Me
Suicide in the United States – What does Vital Statistics tell us?

2000-2011 US Suicide Injury Rate per 100,000 by Age Cohort

Data Source: NCHS Vital Statistics
Risk & Protective Factors

- Mental disorder
- Hopelessness
- Impulsivity
- Access to means
- Isolation
- Barriers to care
- Stigma
- Effective care
- Access to care
- Support for help-seeking
- Restricted access to means
- Community support
- Problem solving skills

From the Centers for Disease Control and Prevention website, Violence Prevention/Suicide
Purpose

• Risk factors for suicidal children younger than 12 years of age may be different from adolescents and adults.

• This study describes the characteristics of prepubescent children who died by suicide.
  – Compare this group to early adolescent (ages 12-14) and late adolescent (ages 15-18) youth.
Methods

• Analysis of 2004 to 2012 child death review data from the National Child Death Review Case Reporting System (CDR-CRS) from 29 states.
• Computed frequencies and proportions for child, caregiver, and incident characteristics.
• Chi square analyses conducted to assess whether age cohorts differed significantly for covariates (risk factors) ($\alpha = .05$).
What is Child Death Review?

- Child death review (CDR) is a process in which multidisciplinary teams share information on child death events and identify risk factors in these deaths.
- Goal is to understand why children die in order to take action to prevent other deaths.
CDR: Where Good Shift Happens

Moving from Bad things happen to We can prevent this

It’s all about prevention!!
Child Death Review Case Reporting System

By the Numbers...

- 43 states using the System
- Over 1050 CDR teams have recorded a death in the System
- More than 141,000 deaths have been entered:
  - 53% infants
  - 75% cases from 2005-2013
  - 59% males
  - 50% natural deaths; 24% accidental deaths; 4% suicidal deaths
- De-identified data set available to researchers
Results: Demographics

<table>
<thead>
<tr>
<th>Sex and Race/Ethnicity of Suicide Completers</th>
<th>Ages &lt;12 (n=97)</th>
<th>Ages 12-14 (n=572)</th>
<th>Ages 15-18 (n=2092)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Male</td>
<td>68</td>
<td>70.1</td>
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<td>Other Race</td>
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<td>7.2</td>
<td>34</td>
</tr>
<tr>
<td>Unknown</td>
<td>6</td>
<td>6.2</td>
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</table>
### Results: Demographics

#### Sex and Race/Ethnicity of Suicide Completers

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<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>68</td>
<td>80</td>
<td>68</td>
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<tr>
<td><strong>Race/Ethnicity</strong></td>
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<tr>
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<td>16</td>
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<td>1372</td>
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<td>Other Race</td>
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<tr>
<td>Unknown</td>
<td>6</td>
<td>18</td>
<td>66</td>
</tr>
</tbody>
</table>

**Vital Statistics Data, 2004-2011**
Results: Demographics (continued)

- The mean age for young suicide completers was 10.1 years of age.
- The primary caregiver was the child’s biological parent in 85% of these deaths.
- 91% of the prepubescent youth died by suicide at home.
- Over one quarter of prepubescent youth had history of child maltreatment.
Results: Means

Suicide Means, Ages <12
- Asphyxia: 81%
- Firearms: 10%
- Poisoning: 1%
- Other: 8%

Suicide Means, Ages 12-14
- Asphyxia: 58%
- Firearms: 29%
- Poisoning: 5%
- Other: 8%

Suicide Means, Ages 15-18
- Asphyxia: 47%
- Firearms: 37%
- Poisoning: 6%
- Other: 10%
Results: Means

Suicide Means, Ages <12
- Asphyxia: 81%
- Firearms: 12%
- Other: 8%
- Poisoning: 1%

Suicide Means, Ages 12-14
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Suicide Means, Ages 15-18
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## Results: Risk Factors

### Risk Factors in Suicide Completers

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<tr>
<th></th>
<th>Ages &lt;12 (n=97)</th>
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<th></th>
<th>Ages 15-18 (n=2092)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
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<tr>
<td>Disability or chronic illness</td>
<td>23</td>
<td>23.7</td>
<td>124</td>
<td>21.7</td>
<td>451</td>
<td>21.6</td>
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<tr>
<td>Substance abuse history</td>
<td>&lt;6</td>
<td>&lt;5</td>
<td>64</td>
<td>11.2</td>
<td>568</td>
<td>27.2</td>
</tr>
<tr>
<td>Break up girlfriend/boyfriend*</td>
<td>&lt;6</td>
<td>&lt;5</td>
<td>26</td>
<td>6.8</td>
<td>275</td>
<td>20.1</td>
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<tr>
<td>Argument parent*</td>
<td>22</td>
<td>35.5</td>
<td>113</td>
<td>29.7</td>
<td>235</td>
<td>17.2</td>
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<td>Problems in school</td>
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<td>23.7</td>
<td>178</td>
<td>31.1</td>
<td>571</td>
<td>27.3</td>
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<tr>
<td>Bullying*</td>
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<td>9.7</td>
<td>41</td>
<td>10.8</td>
<td>57</td>
<td>4.2</td>
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<tr>
<td>Sexual orientation*</td>
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<td>&lt;5</td>
<td>&lt;6</td>
<td>&lt;5</td>
<td>35</td>
<td>2.6</td>
</tr>
</tbody>
</table>

*These questions were not asked for all decedents (training issue for case reporters using the CDR-CRS).

Cell size decreases to 62 for ages <12, 380 for ages 12-14, and 1365 for ages 15-18.
## Results: Risk Factors

### Suicidal Behavior

### Risk Factors in Suicide Completers

<table>
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<th>Risk Factor</th>
<th>Ages &lt;12 (n=97)</th>
<th>Ages 12-14 (n=572)</th>
<th>Ages 15-18 (n=2092)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Family history of suicide*</td>
<td>6</td>
<td>9.7</td>
<td>30</td>
<td>7.9</td>
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<tr>
<td>Talked about suicide*</td>
<td>15</td>
<td>24.2</td>
<td>122</td>
<td>32.1</td>
</tr>
<tr>
<td>Prior suicide threat*</td>
<td>12</td>
<td>19.4</td>
<td>94</td>
<td>24.7</td>
</tr>
<tr>
<td>Prior suicide attempts*</td>
<td>6</td>
<td>9.7</td>
<td>55</td>
<td>14.5</td>
</tr>
<tr>
<td>Left suicide note*</td>
<td>8</td>
<td>12.9</td>
<td>110</td>
<td>28.9</td>
</tr>
</tbody>
</table>

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Cell size decreases to 62 for ages 5-11, 380 for ages 12-14, and 1365 for ages 15-18.
Limitations

- Not all suicide deaths in the 29 participating states may have been reviewed (or entered) by CDR teams.
- Resources to data clean/conduct quality assurance vary by state.
- Database contains more than 2000 data elements.
  - Missing data can be a problem for some states/questions.
  - Secondary data: cannot determine which data source nor is there a primary rule if conflicting data sources.
Conclusion

- Although relatively rare, prepubescent youth do plan, attempt, and die by suicide.
- Some situational crises such as arguments with parents or bullying may be more acute stressors for this age group.
- Prepubescent suicide completers predominantly die by asphyxia (hanging).
- Increased understanding of risk factors for this age may lead to better screening tools or prevention initiatives.
- The CDR-CRS is a valuable data tool to help us understand this population.
Acknowledgements

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The National Center would also like to thank the many volunteers who work tirelessly on child death review teams across the United States who are so committed to keeping kids alive.

Thank you!
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