violation in the past year, compared to 0.8% in the United States. In addition to maintaining water quality standards, the addition of fluoride into community water systems improves oral health. As detailed in the Tennessee Department of Health 2022 Oral Health Plan, **Community Water Fluoridation** "is the most effective and economical way to prevent tooth decay for all ages."[242] Approximately 88.8% of Tennessee's population is served by community water systems receiving fluoridated water. The CDC's Environmental Public Health Tracking Tool maps multiple environmental health factors including air and water quality.

Particulate matter includes droplets or particles such as dust, dirt, and soot existing in the air that may or may not be visible. Inhalation of particulate matter can lead to serious health problems or worsen existing issues such as asthma. The National Ambient Air Quality Standards (NAAQS) state the that long-term (annual) standard for fine **Particulate Matter** ($PM_{2.5}$) is 12 micrograms per cubic meter of air (μg/m³).[243] In 2019, Tennessee's annual average of $PM_{2.5}$ was 7.6 μg/m³ and therefore met the standard. However, because air pollution and quality vary significantly by location, data should be used more locally where available. Local data available through the CDC's Environmental Public Health Tracking tool show areas of Tennessee that have exceeded the short-term (24-hour) NAAQS standard of 35 μg/m³ despite Tennessee overall meeting the long-term standard. Real-time air quality alerts by zip code are available through "AirNow" which uses data from the U.S. Environmental Protection Agency, National Oceanic and Atmospheric Administration (NOAA), National Park Service, NASA, Centers for Disease Control, and tribal, state, and local air quality agencies.[244]

[239] U.S. Environmental Protection Agency, Enforcement and Compliance History Online, Safe Drinking Water Information System. Accessed via America's Health Rankings.
[240] Centers for Disease Control and Prevention, Water Fluoridation Reporting System, My Water Fluoride Summary Reports
[241] Centers for Disease Control and Prevention (CDC), Environmental Public Health Tracking Network.
[242] 2022 Tennessee State Oral Health Plan https://www.tn.gov/content/dam/tn/health/documents/2022%20State%20Oral%20Health%20Plan.pdf
[243] US EPA. National Ambient Air Quality Standards (NAAQS) for PM. https://www.epa.gov/pm-pollution/national-ambient-air-quality-standards-naaqs-pm
[244] To view real-time local air quality data visit: https://www.airnow.gov/about-airnow/

Water Quality

Percentage of population served by community water systems with a serious drinking water violation in the past year.



Data Source: U.S. Environmental Protection Agency, Enforcement and Compliance History Online, Safe Drinking Water Information System. Accessed via America's Health Rankings.

Water Fluoridation

Percentage of TN population served by community water systems that are receiving fluoridated water

Data Source: Centers for Disease Control and Prevention, Water Fluoridation Reporting System, My Water Fluoride Summary Reports

Air Pollution - Particulate Matter

Average Daily density of fine particulate matter in micrograms per cubic meter (PM 2.5).

The National Ambient Air Quality Standards (NAAQS) state the that long-term (annual) standard for PM2.5 is 12 micrograms per cubic meter of air (µg/m3).

Data Source: Centers for Disease Control and Prevention (CDC), Environmental Public Health Tracking Network.

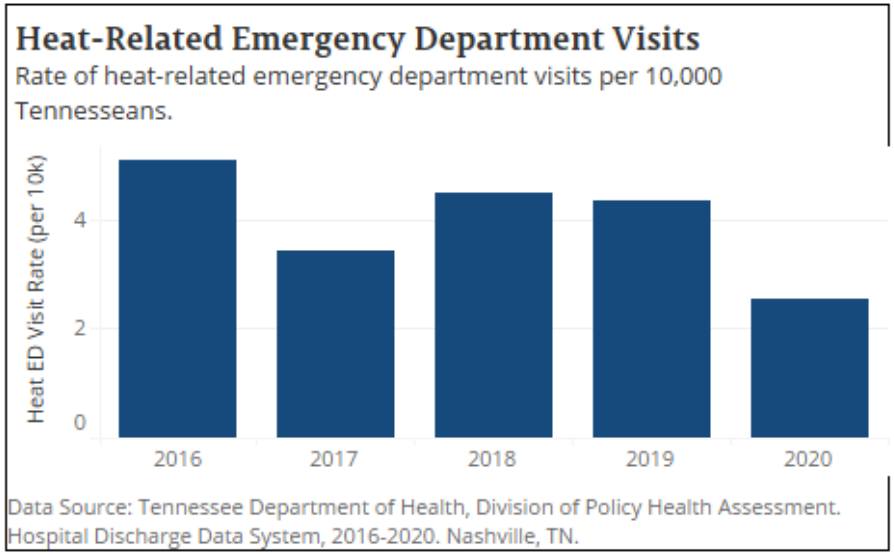
Weather-Related Illness

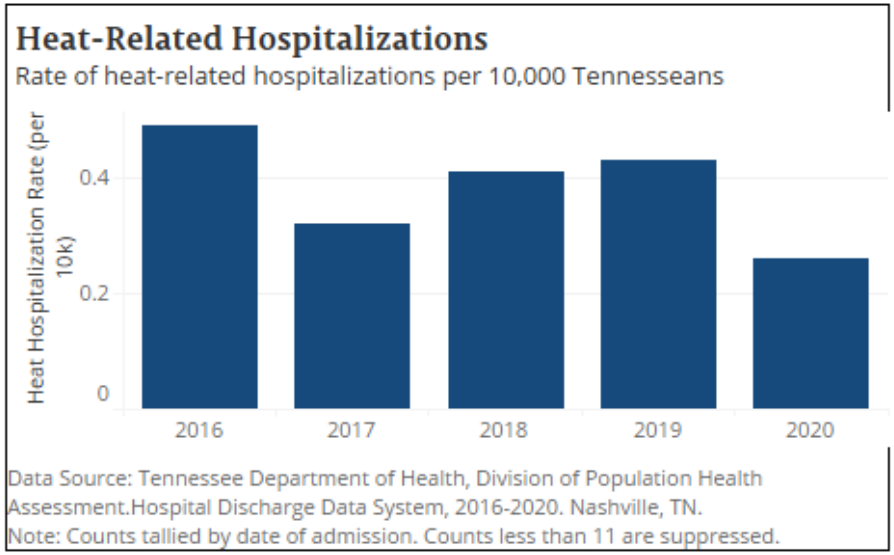
- In 2020, the rate of **Heat-Related Emergency Department Visits** was 2.54 visits per 10,000 persons.[245]
- In 2020, the rate of **Heat-Related Hospitalizations**[246] was 0.26 per 10,000 persons.[247]

In the United States heat-related weather events cause more fatalities annually than any other weather-related event including floods and tornados.[248] As temperatures rise globally, heat-related deaths and illnesses will increase particularly for vulnerable populations such as pregnant women, children, and older adults. Increased rates of heat-related illness can impact community health care capacity as emergency department visits and hospitalizations increase. In 2019, the crude rate of **Heat-Related Emergency Department Visits** was 2.54 visits per 10,000 Tennesseans. Heat-related emergency department visits in Tennessee were highest among working-aged adults. Preventing heat-related illnesses is especially important for individuals who work outside and may have prolonged exposure to heat. In 2020, the crude rate of **Heat-Related Hospitalizations** was 0.26 per 10,000 Tennesseans. Heat-related hospitalizations were highest among older adults. Similar to other hospital-based data, values are expected to be impacted by COVID-19 as changes in patient decision-making and hospital availability occurred.

Public health surveillance is essential to monitoring the health impacts of heat and other related weather-related events, such as worsening air-quality and increased frequency and intensity of natural disasters. In recent years, more data has become readily available that inform emergency preparedness and hazard mitigation planning. Centers for Disease Control houses a county-level heat and health tracker to assist communities in "preparing for and responding to extreme heat events."[249] In 2024, HHS launched the Heat-Related EMS Activation Surveillance Dashboard to track heat-related EMS usage at the county-level. Throughout May 2024, prior to the start of the hottest weeks of summer, 7 counties in Tennessee had a higher than average, or much higher than average level of heat-related EMS activation.[250] The Tennessee Climate Office releases a Monthly Climate Report which "summarizes the previous month's climate (e.g., temperature, precipitation, drought anomalies, stream gauge levels, storm reports, etc.), along with temperature and precipitation outlooks for the upcoming month."[251] Tennessee's State Hazard Mitigation Plan was last updated by the Tennessee Emergency Management Agency (TEMA) in October 2023 and details risk and vulnerability assessments for all hazards in Tennessee.[252]

[245] Tennessee Department of Health, Division of Policy Health Assessment. Hospital Discharge Data System, 2015-2019. Nashville, TN.
[246] Tennessee Department of Health, Division of Population Health Assessment. Hospital Discharge Data System, 2015-2019. Nashville, TN.
[247] Tennessee Department of Health, Division of Population Health Assessment. Hospital Discharge Data System, 2015-2019. Nashville, TN.
[248] National Oceanic and Atmospheric Administration. National Weather Service. Weather Related Fatality and Injury Statistics. Accessed via https://www.weather.gov/hazstat/
[249] To access the CDC Heat & Health Tracker visit: https://ephtracking.cdc.gov/Applications/heatTracker/
[250] National Emergency Medical Services Information System. Heat-Related EMS Activation Surveillance Dashboard. Accessed June 9, 2024. https://nemsis.org/heat-related-ems-activation-surveillance-dashboard/
[251] To access the Tennessee Climate Office Monthly Reports visit: https://www.etsu.edu/cas/geosciences/tn-climate/monthly-reports/default.php
[252] Tennessee Emergency Management Agency. FEMA Approved State Hazard Mitigation Plan. October 2023. https://plans-tnema.hub.arcgis.com/documents/df7c84f599f94252a9a0c6b900e02ef0/explore



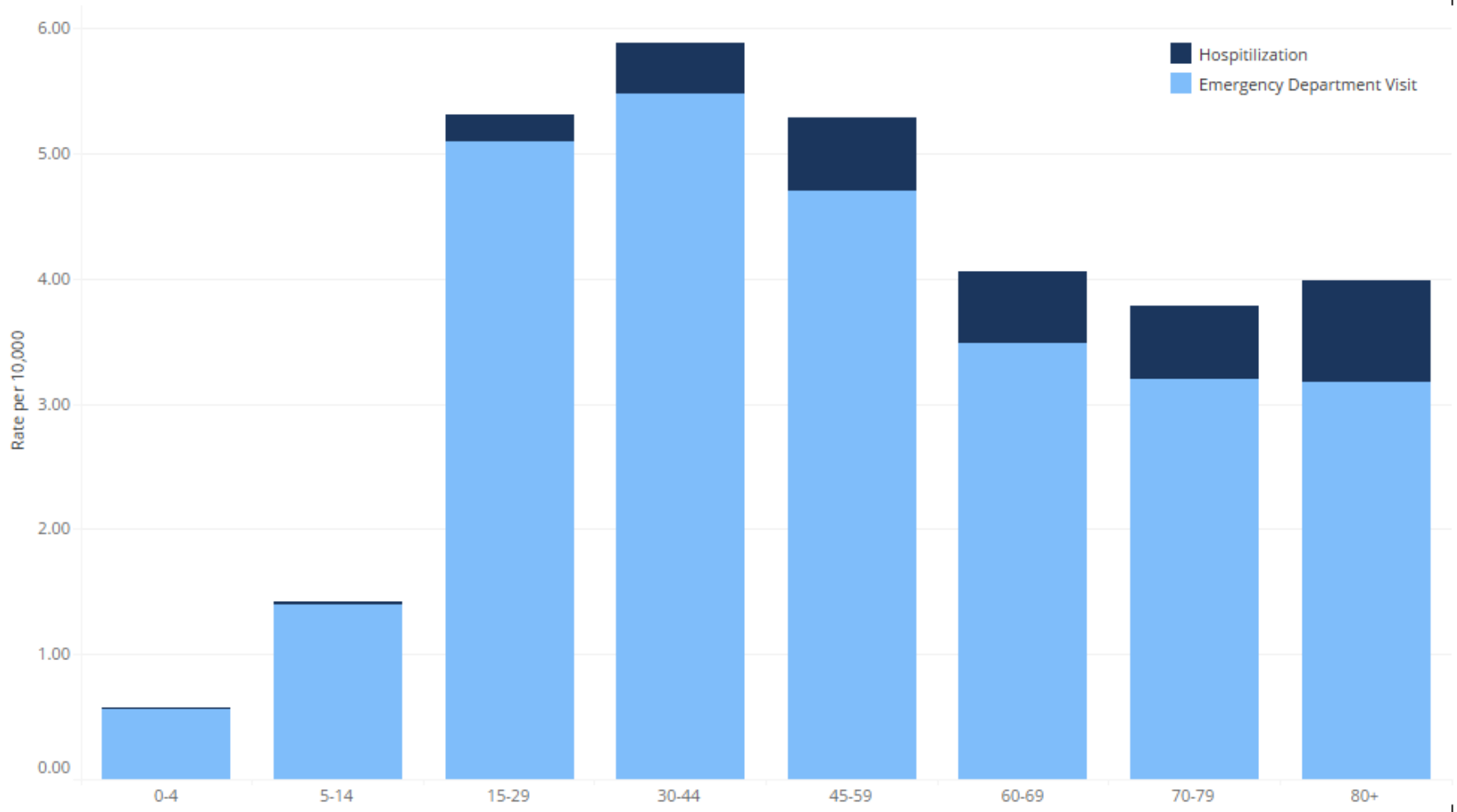


Heat-related emergency department visit and hospitalizations county-level maps are available on the State of Health webpages.[253]

[253] State of Health in Tennessee. https://www.tn.gov/health/health-program-areas/state-health-plan/redirect-state-health-plan/the-state-of-health-in-tennessee.html

Heat-Related Illness by Age

Five-Year Rate (2016-2020) of heat-related emergency department visits and hospitalizations in Tennessee per 10,000 persons by age.



Data Source: Tennessee Department of Health, Division of Policy Health Assessment. Hospital Discharge Data System, 2016-2020. Nashville, TN.
Rate Calculation: Crude rate per 10,000 = (∑ Counts for 5 Years ÷ ∑ Population for 5 Years) x 10,000

A Healthy System of Care

To assess the health of Tennessee's system of care, the State of Health Report considers three of the Principles for Achieving Health outlined in Tennessee state law: Access, Quality of Care, Workforce.

A Healthy System of Care				
Uninsured Adults*	Uninsured Children*	Underinsured Children	Avoided Care Due to Cost*	Adults with Disabilities who Avoided Care Due to Cost
Hospital Closures	Hospital Quality	Preventable Hospitalizations	Breast Cancer Screenings*	Colorectal Cancer Screenings*
Lung Cancer Screenings*	Primary Care Health Professional Shortage Areas*	Mental Health Professional Shortage Areas	Dental Health Professional Shortage Areas*	Nurses
Palliative Care	Home Health Care			

*Related information on health disparities included in the Department's 2024 "Health Disparities in Tennessee" report.[254]

Access

Every Citizen should have reasonable access to health care.

- In 2022, 10.5% of adults in Tennessee were **Uninsured Adults.**[255]
- In 2022, 5.3% of Tennessee's children were **Uninsured Children.**[256]
- In 2020, 7.7% of Tennessee's children were **Underinsured.**[257]
- In 2022, 12.6% of Tennessee adults **Avoided Care due to Cost.**[258]
- In 2022, 20.9% of adults with disabilities avoided care due to cost, limiting **Access to Care for Adults with Disabilities**.[259]
- Since 2005, Tennessee has experienced 16 rural **Hospital Closure.**[260]

The percentage of **Uninsured Adults** in Tennessee has remained above the U.S. average for years. In 2022, 10.5% of adults in Tennessee were uninsured compared to 8.9% in the U.S. In 2022, 5.3% of Tennessee's **children were uninsured**

[254] TN Department of Health. Health Disparities in Tennessee. 2024 Report. https://www.tn.gov/content/dam/tn/health/program-areas/division-of-health-disparities-elimination/documents/HD_Report_FINAL_06122024.pdf
[255] United States Census Bureau, American Community Survey, 1-Year Public Use Estimates
[256] United States Census Bureau, American Community Survey, 1-Year Public Use Estimates
[257] SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2017. Accessed via Mental Health America 2021 Rankings
[258] Behavioral Risk Factors Surveillance System (BRFSS)
[259] Behavioral Risk Factors Surveillance System (BRFSS)
[260] Tennessee Department of Health.

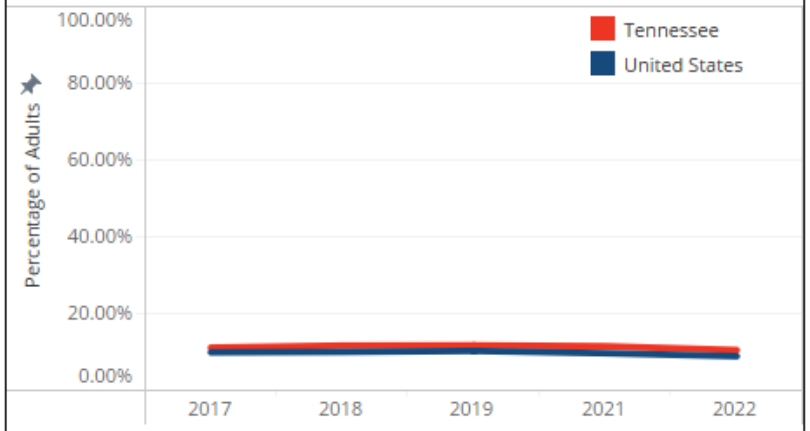
compared to 5.1% in the United States. While 95% of children may be insured, some are underinsured. As youth mental health becomes an increasing priority for leaders across the state and nation, identifying plans with adequate insurance coverage is extremely important. In 2020, 7.7% of Tennessee's children with private insurance did not have coverage for mental or emotional problems, compared to 10.3% in the United States. The Tennessee Department of Education considers these underinsured children and their needs in their Best for All Plan.[261] Regardless of insurance status, people may still **Avoid Care due to Cost.** In 2022, 12.6% of Tennessee's adults reported not being able to see a doctor due to cost, compared to 10.1% in the U.S. Delaying medical care due to cost or any reason can have significant long-term health implications including not getting appropriate vaccines, cancer screenings and other preventative measures timely. For individuals with disabilities, the cost for health care can be particularly impactful. In a 2020 report from the University of Tennessee, National Disability Institute, and Stony Brook University, researchers found that "a household containing an adult with a disability that limits their ability to work requires, on average, 28 percent more income (or an additional $17,690 a year) to obtain the same standard of living as a similar household without a member with a disability."[262] In 2022, 20.9% of adults with disabilities avoided care due to cost, limiting **Access to Care for Adults with Disabilities**. More information on uninsured adults and access to safety net services in Tennessee can be found in the TN Department of Health's Annual Safety Net Report.[263]

Access to health care in rural Tennessee has faced specific challenges in the last few decades including rural **Hospital Closures.** Tennessee has had 16 rural hospital closures since 2005. Rural hospitals must balance community needs and financial viability of the services being offered. For example, in a 2022 study assessing obstetric care in rural hospitals in the United States, many administrators noted that while the volume of obstetric care provided is not high enough to be profitable, it is needed by communities that are otherwise isolated and would have severely limited access to care. Despite this need, hospital administrators in the study indicated that within the next 10 years, offering these services may have to cease due to financial reasons.[264]

[261] TN Department of Education. Best for All. https://www.tn.gov/education/best-for-all.html#:~:text=In%20Tennessee%20K%2D12%20public,Academics%2C%20Student%20Readiness%20and%20Educators.
[262] Goodman, Nannette; Morris, Michael; Morris, Zachary; McGarity, Stephen. The Extra Costs of Living with a Disability in the U.S. – Resetting the Policy Table. October 2020. Accessed December 2022 at https://www.nationaldisabilityinstitute.org/wp-content/uploads/2020/10/extra-costs-living-with-disability-brief.pdf.
[263] To view the Annual TN Department of Health Safety Net Reports visit: https://www.tn.gov/health/health-program-areas/division-of-health-disparities-elimination-/rural-health/annual-safety-net-report.html
[264] Kozhimannil KB, Interrante JD, Admon LK, Basile Ibrahim BL. Rural Hospital Administrators' Beliefs About Safety, Financial Viability, and Community Need for Offering Obstetric Care. *JAMA Health Forum*. 2022;3(3): e220204. doi:10.1001/jamahealthforum.2022.0204

Uninsured Adults

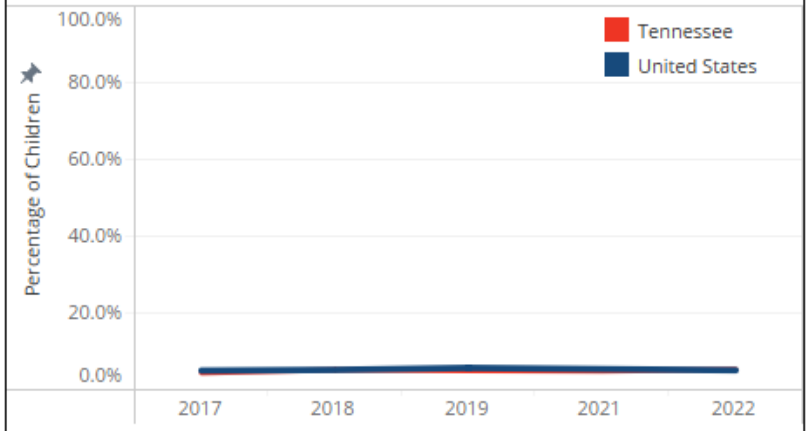
Percentage of persons 19 and older who are uninsured.



Data Source: United States Census Bureau, American Community Survey, 1-Year Public Use Estimates
Data Note: 2020 data not available.

Uninsured Children

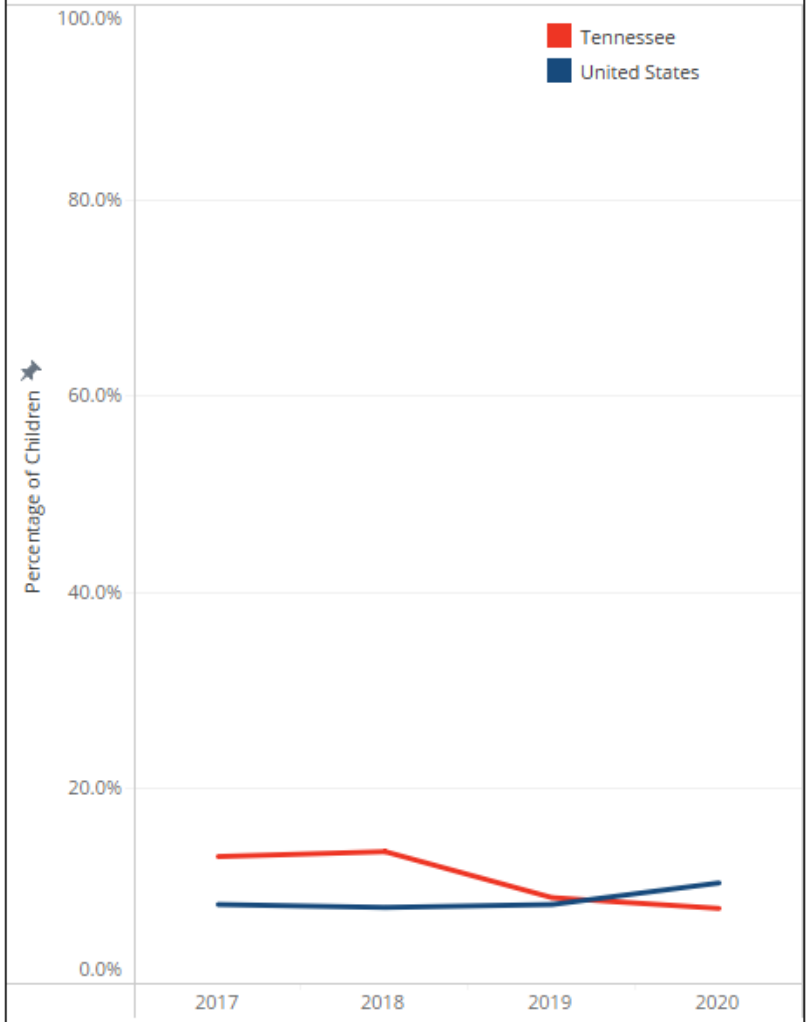
Percentage of persons 18 and under who are uninsured.



Data Source: United States Census Bureau, American Community Survey, 1-Year Public Use Estimates.
Data Note: 2020 Data not available.

Underinsured Children

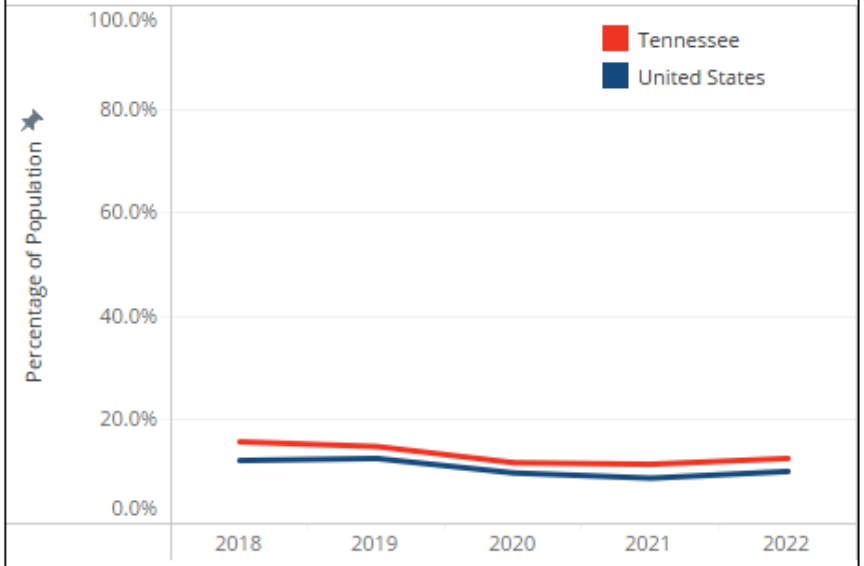
Percentage of children with private insurance that did not cover mental or emotional problems.



Data Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2020. Accessed via Mental Health America 2023 Rankings.

Avoided Care Due to Cost

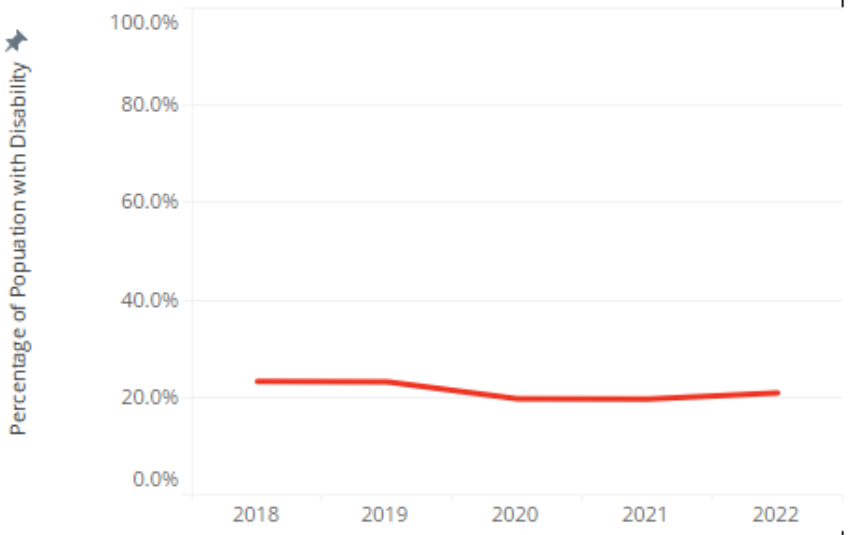
Percentage of population who could not see a doctor due to cost in the past 12 months among adults 18 years of age or older.



Data Source: Behavioral Risk Factors Surveillance System (BRFSS)

Adults with Disabilities who Avoided Care Due to Cost

Percentage of Tennessee population with a disability who could not see a doctor due to cost in the past 12 months among adults 18 years of age or older.



Data Source: Behavioral Risk Factors Surveillance System (BRFSS)

Hospital Closures in Tennessee

Access to health care in rural Tennessee has faced specific challenges in the last few decades including rural hospital closures.

Closures since 2005:

16

Quality of Care and Screenings

Every citizen should have confidence that the quality of health care is continually monitored, and standards are adhered to by providers.

- In 2022, 34% of hospitals in Tennessee had the top **Hospital Quality** rating (Grade A), compared to 26% nationally.[265]
- In 2021, there were 1197.3 **Preventable Hospitalizations** per 100,000 Tennesseans.[266, 267]
- In 2022, 69.4% of females aged 40+ reported having a mammogram, or **Breast Cancer** screening, in the past 2 years in Tennessee, compared to 70.2% nationally.[268]
- In 2022, 74.44% of Tennesseans received the recommended **Colorectal Cancer** screening, compared to 74.5% nationally.[269]
- In 2021, only 4.2% of Tennesseans at high-risk received the recommended **Lung Cancer Screening**.[270]

Hospital Quality across Tennessee is similar to hospital quality overall in the U.S. In 2022, 34% of hospitals in Tennessee had the top-quality rating (Grade A) on the Hospital Safety Score and 26% of hospitals in the U.S. received an A grade on the Hospital Safety Score.

Another measure indicating quality of care is the rate of **Preventable Hospitalizations.** Preventable hospitalizations refer to inpatient stays/discharges for ambulatory care-sensitive conditions such as diabetes and asthma. These hospitalizations are deemed preventable because evidence shows that consistent quality access to primary care should manage these chronic health conditions sufficiently to prevent hospitalizations. Reducing preventable hospitalizations reduces financial burden on individuals and health care systems and increases health care capacity. In 2021, there were 1197 preventable hospitalizations per 100,000 Tennesseans.[271] While 2020 data on preventable hospitalizations is available, there was a drastic decrease associated with the COVID-19 pandemic which impacted both patient decision making and hospital capacity. In recent years, the preventable hospitalization rate has been highest among Black Tennesseans.[272] In 2021, the preventable

[265] The Leapfrog Group, Hospital Safety Score (HSS). Accessed via Trust for America's Health Ready or Not Reports.
[266] 2016-2020 Inpatient Hospital Discharge Data System; Division of Population Health Assessment; Tennessee Department of Health. Methodology: Agency for Healthcare Research and Quality, 2018 Methodology for PQI 90
[267] COVID-19 has also been associated with statistically significant decreases in preventable hospitalizations, particularly respiratory-related preventable hospitalizations such as asthma. Despite these seemingly positive decreases in preventable hospitalizations, the pandemic impacted both patient decision making as well as hospital capacity. The decreases should be interpreted with caution.
[268] Behavioral Risk Factors Surveillance System (BRFSS)
[269] Behavioral Risk Factors Surveillance System (BRFSS)
Note: Between 2018 and 2020, screening criteria changed based on age. Results shown are for calculated variable reporting percentage of respondents 50-75 meeting USPTF recommendations for screening.
[270] American Lung Association. 2023 State of Lung Cancer. 2021 Data. https://www.lung.org/research/state-of-lung-cancer/definitions-of-terms
[271] 2016-2020 Inpatient Hospital Discharge Data System; Division of Population Health Assessment; Tennessee Department of Health. Methodology: Agency for Healthcare Research and Quality, 2018 Methodology for PQI 90
[272] 2016-2020 Inpatient Hospital Discharge Data System; Division of Population Health Assessment; Tennessee Department of Health. Methodology: Agency for Healthcare Research and Quality, 2018 Methodology for PQI 90

hospitalization rate among Black Tennesseans was 1,654 per 100,000 adults compared to 1,124 per 100,000 adults among White Tennesseans.

Preventative clinical care is cost-effective and improves patient outcomes. Preventative clinical care includes cancer screenings such as for **Breast Cancer, Colorectal Cancer, and Lung Cancer.** Approximately 43,170 Tennesseans will be diagnosed with cancer in 2024, placing Tennessee among the top 10 states with the highest rates of cancer.[273] In 2022, 69.4% of females aged 40+ reported having a mammogram, or **Breast Cancer** screening, in the past 2 years in Tennessee, compared to 70.2% nationally. From 2016-2020 Tennessee had an age-adjusted breast cancer incidence rate of 122.4 cases per 100,000 females compared to 127.0 in the US. Tennessee's breast cancer mortality rate is 21.6 per 100,000 females compared to 19.6 per 100,000 females in the United States.[274]

In 2022, 74.44% of Tennesseans received the recommended **Colorectal Cancer** screening, compared to 74.5% nationally. From 2016-2020, Tennessee's age-adjusted incidence rate of colorectal cancer was 39.2 per 100,000 persons compared to 36.5 cases per 100,000 persons nationally. Tennessee's colorectal cancer mortality rate was 14.8 per 100,000 persons compared to 13.1 per 100,000 persons nationally.[275]

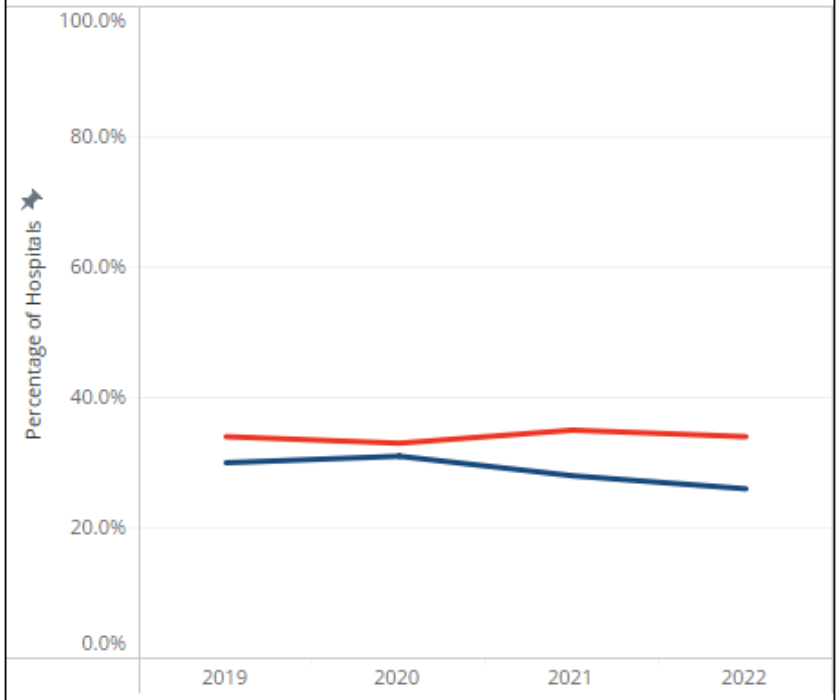
In 2021, only 4.2% of Tennesseans at high-risk for lung cancer received a recommended **Lung Cancer Screening**. The American Lung Association's latest annual "State of Lung Cancer" report ranked Tennessee as one of the worst states in the nation for lung cancer rates.[276] Additionally, the report indicated that Black Tennesseans are least likely to receive treatment. Only 24.9% of cases are caught at an early stage in Tennessee which is significantly lower than the national rate of 26.6%.[277] Delay in detection and treatment impacts long-term outcomes, resulting in the 5-year survival rate of lung cancer in Tennessee being significantly lower than the national rate.

[273] American Cancer Society. 2024 Cancer Facts and Figures. https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2024/2024-cancer-facts-and-figures-acs.pdf
[274] National Institutes of Health. National Cancer Institute. State Cancer Profiles. https://statecancerprofiles.cancer.gov/quick-profiles/index.php?statename=tennessee#t=3
[275] National Institutes of Health. National Cancer Institute. State Cancer Profiles. https://statecancerprofiles.cancer.gov/quick-profiles/index.php?statename=tennessee#t=3
[276] American Lung Association. New Report Reveals Tennessee Among Worst in Nation in Lung Cancer Rates. November 2023. https://www.lung.org/media/press-releases/tennessee-2023-state-of-lung-cancer-release
[277] American Lung Association. 2023 State of the Lung. Tennessee. https://www.lung.org/research/state-of-lung-cancer/states/tennessee

Tennessee United States

Hospital Quality

Percentage of hospitals in the state with a top quality ranking (Grade A) on the Hospital Safety Score



Data Source: The Leapfrog Group, Hospital Safety Score (HSS). Accessed via the National Health Security Preparedness Index.

Lung Cancer Screening

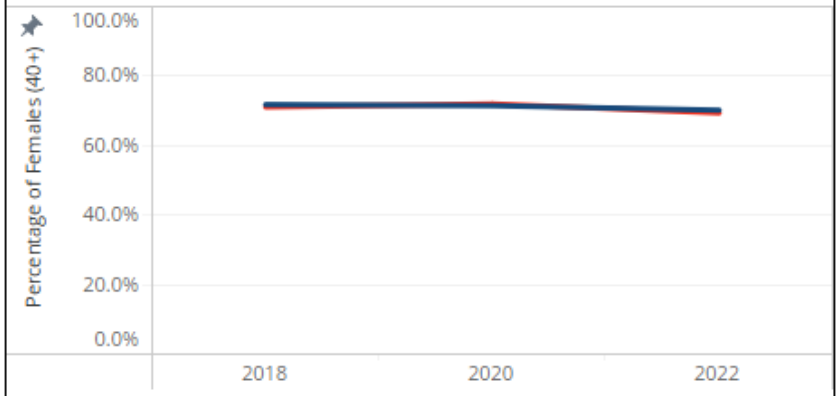
The percent of those at high risk for lung cancer who were screened using low dose CT in 2021.

Tennessee	4.2%
United States	4.5%

Data Source: American Lung Association 2023 State of the Lung Tennessee.

Breast Cancer Screenings

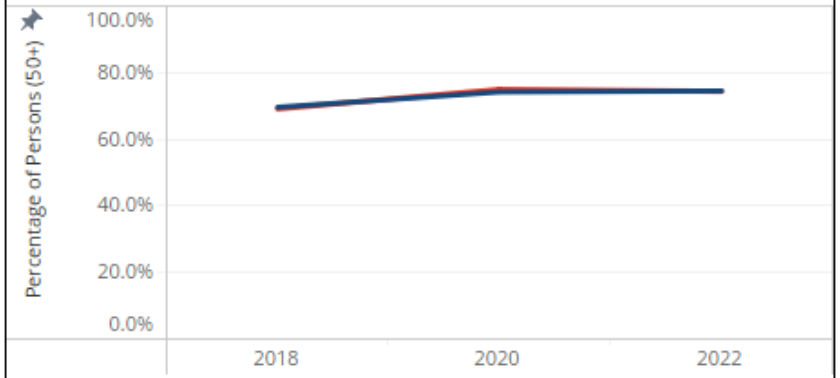
Percentage of Females Ages 40+ who reported having a Mammogram in Past 2 Years.



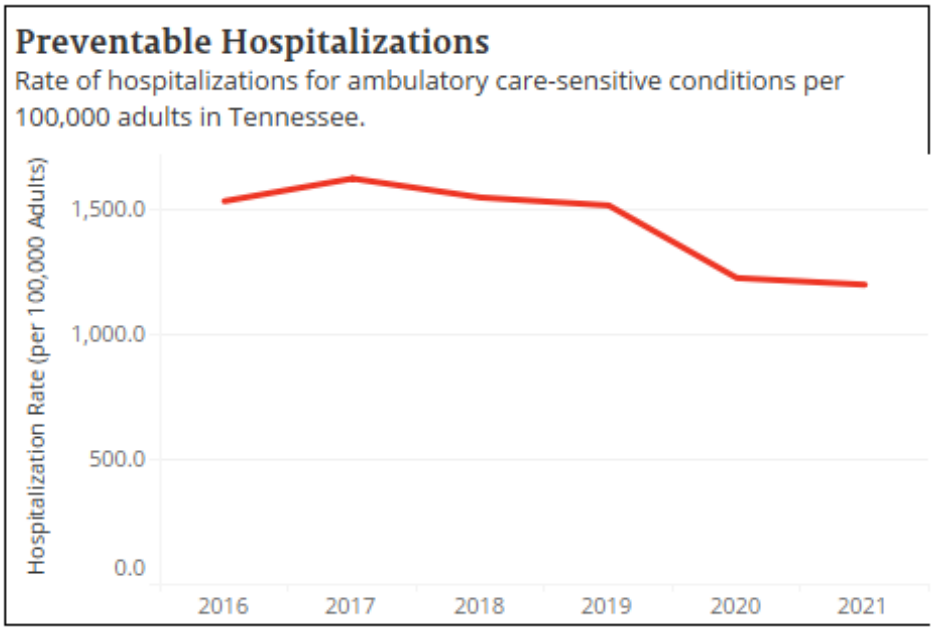
Data Source: Behavioral Risk Factors Surveillance System (BRFSS)

Colorectal Cancer Screenings

Percentage of persons ages 50+ who reported ever having a Colorectal Endoscopy (Sigmoidoscopy or Colonoscopy).



Data Source: Behavioral Risk Factors Surveillance System (BRFSS)
Note: Between 2018 and 2020, screening criteria changed based on age. Results shown are for calculated variable reporting percentage of respondents 50-75 meeting USPTF recommendations for screening.



Preventable hospitalization maps by county, year, and race/ethnicity are available on the State of Health webpages.[278]

[278] State of Health in Tennessee. https://www.tn.gov/health/health-program-areas/state-health-plan/redirect-state-health-plan/the-state-of-health-in-tennessee.html

Workforce

The state should support the development, recruitment, and retention of a sufficient and quality health and health care workforce.

- In February 2024, 93.7% of Tennessee counties were **Primary Care Health Professional Shortage Areas**.[279]
- In February 2024, 89.5% of Tennessee counties were considered **Dental Health Professional Shortage Areas**.[280]
- In February 2024, 95.8% of Tennessee counties were considered **Mental Health Professional Shortage Areas**.[281]
- In 2022, there were 2031.4 **Nurses** per 100,000 Tennesseans.[282]
- In 2021, there were 24.5 **Home Health** aides per 1,000 Tennesseans aged 65+ with a disability, compared to 60.3 in the United States.[283]
- In 2021, 29.4% of Tennessee hospitals provided **Palliative Care** programs.[284]

Health Professional Shortage Areas (HPSA) are defined as "areas experiencing a shortage of health care services."[285] Individuals living in HPSAs can have higher rates of hospitalization and overall poorer health.[286] In February 2024, 93.7% of Tennessee counties were considered **Primary Care Health Professional Shortage Areas,** 89.5% of Tennessee counties were considered **Dental Health Professional Shortage Areas,** and 95.8% of Tennessee counties were considered **Mental Health Professional Shortage Areas**. Additionally, all out-of-state counties bordering Tennessee were Mental Health Professional Shortage Areas. Living in health professional shortage areas is an issue across the United States, with 75 million Americans living in primary care shortage areas, 58 million living in dental health shortage areas, and 122 million living in mental health professional shortage areas. Nationally, an additional 13,023 primary care practitioners, 9,926 dental health practitioners, and 6,140 mental health practitioners are needed to meet today's needs.[287] More information on Health

[279] Health Services and Resources Administration. Accessed February 2024 via Rural Health Information Hub.
[280] Health Services and Resources Administration. Accessed February 2024 via Rural Health Information Hub.
[281] Health Services and Resources Administration. Accessed February 2024 via Rural Health Information Hub.
[282] Licensure information access via National Council of State Boards of Nursing - National Nursing Database. Population data access via TN Department of Health.
[283] U.S. Census Bureau, American Community Survey. Accessed via America's Health Rankings.
[284] American Hospital Association (AHA), Annual Survey of Hospitals. Accessed via the National Health Security Preparedness Index.
[285] HRSA Health Workforce. What is a shortage designation? Retrieved from: https://bhw.hrsa.gov/workforce-shortage-areas/shortage-designation/modernization-project
[286] Schlak AE, Poghosyan L, Liu J, Kueakomoldej S, Bilazarian A, Rosa WE, Martsolf G. The Association between Health Professional Shortage Area (HPSA) Status, Work Environment, and Nurse Practitioner Burnout and Job Dissatisfaction. J Health Care Poor Underserved. 2022;33(2):998-1016. doi: 10.1353/hpu.2022.0077. PMID: 35574890; PMCID: PMC9306412.
[287] Health Services and Resource Administration. Health Workforce Shortage Areas. https://data.hrsa.gov/topics/health-workforce/shortage-areas

Professional Shortage Areas and access to safety net services in Tennessee can be found in the TN Department of Health's Annual Safety Net Report.[288]

Health Professional Shortage Maps by county are available on the State of Health webpages.[289]

Shortages and workforce challenges extend beyond practitioner staff to nursing staff. In 2022, there were 2,031 **Nurses** per 100,000 Tennesseans. Nursing support staff such as certified nursing assistants and personal aides who provide **Home Health** care are also critical to Tennessee's health care work force. In 2021, Tennessee had half the number of personal care and home health aides per 1,000 adults aged 65+ with a disability than the U.S. Tennessee had a 24.5 aides per 1,000 adults while the U.S. had 60.3 aides per 1,000 adults. Tennessee has an aging population and seeks to support older adults aging in place, but the current nursing infrastructure is inadequate to meet the future population's needs.

Specialist-level care is also needed for many individuals to treat and manage complex chronic and acute health conditions. **Palliative Care** is defined as "specialized care for people facing serious illness, focusing on providing relief of suffering (physical, psychosocial, and spiritual), to maximize quality of life for both the patient and family."[290] Examples of persons who may use palliative care include children with cancer or older adults with dementia. The benefits of palliative care include reliving symptoms, care coordination across multiple specialties, and clarifying treatment goals and options.[291] In 2021, 29.4% of Tennessee hospitals provided palliative care programs compared to 39.7% in the United States.

[288] To view the Annual TN Department of Health Safety Net Reports visit: https://www.tn.gov/health/health-program-areas/division-of-health-disparities-elimination-/rural-health/safety-net-program.html
[289] State of Health in Tennessee. https://www.tn.gov/health/health-program-areas/state-health-plan/redirect-state-health-plan/the-state-of-health-in-tennessee.html
[290] TN Dept of Health. Palliative Care. Accessed December 2022 from https://www.tn.gov/health/health-program-areas/office-of-patient-care-advocacy/palliative-care.html#:~:text=Palliative%20care%20is%20specialized%20care,both%20the%20patient%20and%20family .
[291] Center to Advance Palliative Care. Get Palliative Care – FAQs. Accessed December 2022 from https://getpalliativecare.org/whatis/faq/

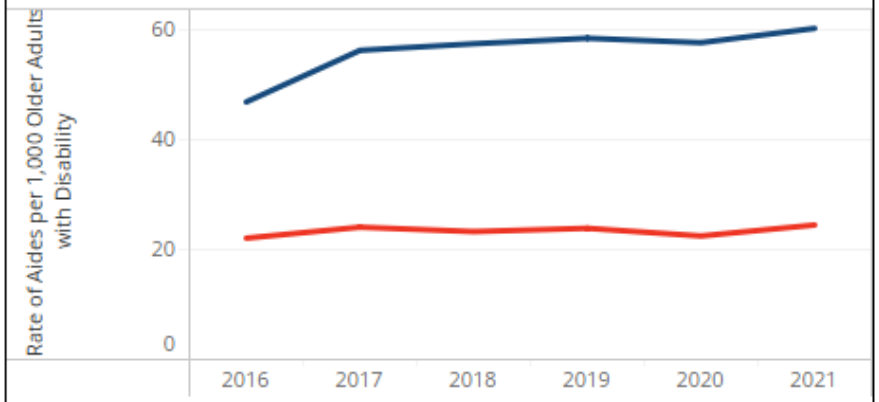
Nurses

Rate of active registered nurse (RN) and licensed practical nurse (LPN) licenses per 100,000 persons.

Data Source: National Council of State Boards of Nursing (NCSBN), National Nursing Database and Population Estimates.

Home Health Care

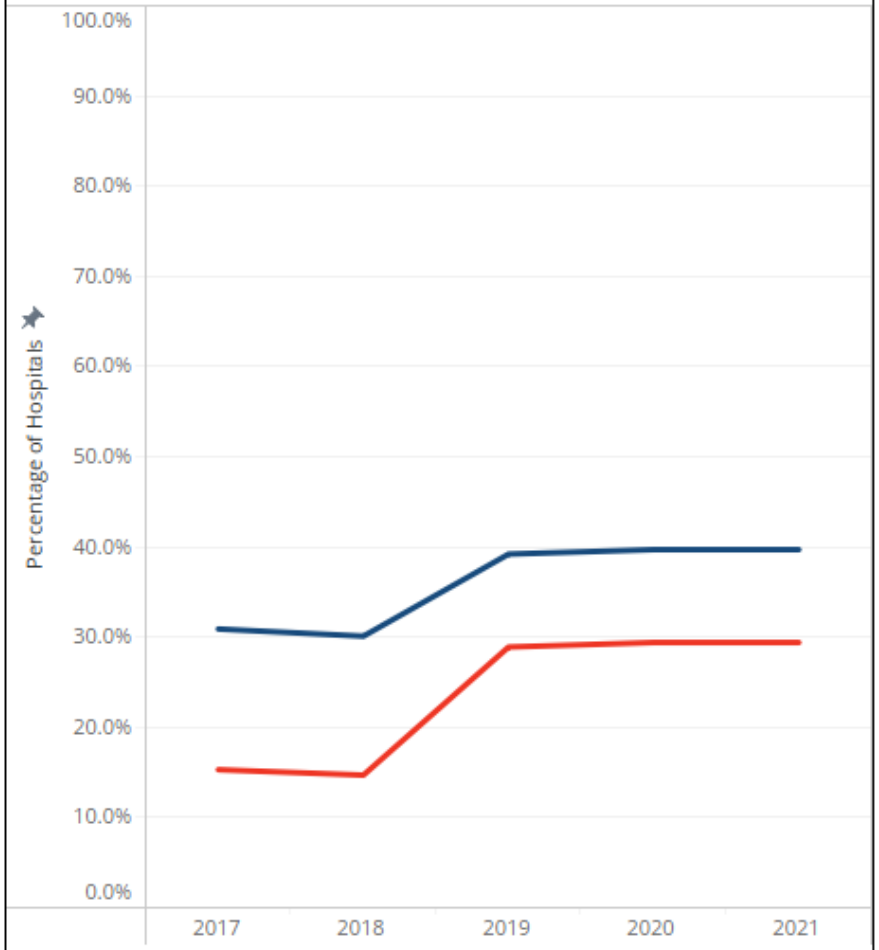
Rate of personal care and home health aides per 1,000 adults ages 65 and older with a disability.



Data Source: U.S. Census Bureau, American Community Survey. Accessed via America's Health Rankings.

Palliative Care

Percentage of hospitals providing palliative care programs (includes both palliative care program and/or palliative care inpatient unit, but excludes pain management program, patient-controlled analgesia, and hospice program).



Data Source: American Hospital Association (AHA), Annual Survey of Hospitals. Accessed via the National Health Security Preparedness Index.

Working Towards a Healthy Tennessee

The 2024 State of Health Report provides an update on the over 100 metrics originally outlined in the 2023 State of Health Report and remains a key component of the State Health Plan development and implementation processes. Through continuing to support data-informed decision making in public health, the State of Health Report further guides the Department towards its vision "Healthy People, Healthy Communities, Healthy Tennessee."

Appendix

Appendix A: Statutory Authority for the State Health Plan

The Division of Health Planning was created by action of the Tennessee General Assembly and signed into law by Governor Phil Bredesen (Tennessee Code Annotated § 68-11-1622). The Division is charged with creating and updating a State Health Plan. The text of the law follows.

a. There is created the state health planning division of the department of finance and administration[292]. It is the purpose of the planning division to create a state health plan that is evaluated and updated at least annually. The plan shall guide the state in the development of health care programs and policies and in the allocation of health care resources in the state.

b. It is the policy of the state of Tennessee that:

    1. Every citizen should have reasonable access to emergency and primary care;
    2. The state's health care resources should be developed to address the needs of Tennesseans while encouraging competitive markets, economic efficiencies and the continued development of the state's health care industry;
    3. Every citizen should have confidence that the quality of health care is continually monitored and standards are adhered to by health care providers; and
    4. The state should support the recruitment and retention of a sufficient and quality health care workforce.

c. The planning division shall be staffed administratively by the department of finance and administration in a manner that the department deems necessary for the performance of the planning division's duties and responsibilities, which may include contracting for the services provided by the division through a private person or entity

d. The duties and responsibilities of the planning division include:

    1. To develop and adopt a State Health Plan, which must include, at a minimum, guidance regarding allocation of the state's health care resources;
    2. To submit the State Health Plan to the Health Services and Development Agency for comment;
    3. To submit the State Health Plan to the Governor for approval and adoption;
    4. To hold public hearings as needed;
    5. To review and evaluate the State Health Plan at least annually;
    6. To respond to requests for comment and recommendations for health care policies and programs;
    7. To conduct an ongoing evaluation of Tennessee's resources for accessibility, including, but not limited to, financial, geographic, cultural, and quality of care;
    8. To review the health status of Tennesseans as presented annually to the Division by the Department of Health, the Department of Mental Health and Substance Abuse Services, and the Department of Intellectual and Developmental Disabilities;
    9. To review and comment on federal laws and regulations that influence the health care industry and the health care needs of Tennesseans;

[292] The state health planning division is now located in the Tennessee Department of Health.

10. To involve and coordinate functions with such State entities as necessary to ensure the coordination of State health policies and programs;
11. To prepare an annual report for the General Assembly and recommend legislation for its consideration and study; and
12. To establish a process for timely modification of the State Health Plan in response to changes in technology, reimbursement and other developments that affect the delivery of health care.

Appendix B: 2024-2026 State Health Plan Partners

The following divisions, offices, and organizations provided subject matter expertise in selecting metrics for the State of Health Report, data collection, report alignment, and recommendation development and refinement.

Tennessee Department of Health

Division of Communicable and Environmental Diseases and Emergency Preparedness

Division of Community Health Services

Division of Family Health and Wellness

Division of Health Disparities Elimination

Division of Population Health Assessment

Office of Information and Analytics

Office of Injury Prevention - Suicide Prevention

Office of Overdose Response Coordination

Office of Patient Care Advocacy

Office of Primary Prevention

Office of Strategic Initiatives

Non-Department of Health

Tennessee Climate Office

Tennessee Department of Education

Tennessee Department of Environment and Conservation

Tennessee Department of Human Services

Tennessee Department of Mental Health and Substance Abuse Services

Tennessee Department of Transportation

Tennessee Housing Development Agency

University of Tennessee Institute of Agriculture

Focus groups were open to the public but specifically aimed to gather feedback from external partners including governmental agencies, healthcare institutions, faith-based organizations, non-profit and community-based organizations, and education institutions. The following organizations supported the development of the State Health Plan recommendations through focus group participation and engagement:

A Step Ahead Chattanooga
A Step Ahead Foundation of East Tennessee
A Step Ahead Foundation of Middle Tennessee
A Step Ahead Foundation of West Tennessee
AARP-TN
AgeWell Middle Tennessee
Aging Commission of the Mid South
Alzheimer's Association
Appalachian Mountain Project Access
Area Relief Ministries
Bike Walk Knoxville
Cempa Community Care
Chattanooga Regional Homeless Coalition
Chota Community Health Services
City of Germantown
City of Kingsport
City of Knoxville
Cumberland Pediatric Foundation
Domestic Violence & Sexual Assault Center
East Tennessee State University
East Tennessee State University Center for Rural Health Research
Financial Federal Bank
First 8 Memphis
Hamilton County Health Department
Healing Hands Health Center
Interfaith Dental
Just Ask Medicare Solutions, LLC
Knox County Health Department
Knoxville Academy of Medicine
Knoxville Area Project Access
Knoxville-Knox County CAC Office on Aging
Knoxville-Knox County Office of Housing Stability
Latino Memphis
League of Women Voters
Mental Health Cooperative
Metro Nashville Public Health Department
Nashville Diaper Connection
Neighborhood Health
Porter-Leath
Qsource
Shelby County Health Department
South Central Area Agency on Aging and Disability
St. Mary's Legacy Clinic
Tennessee Commission on Aging & Disability
Tennessee Commission on Children and Youth
Tennessee Department of Health
Tennessee Department of Intellectual and Developmental Disabilities
Tennessee Health Care Campaign
Tennessee Primary Care Association
Tennessee State University
Tennessee Valley Coalition for the Homeless
The Caring Place
The West End Home Foundation
United HealthCare
University of Memphis
University of St. Augustine
University of Tennessee - Chattanooga School of Nursing
Urban Health Education Support Services
Vanderbilt Center for Child Health Policy
Vanderbilt Kennedy Center
Vanderbilt University
Vanderbilt University School of Nursing
Veteran's Affairs - Tennessee Valley Healthcare
Volunteer Ministry Center
West Tennessee Legal Services
WRAP (Wo/Men's Resources and Rape Assistance Program

Appendix C: 2024-2026 State Health Plan Recommendations

A Healthy Start	
1. Nutrition Security	**1.1. Reduce childhood food insecurity while supporting programs and policies that increase access to nutritious food.**
	1.1.1. Support programs that offer nutrition supports, including education on food preparation, and align with the 2020-2025 Dietary Guidelines for Americans.
	1.1.2. Explore opportunities to leverage funding to further support nutrition programs and engage with partners to remove barriers to participation (e.g., Summer Food Service Program (SFSP) and Child and Adult Care Food Programs (CACFP)).
	1.1.3. Reduce weight-associated stigma by ensuring healthy living education for children and guardians focuses on how to establish a healthy relationship with food, eating, physical activity, and self-image without emphasizing weight change.
	1.2. Reduce barriers to WIC enrollment among eligible children.
	1.2.1. Increase understanding of how-to better support families eligible for WIC by examining barriers to remaining on WIC past infancy and reviewing the successes and challenges of continued virtual WIC appointments.
	1.2.2. Increase collaboration among state entities to enhance WIC outreach and education.
	1.2.3. Examine ways to reduce barriers to enrolling and re-enrolling in programs, including SNAP, WIC, and TennCare (e.g., support application navigation assistance by investing in additional staff or community-based organizations in offering navigation services).
2. Maternal and Infant Health	**2.1. Improve maternal and infant health by increasing health care access and care coordination for women of reproductive age.**
	2.1.1. Explore legal and technological barriers and seek to expand access to contraception and family planning services, women's health navigators, and primary and pediatric care, particularly in rural areas experiencing provider shortages.
	2.1.2. Increase screenings and access to treatment for cardiovascular and coronary disease, mental health conditions, substance use disorder, smoking, and obesity among pregnant and postpartum women.
	2.1.3. Increase access to women's health navigators and remote monitoring programs to support pregnant and postpartum women with chronic disease and medication management, reproductive life planning, and breastfeeding and lactation support services.
	2.2. Reduce pregnancy-related mortality while supporting programs and policies that address maternal health disparities.
	2.2.1. Increase awareness of maternal warning signs through public and partner education.
	2.2.2. Improve hospital delivery care by increasing participation in evidence-based patient safety bundles.
	2.2.3. Increase access to and availability of case manager services and mental health providers for outpatient and in-patient treatment of substance use and mental disorders, including through telehealth expansion.
	2.2.4. Educate providers on best practices for integrating doulas into the medical care team before, during and after pregnancy, including education on financial assistance options for patients in need.
	2.3. Reduce infant mortality while supporting programs and policies that address infant health disparities.
	2.3.1. Increase parental and guardian education on safety measures, including safe sleep practices and utilization of car seats through programs such as home visiting.
	2.3.2. Support the regional perinatal system to ensure high-risk pregnant women and newborns receive risk-appropriate care.

	2.3.3. Support birth defect prevention, detection, intervention, and treatment through continued support of the Tennessee Birth Defects Surveillance System (TNBDSS).
A Healthy Life	
3. Nutrition Security	**3.1 Reduce food insecurity among adults and older adults.**
	3.1.1. Increase understanding and collaboration between existing nutrition programs and resources to improve referral services between entities, limit food and resource waste, and increase impact.
	3.1.2. Reduce enrollment barriers to government supported nutrition programs (e.g., SNAP) within eligible populations through public and partner education and outreach while increasing awareness of online shopping/delivery for beneficiaries.
	3.1.3. Assess provider capacity for and identify pathways to expand food insecurity screenings within medical-, home-, and community-based service settings and referral to supportive food and nutrition services where appropriate.
	3.1.4. Examine how intergenerational programming and supports can increase nutrition security across all ages including through education on food preparation. (e.g., school-based programs assisting in meeting needs of both children and grandparents raising grandchildren).
	3.2 Increase accessibility of nutritious foods.
	3.2.1. Support programs that reduce hunger for all (children, families, college students, older adults, working adults) including mobile food pantries while expanding transportation services to grocery stores, food pantries, and congregate meal settings.
	3.2.2. Explore opportunities to pair grocery support services with existing services including higher education events, career fairs, home health visits, and senior center activities.
	3.2.3. Support the identification and execution of locally tailored solutions that reduce the prevalence of food deserts while supporting the local economy.
	3.2.4. Examine methods that support a sustainable food system, increasing access to nutritious foods while limiting food waste and supporting local farmers.
4. Chronic Conditions	**4.1 Improve care coordination among adults living with multiple chronic conditions.**
	4.1.1. Examine ways to improve privacy-compliant communication between providers including through expansion of health information exchanges.
	4.1.2. Increase programs that support access to services in rural Tennessee including medical transportation programs and telehealth appointments with specialists.
	4.1.3. Expand cross-professional training among health providers (e.g., primary care physicians, specialists, dentists, pharmacists) to incorporate chronic care management in additional settings.
	4.2. Support programs and policies that reduce the risk of cardiovascular disease while promoting care for individuals living with cardiovascular disease.
	4.2.1. Increase awareness on methods to improve overall cardiovascular health through the implementation of behavior modification strategies (e.g., medication adherence, tobacco and alcohol cessation, healthy diet, increased physical activity).
	4.2.2. Increase access to and promotion of self-management education and lifestyle change programs that support living well with cardiovascular disease.
	4.2.3. Increase education on how management of existing cardiovascular disease can reduce risk of other diseases and conditions including dementia.
	4.3. Support programs and policies that reduce the risk of Type II Diabetes while promoting care for individuals living with Type II Diabetes.
	4.3.1. Increase awareness on methods to reduce risk of diabetes, including through increasing accessibility to lifestyle change programs (e.g., Diabetes Prevention Program).

	4.3.2. Increase access to and promotion of self-management education and behavioral modification strategies that support living well with Type II Diabetes.
	4.3.3. Increase education on diabetes medication management, medical literacy, prescription discount programs, and other affordability resources, to increase medication adherence and chronic disease management.
5. Older Adults	**5.1. Support and empower formal and informal caregivers of older adults.**
	5.1.1. Increase access to, awareness and use of evidence-informed interventions, services, support groups and peer-driven support for caregivers to enhance their health and well-being.
	5.1.2. Educate providers and health professionals on the importance of identifying informal caregivers and methods for addressing caregiver burden (physical, mental and financial strain) including referral to supports such respite services.
	5.1.3. Recruit and retain direct support professionals and community health workers.
	5.2. Promote brain health across the lifespan while supporting individuals living with dementia.
	5.2.1. Increase awareness on how to identify and prevent abuse, neglect, and exploitation (e.g., financial fraud) of older adults, specifically those experiencing cognitive decline.
	5.2.2. Build on existing brain health initiatives (e.g., Alzheimer's and Related Dementias Advisory Council, Tennessee Dementia Action Collaborative), to address social determinants of health, improve health equity related to brain health, and increase access to early detection and diagnosis.
	5.2.3. Expand designated age-friendly health systems, age-friendly public health systems, and age-friendly livable communities across the state.

A Healthy Environment	
6. Transportation	**6.1. Support programs and policies that increase access to convenient and affordable transportation for Tennessee residents and visitors.**
	6.1.1. Promote existing public transportation available in all counties through TDOT.
	6.1.2. Increase availability and promotion of transportation programs that assist individuals with traveling to health, wellness, and social service appointments.
	6.1.3. Support and promote cross-sector transportation planning at all levels including between public health agencies, community planners, transit agencies, users, and advocates (e.g., engaging with TDOT's new Project Delivery Network (PDN)).
	6.2. Increase access to active transportation (e.g., walking, biking, rolling, and public transit) for Tennessee residents and visitors
	6.2.1. Increase safety of pedestrians walking, biking, rolling, or using public transportation through locally tailored behavioral and environmental countermeasures.
	6.2.2. Reduce barriers to and increase availability of disability-accessible public transportation supports and options.
	6.2.3. Encourage increased use of public transportation through streamlined instructions, increased public understanding of how to access and use public transportation, sharing first-hand stories from public transportations users, and incentive-based programs from employers and service providers.

A Healthy System of Care	
7. Cancer Screenings	**7.1. Increase the percentage of Tennesseans receiving their recommended breast cancer screening and colorectal cancer screening.**
	7.1.1. Increase non-digital and digital outreach, education, and promotion on the importance of early cancer detection and screening and the availability of financial resources for uninsured and underinsured patients in various languages.
	7.1.2. Address barriers to care by using Community Health Workers (CHWs) to assist with patient navigation of care and ensure access to high-quality screenings and care post-screenings as needed.
	7.1.3. Identify trusted and representative community voices to share first-hand experiences on the benefits of early detection and screening and ensure these stories and educational materials are shared in non-traditional settings.
	7.1.4. At breast cancer mobile screening events, share next steps for post-screening care and resources including transportation and financial assistance options.
	7.1.5. Increase public education on noninvasive at-home colon cancer screening options.
8. Workforce	**8.1. Improve the oral health of Tennesseans through broadening access to high-quality, low-cost dental care.**
	8.1.1. Promote adult oral health benefits available through TennCare, including increasing the number of dental providers who accept TennCare dental benefits, and expand efforts to insure persons without dental coverage.
	8.1.2. Educate providers on best practices for providing dental care to individuals with disabilities.
	8.1.3. Raise awareness of the importance of oral health to overall health.
	8.1.4. Increase the number of dental providers in Tennessee through expanding dental student externship rotations to rural areas, increasing Tennessee dental school capacity, and promoting educational loan repayment programs for dental providers that practice in high need areas.
	8.2. Enhance and strengthen Tennessee's health professional workforce, including community health workers, nurses, and supportive care staff.
	8.2.1. Evaluate evidence and opportunities for improving access to care for rural Tennesseans.
	8.2.2. Support employers in promoting community benefits during recruitment and retention activities to demonstrate opportunities to “make your life where you make your living.”
	8.2.3. Explore opportunities to pair loan repayment programs with additional supports to encourage providers to stay past the completion of loan repayment.
	8.2.4. Improve working conditions to reduce burnout while offering programs that address existing burnout (e.g., peer mentoring programs for all provider types).

Appendix D: Select TN Demographic Characteristics

Race and Ethnicity in Tennessee		
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 are not mutually exclusive and thus sum to more than 100%. Data Source: Census Data. Accessed from the TN Dept of Health. Health Disparities in Tennessee Report. May 2024. https://www.census.gov/library/stories/state-by-state/tennessee-population-change-between-census-decade.html		

Languages Spoken in Tennessee	
Language Spoken at Home	**Percent of Population over 5 years of Age**
Speak only English:	92.5%
Spanish:	4.3%
Arabic:	0.5%
Chinese (incl. Mandarin, Cantonese):	0.2%
French (incl. Cajun):	0.2%
German:	0.2%
Vietnamese:	0.2%
Other Indo-European languages:	0.1%
Tagalog (incl. Filipino):	0.1%
Amharic, Somali, or other Afro-Asiatic languages:	0.1%
Thai, Lao, or other Tai-Kadai languages:	0.1%
Korean:	0.1%
Yoruba, Twi, Igbo, or other languages of Western Africa:	0.1%
Hindi:	0.1%
Gujarati:	0.1%
Swahili or other languages of Central, Eastern, and Southern Africa:	0.1%
Yiddish, Pennsylvania Dutch or other West Germanic languages:	0.1%
Other languages of Asia:	0.1%
Russian:	0.1%
Nepali, Marathi, or other Indic languages:	0.1%
Portuguese:	0.1%
Japanese:	0.1%
Telugu:	0.1%
Persian (incl. Farsi, Dari):	0.1%
All other languages:	Less than 0.1% each
Data Source: United States Census Bureau. American Community Survey. 2022 1-Year Estimate. B16001. Language Spoken at Home by Ability to Speak English for the Population 5 Years and Over	

Disability in Tennessee		
Functional Disability Type	Definition	Percentage of Adults in TN with Disability Type
Mobility	Serious difficulty walking or climbing stairs	15%
Cognition	Serious difficulty concentrating, remembering, or making decisions	16%
Independent Living	Serious difficulty doing errands alone, such as visiting a doctor's office	9%
Hearing	Deafness or serious difficulty hearing	7%
Vision	Blind or serious difficulty seeing, even when wearing glasses	6%
Self-Care	Difficulty dressing or bathing	5%
Data Source: 2021 Behavioral Risk Factor Surveillance System. Accessed via CDC Disability and Health Data System (DHDS). https://www.cdc.gov/ncbddd/disabilityandhealth/impacts/tennessee.html		

Appendix E: 2024 State of Health Metrics

Measure	Definition	Data Source
A Healthy Start		
Children in Poverty	Percentage of all persons under 18 years of age whose income in the past 12 months is below the poverty level	United States Census Bureau. American Community Survey 1-Year Public Use Estimates. 2020 data not available.
Child Food Insecurity	Percentage of children in Tennessee who are food insecure according to Feeding America's annual Map the Meal Gap report.	Feeding America. 2024 Map the Meal Gap. United States Department of Agriculture, Economic Research Service - Current Population Survey, Food Security Supplement. Accessed via https://map.feedingamerica.org/county/2022/child/tennessee Note: Data Source changed from 2023 report.
Child WIC Coverage	Percentage of children ages 1-4 eligible for the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) who received WIC benefits in an average month	United States Department of Agriculture Food and Nutrition Service, National and State Level Estimates of WIC Eligibility and Program Reach in 2021. Retrieved from www.fns.usda.gov
Overall WIC Coverage	Percentage of women, infants, and children eligible for the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) who received WIC benefits in an average month.	United States Department of Agriculture Food and Nutrition Service, National and State Level Estimates of WIC Eligibility and Program Reach in 2021. Retrieved from www.fns.usda.gov
SNAP Participation	Percentage of people who are eligible for SNAP who actually participate in the program	United States Department of Agriculture Food and Nutrition Service. Retrieved from www.fns.usda.gov
Foster Care	Percentage of children entering foster care who are re-entering after a prior episode	United States Department of Health and Human Services, Children's Bureau, Child Welfare Outcomes Report Data. Note: Foster Care metric changed from 2023 report.
	Percentage of children entering foster care who are re-entering within 12 months of a prior episode.	United States Department of Health and Human Services, Children's Bureau, Child Welfare Outcomes Report Data. Note: Foster Care metric changed from 2023 report.
Child Care	Number of children DHS licensed child care facilities have capacity to serve.	Licensed child care facility list accessed on December 15, 2023 on the Tennessee Department of Human Services website.
	Percentage of children attending a DHS licensed child care facility with potential access to at least one type of discount (multi-child discount, sliding fee scale, scholarship, or other).	Licensed child care facility list accessed on December 15, 2023 on the Tennessee Department of Human Services website. Note: Metric changed from 2023 report.
School Nurses	Percentage of TN Public Schools employing a full-time nurse	Tennessee Coordinated School Health Annual School Health Services Report. Retrieved from www.tn.gov/education
School Counselors	Percentage of school districts with one certified counselor per 500 students	Tennessee Coordinated School Health Annual School Health Services Report. Retrieved from www.tn.gov/education
Third Grade Reading Level	Percentage of public-school students in grade 3 that test "on track" and "mastered" for ELA on TN Ready	Tennessee Department of Education

ACEs	Percentage of children ages 0-17 who experienced two or more ACES (2 Year Estimate)	National Survey of Children's Health. Retrieved from www.childhealthdata.org
Youth Safety	**Exposure to Neighborhood Violence:** Percentage of high school students who ever saw someone get physically attacked, beaten, stabbed, or shot in their neighborhood.	Centers for Disease Control, Youth Risk Behavior Surveillance System Note: Youth Safety Metric changed from 2023 report.
	Experienced Physical Dating Violence: Percentage of those who experienced physical violence **(**being physically hurt on purpose (counting such things as being hit, slammed into something, or injured with an object or weapon) by someone they were dating or going out with) one or more times during the 12 months before the survey, among students who dated or went out with someone during the 12 months before the survey	Centers for Disease Control, Youth Risk Behavior Surveillance System
Infectious Disease	**Childhood Vaccinations:** Percentage of children who received by age 35 months all recommended doses of the combined 7-vaccine series: diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine; measles, mumps and rubella (MMR) vaccine; poliovirus vaccine; Haemophilus influenzae type b (Hib) vaccine; hepatitis B (HepB) vaccine; varicella vaccine; and pneumococcal conjugate vaccine (PCV)	Centers for Disease Control and Prevention, National Immunization Survey-Child (Birth Cohort). Accessed via CDC Child Vax View.
	HPV Vaccinations: Percentage of adolescents ages 13-17 who received all recommended doses of the human papillomavirus (HPV) vaccine	Centers for Disease Control and Prevention, National Immunization Survey-Teen. Accessed via CDC Child Vax View.
	Congenital Syphilis: Rate per 100,000 live births	Department of Health Division of Communicable and Environmental Diseases and Emergency Preparedness. Data Note: 2016-2021 TN rates are based on counts <20 and should be interpreted with caution.
Asthma	Percentage of children ages 0-17 who currently have asthma (2-year estimate)	National Survey of Children's Health, U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB)
Youth Obesity	Percentage of public-school students with a body mass index (BMI) greater than or equal to the 85th percentile for children of the same age and sex	Tennessee Department of Education Coordinated School Health Annual Body Mass Index Report
Electronic Vapor Usage	Percentage of high school students who reported ever using electronic vapor products (including e-cigarettes, vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods).	Centers for Disease Control, Youth Risk Behavior Surveillance System
Drugs on School Property	Percentage of high school students who were offered, sold, or given an illegal drug on school property (during the 12 months before the survey).	Centers for Disease Control, Youth Risk Behavior Surveillance System. Note: In 2015 Tennessee data was not collected.
Youth Mental Health	**Hopelessness:** Percentage of high school students enrolled in grades 9 to 12 who reported being sad or hopeless almost every day for 2 or more weeks in a row so that they stopped doing some usual activities, during the 12 months before the survey.	Centers for Disease Control, Youth Risk Behavior Surveillance System
	Suicide Attempt: Percentage of youth with one or more suicide attempts resulting in an injury, poisoning, or overdose that had to be treated by a doctor or nurse (during the 12 months before the survey).	Centers for Disease Control, Youth Risk Behavior Surveillance System

	Suicide Mortality Rate: Number of deaths due to intentional self-harm per 100,000 population (<18)	Centers for Disease Control, Youth Risk Behavior Surveillance System
Prenatal Care	Percentage of live births in which the mother began prenatal care between the first and sixth month of pregnancy	Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics.
Smoking During Pregnancy	Percentage of mothers who reported smoking cigarettes during pregnancy	(TN) Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics. (US) CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.
Preterm Births	Percentage of live births preterm (<37 weeks gestation)	(TN) Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics. (US) CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.
Low Birthweight	Percentage of live births with low birthweight (<2,500 grams).	(TN) Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics. (US) CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.
Breastfeeding	Percentage of live births where breastfeeding is initiated at birth.	(TN) Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics. (US) CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.
Postpartum Depression	Percentage of women with a recent live birth who reported experiencing depressive symptoms	Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System or State Equivalent
Infant Mortality	Number of infant deaths per 1,000 live births	(TN): Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics. (US): CDC National Vital Statistics Report Vol. 72 September 12, 2023. US Value for 2022 not listed.
Maternal Mortality	**Pregnancy-Related Mortality Ratio** (PRMR) - deaths within one year of pregnancy where pregnancy was the aggravating factor	Tennessee Department of Health. Death Statistics - TN Office of Vital Statistics. Accessed via the Tennessee Department of Health Maternal Mortality Review Annual Report.
	Pregnancy-Associated, but not related, deaths: Deaths within one year of pregnancy where pregnancy was NOT the aggravating factor	Tennessee Department of Health. Death Statistics - TN Office of Vital Statistics. Accessed via the Tennessee Department of Health Maternal Mortality Review Annual Report.
Teen Births	Number of births per 1,000 women aged 15-19 years	(TN): Tennessee Department of Health. Birth Statistical File - TN Office of Vital Statistics; (US): CDC National Vital Statistics Report Vol. 73 No 2 April 4, 2024.
A Healthy Life		
Per Capita Personal Income	Annual, not seasonally adjusted, per capita personal income in dollars	United States Bureau of Economic Analysis. Retrieved from www.bea.gov.
Adult Poverty	Percentage of all persons 18 years and over whose income in the past 12 months is below the poverty level	United States Census Bureau, American Community Survey, 1-Year Public Use Estimates. 2020 data not available. Note: 5-year estimates used for county-level map.
Food Insecurity	Percentage of population who lack adequate access to food (all ages)	USDA Economic Research Service.
Poverty and the Labor Force	Number of people 20-64 years of age who are living below poverty level who are participating in the labor force (employed or unemployed)	United States Census Bureau, American Community Survey, 1-Year Public Use Estimates. 2002 data not available.
Unemployment	Percentage of the labor force who are unemployed.	United States Census Bureau, American Community Survey, 1-Year Public Use Estimates. 2002 data not available.
Workplace Benefits	Percentage of employed workers in the state who used some type of paid time off (PTO) benefit.	United States Census Bureau, Current Population Survey (CPS), Annual Social and Economic Supplement (ASEC). Accessed via Trust for America's Health Ready or Not Report.

Fatal Occupational Injuries	The number of fatal occupational injuries per 100,000 full-time equivalent workers	U.S. Bureau of Labor Statistics, Census of Fatal Occupational Injuries; State Archive
Adult Numeracy	Percentage of adults considered proficient at working with mathematical information and ideas (at or above Level 3)	National Center for Education Statistics
Adult Literacy	Percentage of adults considered proficient at working with information and ideas in texts (at or above Level 3)	National Center for Education Statistics
Violent Crime	Violent Crime Rate: Number of violent crime offenses (murder, rape (legacy definition), robbery, and aggravated assault) per 100,000 population	Federal Bureau of Investigation
Domestic Violence	Number of Domestic Violence Offenses	TN Bureau of Investigation, Annual Domestic Violence Report
Infectious Disease	**Chlamydia:** Rate of newly diagnosed chlamydia cases per 100,000 population.	Department of Health Division of Communicable and Environmental Diseases and Emergency Preparedness; (US) CDC STD Surveillance Report, 2020. .
	HIV: Rate of diagnoses of HIV infection among persons aged ≥13 years	CDC, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Note: 2020 HIV data reflect the impact of COVID-19 (intermittent clinic closures, reduction in availability of services resulting in delays in accessing HIV Prevention and care, limited staff capacity to investigate HIV laboratory reports) and should be interpreted with caution.
	Hepatitis C Virus: Rates of reported cases of acute Viral Hepatitis C per 100,000	CDC, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
	COVID-19 Vaccinations: Percent of Tennesseans fully vaccinated (2 doses of Pfizer/Moderna OR 1 dose of Janssen) against COVID-19 as of October 1, 2023.	Tennessee Department of Health, TennIIS. Note: TennIIS does not include vaccination records from the Veterans Health Administration (prior to 2023), Bureau of Prisons, Department of Defense, or Indian Health Services. Note: The 2023 State of Health Report used CDC data for COVID-19 vaccination information and values may differ.
	Influenza Vaccination: Percentage of adults who reported receiving a seasonal flu vaccine in the past 12 months	Behavioral Risk Factors Surveillance System (BRFSS)
Chronic Conditions	Percentage of adults who have three or more of the following chronic health conditions: arthritis; asthma; chronic kidney disease; chronic obstructive pulmonary disease; cardiovascular disease (heart disease, heart attack or stroke); cancer (excluding skin); depression; diabetes	Behavioral Risk Factors Surveillance System (BRFSS)
Adult Smoking	Percentage of adults who are current smokers (age-adjusted)	Behavioral Risk Factors Surveillance System (BRFSS)
Physical Activity	Percent of adults who reported doing physical activity or exercise during the past 30 days other than their regular job	Behavioral Risk Factors Surveillance System (BRFSS)
Diabetes	Percentage of adults who have diabetes	Behavioral Risk Factors Surveillance System (BRFSS); US Data for 2017 and 2018 is missing.
Alcohol Consumption	**Binge Drinking**: Percentage of adults who are binge drinkers (males having five or more drinks on one occasion, females having four or more drinks on one occasion) (variable calculated from one or more BRFSS questions	Behavioral Risk Factors Surveillance System (BRFSS)
Drug Overdose	Number of drug overdose outpatient visits and inpatient stays caused by non-fatal acute poisonings due to the effects of drugs, regardless of intent	TDH, Hospital Discharge Data System
Drug Overdose	Number of all drug overdose deaths	TDH, Death Statistical File

Mental Health	**Frequent Mental Distress:** Percentage of adults who reported their mental health was 'not good' 14 or more days during the past 30 days	Behavioral Risk Factors Surveillance System (BRFSS)
	Suicidal Ideation Rate: Number of ED visits and inpatient hospitalizations with suicidal ideation per 10,000 emergency department visits and inpatient hospitalizations	Tennessee Department of Health, Hospital Discharge Data System
	Nonfatal Intentional Self-Harm Injury: Number of ED visits and inpatient hospitalizations for intentional self-harm injury per 10,000 emergency department visits and inpatient hospitalizations	Tennessee Department of Health, Hospital Discharge Data System
	Suicide Mortality: Number of deaths due to intentional self-harm per 100,000 population (18+)	Tennessee Department of Health Death Statistics
Premature Death	Crude Rate Years of Potential Life Lost (YPLL) before Age 75 for 10 Leading Causes of Death (All Causes)	CDC, National Center for Health Statistics - WISQARS
65+ Poverty	Percentage of adults ages 65 and older who live below the poverty level	US Census Bureau, American Community Survey
Grandparents Living with Grandchildren	Number of grandparents (all ages) living with grandchildren under 18	US Census Bureau, American Community Survey, 2025 5-year estimate
Elder Abuse	Adult Protective Services: Number of Abuse Investigations	Tennessee Department of Human Services Annual Report
Social Isolation	Percentage of households with an adult aged 65+ living alone, among households with an adult aged 65+.	US Census Bureau, American Community Survey, 1-year estimates. Note: Data source (ACS Table) changed from 2023 report. 2024 report is on households.
Falls 65+	Percentage of adults ages 65 and older who reported falling in the past 12 months	Behavioral Risk Factors Surveillance System (BRFSS)
Caregiving	Caregiving (Caregiving BRFSS Optional module)	Behavioral Risk Factors Surveillance System (BRFSS)
Dementia	Subjective Cognitive Decline (BRFSS Optional Module)	Behavioral Risk Factors Surveillance System (BRFSS)
A Healthy Environment		
Housing	**Severe Housing Problems:** Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities	HUD's Comprehensive Housing Affordability Strategy (CHAS) data
	Severe Housing Cost Burden: Percentage of households that spend 50% or more of their household income on housing	HUD's Comprehensive Housing Affordability Strategy (CHAS) data
	Homelessness: Annual point-in-time count of persons experiencing homelessness	Housing and Urban Development Exchange CoC Homeless Populations and Subpopulations Reports Data Note: As a point-in-time count, this number severely undercounts the number of persons experiencing homelessness.
Broadband Access	Percentage of households with broadband internet connection	U.S. Census Bureau, American Community Survey
Access to Parks and Greenways	Percentage of population with adequate access to locations for physical activity	Business Analyst, Delorme map data, ESRI, & US Census Tigerline Files
Transportation	**Transportation Disadvantaged Communities:** Percentage of Tennessee Communities that spend more and take longer, to get where they need to go (Census tracts with 4 or more transportation disadvantage indicators)	US Department of Transportation, Transportation Disadvantaged Census Tract Data
	Vehicle Access: Percentage of workers 16 years and over in households with no vehicle available	United States Census Bureau, American Community Survey, 1-Year Public Use Estimates

	Driving Alone to Work: Percentage of the workers 16 years and over that drive alone to work	United States Census Bureau, American Community Survey, 1-Year Public Use Estimates
	Long Commute-Driving Alone: Among workers who commute in their car alone, the percentage that commute more than 30 minutes	United States Census Bureau, American Community Survey, 1-Year Public Use Estimates
	Safety: annual number of persons fatally or seriously injured in vehicle crashes Note: Definition and value updated December 2023	Tennessee Department of Safety and Homeland Security.
Social Capital and Cohesion	**Voter Participation:** Percentage of voting-eligible population in the state participating in the highest office election.	United States Election Project, General Election Turnout Rates
	Civic Organizations: Number of Civic Organizations	US Census Bureau, 2016-2020
	Social Advocacy Organizations: Number of Social Advocacy Organizations	US Census Bureau, 2016-2020
	Volunteering: Percent of adults in the state who volunteer in their communities	US Census Bureau, Current Population Survey (CPS), Volunteer Supplement Data. Accessed via America's Health Rankings. Note: Data source changed from 2023 report.
Water	**Water Quality**: Percentage of population served by community water systems with a serious drinking water violation during the year.	U.S. Environmental Protection Agency, Enforcement and Compliance History Online, Safe Drinking Water Information System. Accessed via America's Health Rankings. Note: Data source changed from 2023 report
	Community Water Fluoridation: *Percent of population served by community water systems that are receiving fluoridated water	Centers for Disease Control and Prevention, Water Fluoridation Reporting System, My Water Fluoride Summary Reports
Air	**Air Pollution - Particulate Matter:** Average Daily density of fine particulate matter in micrograms per cubic meter (PM 2.5)	Centers for Disease Control and Prevention (CDC), Environmental Public Health Tracking Network.
Weather-Related Illness	**Heat Related Illness ED Visits:** Crude rate of heat-related emergency department visits in Tennessee per 10,000 persons	Tennessee Department of Health, Hospital Discharge Data System
	Heat Related Illness Hospitalizations: Crude rate per 10,000 persons of heat-related hospitalizations.	Tennessee Department of Health, Hospital Discharge Data System
A Healthy System of Care		
Insurance	**Uninsured Adults**: Percentage of persons 19 and older who are uninsured	United States Census Bureau, American Community Survey, 1-Year Public Use Estimates
	Uninsured Children: Percentage of persons 18 and under who are uninsured	United States Census Bureau, American Community Survey, 1-Year Public Use Estimates
	Underinsured Children: Percent of Children with Private Insurance that did not cover mental or emotional problems	SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2020. Accessed via Mental Health America 2023 Rankings.
Avoided Care Due to Cost	Percent of Population who could not see a doctor due to cost in the past 12 months among adults 18 years of age or older	Behavioral Risk Factors Surveillance System (BRFSS)
Access to Care for Adults with Disabilities	Percent of Population with a disability who could not see a doctor due to cost in the past 12 months among adults 18 years of age or older	Behavioral Risk Factors Surveillance System (BRFSS)
Hospital Closures	Number of Rural Hospital Closures since 2005	Tennessee Department of Health. Note: Data source changed from 2023 report
Hospital Quality	Percent of hospitals in the state with a top-quality ranking (Grade A) on the Hospital Safety Score.	The Leapfrog Group, Hospital Safety Score (HSS). Accessed via Trust for America's Health Ready or Not Reports. Note: Data source changed from 2023 report

Preventable Hospitalizations	Hospitalization rate for ambulatory care-sensitive conditions per 100,000 adults	Tennessee Department of Health, Hospital Discharge Data System
Cancer Screenings	**Breast Cancer:** Percentage of Females Ages 40+ who reported having a Mammogram in Past 2 Years	Behavioral Risk Factors Surveillance System (BRFSS)
	Colorectal Cancer: Percentage of persons ages 50+ who reported ever having a Colorectal Endoscopy (Sigmoidoscopy or Colonoscopy)	Behavioral Risk Factors Surveillance System (BRFSS)
	Lung Cancer: The percent of those at high risk for lung cancer who were screened using low dose CT in 2021.	American Lung Association 2023 State of the Lung Tennessee.
Health Professional Shortage Areas	**Primary Care:** Percent of TN Counties considered Primary Care HPSA**s**	Health Services and Resources Administration. Accessed via Rural Health Information Hub.
	Mental Health: Percent of TN Counties considered Mental HPSAs	Health Services and Resources Administration. Accessed via Rural Health Information Hub.
	Dental: Percent of TN Counties considered Dental HPSAs	Health Services and Resources Administration. Accessed via Rural Health Information Hub.
Nurses	Number of active registered nurse (RN) and licensed practical nurse (LPN) licenses per 100,000 population in the state.	National Council of State Boards of Nursing (NCSBN), National Nursing Database. Note: Data source changed from 2023 report
Palliative Care	Percent of hospitals in the state providing palliative care programs (includes both palliative care program and/or palliative care inpatient unit, but excludes pain management program, patient-controlled analgesia, and hospice program).	American Hospital Association (AHA), Annual Survey of Hospitals. Accessed via the National Health Security Preparedness Index.
Home Health Care	Number of personal care and home health aides per 1,000 adults ages 65 and older with a disability	U.S. Census Bureau, American Community Survey. Accessed via America's Health Rankings.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