Suicide: A Brief Overview

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Outline

• General Considerations
• Historical Perspectives
• Definitions
• Epidemiology
• Screening
• Prevention
Outline (cont.)

• General Considerations
• Historical Perspectives
• Definitions
• Epidemiology
• Warning Signs
• Screening
• Risk Factors
• Prevention
General Considerations

• Common methods include: hanging, pesticide poisoning, and firearms.

• Around 800,000 to a million people die by suicide every year, making it the 10th leading cause of death worldwide.

• Rates are higher in men than in women, with males three to four times more likely to kill themselves than females.
General Considerations (cont.)

• There are an estimated 10 to 20 million non-fatal attempted suicides every year.
• Attempts are more common in young people and females.
• Most common risk factors are major depression and bipolar disorder, followed by substance abuse.
• No known unifying underlying pathophysiology for either suicide or depression has been accepted.
• Only a small number of suicides happen without warning. Most people who kill themselves give definite warnings of their intentions. Therefore, all threats of self-harm should be taken seriously. In addition, a majority of people who attempt suicide are ambivalent and not entirely intent on dying.

• Many suicides occur in a period of improvement when the person has the energy and the will to turn despairing thoughts into destructive action. However, a once-suicidal person is not necessarily always at risk: suicidal thoughts may return but they are not permanent and in some people they may never return.
Historical Perspectives

• Views on suicide have been influenced by broad existential themes such as religion, honor, and the meaning of life.
• The Abrahamic religions traditionally consider suicide an offense towards God due to the belief in the sanctity of life.
• During the Samurai era in Japan, *seppuku* was respected as a means of atonement for failure or as a form of protest.
• *Sati*, a now outlawed East Indian practice, expected the widow to immolate herself on her husband's funeral pyre, either willingly or under pressure from the family and society.
Historical Perspectives (cont.)

- Suicide and attempted suicide, while previously criminally punishable, is no longer in most Western countries.
- It remains a criminal offense in many countries.
- In the 20th and 21st centuries, suicide in the form of self-immolation has been used as a medium of protest, and kamikaze and suicide bombings have been used as a military or terrorist tactic.
"The Drunkard's Progress", a poster from 1846 demonstrating how alcoholism can lead to poverty, crime, and eventually suicide.
Banzai charge

- The Term used by the Allied forces to refer to Japanese human wave attacks mounted by infantry units.
- This term came from the Japanese cry "Tenno Heika Banzai!" ("Long live the Emperor!")
- Specifically refers to a tactic used by Japanese soldiers during the Pacific War.
- Banzai charge had made some successes at the end of the battle by assaulting the American soldiers that were unprepared for such types of attack.
Dead Japanese personnel lie where they fell on Attu Island after a final "banzai" charge against American forces on May 29, 1943 during the Battle of Attu.
Le Suicidé
by Eduoard Manet
1832-1883
Definitions

• **Suicide**
  – The act of intentionally ending one's own life.
  – Death caused by self-directed injurious behavior with any intent to die as a result of the behavior.

• **Nonfatal suicidal thoughts and behaviors:**
  – **Suicide ideation**: thoughts of engaging in behavior intended to end one's life
  – **Suicide plan**: the formulation of a specific method through which one intends to die
  – **Suicide attempt**: A non-fatal, potentially self-injurious, self-directed behavior with any intent to die as a result of the behavior
  – **Non-suicidal self-injury**: self-injury in which a person has no intent to die
  – **Parasuicide**: a suicide attempt or gesture and self-harm where there is no result in death. It is a non-fatal act in which a person deliberately causes injury to him or herself or ingests any prescribed or generally recognized therapeutic dose in excess. Parasuicide is the strongest known indicator for a future successful suicide attempt.
Self-directed violence (SDV)

• An important cause of mortality and morbidity in the United States and worldwide.
• Encompasses a range of violent behaviors, including acts of fatal and nonfatal suicidal behavior, and non-suicidal intentional self-harm (i.e., behaviors where the intention is not to kill oneself, as in self-mutilation).
• Injury from self-directed violence is a major public health problem throughout the United States and the rest of the world.
• Injuries and deaths resulting from self-directed violent behaviors represent a substantial drain on the economic, social, and health resources of the nation.
Epidemiological Considerations

• Injury from self-directed violence is a major public health problem throughout the United States and the rest of the world.
• In 2007 in the United States, suicide was the 11th leading cause of death overall, resulting in 34,598 deaths
• Suicide was the third leading cause of death among persons aged 15–24 years, fourth among persons aged 25–44 years, and eighth among those aged 45–64 years.
• Although suicide continues to be problematic throughout the life span, rates for males are highest among those aged 85+ years, while among females the rates are highest among those aged 45–49 years.
Epidemiological Considerations (cont.)

• Suicides reflect only a minor portion of the total impact of suicidal behavior which itself is a component of SDV.
• Substantially more persons are hospitalized as a result of nonfatal suicidal behavior than are fatally injured, and an even greater number are either treated in ambulatory settings or not treated at all.
• There were an estimated average of 533,000 visits to U.S. hospital emergency departments for self-directed violence, the majority of which are suicide attempts, which occurred during 2005 and 2006.
• Other research indicates that >50% of persons who engage in suicidal behavior never seek health services. Consequently, prevalence figures based on health records substantially underestimate the societal burden of suicidal behavior.
Rates of suicide are higher among males than among females, while the reverse is found in studies of suicidal thoughts and nonfatal suicidal behavior.

Age-group specific suicide rates have traditionally been highest among older adults aged >65 years compared to adolescents and young adults.

Rates of nonfatal suicidal behavior are highest among the younger age groups and relatively low among older adults.
Epidemiological Considerations (cont.)

- American Indians/Alaska Natives and African-Americans have their highest suicide rates among adolescents and young adults.
- Asian-Americans and Hispanics have their highest rates among older adults.
- Total lifetime costs associated with nonfatal injuries and deaths caused by self-directed violence in 2000 were approximately $33 billion, including $1 billion for medical treatment and $32 billion for lost productivity.
- Compounding these costs is the incalculable impact of loss of life and the emotional trauma experienced by surviving family, friends, and communities that are affected by each person’s fatal or nonfatal suicidal behavior.
Public Health Burden

• Injuries and deaths resulting from self-directed violent behaviors represent a substantial drain on the economic, social, and health resources of the nation.
Twenty Leading Causes of Death among Persons Ages 10 years and Older, United States, 2009
### 10 Leading Causes of Death by Age Group, US 2010

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<th>Rank</th>
<th>Age Groups</th>
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<th>5-9</th>
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<td>SIDS 2,063</td>
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<td>Diabetes Mellitus 1,769</td>
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<td>Unintentional Injury 41,300</td>
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<td>Septicemia</td>
<td>Complicated Pregnancy</td>
<td>Congenital Anomalies</td>
<td>Influenza &amp; Pneumonia</td>
<td>Viral Hepatitis</td>
<td>Septicemia</td>
<td>Septicemia</td>
<td>Suicide</td>
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Suicide Rates Among Persons Ages 10 and Older, by Race/Ethnicity and Sex, US 2005-2009
Percentage of Suicides, by Age Group, Sex and Mechanism, U.S. 2005-2009
Suicide Rates by Gender and Year for Selected Countries

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<thead>
<tr>
<th>Rank</th>
<th>Country</th>
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<th>Females</th>
<th>Total</th>
<th>Year</th>
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<td>45.0</td>
<td>8.1</td>
<td>25.9</td>
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<td>5</td>
<td>Hungary</td>
<td>42.3</td>
<td>11.2</td>
<td>26.0</td>
<td>2005</td>
</tr>
<tr>
<td>4</td>
<td>Slovenia</td>
<td>42.1</td>
<td>11.1</td>
<td>26.3</td>
<td>2006</td>
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<td>3</td>
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<td>9.8</td>
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<td>2005</td>
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<td>2</td>
<td>Belarus</td>
<td>63.3</td>
<td>10.3</td>
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<td>12.9</td>
<td>38.6</td>
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<tr>
<td>...</td>
<td>USA</td>
<td>17.7</td>
<td>4.5</td>
<td>11</td>
<td>2005</td>
</tr>
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</table>
Suicide Rates Internationally

• Highest rates are in Eastern and Northern European countries
  – Hungary – rate of 45 per 100,000
  – Denmark – rate of 32 per 100,000

• Low rates in Mediterranean countries
  – Greece – rate of 3 per 100,000
  – Spain – rate of 4 per 100,000
Global Impact

• Every year, an estimated 900,000 people die by committing suicide. This represents one death every 40 seconds. Worldwide, suicide ranks among the three leading causes of death among those aged 15-44 years.
Gender Considerations

- In the Western world, males die three to four times more often by means of suicide than do females.
- Females attempt suicide four times more often.
- Males use more lethal means to end their lives.
- Over the age of 65, tenfold more males commit suicide than females.
- China has one of the highest female suicide rates in the world and is the only country where it is higher than that of men (ratio of 0.9).
- In the Eastern Mediterranean suicide rates are nearly equivalent between males and females.
- For women the highest rate of suicide is found in South Korea at 22 per 100,000.
Gender Considerations (cont.)

- In the United States, the male to female suicide death ratio varies between 3:1 to 10:1.
- Typically males die from suicide three to four times more often as females, and not unusually five or more times as often.
- Females report attempting suicide at a higher rate than males in the United States.
Gender Considerations (cont.)

• When accounting for parasuicide, the rate between males and females shifts to 1:2. This is likely due to several factors, including a higher risk for depression among females in the United States.

• Use of mental health resources may be a significant contributor to gendered suicide rates, with studies showing that females are 13-21% more likely than males to receive a psychiatric affective diagnosis.

• While 72-89% of females who committed suicide had contact with a mental health professional at some point in their life, only 41-58% of males who committed suicide had made use of this resource.
Precipitating Circumstances for Suicide from 16 American States in 2008

- Mental illness: 50%
- Intimate partner: 30%
- Recent crisis: 25%
- Physical health: 15%
- Problems at work: 10%
- Financial problems: 10%
# Suicide Characteristics by Attempters and Completers

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Attempters</th>
<th>Completers</th>
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</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td>More often female</td>
<td>More often male</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>Younger</td>
<td>Older</td>
</tr>
<tr>
<td><strong>Means</strong></td>
<td>Low lethality</td>
<td>High lethality</td>
</tr>
<tr>
<td><strong>Setting</strong></td>
<td>High chance of rescue</td>
<td>Low chance of rescue</td>
</tr>
<tr>
<td><strong>Diagnoses</strong></td>
<td>Borderline Personality Dysthymia</td>
<td>Mood disorder, Substance Abuse Schizophrenia,</td>
</tr>
</tbody>
</table>
Fatality Rate by Suicide Method

Miller, et al. Suicide Mortality in the United States, Annual Review of Public Health 33:393-408
Medical Conditions

• There is an association between suicidality and physical health problems such as:
  – Chronic pain
  – Traumatic brain injury
  – Kidney failure (requiring hemodialysis, HIV, and systemic lupus erythematosus.
  – Cancer approximately doubles the subsequent risk of suicide.
  – The prevalence of increased suicidality persisted after adjusting for depressive illness and alcohol abuse.
  – In people with more than one medical condition the risk was particularly high.
  – de.
Problem Gambling and Suicide

- Associated with increased suicidal ideation and attempts compared to the general population.
- Between 12 and 24% pathological gamblers attempt suicide.
- The rate of suicide among their spouses is three times greater than that of the general population.
- Other factors that increase the risk in problem gamblers include mental illness, alcohol and drug misuse.
Screening

• There is little data on the effects of screening the general population on the ultimate rate of suicide.
• As there is a high rate of people who test positive via these tools that are not at risk of suicide, there are concerns that screening may significantly increase mental health care resource utilization.
• Assessing those at high risk however is recommended.
• Asking about suicidality does not appear to increase the risk.
The U.S. Preventive Services Task Force (USPSTF) concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for suicide risk in adolescents, adults, and older adults in a primary care setting.
Benefits of Detection and Early Intervention/Treatment

• Evidence is inadequate on whether interventions reduce suicide risk in patients identified through primary care screening or comparable methods.

• Most evidence for treatment effectiveness is in very high-risk populations who were not discovered through screening, such as those who present to an emergency department because of a suicide attempt.
Harms of Detection and Early Intervention/Treatment

- There is insufficient evidence regarding the possible harms of screening adolescents, adults, and older adults for suicide risk.

- The USPSTF concludes that the evidence is lacking on screening for suicide risk, and the balance of benefits and harms cannot be determined.
Most effective treatments to reduce suicide risk include psychotherapy.

The most commonly studied psychotherapy intervention was cognitive behavioral therapy (CBT) and related approaches, including dialectical behavior therapy (DBT), problem-solving therapy, and developmental group therapy.

Other non-CBT approaches included psychodynamic or interpersonal therapy. Whereas most of these specific treatments are not customarily administered by the primary care provider in the office, patients can be referred for these therapies.

The primary care provider can play a continued role in the care of these patients by monitoring them during the process, providing follow-up, and coordinating with other care providers.
Prevention

- In the health care system, laws requiring coverage parity between mental health and physical health disorders will give more people the ability to access care for psychiatric problems associated with suicide, such as depression.
- Efforts to coordinate care between programs that address mental health, substance use, and physical health can also increase access to care.
- Global activities that have been shown to be correlated with lower suicide rates in other countries include detoxification of domestic gas in the United Kingdom and discontinuation of highly toxic pesticides in Sri Lanka. These actions were associated with 30% and 50% reductions in suicide, respectively, providing evidence that engineering controls can be effective.
- Activities such as installing barriers at frequent suicide jump spots may also be effective.
Warning Signs

- Sudden or dramatic changes in mood or behavior, including reckless or risky behaviors or changes in sleeping or eating habits
- Feeling hopeless or trapped, expressing that there's no reason to live or no way out
- Preparing a will, giving away possessions, making arrangements for pets
- Unusual spending
- Withdrawing from others
- Intense rage or desire for revenge; anxiety or agitation
- Increased alcohol or drug use
Suicide Risk Factors

- Psychological characteristics, behaviors, or life experiences associated with an increase in the possibility that someone will become suicidal.

- Specific risk factors for suicide are generally grouped into three categories:
  - adverse life circumstances, such as the loss of a job or relationship
  - biopsychosocial (medical and mental health problems)
  - cultural issues
Suicide Risk Factors: *Life circumstances*

- Access to lethal means of self-harm
- History of suicides within the family/community
- Career setbacks or disciplinary actions, loss of a job
- Loss of or conflict within a close relationship financial problems
- Readjustment difficulties following deployment
Suicide Risk Factors: *Biopsychosocial Issues*

- History of abuse, family violence, trauma, medical or depression and other mental health problems
- Prior suicide attempt
- Impulsiveness, aggressiveness
- Alcohol and substance abuse (which can cause or exacerbate existing depression)
- Severe or prolonged stress or combat-related psychological injuries
- Disruptions in the functioning of serotonin
- Overwhelming grief from a loss (death of a loved one, divorce, disabling injury, etc.)
- Hopelessness, anhedonia
Suicide Risk Factors: *Cultural Issues*

- Limited access to health care
- Religious beliefs that support suicide as a solution; negative attitudes toward getting help
- Limited support
Protective Factors

• Factors that decrease the probability of an outcome in the presence of elevated risk.
  – Religious beliefs, religious practice, and spirituality
  – Moral objections to suicide
  – Social support
  – Being pregnant and having young children
Prevention: “Means Restriction” Programs

• Measures aimed to reduce or eliminate easy access to suicide methods (i.e., means), especially those associated with impulsive suicides.

• Suicide methods that have been successfully limited with means restriction include poisons and toxic fumes, prescription and over-the-counter medications, firearms, and bridges and tall buildings.

• Means restrictions are most beneficial in preventing suicides due to sudden impulses during a crisis
  – Yet, there is general agreement that if a person is determined, they will find a way.
  – Reducing the opportunity for an impulsive suicide extends the period where detection and intervention may occur, thus helping individuals and families while reducing the overall suicide rate.
Prevention: *Diathesis-Stress Model*

- A psychological theory that attempts to explain behavior as a predispositional vulnerability together with stress from life experiences.
- The term “diathesis” derives from the Greek term for disposition, or vulnerability, and it can take the form of genetic, psychological, biological, or situational factors.
- The diathesis, or predisposition, interacts with the subsequent stress response of an individual, e.g., life events that disrupt a person’s psychological equilibrium and potentially serves as a catalyst to the development of a disorder.
- The diathesis-stress model serves to explore how biological or genetic traits (diatheses) interact with environmental influences (stressors) to produce disorders (e.g., depression, anxiety, etc.) that may lead to suicide.
- The diathesis-stress model asserts that if the combination of the predisposition and the stress exceeds a threshold, the person will develop a disorder.
Suicide in the Military
### Demographic Characteristics and Rates of Suicide Among Service Members in the Active Component of the Four Services CYs, 2010-2012 (1 of 3)

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<td>Non-Hispanic</td>
<td>286</td>
<td>23.7</td>
<td>283</td>
<td>19.6</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
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<td>6</td>
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</table>

† Rates per 100,000 Service members
### Demographic Characteristics and Rates of Suicide Among Service Members in the Active Component of the Four Services, CYs 2010-2012 (2 of 3)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>2012</th>
<th>2011 (^f)</th>
<th>2010 (^f)</th>
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</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>27</td>
<td>17.2</td>
<td>18</td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td>286</td>
<td>23.7</td>
<td>283</td>
</tr>
<tr>
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<td>*</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Age</th>
<th>2012</th>
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<th>2010 (^f)</th>
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<tr>
<td>17 - 24</td>
<td>130</td>
<td>24.8</td>
<td>114</td>
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<td>25 - 29</td>
<td>87</td>
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<td>91</td>
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<tr>
<td>30 - 34</td>
<td>50</td>
<td>22.6</td>
<td>32</td>
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<tr>
<td>35 - 39</td>
<td>33</td>
<td>20.9</td>
<td>36</td>
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<tr>
<td>40 - 44</td>
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<td>22</td>
</tr>
<tr>
<td>45 - 74</td>
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<table>
<thead>
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<th>Rank</th>
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<th>2010 (^f)</th>
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<tbody>
<tr>
<td>Cadet/Midshipmen</td>
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<tr>
<td>E1-E4</td>
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<td>148</td>
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<tr>
<td>E5-E9</td>
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<tr>
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<td>25</td>
</tr>
<tr>
<td>Warrant Officer</td>
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† Rates per 100,000 Service members
### Education

<table>
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<th>Count</th>
<th>Rate†</th>
<th>Count</th>
<th>Rate†</th>
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<td>Alternative high school certification</td>
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<td>High school graduate</td>
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</tr>
<tr>
<td>Degree, &lt;4 years</td>
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<td></td>
<td>18</td>
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<td>18</td>
<td></td>
</tr>
<tr>
<td>4-year degree</td>
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<td>14.2</td>
<td>22</td>
<td>12.5</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Masters degree or greater</td>
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### Marital status

<table>
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<th>Marital status</th>
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<th>2010†</th>
</tr>
</thead>
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<td>Married</td>
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<tr>
<td>Divorced</td>
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<td>33.7</td>
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<tr>
<td>Widowed</td>
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</table>

† Rates per 100,000 Service members
### Demographic Characteristics and Rates of Suicide Among Service Members in the Selected Reserve of the Four Services CYs 2010-2012

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th></th>
<th>2011&lt;sup&gt;f&lt;/sup&gt;</th>
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<th>2010&lt;sup&gt;f&lt;/sup&gt;</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Rate&lt;sup&gt;†&lt;/sup&gt;</td>
<td>Count</td>
<td>Rate&lt;sup&gt;†&lt;/sup&gt;</td>
<td>Count</td>
<td>Rate&lt;sup&gt;†&lt;/sup&gt;</td>
</tr>
<tr>
<td>All</td>
<td>319</td>
<td>22.7</td>
<td>301</td>
<td>18.0</td>
<td>295</td>
<td>17.5</td>
</tr>
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<td></td>
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<tr>
<td>Male</td>
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<td>285</td>
<td>20.1</td>
<td>281</td>
<td>19.6</td>
</tr>
<tr>
<td>Female</td>
<td>24</td>
<td>11.7</td>
<td>16</td>
<td>*</td>
<td>14</td>
<td>*</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian/Alaskan Native</td>
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<td>*</td>
<td>6</td>
<td>*</td>
<td>6</td>
<td>*</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
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<td>*</td>
<td>17</td>
<td>*</td>
<td>16</td>
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</tr>
<tr>
<td>Black/African American</td>
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<td>18.7</td>
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<td>13.4</td>
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</tr>
<tr>
<td>White/Caucasian</td>
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<td>25.1</td>
<td>231</td>
<td>19.7</td>
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<tr>
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<td>*</td>
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<td>Marital status</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Never Married</td>
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<tr>
<td>Married</td>
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<td></td>
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<td>80</td>
<td>20.3</td>
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<tr>
<td>Legally Separated</td>
<td></td>
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<td>0</td>
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<tr>
<td>Divorced</td>
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<td>32.9</td>
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<tr>
<td>Widowed</td>
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<td>0</td>
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</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>*</td>
</tr>
</tbody>
</table>

<sup>†</sup> Rates per 100,000 Service members
Suicide Rates, by Military Service, 2001-2009

Beginning in about 2005, suicide rates began to rise steadily across all branches of the United States military, with the most pronounced increase occurring within the Army and the Marine Corps. Source: Department of Defense Suicide Prevention and Risk Reduction Committee (SPARRC).
Demographic characteristics of US Military Suicides During 1012

- > 92% male
- 74% white
- >39% between 17-24
- 65% used a firearm (>75% of these used a gun not issued by the military)
- 25% percent died of asphyxiation, including hanging
- > 33% tested positive for alcohol use; > 24% tested positive for drugs
- 55% of unsuccessful suicide attempts involved drugs
- 42% had history of behavioral health diagnosis
- >28% had talked about harming themselves prior to the suicide
- 40% reported family or relationship stress in the 90 days prior to suicide; 32% reported financial or work stress
- 57% had been deployed
- 47% had been deployed wars in Iraq or Afghanistan
The Military Context

• Suicide in the military must be examined from within the context of the military culture.
• The military differs from the general population of the United States in terms of:
  – Demographics (i.e., greater proportion male, younger age)
  – Cultural norms
• These differences can create both protective factors against and vulnerabilities to suicide that are critical for successful prevention and treatment.
• Understanding suicide among service members requires recognition of the cultural context within which service members live, train, and work.
The majority of military suicide victims have no history of deployment.

Thus, the link between combat and suicide appears to be indirect—combat increases vulnerability to more proximal risk factors for suicide, such as poor emotion regulation; guilt or shame; relationship, financial, or legal problems; psychiatric illness.

Unfortunately, there are no available data to explicitly test this or other proposed pathways from combat exposure to suicidal behaviors, although a number of studies are currently under way to explore these associations.
Suicide in the VA
Suicide Reduction in the VA

- In 2008, VA's Mental Health Services established a suicide surveillance and clinical support system based on reports of suicide and suicide events (i.e. non-fatal attempts, serious suicide ideation, suicide plan) submitted by Suicide Prevention Coordinators located at each VA Medical Center and large outpatient facility.

- In 2010, the VA also began an intensive effort to shorten delays associated with access to National Death Index (NDI) data and increase understanding of suicide among all Veterans by developing data sharing agreements with all 50 U.S. states.
Suicide Reduction in the VA (cont.)

- The integration of information collected through the NDI, state mortality records, Suicide Behavior Reports, VA’s Veterans Crisis Line, and the VA’s universal electronic medical records contribute to an increased understanding of suicide and risk management by identifying gaps in existing knowledge, opportunities for intervention and the impact of VA-sponsored suicide prevention programs.

- All of these data collection systems have matured to the point where VA can now glean information to better determine if the current suicide prevention program is having an effect, where gaps may occur, and where there may be potential improvements for the future.
• The VA Suicide Data Report, 2012 was an initial attempt to look at all of this information together in order to provide an overall picture of Veteran suicide to drive suicide prevention program development and improve outcomes for Veterans at risk for suicide.

• This briefing provides additional information related to the VA Suicide Data Report, 2012. Data has been obtained from the CDC and several States; this now allows us to look at Veteran suicide rates in comparison with the general population and compare Veterans who get care in the VHA with those who do not.
  – This briefing provides suicide rate information for 2 additional years (2010 and 2011).
  – The briefing continues to delineate information by age and gender.
Comparing 2010 and 2011 with 2009

• No clear changes in suicide rates in the total population of VHA users or in male Veterans overall
• Increases in the suicide rate of male VHA users under age 30, especially in those aged 18-25 years
• Increases in the suicide rate in female VHA users
Main Finding: There has been no clear pattern of change in the rate of suicide among male VHA users.
VA Female Suicide Rates, 2009-2011

Main Finding: The rate of suicide among female VHA users has increased.
Main Finding: The rate of suicide has increased among younger male VHA users.
Trends Since the Start of OEF/OIF/OND

- Decreases in suicide rates in all male VHA users and those over age 30 that contrast with increased rates for other American men over time through 2010
- Increases in suicide rates in female VHA users that reflect comparable increases in other American women
- Decreases in suicide rates in VHA users with mental health conditions that contrast with stable rates in other VHA users
- Decreases in rates of suicide and all cause mortality in VHA users at the highest risk, those who have survived a suicide attempt
- Continued use of firearms by male VHA users as the most common means for suicide
- Decreases in suicide rates in male VHA users relative to Veterans who do not utilize VHA services (in the 23 states where data are available)
Suicide Rates per 100,000 for VA Males and U.S. Males, by Year

Main Finding: In contrast to all US males, the rate of suicide among male VHA users has remained relatively constant.
Suicide Rates per 100,000 for VA Females and U.S. Females, by Year

Main Finding: The rate of suicide among female VHA users remains higher than the rate of suicide among all US females.
Suicide Rates per 100,000, VHA Users, by Diagnoses with Mental Health Condition, by Year
Percentage of Suicides per 100,000, among Male VHA Users, by Year and Mechanism

Main Finding: The greatest percentage of suicides among male VHA users result from a firearm injury.
Percentage of Suicides per 100,000, among Female VHA Users, by Year and Mechanism

Main Finding: The greatest percentage of suicides among female VHA users result from poisoning and firearm injury.
Comparing VA and CDC Findings on Suicide Rates in Middle Aged Americans

• Understanding trends in suicide in Veterans requires comparisons with trends in other Americans
• CDC has reported that there were substantial increases in suicide rates in Americans aged 35-64 during the period from 1999-2010
  – Trends in age-adjusted rates for male VHA users differ substantially from trends in other American males
    • In the US as a whole, there was a 27.3% increase; in VHA users, there was a 16.1% decrease
  – Trends in age-adjusted rates for female VHA users were similar to trends in other American females
    • In the US as a whole, there was a 31.5% increase; in VHA users, there was a 31.2% increase
Comparing VA and CDC Findings on Suicide Rates in Middle Aged Americans (cont.)

- Suicide rates decreased ~30% in male Veteran VHA users
- In contrast, suicide rates increased ~60% in Veteran males who did not use VHA services
Suicide Rates Among Middle Age (35-64 years) U.S. Adults and Users of VHA Services, by Gender

Main Finding: In contrast to U.S. Males, rates of suicide among male VHA users aged 35-64 years have decreased.

- U.S. Male: +27.3%
- VHA Male: -16.1%
- U.S. Female: +31.5%
- VHA Female: +31.2%
Conclusions from VA Experience

- Suicide rates among the overall population of VHA users have remained more or less constant over the past several years.
- Nevertheless, there are indicators that VHA’s program for suicide prevention has led to positive outcomes:
  - Decreased rates of suicide among VHA users with mental health conditions.
  - Decreased mortality in the 12 months following a survived suicide attempt.
  - Decreased rates of suicide among VHA male users aged 35-64 years.
  - Decreased rates of non-fatal suicide events.*
  - Decreased percentage of calls to the Veterans Crisis Line resulting in a rescue.**

Recent findings regarding suicide rates in young male Veterans and in female Veterans call for increased efforts.
Recommendations from VA Experience

• Increased VHA efforts in:
  – Public health and community programming
    • Outreach
    • A focus on means (firearms, weapons, medications, environmental factors) safety
    • Clinical and preventive strategies to reverse negative trends and reinforce positive trends as well as address persistent concerns should continue to be directed toward the Veteran population as a whole with targeted messaging and intervention to each group including:
      – Young men
      – Women
      – Patients with and without known mental health conditions
      – Patients at known high risk for suicide (prior attempters)
    • These should include:
      – Enhancing the recognition and treatment of those at risk
      – Offering skills-building and other preventive strategies to address major stressors
      – Focusing on means (firearms, weapons, medications, and environmental factors) safety across clinical populations

  – Research
Conclusion

- Suicide is strongly related to serious mental health problems and other risk factors.
- Suicide rates vary widely by different aspects of social context.
- Reducing availability of lethal means of suicide is important for effective prevention.
- A more focused, coordinated strategy, both nationally and within the military, to deal with this problem.
- Reducing access to the means of suicide.
- Treating people with mental disorders (particularly those with depression, alcoholism, and schizophrenia).
- Following-up people who made suicide attempts.
Questions?