Suicide Prevention in Tennessee

2022 Annual Report

Tennessee Department of Health | Family Health and Wellness

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BRIEF OVERVIEW OF Impact of Suicide

Suicide is a leading cause of death across the United States and continues to be a growing public health problem in Tennessee.

For **every** suicide in the United States, approximately **31** more individuals attempt suicide and suffer from suicidal ideation.*

The effect of suicide on individuals, families, friends, and communities is profound and long-lasting.

Report Data Reference

*Data Source: SAMHSA. 2020 National Survey of Drug Use and Health (NSDUH). Key Substance Use and Mental health Indicators in the U.S. https://www.samhsa.gov/data/sites/default/files/reports/rpt35325/NSDUHFFRPDFWHTMLFiles2020/2020NSDUHFFR1PDFW102121.pdf

ACKNOWLEDGMENTS

The Tennessee Department of Health (TDH) expresses its gratitude to the countless advocates and partners who have championed the purpose of the Suicide Prevention Task Force Team to generate quality conversations and partnership to prevent suicide across Tennessee.

We extend our gratitude to all those already implementing the recommendations from this report. We know our efforts to further understand the causes and contributing factors of suicide in Tennessee will prevent future deaths.

Our goal is to enhance, support, and strengthen Tennessee's suicide prevention infrastructure across the state by implementing data driven approaches to achieve a 10% reduction in suicide morbidity and mortality by 2025

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EXECUTIVE SUMMARY

Goals and Key Findings

The goal of the suicide prevention program is to review existing data and resources to identify promising practices and gaps in services for preventing suicide and to work with partners to bring a comprehensive public health approach to the prevention of suicide in Tennessee. This report describes deaths by suicide in Tennessee, along with the demographic characteristics of those deaths.

The report also describes emergency department and hospitalization visits for suicide attempt and ideation.

Through a comprehensive review of data and resources, along with input from key stakeholders, this report identifies specific opportunities for prevention of deaths by suicide.

SUMMARY OF 2022 RECOMMENDATIONS

State and Community Agencies

- Increase access to adequate mental health care for all Tennesseans.
- Spread awareness of suicide and encourage help-seeking behavior.
- Support the widespread use of standardized behavioral health assessment protocols and tools.
- Strengthen the crisis response infrastructure within Tennessee.
- Support suicide prevention programs and trainings promoting connectedness and resiliency.
- Disseminate data to assist agencies and organizations implement evidence-based suicide prevention programs.

Clinics and Hospital Systems

- Maintain “suicide safe” facilities.
- Provide information and counseling on access to lethal means for suicide risk assessment protocols.
- Continue to report into the Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE) database.

Healthcare Providers

- Disseminate educational materials to patients on the signs of suicide, including how to reach out for help if they or someone they know is in crisis.
- Encourage primary care and pediatric providers to utilize screening tools such as the Columbia-Suicide Severity Rating Scale to screen all patients for risk of suicide and refer those at risk to mental health services.

SUMMARY OF 2022 RECOMMENDATIONS

Public Safety and Emergency Response Agencies

- Expand crisis intervention training and implement a standardized crisis response protocol across the entire state.
- Promote partnerships between behavioral healthcare facilities, local law agencies to expand the Crisis Assessment and Response to Emergencies Program.
- Create safe, protective, and supportive work environments for all employees within law enforcement agencies, fire departments and EMS.

Educational Institutions

- Provide training opportunities for mental health and suicide prevention to students, teachers, school support staff, and other adults that interact with children and youth.
- Implement peer-to-peer programs such as Sources of Strength and Hope Squads in middle and high schools.
- Incorporate a protocol for responding to ESSENCE alerts into the school suicide prevention response plan.

Individuals, Families, and Friends

- Raise awareness of the risk factors for suicide, how to reach out for help, and appropriately refer a person at-risk for suicide to crisis lifelines.
- Provide opportunities to complete suicide prevention gatekeeper trainings.
- Reduce access to lethal means within the home by safely storing firearms and prescription medications.

INTRODUCTION

Suicide Rate

The suicide rate for 2021 in Tennessee was 17.5 per 100,000 population, which is 25% higher than the national rate, which was 14.0% per 100,000 population.

Number of Deaths

In 2021, 1,219 Tennesseans died by suicide compared to 1,220 in 2020.

Community and Social Context

Across the US, there is a higher rate of suicide among men, non-Hispanic Whites, non-Hispanic Alaska Native/American Indians, residents of rural areas, young people who are lesbian, gay, or bisexual, and veterans/other military personnel.

Suicide and suicide-related behavior are responses to multiple internal risk factors (e.g., depression, family history of mental illness or suicide, or substance abuse) and external risk factors (e.g., lack of social support, financial stress, or lack of access to behavioral health care).

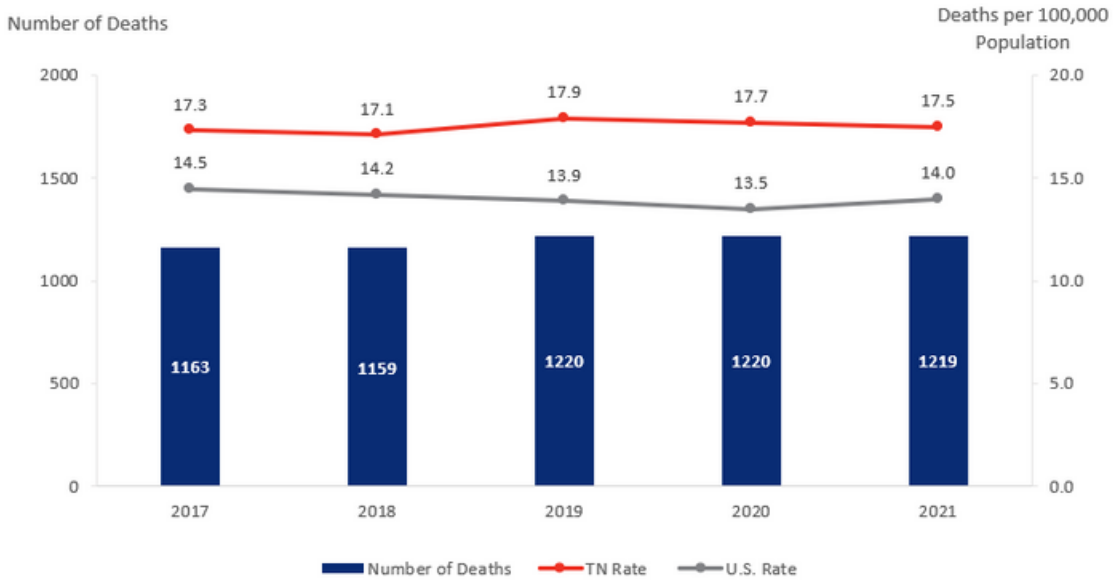
DATA OVERVIEW

This section includes data on suicide fatalities, suicidal ideation, suicide attempts.

To fully understand the impact of suicide in Tennessee and improve prevention efforts, we must continually review suicide-related data to identify the groups of people most at-risk for suicide.

Suicide Fatalities 2017-2021

Number and rate of suicide per 100,000-person population, Tennessee, and United States.



SUICIDE BY GENDER AND AGE

Suicide by Gender
2017 - 2021

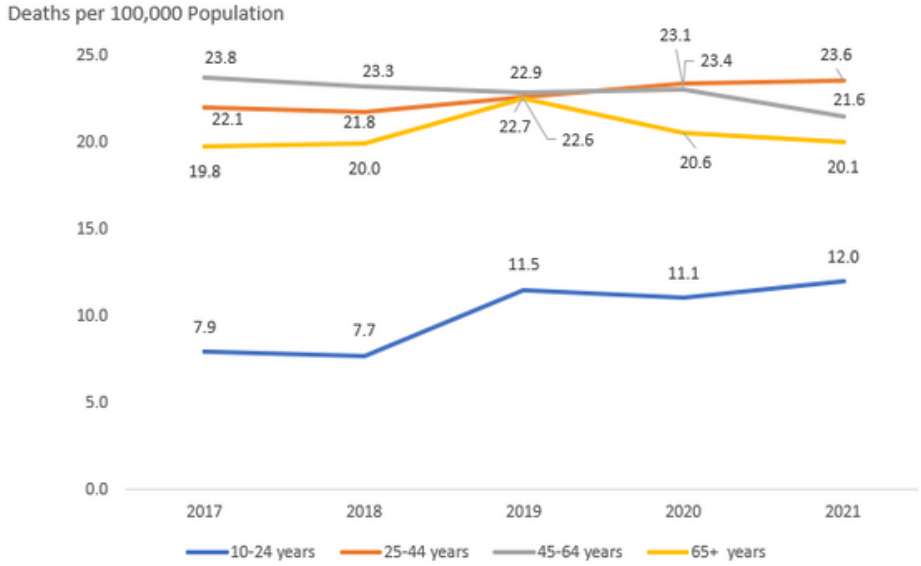
Number and rate of suicide per 100,000-person population,
Tennessee, and United States.

In 2021, the suicide rate for males in Tennessee was 28.7 deaths per 100,000 males compared to 6.7 deaths per 100,000 females. The burden of suicide is higher among Tennessee males, over five years (2017 through 2021).

Males have over 4X the rate of suicide compared to females.

Suicide by Age
2017 - 2021

Number and rate of suicide per 100,000-person population,
Tennessee, and United States.



Suicide has increased for ages 25-44 and 10-24 and decreased slightly for 45-64 and 65+ from 2020 to 2021 (Figure 2).

Data Source: Tennessee Department of Health, Office of Vital Records and Statistics, Death Statistical File, 2017-2021.

SUICIDE BY RACE AND METHOD

Suicide by Race
2017 - 2021

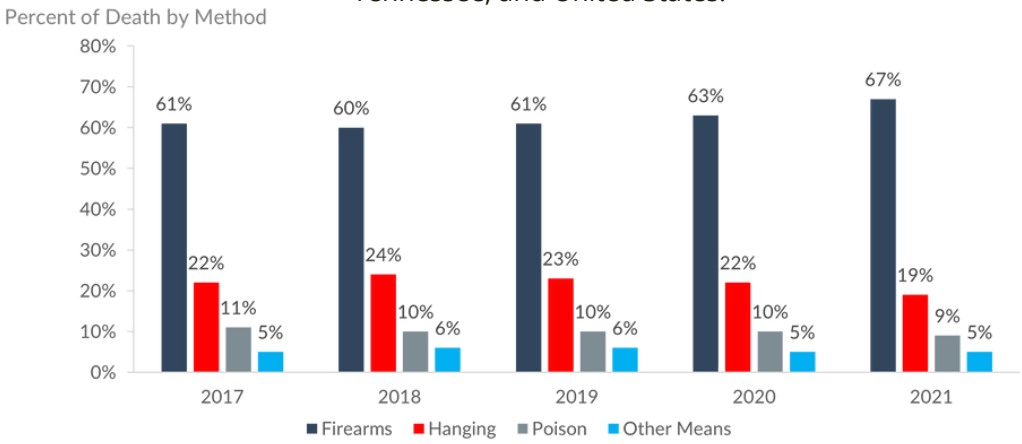
Number and rate of suicide per 100,000-person population, Tennessee, and United States.

White Tennesseans have over 2X the rate of suicide compared to Black Tennesseans.

Across the United States, White people have over two times the rate of suicide compared to Black people and almost three times that of other races/ethnicities. In 2021, the suicide rate for Whites in Tennessee was 19.9 deaths per 100,000 compared to 9.5 deaths per 100,000 for Black Americans and 5.4 for others. Between 2017 and 2021, the rate of suicide for White Tennesseans has increased from 18.2 deaths per 100,000 to the current rate and 5.3 to 9.5 deaths per 100,000 for Black Americans.

Suicide by Method
2017 - 2021

Number and rate of suicide per 100,000-person population, Tennessee, and United States.

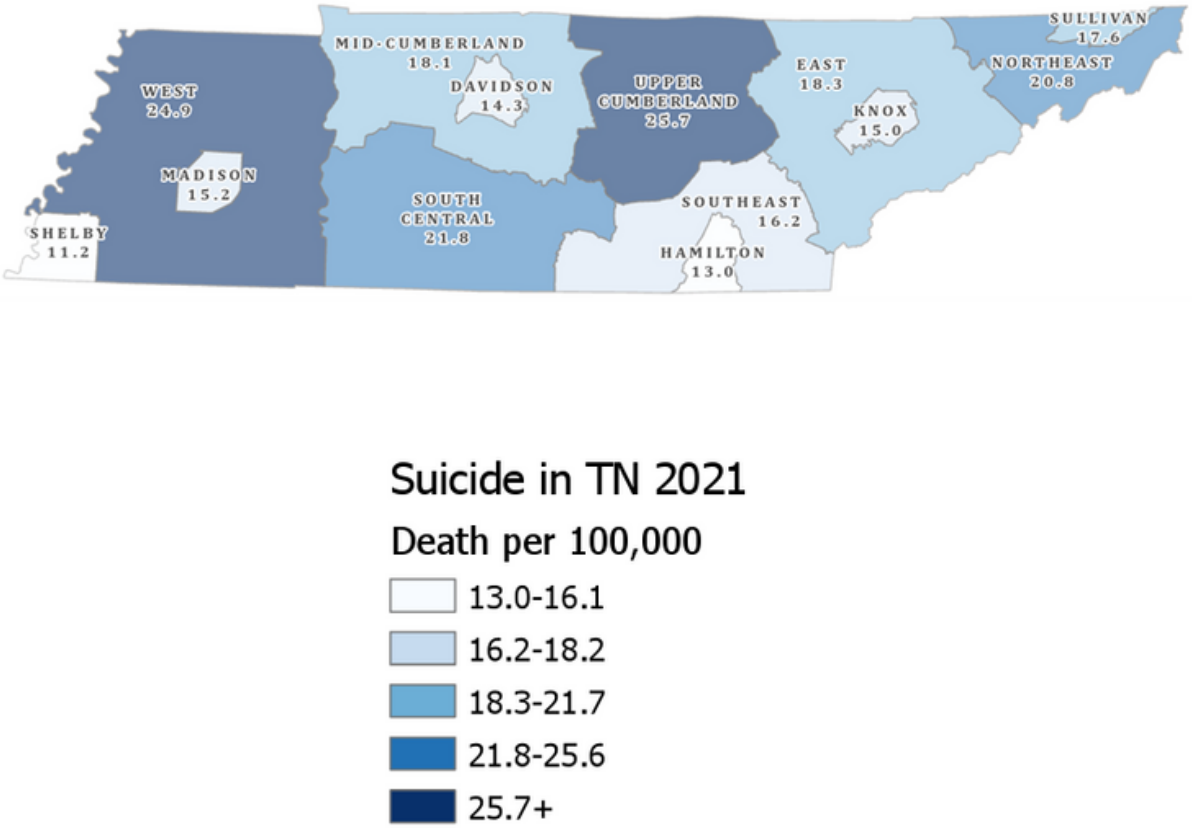


In Tennessee, firearms are the most prevalent means of suicide, accounting for 2 out of 3 (67%) suicides in 2021. Hanging was the next most common method, representing 19% of Tennessee's suicides in 2021 (Figure 3).

Data Source: Tennessee Department of Health, Office of Vital Records and Statistics, Death Statistical File, 2017-2021.

SUICIDE BY REGION

Rates of Suicide by Region in Tennessee, 2021



The suicide rate for 2021 in Tennessee was 17.5 per 100,000 population, which is 25% higher than the national rate, which was 14.0 per 100,000 population.

Data Sources: Tennessee Department of Health, Division of Population Health Assessment, Office of Vital Records and Statistics, Death Statistical File, 2021.

SUICIDE ATTEMPTS AND IDEATION

Non-Fatal Intentional Self-Harm and Suicidal Ideation

In addition to the 2020 and 2021 count of suicides, this report includes suicide ideation and non-fatal intentional self-harm injuries data from an additional source for 2020 only as it takes longer to process compared to 2021 death rates. Hospitalization and emergency department (ED) data is collected from all acute care hospitals in Tennessee. Non-fatal intentional self-harm includes intentional injuries from poisoning, firearms, toxic substances, hanging, sharp objects, and other means.

Suicide prevention efforts often focus on data related to death by suicide. Those deaths represent only a small portion of the community in terms of the full spectrum of suicidal behavior.

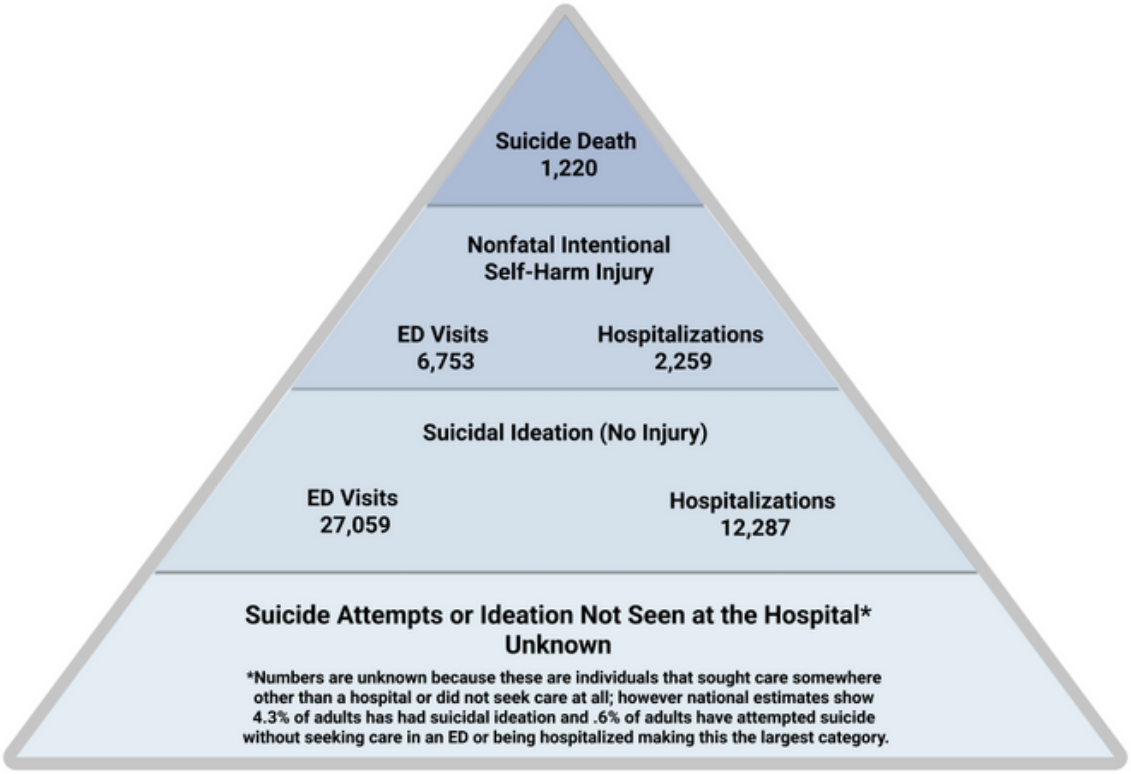
1,219
Deaths by Suicide

2,259
Nonfatal Intentional Self-harm Hospitalizations

6,753
Nonfatal Intentional Self-harm ED Visits

NON-FATAL INTENTIONAL SELF-HARM AND SUICIDAL IDEATION

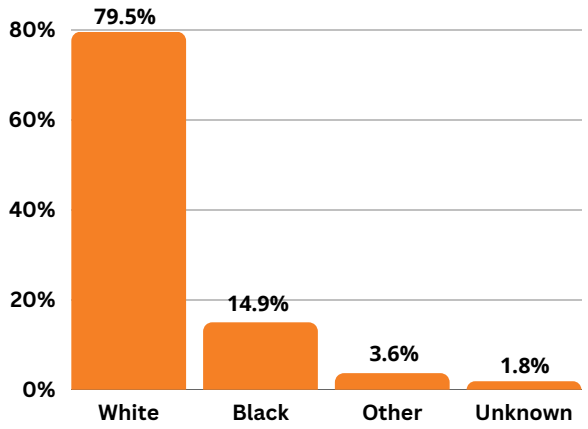
In addition to the 1,220 suicides that occurred in 2020, there were 6,753 ED visits and 2,259 inpatient hospitalizations for intentional self-harm. The number of patients treated at acute care hospitals with either intentional self-harm injuries or suicidal ideation is over 30X greater than the number of completed suicides alone. The bottom layer of the pyramid represents cases that experience suicidal ideation or intentional self-harm injury without receiving treatment at an acute care hospital. As these individuals do not visit the hospital and may receive no care at all, they cannot be captured using the available surveillance systems, and the actual number is therefore unknown (Figure 5).



Data Sources: Tennessee Department of Health, Division of Population Health Assessment, Hospital Discharge Data System; Office of Vital Records and Statistics, Death Statistical File.

NON-FATAL INTENTIONAL SELF-HARM
Inpatient and Outpatient

Intentional Self-harm by Race



In 2020, the highest percent of inpatient and outpatient intentional self-harm was between the ages of 15-19 and 25-34.

Methods

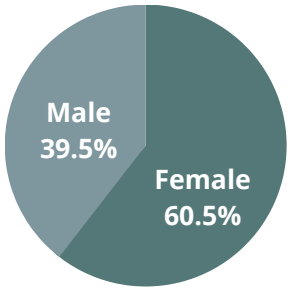
1. Poisoning (61%)
2. Other (e.g., cutting and suffocation (34%)
3. Toxic Substance (4%)
4. Firearms (1%)

Poisoning was the method of injury for the majority of ED visits and patient hospitalizations for non-fatal intentional self-harm injuries in 2020.

Firearms consistently account for the majority of deaths by suicide in Tennessee; however, for the non-fatal ED visits and hospitalizations, firearms were the method of injury used for only a small percentage of patients (less than 1% of ED visits and hospitalizations).

The breakdown by sex for intentional self-harm and inpatient hospitalizations/ED visits showed a different trend than that seen for suicides. Females made up just 20% of suicides in 2020. However, females account for nearly 61% of patients hospitalized/visited an ED for intentional self-harm injury. The rate of intentional self-harm for males in 2020 was 105.8 per 100,000 compared to 154.4 per 100,000 population for females.

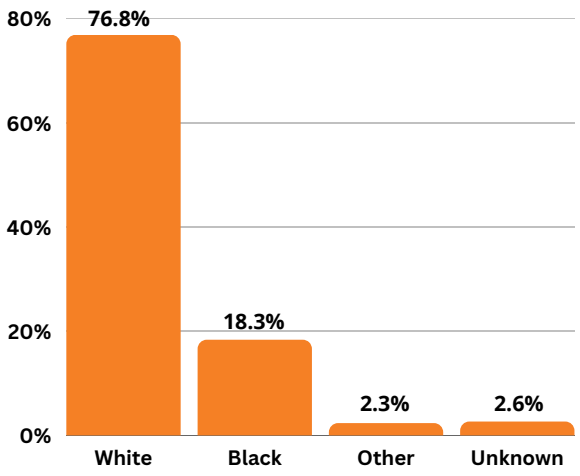
Non-fatal Suicidal Ideation and Intentional Self-Harm by Gender



Data Sources: Tennessee Department of Health, Division of Population Health Assessment, Hospital Discharge Data System.

SUICIDAL IDEATION
Inpatient and Outpatient

Suicidal Ideation by Race

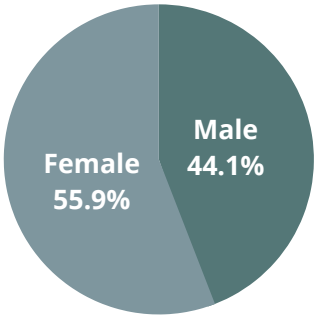


For intentional self-harm injuries, the rates were higher for White Tennesseans at 132 per 100,000 people compared to Black Tennesseans at 114 per 100,000. Black Tennesseans have experienced a slight increase during the last three years of higher ideation rates at 615 per 100,000 in 2020, compared to White Tennesseans at 560 per 100,000.

In 2020, the highest percent of inpatient and outpatient intentional self-harm was between the ages of 25-44.

Patients hospitalized for suicidal ideation with no accompanying intentional self-harm injury were split evenly across males and females. However, more males than females visited the ER for suicide ideation. This difference in the gender breakdown for suicide versus intentional self-harm injury ED visits and hospitalizations relates to choice of method. Men had a higher proportion of non-fatal self-harm by firearm while women had a higher proportion of less lethal means of self-harm (e.g., sharp objects).

Suicidal Ideation by Gender



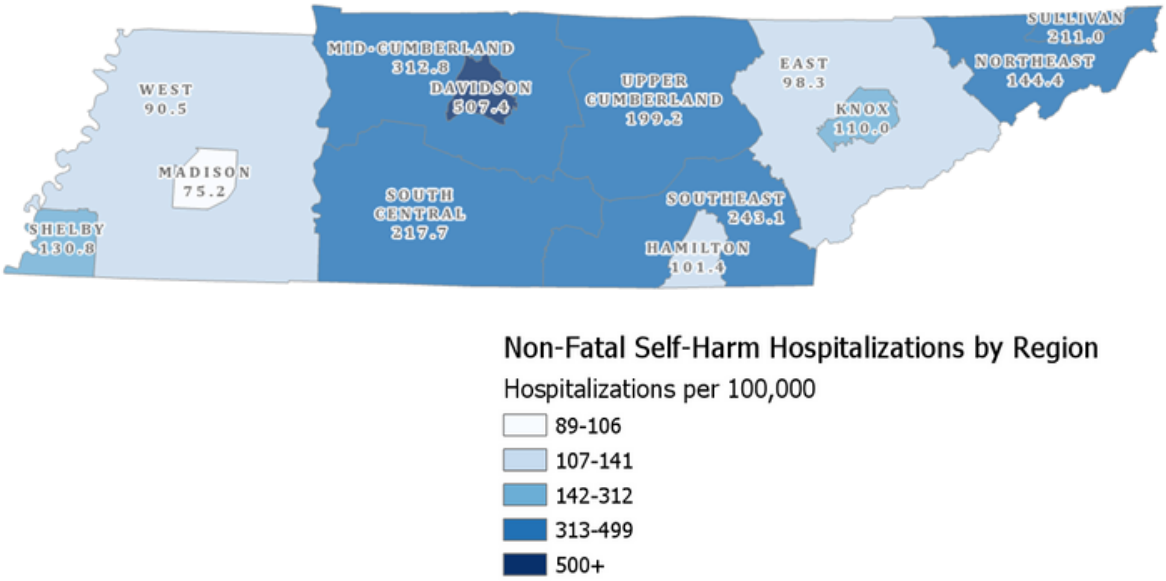
ED and hospitalization visits for self-harm have remained consistent since 2017 while suicidal ideation has increased.

Data Sources: Tennessee Department of Health, Division of Population Health Assessment, Hospital Discharge Data System.

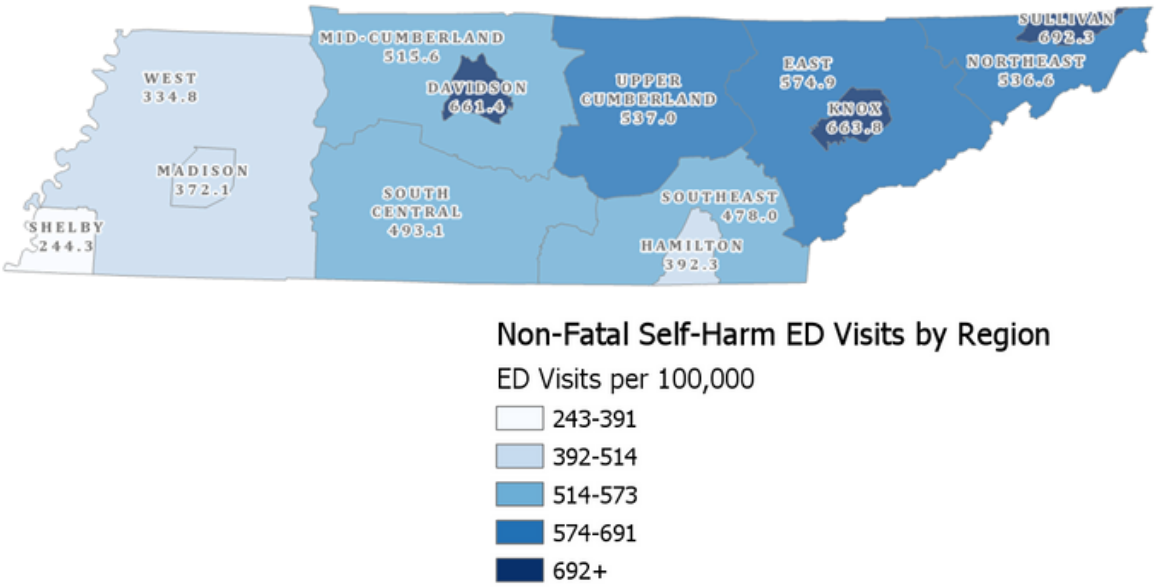
NON-FATAL INTENTIONAL SELF-HARM AND SUICIDAL IDEATION

By Region, 2020

Non-Fatal Intentional Self-Harm Hospitalizations by Region



Non-Fatal Intentional Self-Harm ED Visits by Region



Data Sources: Tennessee Department of Health, Division of Population Health Assessment, Hospital Discharge Data System.

SUCCESS STORIES
Communications

A comprehensive and effective communications and dissemination plan resulted in raising awareness of the risk factors and warning signs of suicide, increasing knowledge of best practices for suicide prevention, and increasing help-seeking behavior among at-risk individuals.

Key Accomplishments

- Hired a communications specialist and worked with partners across the state to increase awareness of suicide risk factors, broaden communications about suicide and suicide-related behavior in Tennessee, and to encourage help-seeking behavior for at-risk individuals.
- Created a monthly newsletter, **Prevent Suicide TN**, to communicate news and information about TDH Suicide Prevention programs, partners, events, and resources.
- Posted a social media campaign focused on risk factors, protective factors, vulnerable populations, trainings, and crisis services that has reached a total of 582,993 people on Instagram, Twitter and Facebook since July 2021.
- Placed two 30-second public service announcements (PSAs) which highlight suicide as a problem in Tennessee and promote suicide prevention trainings available across the state reaching over 850,000 viewers in July 2021 to August 2021.

SUCCESS STORIES
Statewide Partnerships for Suicide Surveillance

Key Accomplishments

- Tennessee Suicide Prevention Network, Tennessee Department of Mental Health and Substance Abuse Services and other state and local partners worked with TDH to expand suicide-related syndromic surveillance.
- More than 225 partners across the state registered to receive weekly alerts distributed by TSPN, resulting in 13 prevention activities reaching 42 individuals and one suicide prevention awareness event reaching 5,000 individuals.
- TDH and its partners reviewed weekly trends in suicidal behavior and identified counties across the state seeing increased incidents of persons across the lifespan reporting to an emergency department for suicidal ideation, injuries related to intentional self-harm, or suicide attempts.

Electronic Surveillance Systems for the Early Notification of Community-based Epidemics

Collaboration

Syndromic Surveillance

- TDH and its partners used suicide-related syndromic surveillance data from ESSENCE to refine a model for rapid prevention response to assist state and local partners with deploying resources to areas in the state showing increased emergency department visits for suicide-related behavior. These partners included, but were not limited to, the Tennessee Suicide Prevention Network, Tennessee Department of Mental Health and Substance Abuse Services, The Jason Foundation, Centerstone, CHASCO, BlueCare TN, Tennessee Coordinated School Health, Tennessee Department of Education, and Youth Villages.

Rapid Response

- TDH worked with TSPN, and other partners, to develop and implement a comprehensive rapid prevention response plan which incorporates community response samples for each specific age group.

SUCCESS STORIES
Suicide Prevention Task Force

The TDH strengthened its comprehensive public health approach to suicide prevention by increasing the number of multi-sectoral partners participating in its Suicide Prevention Task Force by nearly **33%** and increased attendance and participation in quarterly meetings by **65%.**

Key Accomplishments

- Launched the task force in February 2019 by recruiting a diverse group of individuals from across the state representing all sectors involved in suicide prevention activities.
- Convened the task force quarterly to review statewide suicide-related data, programs, and services and to identify opportunities for improving statewide suicide prevention efforts.
- Increased the task force from 35 members to 60 members from 2019 to 2022 through the work of the Suicide Prevention Act of 2018 and with the support of CDC comprehensive suicide prevention grant funding.
- Recruited representatives for occupational groups such as construction workers, pharmacists and nurses, vulnerable populations such as men and people with disabilities, rural health care providers and county government officials.

CONTACT INFORMATION

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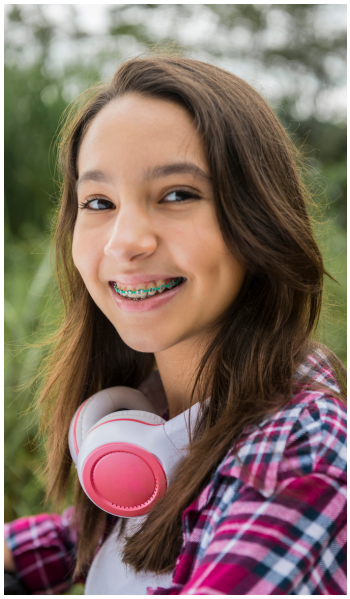

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