Preventing Suicide in Davidson County: Perspectives and Surveillance Challenges

A White Paper
Issued by the Davidson County Suicide Prevention Task Force

September 30, 2011
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Executive Summary

The Davidson County Suicide Prevention Task Force (DCSPTF) was established in April 2010 by the Tennessee Suicide Prevention Network (TSPN) and the Metro Public Health Department as a public-private partnership with other State and community stakeholders. The DCSPTF was charged with reviewing Davidson County data on suicide attempts to determine if patterns exist that could influence future prevention initiatives. This report sets forth information gathered by the DCSPTF in reviewing data on self-injury and suicide to determine types of attempts (methods), demographics, and geographic distribution of attempters/decedents to guide the development of strategies to prevent attempt behavior across the lifespan. This reflects the public health approach to suicide prevention and aligns with the mission of the Metro Public Health Department: To protect and improve the health and well being of all people in Davidson County.

The DCSPTF’s goal of examining this data to provide a more complete picture of the problem of suicidal behavior and to craft interventions germane to our community was guided by the principles of the Substance Abuse and Mental Health Services Administration’s evidence-based Strategic Prevention Framework (SPF). Consequently the DCSPTF’s work reflected in this report is consistent with the SPF assessment phase—gathering data to understand the population’s needs, reviewing the resources required and available, and identifying the readiness of the community to address prevention needs and service gaps.

Examining mortality data on suicides and morbidity data on suicide attempts presents several challenges which are exacerbated by the lack of standardized surveillance definitions and procedures across institutions. The “Conclusions” and “Recommendations” sections of this report call for national action with respect to addressing surveillance issues. State and local action is called for to increase awareness of the barriers to effective public health suicide prevention strategy development. The DCSPTF is confident that implementing these recommendations will lead to public health prevention opportunities to reduce the unnecessary loss and suffering from suicide and suicidal behaviors.
Introduction

The Davidson County Suicide Prevention Task Force (DCSPTF) was established in April 2010 by the Tennessee Suicide Prevention Network (TSPN) and the Metro Public Health Department as a public-private partnership with other State and community stakeholders. The DCSPTF was charged with reviewing Davidson County data on suicide attempts to determine if patterns exist that could influence future prevention initiatives. The group works to analyze trends related to suicide deaths and attempts in Davidson County and develop prevention, education, and awareness projects. This reflects the public health approach to suicide prevention initiatives.

The work of the DCSPTF:
1. aligns with the mission of the Metro Public Health Department: “To protect and improve the health and well-being of all people in Metropolitan Nashville”,
2. is consistent with the Surgeon General’s recommendation of suicide prevention approaches that reduce the likelihood of suicide before vulnerable individuals reach the point of danger, and
3. addresses the U.S. Department of Health and Human Services (HHS) Healthy People 2020 objectives related to Mental Health Status Improvement.

The principles of the Substance Abuse and Mental Health Services Administration’s (SAMHSA) evidence-based Strategic Prevention Framework (SPF) for the Prevention of Substance Abuse and Mental Illness[^1] guide the work of the DCSPTF (Appendix 1). Consistent with the SPF, the DCSPTF’s work to date has focused on the assessment phase--gathering data to understand the population’s needs, reviewing the resources required and available, and identifying the readiness of the community to address prevention needs and service gaps.

Background

Suicide, one of the most preventable causes of death, is a serious public health problem which exacts an incalculable toll on those who attempt suicide, those who take their own life and those left to deal with the traumatic impact and loss resulting from the suicide. Suicide has been documented for centuries, yet only within the past decade has a national priority been placed on addressing suicide as a public health concern. Every 15 minutes another life is lost to suicide. Every day 94 Americans take their own life and over 1,600 attempt suicide. There are an estimated 8 to 25 attempted suicides for every fatality.[^2]
The costs of suicide include premature death, lost productivity, and the aftermath for those left to grieve this most difficult loss. “Studies show that there may be from 1.5% of all Americans who are survivors to 1.1% who lost an immediate family member or other relative in the previous year, to 7% who knew someone personally who died by suicide in the preceding year.”[3] Thus there are many in our county impacted by suicide. The costs of suicide attempts include immediate medical costs, long-term medical costs related to sequelae of attempts, and human costs to the attempter and the family.

Due to the clear need to address suicide as a public health issue, then-U.S. Surgeon General Dr. David Satcher issued *The Surgeon General’s Call to Action to Prevent Suicide* in 1999.[4] This call to action included 15 key recommendations to serve as a framework for immediate action. These first steps were categorized as Awareness, Intervention and Methodology or AIM. These are further defined as:

- **Awareness**: Appropriately broaden the public’s awareness of suicide and its risk factors
- **Intervention**: Enhance services and programs, both population-based and clinical care
- **Methodology**: Advance the science of suicide prevention

The *Surgeon General’s Call to Action to Prevent Suicide* noted that suicide prevention efforts are often focused primarily on “improving clinical care for the individual already struggling with suicidal ideas or the individual requiring medical attention for a suicide attempt... Applying a public health approach to the problem of suicide in the United States will maximize the benefits of efforts and resources for suicide prevention.”

In response to the *Surgeon General’s Call to Action to Prevent Suicide*, the U.S. Public Health Service issued the National Strategy for Suicide Prevention (NSSP) in 2001.[2] The NSSP is a “comprehensive and integrated approach to reducing the loss and suffering from suicide and suicidal behaviors across the life course.” The aims of the National Strategy for Suicide Prevention are to:

- Prevent premature deaths due to suicide across the lifespan
- Reduce the rates of other suicidal behaviors
- Reduce the harmful aftereffects associated with suicidal behaviors and the traumatic impact of suicide on family and friends
- Promote opportunities and settings to enhance resiliency, resourcefulness, respect and interconnectedness for individuals, families and communities.

Tennessee responded to the Surgeon General’s call to prevent suicide by establishing the Tennessee Suicide Prevention Advisory Council and the Tennessee Suicide Prevention Network (TSPN) to spearhead suicide prevention efforts on a statewide level. TSPN subsequently created eight regional suicide prevention councils. In addition, TSPN supports five semi-autonomous county task forces:
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- The Blount County Mental Health and Suicide Prevention Alliance
- The Davidson County Suicide Prevention Task Force
- The DeKalb County Wellness Commission Suicide Subcommittee
- The Giles County Suicide Prevention Task Force (currently expanding to cover Lawrence County)
- The Hickman-Perry County Suicide Prevention Task Force

The Davidson County Suicide Prevention Task Force is the only county level task force serving a metropolitan area. Nashville (Davidson County) is home to over 620,000 people. It is the Tennessee state capital and has a combined city-county government that includes one mayor, a metropolitan police department with six decentralized precincts, a health department with several community satellite locations, and a metropolitan public school system with over 76,000 students. The city spans over 530 square miles and includes a mix of urban, suburban, and rural areas within the combined city/county area. Selected demographic data for Davidson County is presented in Table 1.

Table 1. Selected Demographic Data—Davidson County

<table>
<thead>
<tr>
<th>Year</th>
<th>Population/Enrollment</th>
<th>White*</th>
<th>Black*</th>
<th>Hispanic</th>
<th>Asian*</th>
<th>American Indian/Alaskan Native, Hawaiian or Pacific Islander*</th>
<th>Multi-Racial*</th>
<th>Other*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990 Census</td>
<td>510,784</td>
<td>74.7%</td>
<td>23.3%</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>&gt;1%</td>
</tr>
<tr>
<td>2000 Census</td>
<td>569,891</td>
<td>65.1%</td>
<td>25.9%</td>
<td>4.6%</td>
<td>2.3%</td>
<td>0.3%</td>
<td>2.0%</td>
<td>2.4%</td>
</tr>
<tr>
<td>2010 Census</td>
<td>626,681</td>
<td>61.4%</td>
<td>27.7%</td>
<td>9.8%</td>
<td>3.0%</td>
<td>0.3%</td>
<td>2.5%</td>
<td>4.9%</td>
</tr>
<tr>
<td>1998/1999</td>
<td>68.752</td>
<td>48.6%</td>
<td>44.9%</td>
<td>3.1%</td>
<td>3.3%</td>
<td>0.2%</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>2004/2005</td>
<td>77,494</td>
<td>39.7%</td>
<td>46.1%</td>
<td>10.5%</td>
<td>3.4%</td>
<td>0.2%</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>2010/2011</td>
<td>77,617</td>
<td>32.7%</td>
<td>47.5%</td>
<td>15.8%</td>
<td>3.8%</td>
<td>0.1%</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

*Non-Hispanic members of these racial categories. Hispanics may be of any racial category

In 1999, TSPN issued the Tennessee Strategy for Suicide Prevention. In 2009 TSPN published its Older Adult Suicide Prevention Plan. It issued its Youth Suicide Prevention Plan in 2003 and revised this in 2011. All of these documents set forth guidelines for preventing suicide within specific age groups and recommended activities to raise awareness and knowledge about suicide and mental illness.
In 2003 the President’s New Freedom Commission on Mental Health emphasized the importance of suicide prevention: “Suicide is a serious public health challenge that has not received the attention and degree of national priority it deserves.” [14]

The Healthy People 2020 report addresses suicide as a public health issue by including Mental Health Status Improvement as one of its objectives. Specifically, Mental Health and Mental Disability Objective 1 (MHMD-1) and Mental Health and Mental Disability Objective 2 (MHMD-2) address suicide. They are:

- **MHMD-1 Reduce the risk of suicide.**
  - The goal is to reduce the suicide rate from 11.3/100,000 to 10.2/100,000.
- **MHMD-2 Reduce suicide attempts by adolescents.**
  - The goal is to reduce the rate from 1.9/100 to 1.7/100. [15]

The Tennessee Department of Health (TDOH) reported Tennessee’s 2009 age-adjusted suicide rate was 15.1/100,000. [16] The overall suicide rate for Davidson County for 2009 was 13.9/100,000. Both of these figures exceed the 2007 national rate of 11.3/100,000 and the Healthy People 2020 MHMD-1 goal of 10.2/100,000. [16, 17]

The Youth Risk Behavior Surveillance System (YRBSS) was developed by the Centers for Disease Control and Prevention (CDC). Its administration is overseen in Tennessee by the Tennessee Department of Education (TDOE). According to the 2009 YRBSS, (see Table 2), 13.8% of U.S. high school students and 13.6% of Tennessee high school students reported they seriously considered attempting suicide during the 12 months preceding the survey. 6.3% of U.S. high school students and 7.1% of Tennessee high school students reported that they had actually attempted suicide one or more times during the same period. 1.9% of U.S. high school students and 2.2% of Tennessee high school students reported requiring medical treatment for an injury, poisoning, or overdose related to a suicide attempt. [16]

<table>
<thead>
<tr>
<th>Suicidal Behavior</th>
<th>U.S.</th>
<th>Tennessee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seriously considered attempting suicide during the 12 months preceding the survey</td>
<td>13.8%</td>
<td>13.6%</td>
</tr>
<tr>
<td>Attempted suicide one or more times during the 12 months preceding the survey</td>
<td>6.3%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Required medical treatment for an injury, poisoning, or overdose related to a suicide attempt</td>
<td>1.9%</td>
<td>2.2%</td>
</tr>
</tbody>
</table>
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YRBSS data for Davidson County (2007)† (Table 3) indicated a higher percentage of Davidson County students (grade 9-12) reported they required medical attention resulting from an attempt than was reported by students across Tennessee during the past 12 months. Students of color were especially vulnerable as higher proportions of non-Hispanic black students (12.3%) and students of other racial groups (15.9%) had considered suicide than non-Hispanic White students (11.1%). 15.8% of non-Hispanic black students surveyed and 13.4% of other non-white students attempted suicide, compared to 8.8% of non-Hispanic White students.[18]

<table>
<thead>
<tr>
<th>Suicidal Behavior</th>
<th>White*</th>
<th>Black*</th>
<th>Other*</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seriously considered attempting suicide during the 12 months preceding the survey</td>
<td>11.1%</td>
<td>11.4%</td>
<td>16.5%</td>
<td>12.9%</td>
</tr>
<tr>
<td>Attempted suicide one or more times during the 12 months preceding the survey</td>
<td>8.8%</td>
<td>15.8%</td>
<td>13.4%</td>
<td>18.5%</td>
</tr>
<tr>
<td>Required medical treatment for an injury, poisoning, or overdose related to a suicide attempt</td>
<td>3.2%</td>
<td>10.1%</td>
<td>4.4%</td>
<td>10.3%</td>
</tr>
</tbody>
</table>

*Non-Hispanic members of these racial categories. Hispanics may be of any racial category

The most recent data from the CDC’s National Center for Injury Prevention and Control (2007) on the ten leading causes of death in Tennessee indicates suicide was the:

- Ninth overall leading cause of death
- Third leading cause of death in 15-24 year olds (n=83)
- Second leading cause of death in 25-34 year olds (n=128)
- Fourth leading cause of death in 35-44 year olds (n=173)
- Fifth leading cause of death in 45-54 year olds (n=184) and
- Eighth leading cause of death in 55-64 year olds (n=134) [19]

It should be noted that while suicide is the second leading cause of death in 25-34 year olds in Tennessee, the number of individuals who die by suicide is greater in each of the age categories from 35-64 years old.

Tennessee reported 939 recorded suicides in 2009 as compared to 461 homicides. In Davidson County there were 82 suicides in 2009 compared to 77 homicides. [8,14,15]

Major depressive episodes are a risk factor for suicide. A 2009 SAMHSA study found Tennessee had the nation’s highest rate of people ages 18 and older

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† While the Tennessee Department of Health conducts statewide YRBS surveys on a biennial schedule, the sample size does not allow analysis by county. The Metro Public Health Department conducts YRBS surveys in Davidson County schools on an “as needed” basis contingent on funding. The most recent county-wide YRBS was conducted in 2007.
experiencing a major depressive episode in the past year at 9.8 percent; the rate for 18-25 year olds was 10.4%. \[^{20}\]

Emergency Department discharge data from 2003-07 among Davidson County residents indicated there were 3,540 visits coded as self-injury or suicide attempts. \[^{21}\] The Suicide Prevention Resource Center (SPRC) reported 4,157 people in Tennessee were hospitalized overnight for a suicide attempt in 2006, the latest year for which SPRC has figures. At an estimated average medical cost per case of $8,336 and an average work-loss cost per case of $9,968, suicide attempts in Tennessee cost businesses and hospitals $76.1 million in 2006. This number does not include attempters who presented at emergency rooms, were treated and released. \[^{22}\]

### Statement of the Problem

The DCSPTF was interested in reviewing data on self-injury and suicide to determine types of attempts (methods), demographics, and geographic distribution of attempters/decedents to guide the development of strategies to prevent attempt behavior. Examining this data may provide a more complete picture of the problem of suicidal behavior. However, examining mortality data on suicides and morbidity data on suicide attempts presents several challenges.

### Findings

Mortality data on suicide is readily available; however, there is widespread recognition that the stigma associated with suicide and mental illness can lead to underreporting of suicide. Mortality data alone provides an incomplete picture of the problem as most suicide attempts do not result in death.

Compared with morbidity data, mortality data are generally more completely reported; recording cause of injury death on a death certificate is legally required. Despite the fact that there is better reporting of completed suicides than attempts, inconsistent case definitions for suicide create difficulty coding mortality data.

Morbidity data consists of medically treated suicide attempts. External Cause of Injury Codes (E-codes) used in medical settings are one source of information regarding suicide attempt behavior that the DCSPTF considered. E-codes are “supplementary classification of external causes of injury and poisoning” used to “permit the classification of environmental events, circumstances, and conditions as the cause of injury, poisoning, and other adverse effects.” \[^{23}\] The use of E-codes in hospital data, while required by TCA 68-1-108, is not required in all states, so attempts may go unrecorded. Inconsistent case definitions for suicide attempts create difficulty in coding, and coding protocols differ from one hospital to the next. Stereotypes about who attempts suicide may lead to incorrect diagnoses. Finally,
some health insurance policies have exclusions for medical coverage if the injury is secondary to a suicide attempt.

The Joint Commission issued a Sentinel Event Alert in November 2010 warning of a rise in suicides among non-psychiatric patients in emergency departments and medical/surgical inpatient units. It also noted that suicide ranks as one of the top five events reported to The Joint Commission. Roughly 25% of the deaths took place in non-psychiatric settings, and many of them involved people with no history of psychiatric illness or suicide attempts. The Sentinel Event Alert urged increased education for hospital staff, including those in general non-psychiatric units, about the warning signs of suicide. The Alert also reminded hospitals about the suicide prevention guidelines in the accreditation requirements, including risk assessment of both patients and the hospital environment itself and the provision of crisis hotline information to at-risk patients and their families upon discharge.\[24\]

Cutting and piercing were among the most frequently used codes to classify suicide attempts in the emergency department data reviewed by the DCSPTF. However, there is not an adequate mechanism to determine intent to die in these instances. The American Psychiatric Association (APA) has recognized the need to improve diagnostic coding related to non-suicidal self injury. The APA’s proposed revisions to the Diagnostic and Statistical Manual of Mental Disorders (DSM), includes a category for Other Disorders, which includes Non-Suicidal Self Injury Disorder. The anticipated publication date for the DSM-V is 2013.\[25\] The Center for Disease Control issued Self Directed Violence Surveillance: Uniform Definitions and Recommended Data Elements in February 2011. This publication addresses the current lack of uniform definitions by proposing surveillance definitions for self-directed violence.\[26\]

Reliance on hospital data results in biases toward more lethal methods of attempted suicide. Studies showed that at least 25% and as many as 61% of medically attended suicide attempts were not treated in a hospital.\[27\] Many suicide attempts are not medically serious enough to require medical attention and, as such, are not reported or coded, making data on suicide attempts more difficult to ascertain. Studies have shown at least 28% \[27\] and as many as 70% \[28\] of people attempting suicide never seek health services. Other individuals may be treated by a primary care provider or other professional that is not required to report suicide attempt information.\[29\]

Since many suicide attempts are not medically serious enough to require hospital care, the DCSPTF considered additional sources of data. Each of these data sources are described below with limitations identified by the DCSPTF.

**Crisis Lines**

There are multiple crisis lines Davidson County residents can access on behalf of themselves or others when seeking assistance related to suicidal ideation or attempts. These include:
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- Centerstone, Inc. Crisis Line (1-800-681-7444)
- Community Assistance Resource Line (C.A.R.L) (1-888-881-2323)
- The Crisis Center of Family and Children’s Service (615-244-7444)
- Dawson McAllister Hopeline (1-800-394-4673)
- The HOPE Line (1-800-SUICIDE--784-2433)
- Mental Health Cooperative Mobile Crisis Team serving Davidson County (615-726-0125)
- National Suicide Prevention Lifeline (also known as the Lifeline) (1-800-273-8255)
- Not Alone (1-888-497-0379)
- Tennessee Poison Center (1-800-222-1222)
- Tennessee Statewide Crisis Line maintained by Tennessee Department of Mental Health (1-855-274-7471)
- TREVOR Project (1-866-488-7386)
- TriStar Behavioral Health (1-877-342-1450)
- Vanderbilt Psychiatric Hospital Admissions Service (1-800-365-2270)
- Youth Villages Specialized Crisis Services (615-250-7288 or 1-866-791-9211).

There are limitations to utilizing crisis line data. Limitations include:
- Each crisis line has different data collection protocols
- Some crisis lines target specialized populations. For example, the Dawson McAllister Hopeline targets “high risk” youth ages 13-25 years, and the Not Alone line targets active military, veterans, and their families
- It is difficult to separate calls related to suicidal behavior from other mental health crises
- Call frequency may reflect multiple calls by or about the same individual

Statewide Mobile Crisis for Adults and Children/Youth

Adult Services
Tennessee has a statewide Mobile Crisis service for adults which is funded through the Tennessee Department of Mental Health (TDMH). These services are provided in Davidson County by the Mental Health Cooperative. This service is intended to divert people experiencing a mental health crisis away from the emergency room and toward more appropriate services to meet their mental health needs. Mobile Crisis has multiple levels of response, including telephone triage, a walk-in clinic, on-site face-to-face assessment in community settings and hospital emergency rooms, and a Crisis Stabilization Unit.

The limitations of using Mobile Crisis data include:
- Calls may be for psychosis that does not necessarily include suicidal behavior
- Multiple entities provide mobile crisis services across the state
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• Historically, there has not been a uniform data collection and reporting protocol. However, effective July 1, 2011 the TDMH implemented a standard protocol for data collection and reporting by all entities.

**Child and Youth Services**

Youth Villages operates a statewide Specialized Crisis Services program including telephone triage and in-person assessments for children and youth. Specialized Crisis Services focuses on determining the appropriate level of mental health services that are needed, helping children in crisis in the home and community whenever possible.

Limitations of using Youth Villages Specialized Crisis Services data include:

• Calls involve a range of mental health issues such as psychosis which are not related to suicidal behavior
• Call frequency may reflect multiple calls by or on behalf of the same individual.

**Self-Report Surveys**

Self-report surveys include information on suicidal ideation and attempts. These surveys will capture suicide attempts by less lethal means that may not require medical attention. The Youth Risk Behavior Surveillance System, the National Survey on Drug Use and Health (NSDUH), and TeenScreen include items on suicide attempts.

Limitations of this data include:

• Subjectivity and possibly less accuracy
• Biased sampling
  ➢ YRBSS and TeenScreen only survey youth that are enrolled in school
  ➢ TeenScreen requires parental consent and student assent
  ➢ TeenScreen data is available upon request, but not published
  ➢ NSDUH only captures homes with landlines, which rules out the 40% of homes in Davidson County that do not have landlines.

**Sources of Mortality Data**

The Davidson County Medical Examiner’s Office and the Tennessee Department of Health Mortality Reports and Child Death Review Committee are the primary sources for data regarding suicide deaths in Davidson County and Tennessee.

Limitations of this data include:

• Inability to determine the manner of death in some cases
• Variations in county specific data due to resource limitations by county

A summary of the data sources discussed above and their limitations can be found in Table 4.
## TABLE 4. Data Sources Considered by the Davidson County Suicide Prevention Task Force

<table>
<thead>
<tr>
<th>Source</th>
<th>Includes</th>
<th>Excludes</th>
<th>Unit of Observation</th>
<th>Challenges</th>
<th>Example of data available from this source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality Reports</td>
<td>Suicide deaths</td>
<td>Suicide attempts</td>
<td>Individual</td>
<td>• In some cases a determination of manner of death cannot be made</td>
<td>(Mortality Report, 2009) • Completed Suicides N = 82, Rate per 100,000 = 12.6</td>
</tr>
<tr>
<td>Medical Examiner’s Office</td>
<td></td>
<td></td>
<td></td>
<td>• Variations in county specific data as a result of the limitations of resources in some counties</td>
<td>• Male Rate per 100K = 19.9 • Female Rate per 100K = 6.0</td>
</tr>
<tr>
<td>Child Death Review data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(Mortality Report, 2009)</td>
</tr>
<tr>
<td>Hospital Discharge Data</td>
<td>Self-inflicted injury sufficiently severe to require hospital or emergency department care</td>
<td>Suicide attempts</td>
<td>Hospital encounters</td>
<td>• Biased toward attempts and means resulting in serious injury but not the most lethal</td>
<td>(Hospital Discharge Data, 2007) • N=768, Rate per 10K = 127.5 • Male N=320, Rate per 100K = 108.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Suicide deaths</td>
<td></td>
<td>• Does not indicate whether self-inflicted injury was intended to be fatal</td>
<td>• Female N = 448, Rate per 100K = 145.5 [31]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>VA hospitals</td>
<td></td>
<td>• Frequency may reflect multiple attempts by the same individual</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>• Cannot be matched to mortality data, so may include attempts that ultimately were fatal</td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 4. Data Sources Considered by the Davidson County Suicide Prevention Task Force

<table>
<thead>
<tr>
<th>Source</th>
<th>Includes</th>
<th>Excludes</th>
<th>Unit of Observation</th>
<th>Challenges</th>
<th>Example of data available from this source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crisis Intervention: Youth Villages Specialized Crisis Services, Mental Health Cooperative Mobile Crisis and Walk In Clinic, Centerstone Crisis Line, 1-800-273-TALK, Poison Center</td>
<td>Suicide attempts, ideation, psychotic episodes, other mental health crisis</td>
<td>• Suicide deaths&lt;br&gt;• Means in attempt or plan&lt;br&gt;• Youth Villages only includes youth&lt;br&gt;• May not collect or report demographic data</td>
<td>Encounters</td>
<td>• All agencies do not collect the same data&lt;br&gt;• Difficulty separating suicidal behavior from other crisis intervention</td>
<td>(Youth Villages 2003 – 2009): 1632 calls in Nashville. Statewide suicide risk: &lt;br&gt;• Recent act, 19.5%&lt;br&gt;• Acute risk, 2.3%&lt;br&gt;Type of call&lt;br&gt;• Harm to self, 19.2%&lt;br&gt;• Threat to self, 49.5%&lt;br&gt;[32]</td>
</tr>
<tr>
<td>Self-Report Survey: Youth Risk Behavior Survey, National Survey on Drug Use and Health, TeenScreen</td>
<td>Suicide attempts, ideation, other mental health issues</td>
<td>• Suicide deaths&lt;br&gt;• Means used in attempt&lt;br&gt;• YRBS excludes adults and youth not in high school&lt;br&gt;TeenScreen includes only students whose parents give active consent to the survey</td>
<td>Individual</td>
<td>• Self-report data is subjective, possibly less accurate, but will capture suicide attempts by less lethal means that do not require medical attention. Sampling error may also be a limitation&lt;br&gt;• Low percentage of students (&lt;50%) whose parents consent for them to participate</td>
<td>(2007 Nashville YRBSS)&lt;br&gt;• 12.3% of surveyed high school students had attempted suicide in the past 12 months&lt;br&gt;• 6.2% needed medical treatment for an attempt&lt;br&gt;[17]&lt;br&gt;(Teen Screen)&lt;br&gt;• 25% reported suicide ideation within the past year[33]</td>
</tr>
</tbody>
</table>
Conclusions and Recommendations

The DCSPTF’s work which correlates with the assessment phase of the SPF has resulted in gathering of data about suicide deaths and attempted suicides in Davidson County, and identification of several challenges to surveillance. There is no single data source for the range of suicidal behaviors (ideation, attempts, and deaths). Each data source considered by the DCSPTF captures one or more, but not all, degrees of suicidality, and each has unique strengths and limitations with respect to accuracy and completeness.

The DCSPTF recognizes the need for improved surveillance related to suicide attempts so data is available for strategy development and decision making. This aligns with Goal 11 of the NSSP: To improve and expand surveillance systems.[2]

There has been increased attention to implementing the NSSP on the national level. Subsequent to the DCSPTF convening in April 2010, the National Action Alliance for Suicide Prevention was launched in September of that year. This public-private partnership has been charged with advancing the NSSP by:

- Championing suicide prevention as a national priority
- Catalyzing efforts to implement high priority objectives of the NSSP and
- Cultivating the resources needed to sustain progress [34]

The National Action Alliance established the Data and Surveillance Task Force in 2011. The goal of this task force is to increase the timeliness and usefulness of surveillance data regarding suicide and suicidal behavior. The charge of the Data and Surveillance Task Force aligns with the interests of the DCSPTF. This presents an opportunity for collaboration with the National Action Alliance to address the surveillance challenges identified by the DCSPTF and to translate this work to the community level.

Many of the data challenges related to suicide surveillance require national action and are beyond the scope of the DCSPTF. The work of the National Action Alliance’s Data and Surveillance Task Force addresses the surveillance challenges identified by the DCSPTF. Achieving their goals and objectives, which are noted below, will reduce barriers to the development of public health suicide prevention initiatives. Therefore it is recommended that the Davidson County Suicide Prevention Task Force:

1) Support the efforts of the National Action Alliance for Suicide Prevention’s Data and Surveillance Task Force in achieving its objectives of:
   - Enhancing and expanding existing systems
     - Identify the various extant data systems that can contribute to surveillance of suicide and suicidal behaviors
Preventing Suicide in Davidson County: Perspectives and Surveillance Challenges

- Conduct surveillance on suicide that occurs across a variety of health care and other institutional settings (e.g. inpatient facilities, emergency departments, prisons)
  - Improving the quality and usefulness of the data collected.
    - Support ongoing efforts to improve the timeliness of vital statistics data
    - Establish initiatives to reduce variation in manner of death on death certificates
    - Facilitate efforts to standardize definitions and classifications of suicidal behaviors
    - Develop a procedure for measuring the impact of suicidal behavior on health care and other costs.
    - Support and facilitate efforts to link and/or share information across surveillance systems

2) Share the findings and recommendations of the DCSPTF:
   - With Commissioners of relevant state agencies and designated programs including TDOH, TDMH and TDOE
   - With local and state public officials
   - With appropriate hospital leadership, including the Tennessee Hospital Association
   - At state and local conferences, professional meetings and other appropriate venues.

3) Encourage state and local support of the work of the National Data and Surveillance Task Force by utilizing improved surveillance systems to inform policy and action in suicide prevention at the state and community level.

4) Encourage TSPN to develop a statewide survey to solicit input on the critical issues that should drive public policy initiatives and improved data collection, including local needs, trends and data gaps.

5) Promote Tennessee’s adoption of the National Violent Death Reporting System (NVDRS), a state-based surveillance system that compiles data from death certificates, police reports, and coroner or medical examiner reports from participating states into a useable, anonymous database. The data is available for use by state and local violence prevention agencies to guide their prevention projects. TDOH has applied for inclusion in NVDRS twice previously, most recently in 2009. Because of TSPN’s mission of suicide prevention, the National Violence Prevention Network invited TSPN to send a delegation to meet with members of Tennessee’s Congressional delegation and obtain their support for renewed NVDRS funding. Since no members of TSPN were available to travel to Washington, the agency submitted certified letters to
Tennessee’s Congressional representatives supporting the NVDRS. TSPN has assured TDOH of its full support if funding is available for states to apply.

6) Seek improvements in E-coding procedures:
   • Encourage voluntary quality improvement among providers with respect to E-coding
   • Encourage the Joint Commission to set reporting of E-codes as a quality indicator for hospital accreditation

7) Advocate for provider education when new coding initiatives are launched which impact suicide data collection such as ICD-10CM and DSM-V.

8) Develop mechanisms to encourage community entities to share suicide related data as appropriate.

9) Encourage collaborative grant proposals to local funding sources to support data analysis and documenting best practices adopted by communities.

10) Recommend the Data and Surveillance Task Force convene a national Consensus Forum to determine the percentage of under-reporting of suicides and suicidal behaviors by any state and establish a percentage increase to be applied based upon the Consensus Conference findings.

11) Use the Center for Disease Control’s social-ecological model for shared risk factors for interpersonal violence, including suicide, for possible insight into local suicide prevention projects. This four-level model shows the interplay between individual, relationship, community, and societal factors related to suicide and other acts of violence. Analysis of this model will allow us to address factors that put people at risk for suicide and suicide attempts.
Appendix 1

Strategic Prevention Framework: Overview

Background: President Bush called on the U.S. Department of Health and Human Services (HHS) to realize his vision of a Healthier US in which its citizens use the power of prevention to help lead longer, healthier lives. Today, HHS is using the power of prevention to help prevent, delay, and/or reduce disability from chronic disease and illnesses, including substance abuse and mental illnesses, which take a toll on health, education, workplace productivity, community engagement, and overall quality of life. Research has shown that a broad array of evidence-based programs can effectively prevent substance abuse, promote mental health, and prevent related health and social problems by reducing risk factors and increasing protective factors. SAMHSA’s National Registry of Evidence-based Programs and Practices (NREPP) (www.nrepp.samhsa.gov) identifies proven programs that work.

Barriers to Effective Prevention: All too often, individuals, communities, or State and Federal agencies do not translate into action what is known about prevention. The result is increased health care costs, lost education and employment opportunities, disability, and lost lives. Efforts to promote prevention have been hindered, in part, by insufficient collaboration and coordination to accomplish what needs to be done. Separate funding silos and the absence of a common strategic prevention framework have frustrated the kind of cross-program and cross-system approach that health promotion and disease prevention demand.

Strategic Prevention Framework: The Strategic Prevention Framework (SPF) changes SAMHSA’s approach to prevention, and helps move the President’s vision of a Healthier US to State and community-based action. The SPF is built on a community-based risk and protective factors approach to prevention and a series of guiding principles that can be utilized at the federal, State/tribal and community levels.

The SPF requires States and communities to systematically:

1. Assess their prevention needs based on epidemiological data,
2. Build their prevention capacity,
3. Develop a strategic plan,
4. Implement effective community prevention programs, policies and practices, and
5. Evaluate their efforts for outcomes.
Although the direct recipients of SPF State Incentive Grants (SIGs) funds are States and federally recognized tribes and tribal organizations, SAMHSA envisions the SPF SIGs being implemented in partnerships between the States/tribes and communities.

**How It Works:** SAMHSA has funded 34 States, 5 tribes/tribal organizations, and 3 Territories to adopt and implement the SFP to deliver and sustain effective substance abuse prevention and mental health promotion programs in their communities. These grantees must leverage and coordinate all prevention-related sources of funding, including the 20 percent prevention Substance Abuse Block Grant set-aside and other resources.

[https://www.pmrts.samhsa.gov/pmrts/CSAPdocs/spf_overview.doc](https://www.pmrts.samhsa.gov/pmrts/CSAPdocs/spf_overview.doc)
Appendix 2

Acronyms

AIM…Awareness, Intervention, and Methodology
APA…American Psychiatric Association
CDC…Centers for Disease Control and Prevention
DCSPTF…Davidson County Suicide Prevention Task Force
DSM…Diagnostic and Statistical Manual of Mental Disorders
E-Code…External Cause of Injury Code
HHS…United States Department of Health and Human Services
JCAHO…Joint Commission for the Accreditation of Hospitals
ICD-CM…International Classification of Diseases Clinical Modification
MHMD…Mental Health and Mental Disability
NREPP…National Registry of Evidence-based Programs and Practices
NSDUH…National Survey on Drug Use and Health
NSSP…National Strategy for Suicide Prevention
NVDRS…National Violent Death Reporting System
SAMHSA…Substance Abuse and Mental Health Services Administration
SIG…State Incentive Grant
SPRC…Suicide Prevention Resource Center
SPF…Strategic Prevention Framework
TCA…Tennessee Code Annotated
TDMH…Tennessee Department of Mental Health
TDOE…Tennessee Department of Education
TDOH…Tennessee Department of Health
TSPN…Tennessee Suicide Prevention Network
YRBSS…Youth Risk Behavior Surveillance System
References


