SUICIDE IN OKLAHOMA

Suicide Prevention Council
July 28, 2016

Injury Prevention Service
Oklahoma State Department of Health
• National Violent Death Reporting System
  • CDC Grant since 2003 – Oklahoma began in 2004
  • 32 States
    • 14 states added in 2014
    • 7-10 more will be added this year
  • Data sources
    • Required – Medical Examiner reports, death certificates, law enforcement reports
    • Optional
      • Supplementary homicide reports, newspapers, hospital, crime lab report, EMS report
    • Optional data collection modules
      • Child fatality review
      • Intimate Partner Violence
      • Overdose
NVDRS DATA COLLECTION

- Document based
- Web-based Data Collection System
  - Death certificate data electronically imported
  - ME, PR, CFR data entered by hand
- NVDRS Coding Guidelines
  - Case definitions
  - Variables
  - Document specific
DATA DISSEMINATION

• Annual Summary of Violent Deaths
• Injury Updates - very detailed special topic report
• OKVDRS Brief Report – more reader friendly than Injury Update
• Quarterly updates to data contributors
• Journal publications
• CDC Success Stories
• Special data requests
• News releases
OKVDRS SUICIDE CASE DEFINITION

- Manner of death ruled as *suicide*
- ICD-10 Underlying cause of death
  - Intentional self harm, X60-X84, Y87.0 (more than one year after injury)
- “A death resulting from the intentional use of force against oneself. A preponderance of evidence should indicate that the use of force was intentional.”
SUICIDE DATA

• Vital Records (death certificates)
  - OK2Share (Oklahoma Statistics on Health Available for Everyone)
  - WISQARS (Web-based Injury Statistics Query and Reporting System)

• Medical Examiner reports (ME)

• Hospital Discharge Data – OK2Share
SUICIDE DATA

• Oklahoma Violent Death Reporting System
  • Combines Vital Records, ME, and law enforcement reports into one comprehensive database
    • Demographics
    • Injury and death
    • Circumstances
    • Weapons
    • Suspects
    • Toxicology
SUICIDE IN THE UNITED STATES

• In the U.S., suicide is the 10th leading overall cause of death with 42,773 deaths in 2014.
• In the U.S., an average suicide costs nearly $1.2 million a year in medical and work lost (CDC, 2010 U.S. Prices)
  • This amounts to $44.7 billion annually nationally
    • $778 million in medical and work loss cost in Oklahoma
      • The average cost per incident of suicide in Oklahoma
        • Medical for hospitalized suicide attempt: $11,116
        • Work loss for hospitalized suicide attempt: $19,903
        • Medical for death: $4,701
        • Work loss for death: $1.25 million

*WISQARS*
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<td>603</td>
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<td>17</td>
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<td>27,084</td>
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<td>245</td>
<td>253</td>
<td>6,766</td>
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<td>3,800</td>
<td>513</td>
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<td>19</td>
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<td>602</td>
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<td>176</td>
<td>924</td>
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<td>Alzheimer's Disease 3,696</td>
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<td>251</td>
<td>50</td>
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<td>118</td>
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<td>2,936</td>
<td>Influenza &amp; Pneumonia 3,696</td>
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<td>35</td>
<td>17</td>
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<td>57</td>
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<td>3,504</td>
<td>Septicemia &amp; Pneumonia 3,409</td>
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<td>35</td>
<td>77</td>
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<td>205</td>
<td></td>
<td>3,382</td>
<td>Nephritis 2,909</td>
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**10 LEADING CAUSES OF DEATH BY AGE, OKLAHOMA, 2010-2014**
SUICIDE IN OKLAHOMA

• From 2005-2014, 6,104 suicide deaths
  • Annual rate = 16.4 per 100,000 population
  • Estimated 610 deaths per year
  • Average age = 45.2 years
  • 78.5% male, 21.5% female

Oklahoma Violent Death Reporting System
SUICIDE ATTEMPT* INPATIENT HOSPITAL DISCHARGES BY YEAR OF DISCHARGE AND RACE, OKLAHOMA, 2010-2014

*First-listed valid external cause of injury code in E950-E959
Oklahoma State Rate, 2005-2014, is 16.4 suicide deaths per 100,000 residents
GENDER-SPECIFIC SUICIDE AND HOMICIDE RATES, OKLAHOMA, 2005-2014

Oklahoma Violent Death Reporting System
GENDER-SPECIFIC DEATH RATES OF PERSONS 15-44 YEARS OF AGE, OKLAHOMA, 2005-2014 (SELECTED CAUSES)

*Oklahoma Violent Death Reporting System and OK2Share
AGE AND GENDER SPECIFIC RATES OF SUICIDE, OKLAHOMA, 2005-2014

Oklahoma Violent Death Reporting System
GENDER, RACE, AND ETHNICITY SPECIFIC RATES OF SUICIDE OF RESIDENTS 10+ YEARS OF AGE, OKLAHOMA, 2005-2014

Oklahoma Violent Death Reporting System
AGE GROUP AND RACE/ETHNICITY RATES OF SUICIDE, OKLAHOMA, 2005-2014

Oklahoma Violent Death Reporting System
LEADING SUICIDE METHODS/MEANS, OKLAHOMA RESIDENTS, 2010-2014

- Firearms (62% of suicides)
  - 75% handguns
  - 11% rifles
  - 13% shotguns
- Hanging/strangulation (23%)
- Poisoning (11%)
OTHER SUICIDE METHODS/MEANS

• Sharp/blunt instruments
• Motor vehicles/transportation
• Drowning
• Fire
• Fall/jump
METHODS OF SUICIDE BY GENDER
OKLAHOMA, 2010-2014

Males
- Firearm: 65%
- Hanging/strangulation: 24%
- Other: 1%
- Poisoning: 8%
- Sharp/blunt: 2%

Females
- Hanging/strangulation: 21%
- Firearm: 49%
- Other: 3%
- Sharp/blunt: 2%
- Poisoning: 25%

Oklahoma Violent Death Reporting System
# CIRCUMSTANCES

- **Mental Health, Substance Abuse, and other Addictions**
  - Current depressed mood
  - Current diagnosed mental health problem
  - Mental illness diagnosis
  - Current mental health treatment
  - Ever treated for mental health or substance abuse
  - Alcohol problem
  - Other substance abuse problem
  - Other addiction

- **Relationship & Life Stressor**
  - Intimate partner problem
  - Family relationship problem
  - Other relationship problem
  - Abuse or neglect led to death
  - History of abuse or neglect as a child
  - Previous perpetrator of violence in the past month
  - Previous victim of violence in the past month
  - Physical fight (2people)
  - Argument
    - Timing of argument
CIRCUMSTANCES

- Crime & Criminal Activity
  - Precipitated by another crime
  - First crime in progress
  - Terrorist attack

- Suicide Specific Circumstances
  - History of suicide attempts
  - Recently disclosed suicidal thoughts/plan to suicide
    - To whom
  - Left a suicide note
  - History of expressed suicidal thoughts or plans

- Crisis in past 2 weeks or upcoming 2 weeks

- Life Stressors
  - Contributing criminal legal problem
  - Civil legal problems
  - Physical health problem
  - Job problem
  - Financial problem
  - School problem
  - Eviction/loss of home
  - Suicide of friend or family
  - Non-suicide death of friend or family
  - Anniversary of traumatic event
  - Disaster exposure
LEADING CIRCUMSTANCES ASSOCIATED WITH SUICIDE OKLAHOMA RESIDENTS, 2010-2014

- 42% one or more diagnosed or treated mental health problems
  - Depression (72%)
  - bipolar illness (15%)
  - anxiety disorder (10%)
  - schizophrenia (6%)
  - PTSD (5%)
- 35% intimate partner problem
- 30% current depressed mood

Oklahoma Violent Death Reporting System
SUICIDE CIRCUMSTANCES
OKLAHOMA RESIDENTS, 2010-2014

• 23% physical health problem
• 16% substance abuse problem
• 15% alcohol problem
• 14% argument preceded event
• 11% recent criminal legal problem
• 11% job problem
• 10% crisis in past two weeks
• 9% financial problem

Oklahoma Violent Death Reporting System
SUICIDE CIRCUMSTANCES BY LIFE STAGE, OKLAHOMA RESIDENTS, 2010-2014

Oklahoma Violent Death Reporting System
SUICIDE CIRCUMSTANCES
OKLAHOMA RESIDENTS, 2010-2014

• 32% left a suicide note
• 25% previously stated intent to kill themselves or suicidal feelings to another person
• 18% history of suicidal thoughts
• 17% history of suicide attempt
• 33% of persons tested were positive for alcohol
• 34% of persons tested were positive for drugs

Oklahoma Violent Death Reporting System
## TOP CIRCUMSTANCES BY GENDER, OKLAHOMA RESIDENTS, 2010-2014

<table>
<thead>
<tr>
<th>Rank</th>
<th>Males</th>
<th>Females</th>
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<tbody>
<tr>
<td>1</td>
<td>Current Mental Health Problems</td>
<td>Current Mental Health Problems</td>
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<tr>
<td></td>
<td>38%</td>
<td>56%</td>
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<tr>
<td>2</td>
<td>Intimate Partner Problems</td>
<td>Intimate Partner Problems</td>
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<tr>
<td></td>
<td>36%</td>
<td>32%</td>
</tr>
<tr>
<td>3</td>
<td>Current Depressed Mood</td>
<td>Current Depressed Mood</td>
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<tr>
<td></td>
<td>30%</td>
<td>32%</td>
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<tr>
<td>4</td>
<td>Physical Health Problems</td>
<td>History of Suicide Attempts</td>
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<tr>
<td></td>
<td>23%</td>
<td>29%</td>
</tr>
<tr>
<td>5</td>
<td>Alcohol Problem</td>
<td>Physical Health Problems</td>
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<tr>
<td></td>
<td>16%</td>
<td>23%</td>
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<tr>
<td>6</td>
<td>Substance Abuse Problem</td>
<td>Substance Abuse</td>
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<tr>
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<td>15%</td>
<td>18%</td>
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<td>7</td>
<td>Argument</td>
<td>Argument</td>
</tr>
<tr>
<td></td>
<td>14%</td>
<td>15%</td>
</tr>
<tr>
<td>8</td>
<td>History of Suicide Attempts</td>
<td>Alcohol Problem</td>
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<tr>
<td></td>
<td>13%</td>
<td>12%</td>
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SUICIDE AMONG VETERANS, OKLAHOMA RESIDENTS, 2010-2014

- 21% of suicide deaths involved veterans
  - 97% male, 3% female
- 84% of all violent deaths among veterans
- Mean age was 57 (range 18-95)
  - 38% of veteran suicide deaths were among veterans 65+
- 73% firearm deaths
• Circumstances most often associated with veteran suicide deaths
  • 40% current mental health problem
    • Depression (75%)
    • PTSD (18%)
  • 39% physical health problem
  • 30% current depressed mood
  • 29% intimate partner problem
SUICIDE AMONG VETERANS, OKLAHOMA RESIDENTS, 2010-2014

- 28% disclosed intent
- 17% history of suicidal thought
- 11% history of suicide attempt
SUICIDE RATES AMONG PERSONS 10-24 YEARS OF AGE, OKLAHOMA AND U.S.
SUICIDE ATTEMPT* INPATIENT HOSPITAL DISCHARGES FOR YOUTH AGED 10-24 YEARS BY YEAR OF DISCHARGE AND RACE, OKLAHOMA, 2010-2014

*First-listed valid external cause of injury code in E950-E959
METHOD OF SUICIDE AMONG PERSONS 10-24 YEARS OF AGE, OKLAHOMA RESIDENTS, 2010-2014

Oklahoma Violent Death Reporting System
Youth Risk Behavior Survey

U.S. AND OKLAHOMA YRBS STUDENTS IN GRADERS 9 – 12 WHO FELT SAD AND HOPELESS THE PREVIOUS 12 MONTHS*

<table>
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<th>Year</th>
<th>Oklahoma</th>
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<tr>
<td>2015</td>
<td>28.9</td>
<td>29.9</td>
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</table>

*Youth Risk Behavior Survey
U.S. AND OKLAHOMA YRBS STUDENTS IN GRADES 9 – 12
WHO SERIOUSLY CONSIDERED SUICIDE THE PREVIOUS 12 MONTHS*

*Youth Risk Behavior Survey
U.S. AND OKLAHOMA YRBS STUDENTS IN GRADES 9 – 12 MADE A PLAN ABOUT HOW THEY WOULD ATTEMPT SUICIDE*

*Youth Risk Behavior Survey
U.S. AND OKLAHOMA YRBS STUDENTS IN GRADES 9 – 12

WHO ATTEMPTED SUICIDE DURING THE PREVIOUS 12 MONTHS*

*Youth Risk Behavior Survey
U.S. AND OKLAHOMA YRBS STUDENTS IN GRADES 9 – 12
SUICIDE ATTEMPT RESULTED IN AN INJURY, POISONING, OR OVERDOSE THAT HAD TO BE TREATED BY A DOCTOR OR NURSE*

*Youth Risk Behavior Survey