The Burden of Suicide Among Youth in North Carolina

Child Fatality Task Force – Intentional Death Prevention Committee
December 8th, 2014
Data Sources: Suicide and Self-Inflicted Injury

- North Carolina Violent Death Reporting System (NC-VDRS)
  - Death Certificate
  - Law Enforcement Incident Reports
  - Medical Examiner Reports

- Hospital Discharge

- Emergency Department Admissions
  - NC-DETECT

- N.C. Youth Risk Behavior Survey (YRBS)

- Web-based Injury Statistics Query and Reporting System (WISQARS)
Leading Causes of Injury Deaths: N.C. Residents 2013

- Suicide: 1,237
- Unintentional Motor Vehicle Crash: 1,203
- Unintentional Poisoning: 1,085
- Unintentional Fall: 960
- Unintentional, Other & Unspecified*: 696
- Homicide: 538
- Unintentional Suffocation: 211
- Unintentional Drowning: 102

Total Deaths = 6,032

*Unintentional Other and Unintentional Unspecified are two separate categories. Other comprises several smaller defined causes of death, while Unspecified refers to unintentional deaths that were not categorized due to coding challenges.
Suicide and Self-Inflicted Injury: N.C. Residents 2004-2012

- Suicide Death Rate
- Hospitalization Rate
- ED Visit Rate

Analysis by Injury Epidemiology and Surveillance Unit
Suicide and Self-Inflicted Injury among Youth ages 10 to 17 in North Carolina
Suicide and Self-Inflicted Injury: N.C. Residents ages 10-17, 2004-2012

Suicide Death Rate
Hospitalization Rate
ED Visit Rate
Suicide and Self-Inflicted Injury: N.C. Residents ages 10-17, 2004-2012

Suicide Rate Hospitalization Rate ED Visit Rate

Crude Rate per 100,000

<table>
<thead>
<tr>
<th>Rate</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicide Rate</td>
<td>4.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Hospitalization Rate</td>
<td>32.8</td>
<td>82.7</td>
</tr>
<tr>
<td>ED Visit Rate</td>
<td>80.4</td>
<td>169.0</td>
</tr>
</tbody>
</table>

Analysis by Injury Epidemiology and Surveillance Unit
Suicide and Self-Inflicted Injury: N.C. Residents ages 10-17, 2004-2012

Analysis by Injury Epidemiology and Surveillance Unit
Suicide: N.C. Residents ages 10-17, 2004-2012

- White: 79.1%
- Black: 18.4%
- American Indian: 1.2%
- Asian: 1.2%

Source: NC-VDRS, 2004-2012
Analysis by Injury Epidemiology and Surveillance Unit
Self-Inflicted Injury: N.C. Residents ages 10-17, 2004-2012

Self-Inflicted Injury Hospitalizations

- Poisoning: 79.1%
- Cut/pierce: 12.0%
- Suffocation: 1.2%
- Firearm: 0.5%
- Other/Unspecified: 0.3%

Self-Inflicted Injury ED Visits

- Poisoning: 58.6%
- Cut/pierce: 30.0%
- Suffocation: 9.9%
- Firearm: 0.3%
- Other/Unspecified: 1.2%

Analysis by Injury Epidemiology and Surveillance Unit
Suicidal Behavior: N.C. High School Students, 2013

- Seriously considered attempting suicide during the last 12 months
- Made a plan for suicide attempt during the last 12 months
- Made a suicide attempt that resulted in an injury needing treatment by a medical professional during the last 12 months

<table>
<thead>
<tr>
<th>Category</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seriously considered</td>
<td>11.6%</td>
<td>21.7%</td>
</tr>
<tr>
<td>Made a plan for suicide attempt</td>
<td>10.9%</td>
<td>15.8%</td>
</tr>
<tr>
<td>Made a suicide attempt</td>
<td>5.5%</td>
<td>5.2%</td>
</tr>
</tbody>
</table>

Source: N.C. YRBS, 2013
Suicidal Behavior: N.C. High School Students, 2013

- Heterosexual:
  - Seriously considered attempting suicide: 14.3%
  - Made a plan for suicide attempt: 10.6%
  - Made a suicide attempt resulting in injury: 4.8%

- Gay, Lesbian, or Bisexual:
  - Seriously considered attempting suicide: 40.2%
  - Made a plan for suicide attempt: 38.0%
  - Made a suicide attempt resulting in injury: 12.3%

Source: N.C. YRBS, 2013
NC Child Fatality Prevention System

➢ Child Fatality Task Force

➢ Local Child Fatality Prevention Teams
  ➢ Children and Youth Branch
  ➢ Confidential county-level reviews
    ➢ Non-maltreatment deaths
    ➢ Make recommendations for local and state changes

➢ Community Child Protection Teams
  ➢ Division of Social Services
  ➢ Confidential county-level reviews
    ➢ Active maltreatment cases or maltreatment deaths
    ➢ Make recommendations for local and state changes

➢ Child Fatality Review Teams
  ➢ Division of Social Services
  ➢ Confidential state-level reviews of select cases
    ➢ CPS involvement within 12 months of death
    ➢ Suspicion that death was due to abuse or neglect
NC Child Fatality Prevention System

NC Child Fatality Prevention Team

- Reviews deaths of children 17 years old and under

- Deaths must be certified by the Medical Examiner system:
  - Homicides, suicides, accidents, poisonings
  - Trauma, disaster, violence
  - Unknown, unnatural or suspicious circumstances
  - In police custody, jail or prison
  - In state-operated mental health facilities
  - Potential public health hazards
  - During surgical or anesthetic procedures
  - Sudden and not reasonably related to previously-known disease
  - Without medical attendance

- Provides assistance and consultation to local teams

- Provides aggregate data reports to the public and other agencies/organizations upon request
Data

- Review ≈ 500 cases/year approximately 12 months after the date of death

- Public sources of information
  - OCME
  - Vital Records
  - Department of Corrections
  - Department of Motor Vehicles

- Confidential sources of information
  - Division of Social Services records
  - Law enforcement investigation reports
  - Hospital/ED/pediatric/mental health records
  - Team findings and discussions

- Goal is to obtain the most complete picture of a child’s life as it pertains to his/her death
Youth Suicide in NC by Year

$n=247$

Number of Suicides

Youth Suicide in NC by Age

- 5 - 9 yrs: 2
- 10 - 14 yrs: 73
- 15 - 17 yrs: 172
Youth Suicide in NC by Year & Age Group

- **14 yo & under**
  - 2004: 15
  - 2005: 7
  - 2006: 18
  - 2007: 21
  - 2008: 16
  - 2009: 3
  - 2010: 11
  - 2011: 13
  - 2012: 15

- **15-17 yo**
  - 2004: 9
  - 2005: 7
  - 2006: 9
  - 2007: 9
  - 2008: 7
  - 2009: 28
  - 2010: 20
  - 2011: 13
  - 2012: 20

Number of Suicides
Youth Suicide in NC by Means

- **47.8%** Motor Vehicle
- **42.9%** Gun
- **6.9%** Toxin
- **1.2%** Asphyxiation
- **1.2%** Fall or Jump / Drowning / Other
Youth Suicide in NC by Means & Sex

**Female**
- ASPHYXIA: 3.2%
- GUN: 20.6%
- TOXIN: 9.5%
- MOTOR VEHICLE: 66.7%
- FALL or JUMP / DROWNING / OTHER: 4.0%

**Male**
- ASPHYXIA: 1.6%
- GUN: 41.3%
- TOXIN: 6.0%
- MOTOR VEHICLE: 50.5%
- FALL or JUMP / DROWNING / OTHER: 0.5%
Youth Suicide in NC: Looking Back

- **Child Protective Services**
  - At least **32%** of children who committed suicide between 2004 and 2012 had some type of prior contact with CPS

- **Mental Health**
  - At least **20%** of children had a documented mental illness at some point in their lifetime
    - 60% were receiving treatment at time of death
    - 15% were not receiving treatment at time of death
    - Treatment status unknown for remaining 25%
  
  - An additional **12%** of children were characterized as depressed by friends and/or family members in the weeks or months leading up to their death
Youth Suicide in NC: Looking Back

- **History**
  - 11% of children had attempted suicide at least once before

- **Circumstances of interest**
  - 18% of children reported recent relationship problems (e.g., friend, family member, boyfriend/girlfriend)
  - 11% of children had issues in the school environment (e.g., academics, behavior, victim/perpetrator of bullying)
  - A suicide note was recovered in only 12% of cases

- **Case Examples**
Youth Suicide in NC: Looking Ahead

- Preliminary data
  - 2013: 41 suicides
  - 2014: 40 suicides as of 12/4/2014

- Suicide case review session - update
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