Suicide Trends & Prevention

Our vision: No lives lost to suicide
National Center for Injury Prevention and Control

Deb Stone, ScD, MSW, MPH
Lead Behavioral Scientist/Team Lead
Suicide Prevention Team
National Center for Injury Prevention and Control
Suicide and Suicidal Behavior, United States, 2020

Nearly 46,000 people died by suicide in 2020

Many adults think about suicide or attempt suicide

12.2 million Seriously thought about suicide

3.2 million Made a plan for suicide

1.2 million Attempted suicide

Among high school students during COVID-19:

20% Seriously thought about suicide

15% Made a plan for suicide

9% Attempted suicide

https://www.cdc.gov/injury/wisqars/fatal.html

https://www.samhsa.gov/data/

https://www.cdc.gov/healthyyouth/data/abes/tables/index.htm
# Leading Causes of Death by Race/Ethnicity, All Ages – United States, 2020

<table>
<thead>
<tr>
<th>Rank</th>
<th>Non-Hispanic White</th>
<th>Non-Hispanic Black</th>
<th>Non-Hispanic American Indian/Alaska Native</th>
<th>Non-Hispanic Asian/Pacific Islander</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Heart Disease</td>
<td>Heart Disease</td>
<td>COVID-19</td>
<td>Cancer</td>
<td>COVID-19</td>
</tr>
<tr>
<td>2</td>
<td>Cancer</td>
<td>Cancer</td>
<td>Heart Disease</td>
<td>Heart Disease</td>
<td>Heart Disease</td>
</tr>
<tr>
<td>3</td>
<td>COVID-19</td>
<td>COVID-19</td>
<td>Cancer</td>
<td>COVID-19</td>
<td>Cancer</td>
</tr>
<tr>
<td>4</td>
<td>Unintentional Injuries</td>
<td>Unintentional Injuries</td>
<td>Unintentional Injuries</td>
<td>Stroke</td>
<td>Unintentional Injuries</td>
</tr>
<tr>
<td>5</td>
<td>Chronic Low Respiratory Disease</td>
<td>Stroke</td>
<td>Liver Disease</td>
<td>Diabetes</td>
<td>Stroke</td>
</tr>
<tr>
<td>6</td>
<td>Stroke</td>
<td>Diabetes</td>
<td>Diabetes</td>
<td>Unintentional Injuries</td>
<td>Diabetes</td>
</tr>
<tr>
<td>7</td>
<td>Alzheimer's Disease</td>
<td>Homicide</td>
<td>Chronic Low Respiratory Disease</td>
<td>Alzheimer's Disease</td>
<td>Alzheimer's Disease</td>
</tr>
<tr>
<td>8</td>
<td>Diabetes</td>
<td>Chronic Low Respiratory Disease</td>
<td>Stroke</td>
<td>Chronic Low Respiratory Disease</td>
<td>Liver Disease</td>
</tr>
<tr>
<td>9</td>
<td>Influenza &amp; Pneumonia</td>
<td>Alzheimer's Disease</td>
<td>Suicide</td>
<td>Influenza and pneumonia</td>
<td>Chronic Low Respiratory Disease</td>
</tr>
</tbody>
</table>

**Source:** CDC Vital Statistics
# Leading Causes of Death by Age Group – United States, 2020

<table>
<thead>
<tr>
<th>Rank</th>
<th>10-14 Years</th>
<th>15-24 Years</th>
<th>25-34 Years</th>
<th>35-44 Years</th>
<th>45-54 Years</th>
<th>55-64 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unintentional Injury</td>
<td>Unintentional Injury</td>
<td>Unintentional Injury</td>
<td>Unintentional Injury</td>
<td>Cancer</td>
<td>Cancer</td>
</tr>
<tr>
<td>2</td>
<td>Suicide</td>
<td>Homicide</td>
<td>Suicide</td>
<td>Heart Disease</td>
<td>Heart Disease</td>
<td>Heart Disease</td>
</tr>
<tr>
<td>3</td>
<td>Cancer</td>
<td>Suicide</td>
<td>Homicide</td>
<td>Cancer</td>
<td>Unintentional Injury</td>
<td>COVID-19</td>
</tr>
<tr>
<td>4</td>
<td>Homicide</td>
<td>Cancer</td>
<td>Heart Disease</td>
<td>Suicide</td>
<td>COVID-19</td>
<td>Unintentional Injury</td>
</tr>
<tr>
<td>5</td>
<td>Congenital Malformations</td>
<td>Heart Disease</td>
<td>Cancer</td>
<td>COVID-19</td>
<td>Liver Disease</td>
<td>Chronic Lung Disease</td>
</tr>
<tr>
<td>6</td>
<td>Heart Disease</td>
<td>COVID-19</td>
<td>COVID-19</td>
<td>Liver Disease</td>
<td>Diabetes</td>
<td>Diabetes</td>
</tr>
<tr>
<td>7</td>
<td>Chronic Lung Disease</td>
<td>Congenital Malformations</td>
<td>Liver Disease</td>
<td>Homicide</td>
<td>Suicide</td>
<td>Liver Disease</td>
</tr>
<tr>
<td>8</td>
<td>Diabetes, Influenza &amp; Pneumonia</td>
<td>Diabetes</td>
<td>Diabetes</td>
<td>Diabetes</td>
<td>Cerebrovascular Disease</td>
<td>Cerebrovascular Disease</td>
</tr>
<tr>
<td>9</td>
<td>Diabetes, Influenza &amp; Pneumonia</td>
<td>Chronic Lung Disease</td>
<td>Cerebrovascular Disease</td>
<td>Cerebrovascular Disease</td>
<td>Chronic Lung Disease</td>
<td>Suicide</td>
</tr>
</tbody>
</table>

Source: CDC Vital Statistics
Age-adjusted Suicide Rates by Race/Ethnicity and Sex--
United States, 2000 and 2020

Note: White, Black, A/PI, and AI/AN are non-Hispanic with Hispanic including all races.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2020 on CDC WONDER Online Database, released in 2021.
Suicide Rates by Age Group and Sex—United States, 2000 and 2020

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2020 on CDC WONDER Online Database, released in 2021.
Suicide Rate Among All Persons by Sex – United States, 1933–2020

Source: CDC Vital Statistics
Suicide Rates by State, 2020

Source: CDC Vital Statistics

Suicide by Method – United States, 2020

- Firearm: 52.8%
- Suffocation: 27.2%
- Poisoning: 12.0%
- Fall: 2.3%
- Cut/Pierce: 2.0%
- Other: 3.7%

Source: CDC Vital Statistics
Suicide Risk Factors
Many factors contribute to suicide in addition to known mental health conditions.

- Crisis in the past or upcoming two weeks: 42%
- Physical health problem: 22%
- Job/Financial problem: 16%
- Criminal/Legal problem: 9%
- Relationship problem: 29%
- Problematic substance use: 28%
- Loss of housing: 4%

Many factors contribute to suicide risk

Social Ecological Model

Risk Factors

Societal
- Easy access to lethal means
- Geography
- Economy
- Cultural values

Community
- Spirituality
- Incarceration
- Social isolation vs support

Relationship
- Family history of suicide or suicide attempts
- Exposure to violence

Individual
- Age
- Sex
- Mental illness
- Substance misuse
- Stressful life events
Potential Contributors to Suicide Risk During COVID-19

Based on past disasters and current trends, impacts of COVID-19 may increase suicide risk by way of:

- New or worsening mental health concerns (such as anxiety, depression)
- Financial strain due to unemployment or economic downturn
- Social distancing/isolation
- Increased interpersonal violence, including partner violence, Adverse Childhood Experiences (ACEs)
- Increased substance use
- Trauma associated with COVID-related deaths (among healthcare workers or other essential workers)
During late June, 40% of U.S. adults reported struggling with mental health or substance use.*

- Anxiety/depression symptoms: 31%
- Trauma/stressor-related disorder symptoms: 26%
- Started or increased substance use: 13%
- Seriously considered suicide**: 11%

*Based on a survey of U.S. adults aged ≥18 years during June 24-30, 2020
**In the 30 days prior to survey

For stress and coping strategies: bit.ly/dailylifecoping

Source: https://www.cdc.gov/mmwr/volumes/69/wr/mm6932a1.htm
Emergency department visits for suspected suicide attempts among U.S. girls ages 12–17 have increased during the COVID-19 pandemic.

February–March 2021

51% ↑
From the same period in 2019

* After an initial drop

CDC.GOV

Suicide can be prevented
- Increase social connections for youth
- Teach youth coping skills
- Learn the signs of suicide risk and how to respond
- Reduce access to lethal means (like medications and firearms)

Help is available 24/7 at suicidepreventionlifeline.org

bit.ly/MMWR61121

Youth Suicide Risk During COVID-19
CDC’s Strategy for Suicide Prevention
Our Vision & Mission

Vision
No lives lost to suicide

Mission
Use data, science, and partnerships to identify and implement effective suicide prevention strategies to foster healthy and resilient communities across the United States
Our Suicide Prevention Priorities

Data

Build the foundation for CDC’s National Suicide Prevention Program

Science

Identify risk and protective factors and effective policies, programs, and practices for suicide prevention in vulnerable populations

Action

Develop and implement wide-reaching partnership and communication strategies to raise awareness and advance suicide prevention activities

Collaboration

Use new and existing data to better understand, monitor, and prevent suicide and suicidal behavior

Data

Use new and existing data to better understand, monitor, and prevent suicide and suicidal behavior
CDC’s Comprehensive Suicide Prevention (CSP) Program
To implement and evaluate a comprehensive public health approach to suicide prevention to reduce suicide morbidity and mortality, with specific attention to one or more vulnerable populations.

Disproportionately Affected Populations

- Represent a significant proportion of the suicide burden (i.e., large number of suicides)
- Suicide/attempt rates greater than general population, in a jurisdiction (e.g., state, city/county, tribe)
- Examples: veterans, tribal populations, rural communities, LGBTQ, youth, other

A key outcome is a 10% reduction in suicide morbidity and mortality in the disproportionately affected population(s) in the jurisdiction(s).
Activity 1: Develop the Comprehensive Approach

1. Multi-sectoral partnership plan

2. Surveillance data to select vulnerable population(s) and to understand circumstances of suicide in the population(s)

3. Inventory of ongoing suicide prevention programs in the jurisdiction(s) and identify prevention gaps and opportunities

4. Strategies & approaches from CDC's Suicide Prevention Technical Package

5. Communication and dissemination plan
What is a technical package?

A technical package includes a select group of strategies based on the best available evidence to help communities and states sharpen their focus on priorities with the greatest potential to prevent suicide.

**Strategies**

Broad direction to achieve goal of suicide prevention

**Approaches**

Ways to advance the strategies

- Best available evidence
  - Programs
  - Practices
  - Policies
# CDC’s Suicide Prevention Technical Package: Strategies & Approaches

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Strengthen economic supports</td>
<td>• Strengthen household financial security</td>
</tr>
<tr>
<td>2 Strengthen access and delivery of suicide care</td>
<td>• Housing stabilization policies</td>
</tr>
<tr>
<td>3 Create protective environments</td>
<td>• Coverage of mental health conditions in health insurance policies</td>
</tr>
<tr>
<td>4 Promote connectedness</td>
<td>• Reduce provider shortages in underserved areas</td>
</tr>
<tr>
<td>5 Teach coping and problem-solving skills</td>
<td>• Safer suicide care through system change</td>
</tr>
<tr>
<td>6 Identify and support people at risk</td>
<td>• Reduce access to lethal means among persons at-risk of suicide</td>
</tr>
<tr>
<td>7 Lessen harms and prevent future risk</td>
<td>• Organizational policies and culture</td>
</tr>
</tbody>
</table>

### Strategy 1: Strengthen economic supports
- Strengthen household financial security
- Housing stabilization policies

### Strategy 2: Strengthen access and delivery of suicide care
- Coverage of mental health conditions in health insurance policies
- Reduce provider shortages in underserved areas
- Safer suicide care through system change

### Strategy 3: Create protective environments
- Peer norm programs
- Community engagement activities

### Strategy 4: Promote connectedness
- Social-emotional learning programs
- Parenting skill and family relationship approaches

### Strategy 5: Teach coping and problem-solving skills
- Gatekeeper training
- Crisis intervention
- Treatment for people at-risk of suicide
- Treatment to prevent re-attempts

### Strategy 6: Identify and support people at risk
- Postvention (activities that reduce risk and promote healing after a suicide death)
- Safe reporting and messaging about suicide

---

23
1. California Department of Public Health
2. Colorado Department of Public Health and Environment
3. Connecticut Department of Public Health
4. Louisiana Department of Health
5. Maine Department of Health and Human Services
6. Massachusetts Department of Public Health
7. Michigan Department of Health and Human Services
8. North Carolina Department of Health and Human Services
9. Tennessee Department of Health
10. University of Pittsburgh
11. Vermont Department of Health
CDC is Strategically Implementing Suicide Prevention Programs

Tribal Suicide Prevention

Comprehensive Suicide Prevention

ED SNSRO Funded States

ED SNSRO--Emergency Department Surveillance of Nonfatal Suicide Related Outcomes
The State of State, Territorial, and Tribal Suicide Prevention: Findings from a Web-Based Survey

https://www.cdc.gov/suicide/resources/sos.html
<table>
<thead>
<tr>
<th>Topic of suicide prevention legislation passed 2012-2017</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 suicide prevention</td>
<td>76.5</td>
</tr>
<tr>
<td>Crisis support services</td>
<td>39.2</td>
</tr>
<tr>
<td>Mental health parity/ insurance coverage</td>
<td>39.2</td>
</tr>
<tr>
<td>Military/veteran support</td>
<td>37.3</td>
</tr>
<tr>
<td>Funding appropriation for suicide prevention</td>
<td>37.3</td>
</tr>
<tr>
<td>Public awareness campaigns</td>
<td>35.3</td>
</tr>
<tr>
<td>Behavioral health services</td>
<td>31.4</td>
</tr>
<tr>
<td>Health/Mental health provider training/ed</td>
<td>29.4</td>
</tr>
<tr>
<td>Suicide prevention capacity or infrastructure</td>
<td>27.5</td>
</tr>
<tr>
<td>Lethal means</td>
<td>25.5</td>
</tr>
<tr>
<td>Prevention planning/implementation/evaluation</td>
<td>25.5</td>
</tr>
<tr>
<td>Public/private partnership (e.g., commission)</td>
<td>21.6</td>
</tr>
<tr>
<td>Graduate training requirements in suicide prev.</td>
<td>11.8</td>
</tr>
<tr>
<td>Workplace suicide prevention</td>
<td>5.9</td>
</tr>
</tbody>
</table>
## Results – Top Barriers for Suicide Prevention

<table>
<thead>
<tr>
<th>Barriers</th>
<th>States</th>
<th>Territories</th>
<th>Tribes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of sufficient funding</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of adequate staffing</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Lack of surveillance resources</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Lack of suicide prevention legislation and policies</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Lack of coordination and integration of services</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
## Results – Top Facilitators

<table>
<thead>
<tr>
<th>Facilitators</th>
<th>States</th>
<th>Territories</th>
<th>Tribes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased awareness of suicide as a public health issue</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>The National Strategy for Suicide Prevention</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Federal and national guidance materials</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partnerships across key sectors</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surveillance resources</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Funding dedicated to suicide prevention</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Strategic plans</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
Additional Resources & Links

**Technical package**

**CDC’s Veto Violence Website**
*Information on selecting/implementing strategies in the technical package.*

**Transforming Communities:**
**Key elements for comprehensive community-based suicide prevention**

**CDC Evaluation Framework**
www.cdc.gov/eval/framework/

**CDC Welcome Packet**
www.cdc.gov/grants/welcome-packet/

**CDC Suicide Prevention Strategic Plan**
www.cdc.gov/violenceprevention/suicide/strategic-plan/

**CDC Suicide Data Sources**
www.cdc.gov/injury/wisqars/
Thank you!

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348
www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
Extra Slides
Suicide Rates by Age and Sex – United States, 2020

Source: CDC Vital Statistics
Suicide among all persons by selected age groups – United States, 1999-2019

Source: CDC Vital Statistics
Public Health Approach to Suicide Prevention

The public health approach seeks to answer the foundational questions:

- What is the problem?
- How can we prevent it from occurring?

To answer these questions, public health uses a systematic, scientific method for understanding and preventing suicide.

1. Assess the problem
   Who, What, Where

2. Identify causes
   Why

3. Develop and test programs and policies
   What works

4. Disseminate and implement
   How to do it
SOS Purpose

• CDC conducted an environmental scan in 2018. The scan had six main objectives:

• Identify, document, and synthesize information about state, territorial, and tribal (STT) policies, programs, infrastructure, and other prevention activities
• Describe climate around suicide prevention
• Identify barriers/facilitators to implementing prevention strategies
• Identify how these factors may relate to variation in suicide rates
• Provide insight into suicide rate increases
• Share lessons learned
SOS Methods

• Eligible participants
  ▪ Up to 3 representatives per STT jurisdiction
  ▪ Suicide prevention coordinators, grant program directors, other state officials, delegates

• Survey
  ▪ Web-based, hosted in Epi Info
  ▪ 54 questions, covering 10 domains

• Analysis
  ▪ SPSS statistical software
  ▪ Results weighted to the state, territorial, and tribal levels
  ▪ 138 respondents-- 87 (states), 6 (territories), 45 (tribes)

Domains

1. Awareness of recent suicide trends
2. Data sources
3. Infrastructure*
4. Prevention planning*
5. Collaboration
6. Legislation/policy*
7. Prevention readiness/capacity
8. Populations addressed
9. Risk & protective factors
10. Barriers & facilitators*