Understanding the Connection Between Suicide and Substance Abuse: What the Research Tells Us

September 11, 2014
2:00-3:30 PM EST

A Collaboration between SAMHSA’s Center for Substance Abuse Prevention and SAMHSA’s Center for Mental Health Services

Presenters:
Craig Love, Chief Epidemiologist, Center for the Application of Prevention Technologies (CAPT)
Laurie Davidson, Senior Project Director, Suicide Prevention Resource Center (SPRC)
Maria Valenti, Epidemiologist, Center for the Application of Prevention Technologies (CAPT)
Lobby Poll # 1

Mental and substance use disorders will surpass all physical diseases as a major cause of disability worldwide by what year?

a) 2015  
b) 2020  
c) 2050  
d) 2080
Facilitator

Chuck Klevgaard
Coordinator
Central Resource Team
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This training was developed under the Substance Abuse and Mental Health Services Administration’s Center for the Application of Prevention Technologies contract reference #HHSS277200800004C, in collaboration with the Center for Mental Health Services.

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Recording

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Agenda

• Understanding the Connection Between Substance Abuse and Suicide

• What do the Data Tell Us?

• Using the Socio-ecological Model to Understand the role of Shared Risk and Protective Factors in Prevention

• An Introduction to Interdisciplinary Collaboration
Objectives for Today

By the end of this webinar, participants will be able to:

• Explain the connections between substance abuse and suicide
• Describe how various data substantiate these connections
• Describe the four levels of the Socio-Ecological Model
• List shared risk and protective factors for substance abuse and suicide
Presenters

Laurie Davidson
Manager, Provider Initiatives, SPRC

Craig Love
Chief of Epidemiology, CAPT

Maria Valenti
Epidemiologist
Central Resource Team, CAPT
Opening Remarks

Richard McKeon, Ph.D.
Chief
Suicide Prevention Branch
Center for Mental Health Services
Understanding the Connections Between Substance Abuse and Suicide
Which of these are supported by research findings?

1. Alcohol use precedes depression in youth. ¹
2. A higher minimum legal drinking age is associated with lower suicide rates. ²
3. The effect that marijuana has on sleep may be a factor in increasing suicide risk. ³
4. Consequences of substance use can be risk factors for suicide. ⁴
5. All of the Above
Substance Abuse and Suicide: Where the Two Intersect

Intersection
Substance Use Disorders: Comorbidity and Suicide

- Suicide is the leading cause of death among people with substance use disorders (SUDs).\(^5\)

- Comorbidity—or co-occurring mental illness and substance abuse disorders—increases the risk even further.\(^5\)
Alcohol Abuse and Suicide

- Compared to the general population, people treated for alcohol abuse or dependence are at about ten times greater risk for suicide.\(^6\)

- Alcohol is present in about 30 to 40 percent of suicides and suicide attempts.\(^5\)
Substance Abuse and Suicide

- Over 200,000 emergency department visits resulted from drug-related suicide attempts in 2011.\(^7\)

- Drug-related suicide attempts rose 41\% between 2004 and 2011.\(^7\)
The Connection Between Substance Use and Suicide

Substance Use

Suicide-Related Behavior
The Connection Between Substance Use and Suicide

Substance Use

Depression and Anxiety

Suicide-Related Behavior
The Connection Between Substance Use and Suicide

Substance Use

Depression

Suicide-Related Behavior
The Connection Between Substance Use and Suicide

- Substance Use
- Depression
- Other Risk Behaviors (Alcohol-Related Consequences)
- Suicide-Related Behavior
What Do the Data Tell Us?
Substance Abuse and Suicide Epidemiology

Intersection
SUD, Comorbidity, and Suicide Data
Comorbidity: Past-Year SUD and Mental Illness

- 20.7 million Adults had SUD
- 35.3 million Adults had Mental Illness
- 12.3 million had SUD, No Mental Illness
- 8.4 million had Mental Illness, No SUD
- 43.7 million had SUD and Mental Illness
## Comorbidity and Suicide

Percentage of Adults Reporting Past-year Suicidal Thoughts, Plans, Attempts, by Substance Use Disorder Status: NSDUH, 2011

<table>
<thead>
<tr>
<th>Disorder Status</th>
<th>Thoughts</th>
<th>Plans</th>
<th>Attempts</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Adults</td>
<td>3.7</td>
<td>1.0</td>
<td>.5</td>
</tr>
<tr>
<td>SUD</td>
<td>11.2</td>
<td>3.6</td>
<td>1.9</td>
</tr>
<tr>
<td>Alcohol Use Disorder</td>
<td>10.7</td>
<td>3.5</td>
<td>1.8</td>
</tr>
<tr>
<td>Illicit Drug Use Disorder</td>
<td>16.4</td>
<td>6.1</td>
<td>3.3</td>
</tr>
<tr>
<td>Co-occurring Mental Illness and SUD</td>
<td>30.7</td>
<td>10</td>
<td>5.4</td>
</tr>
</tbody>
</table>

N = 55,268
Suicidal Thoughts and Behavior Among Adults Who Used Substances

Percent with Suicidal Thoughts in the Past Year among Adults Aged 18 or Older, by Past-Year Use: NSDUH 2012

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent with Suicidal Thoughts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonmedical Users of Sedatives</td>
<td>20.9%*</td>
</tr>
<tr>
<td>Nonmedical Users of Stimulants</td>
<td>18.1%*</td>
</tr>
<tr>
<td>Nonmedical Users of Tranquilizers</td>
<td>14.0%*</td>
</tr>
<tr>
<td>Nonmedical Users of Pain Relievers</td>
<td>13.0%*</td>
</tr>
<tr>
<td>Users of Marijuana</td>
<td>9.6%*</td>
</tr>
<tr>
<td>Users of Any Illicit Drug</td>
<td>9.4%*</td>
</tr>
<tr>
<td>All Adults</td>
<td>3.9%</td>
</tr>
</tbody>
</table>
Suicidal Thoughts and Behavior Among American Indian/Alaska Native Adults Who Used Substances

Percent of AI/AN Adults Aged 18 or Older with Suicidal Thoughts in the Past Year: NSDUH 2012

<table>
<thead>
<tr>
<th>Substance Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonmedical Users of Sedatives</td>
<td>7.8%</td>
</tr>
<tr>
<td>Nonmedical Users of Stimulants</td>
<td>4.8%</td>
</tr>
<tr>
<td>Nonmedical Users of Tranquilizers</td>
<td>2.7%</td>
</tr>
<tr>
<td>Nonmedical Users of Pain Relievers</td>
<td>10.6%</td>
</tr>
<tr>
<td>Users of Marijuana</td>
<td>9.4%</td>
</tr>
<tr>
<td>Users of Any Illicit Drug</td>
<td>9.8%</td>
</tr>
<tr>
<td>All AI/AN Adults</td>
<td>6.3%</td>
</tr>
</tbody>
</table>
Handout: Suicide among Racial/Ethnic Populations in the U.S.: American Indians/Alaska Natives

This fact sheet is one in a series that summarizes data and research on suicidal behavior among particular racial and ethnic populations. The term American Indians/Alaska Natives (AI/AN) encompasses many ethnic and cultural groups, tribes, and traditions. We use the term here because it is what is used in most national data sets and research. Not all of the facts below apply to all of the subgroups. The Office of Management and Budget defines American Indian or Alaska Native as a person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment. In 2013, AI/AN people comprised an estimated 1.2% of the U.S. population.

The U.S. Census and national suicide-related data sets categorize data by individual racial groups, (e.g., AI/AN, White) and by one non-specific "other" or "multiple race" category. Therefore, the data in this sheet refer to individuals who classify themselves only as AI/AN and not to those who classify themselves as both AI/AN and of another racial/ethnic background.

U.S. Suicide Rates, 1999 to 2010
American Indian/Alaskan Native and Total Population

![Graph showing suicide rates from 1999 to 2010 for American Indian/Alaskan Natives and total population.](image)
Alcohol Dependence and Suicide


- 67% No Alcohol Dependence or Substance Abuse
- 18% Alcohol Dependence
- 15% Other Substance Abuse Problems

N=10,444
Percentage of Suicides Among AI/AN by Precipitating Circumstances: National Violent Death Reporting System, 17 states, 2011

- No Alcohol Dependence or Substance Abuse: 65%
- Alcohol Dependence: 26%
- Other Substance Abuse Problems: 9%

N=168
Alcohol Consumption and Suicidal Behavior

Percentage of U.S. Students Planning and Attempted Suicide by Drinking Status: Youth Risk Behavior Survey (YRBS), 2013

- Non-Drinker:
  - Planned: 28%
  - Attempted: 14.60%

- Current Drinker/No Binge:
  - Planned: 29.7%
  - Attempted: 26.4%

- Binge Drinker:
  - Planned: 70.3%
  - Attempted: 73.6%

N=22,226
Substance Dependence or Abuse and Depression Among the General Population and American Indian/Alaska Native Youths

Ages 12 to 17, by Major Depressive Episode in Past Year: NSDUH, 2012

- General population
- AI/AN

- Substance Dependence or Abuse: 16.0% (General population) vs. 39.0% (AI/AN)
- Drug Dependence or Abuse: 11.0% (General population) vs. 17.0% (AI/AN)
- Alcohol Dependence or Abuse: 9.3% (General population) vs. 20.0% (AI/AN)
Poll: Utilizing the Data

Which audiences in your community need to understand these data the most?

a) Parents  
b) Primary care practitioners  
c) School and College/University Faculty  
d) Behavioral Health providers  
e) Youth serving organizations
Using the Socio-ecological Model to Understand the role of Shared Risk and Protective Factors in Prevention
Risk and Protective Factors

**Risk Factors**
Characteristics or conditions that precede and are associated with a higher likelihood of problem outcomes.

**Protective Factors**
Characteristics or conditions that lower the likelihood of problem outcomes, or that reduce the negative impact of a risk factor.
Shared Risk and Protective Factors

Shared Risk Factors

Substance Abuse

Suicide

Shared Protective Factors
Socio-Ecological Model and Risk and Protection\textsuperscript{14,15}

- **Shared Risk Factors**
- **Shared Protective Factors**

![Diagram of Socio-Ecological Model](image-url)
Examples: Shared Individual/Relationship Risk Factors

- Adverse Childhood Experiences\textsuperscript{16-19}
- Under- or Unemployment\textsuperscript{20,21}
- Mood Disorders\textsuperscript{20,23}

Shared Risk Factors

- Societal
- Community
- Relationship
- Individual
Examples: Shared Community Risk Factors

Chronic Community Disorganization\textsuperscript{24,25}

Shared Risk Factors
Examples: Shared Societal Risk Factors

Perceived Discrimination\textsuperscript{26,27}, Acculturation\textsuperscript{26,28}, Historical Trauma\textsuperscript{29,30}
Shared Individual Protective Factors

Religiosity\textsuperscript{31,32}, Self-Regulation or Coping Ability\textsuperscript{33-37}
Shared Relationship Protective Factors

Connectedness to Individuals and Family Social Support$^{38-44}$
Shared Community Protective Factors

- Supportive School Staff/Environment
- Effective Classroom Management

Shared Protective Factors

Societal → Community → Relationship → Individual
Shared Societal Protective Factors

Cultural Norms and Practices$^{27,30,45,49}$
Collaborating Across Disciplines: An Introduction
Poll Question: Intervention

Poll 1:
Select the benefit to collaborating across disciplines that is most important to you?
- Greater impact on individuals
- Better use of resources
- Generating new partnerships
- Solving behavioral health problems in new ways

Poll 2:
Select the challenge to collaborating across disciplines that most frequently gets in the way
- Turf issues
- Lack of time
- Perception it will take too long
- Lack of Leadership
- Different languages
Questions?

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Manager, Provider Initiatives, SPRC

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Central Resource Team, CAPT
Objectives for Next Webinar

• Present best practices and interventions for addressing shared risk and protective factors for substance abuse and suicide

• Share strategies for overcoming challenges to collaborating across disciplines to address substance abuse and suicide prevention
References


