Overview

• Definition
• Epidemiology of Suicide
• Suicide increasing teens and young adults
• Suicide Methods In Idaho and US
• Recognizing high risk patients
• Treatment
FLUCTUATIONS IN 20TH-CENTURY YOUTH SUICIDE RATES
—UNITED STATES, AGES 15–24—

## Leading Causes of Death in the United States (2016)

Data Courtesy of CDC

<table>
<thead>
<tr>
<th>Rank</th>
<th>10-14</th>
<th>15-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
<th>65+</th>
<th>All Ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unintentional Injury 847</td>
<td>Unintentional Injury 13,095</td>
<td>Unintentional Injury 23,984</td>
<td>Unintentional Injury 20,975</td>
<td>Malignant Neoplasms 41,291</td>
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<td>Heart Disease 507,116</td>
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<td>Suicide 436</td>
<td>Suicide 5,723</td>
<td>Suicide 7,266</td>
<td>Malignant Neoplasms 10,903</td>
<td>Heart Disease 34,027</td>
<td>Heart Disease 79,610</td>
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<td>Heart Disease 10,477</td>
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<td>Malignant Neoplasms 3,791</td>
<td>Suicide 7,030</td>
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<td>Cerebrovascular 121,630</td>
<td>CLRD 154,596</td>
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<td>Heart Disease 949</td>
<td>Heart Disease 3,445</td>
<td>Homicide 3,369</td>
<td>Liver Disease 8,364</td>
<td>Diabetes Mellitus 14,251</td>
<td>Alzheimer's Disease 114,883</td>
<td>Cerebrovascular 142,142</td>
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<td>Congenital Anomalies 388</td>
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<td>Cerebrovascular 5,353</td>
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<td>CLRD 4,307</td>
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<td>HIV 546</td>
<td>HIV 971</td>
<td>Septicemia 2,472</td>
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<td>Nephritis 41,095</td>
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<td>Septicemia 31</td>
<td>Complicated Pregnancy 184</td>
<td>Complicated Pregnancy 472</td>
<td>Septicemia 897</td>
<td>Homicide 2,152</td>
<td>Nephritis 5,650</td>
<td>Septicemia 30,405</td>
<td>Suicide 44,965</td>
</tr>
</tbody>
</table>
SEROTONIN AND THE CLINICAL FEATURES OF SUICIDE

- Autopsy studies: Abnormalities in serotonergic neurons, serotonin transport, receptor binding and Serotonin levels in key areas of the brain impacting conduction
- Decreased/underactivation of serotinergic activity:
  - associated with excitable, impulsive, and violent behavior
- Serotonergic activity/conduction is reduced
  - in males, after alcohol/drug use, in the elderly
- Role of Glutamate and it’s interaction on Serotonin function

The Serotonin system in Mood disorder; Jj Mann, Biol Sci 2013
TEEN SUICIDE METHODS
15-19 year olds

• Firearms: U.S. 63%, Idaho - 74%
• Hanging: U.S. 25%, Idaho - 17%
• Ingestion: 3% and 3%
• Co poisoning: 3% and 2%
• Jumping from height 2% and 0
• Other: 4% and 4%

CDC 2003 (WISQARS) (accessed 06/15/03)
Demographic risk factors

- Young and Elderly White non-Hispanic Men
- Native American or Caucasian
- Being single (widowed > divorced > separated > single)
- Economic or occupational stress, losses
- New incarceration: humiliation
- History of gambling: impulsivity
- *Easy access to firearms*
- *Social Isolation*
Factors Specific to Youth associated with suicide attempts

- Unwanted pregnancy
- **Lack of family support**
- History of abuse
- School problems
- Social ostracism
- Conduct disorder
- **Homosexual orientation**
- **Hx of cutting**
Predictors of Suicide Attempts in Suicide Ideators

- Current SI, then past SI
- Previous serious suicide attempts
- Feeling like a burden/lack of belongingness
- Reasons to live/hopelessness
- Social Isolation/hx of not telling others
- Access to Lethal means
- Family hx of suicide
- Command voices to hurt self
- Intoxication with Alcohol/drugs
Management and Treatment of suicidal adolescent patients

- Hospitalization
- Outpatient Treatment
- Psychotherapy
- Medication
- Exercise
- Eat Healthy/diet
CURRENT “WISDOM”

“Suicide is a fatal complication of an untreated or undertreated, and less frequently untreated bio-psychosocial condition”