

## Suicide Prevention Strategies and Clinical Interventions for the Veteran Population

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## Objectives

- Discuss public health approaches to suicide prevention and interventions that are applicable for use with the veteran population.
- Examine the risk and protective factors linked to death by suicide as well as clinical warning signs that may indicate heightened risk for a suicide attempt.
- Review the evidence for clinical approaches for suicide intervention and treatment.

## Why Focus on Suicide Prevention?

## 2005 Leading Causes of Death, United States, All Races, Both Sexes

Suicide is one of the leading causes of death

<u>Rank &amp; Cause</u>	<u>Number of deaths</u>
1. Diseases of the heart	652091
2. Malignant neoplasms (cancer)	559312
3. Cerebrovascular diseases (stroke)	143579
4. Chronic obstructive pulmonary diseases	130933
5. Accidents	117809
6. Diabetes Mellitus	75119
7. Alzheimer's Disease	71599
8. Pneumonia and influenza	63100
8. Nephritis, nephrotic syndrome and nephrosis	43901
10. Septicemia	34136
11. <b>SUICIDE</b>	<b>32637</b>
12. Chronic liver disease and cirrhosis	27530

Ranking 11th in the US in 2005

## 2005 State Ranking of Suicide Rates for Each U.S.A. State

1 Montana	22.0	18 Florida	13.2	34 Louisiana	11.2
2 Nevada	19.9	18 Kansas	13.2	36 Michigan	10.9
3 Alaska	19.7	18 Maine	13.2	37 Minnesota	10.7
4 New Mexico	17.7	21 Washington	13.1	38 Nebraska	10.6
4 Wyoming	17.7	22 Missouri	12.5	38 Texas	10.6
6 Colorado	17.1	22 Vermont	12.5	40 Georgia	10.2
7 Idaho	16.0	24 Mississippi	12.4	41 Delaware	9.8
8 Arizona	15.9	24 New Hampshire	12.4	42 California	8.9
9 South Dakota	15.6	26 South Carolina	12.0	43 Illinois	8.5
10 Oregon	15.4	27 Indiana	11.9	44 Connecticut	8.4
11 Oklahoma	14.7	28 Alabama	11.7	44 Hawaii	8.4
12 North Dakota	14.5	28 Ohio	11.7	44 Maryland	8.4
13 Arkansas	14.4	30 North Carolina	11.6	47 Massachusetts	7.5
13 Tennessee	14.4	30 Wisconsin	11.6	48 Rhode Island	6.6
15 Utah	14.1	32 Pennsylvania	11.5	49 New York	6.2
16 West Virginia	14.0	33 Virginia	11.4	50 New Jersey	6.1
17 Kentucky	13.6	34 Iowa	11.2	51 District of Columbia	6.0

United States (Total) 32,637  
Suicide Rate of 11.0 per 100,000



## Suicide In the United States

- Age
  - Elders
    - Die by suicide at higher rates than any other age group (IOM, 2002).
- Gender
  - Adults
    - Males are four times more likely to die from suicide than females (CDC 2004).
    - Women report attempting suicide during their lifetime about three times as often as men (Krug et al. 2002).
- Race/ethnicity
  - Suicide rates are highest among Whites
  - 2<sup>nd</sup> highest among American Indian and Native Alaskan men (CDC 2004).
- Geographic Region
  - Suicide rates are generally higher than the national average in the western states and lower in the eastern and Midwestern states (CDC 1997).

### Suicide and Public Policy

“Suicide is a serious public health challenge that has not received the attention and degree of national priority it deserves.”

-The President's New Freedom Commission on Mental Health, 2003

### Department of Veterans Affairs 2004 Mental Health Strategic Plan

- Designed to guide implementation of the 2003 President's New Freedom Commission Report on Mental Health
- 265 recommendations for VA
  - Includes 6 principal components
    - Expanding access and capacity
    - Integrating MH and primary care
    - Transforming System to Focus on Recovery & Rehabilitation
    - Implementing Evidence-Based Care
    - Returning Veterans
    - **Suicide Prevention**



### Congressional Action in 2006-07: Suicide Prevention Among Veterans

- Joshua Lee Omvig of Gillette, Wyoming died by suicide in his home in Iowa on December 22, 2005 at the age of 22.
  - He was an Army Spc 339th MP Unit out of Davenport Iowa.
  - Noted to be a casualty of PTSD after returning from Iraq.
- **Joshua Omvig Veterans Suicide Prevention Act**
  - **Singed into Public Law 110-110 on November 5, 2007.**
    - The bill directs the Secretary of Veterans Affairs to develop and implement a comprehensive program designed to reduce the incidence of suicide among veterans.
    - The bill would also make available a 24- hour mental health care available for veterans found to be at risk for suicide
    - Develop an outreach and education program for veterans and their families to recognize readjustment problems & promote mental health.

### Department of Veterans Affairs 2007 Mental Health Strategic Plan Initiatives for Suicide Prevention

- National systematic and comprehensive program for suicide prevention for veterans.
  - 6 Broad Initiatives:
    - Crisis Availability and Outreach: 24hr MH care at VA; National Suicide Hotline **800-273-TALK**
    - Screening and Referral
    - Tracking and Assessment of Veterans at Risk
    - Emerging Best Practice Interventions and Research for Suicide Assessment and Prevention
    - Development of an Electronic Suicide Prevention Database
    - Education for Staff and the Community

### Veterans and Suicide

The controversy...why don't we know how many veterans die by suicide?

### Background

- Most of the current research on returning veterans from Iraq and Afghanistan focuses on:
  - Traumatic brain injuries
  - Polytrauma and rehabilitation
  - Early identification, prevention and treatment of post traumatic stress disorder (PTSD)
  - Similar adjustment problems due to combat exposure or other traumatically stressful events that occur due to service in a war zone (i.e. mental health needs, suicide)

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## Background

- However, while identification of these new veterans deemed at high risk upon return from war will continue to be critical,
- Other populations who have not yet crossed some as yet, unknown threshold, will remain untargeted populations for interventions.
  - Approximately **80%** of the eligible new veterans remain outside the traditional healthcare system of the Department of Veterans Affairs (Rosenheck, et al, 2004)

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## Suicide Rates by Previous Cohorts of Combat Veterans

- Mixed evidence for elevated rates of death by suicide vs. accidents.
  - In early cohort studies, the suicide rate was not significantly elevated for:
    - female Vietnam Veterans (Faberow, et al., 1990)
    - some male Vietnam Veterans (Watanabe & Kang, 1996)
  - Leading causes of death due to other external causes such as motor vehicle accidents and accidental poisoning was demonstrated in:
    - 24 year retrospective analysis of Army, USMC Vietnam veterans (Kang & Bullman, 1996)
    - Gulf War veterans for the first three years after the first gulf war (Kang & Bullman, 2001), which dissipated over the next 7 years, roughly similar to the patterns of decline found in other wars (Bullman & Kang, 1994)
  - Elevated suicide rate was found in clinical samples of Vietnam veterans:
    - Wounded Vietnam veterans (Bullman & Kang, 1996)
    - Vietnam veterans with Post Traumatic Stress Disorder (PTSD) (Bullman & Kang, 1994).

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## Suicide in the Military and Estimates for Returned OEF/OIF Veterans

- **Military**
  - OIF = 128 self-inflicted deaths (DMDC, 2003-2007); OEF = 19 self-inflicted deaths (DMDC, 2001-2007)
  - Suicide rate within the military is NOT dramatically different than the civilian suicide rate (approx. 20 per 100k) **when adjusted for age, gender and race.**
    - DoD Rate Standardization Research project underway to aid leadership in comparisons across services.
- **Veterans**
  - Estimated that 5,000 suicides per year among all **living** veterans and 1,000 suicides per year among veterans **receiving care within VHA** (OIG, 2005).

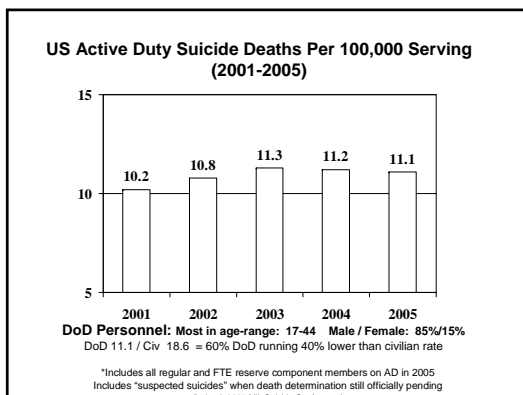
Defense Manpower Data Center  
<http://isadapp.dmdc.osd.mil/>

March 2007 DoD Military Suicide Prevention Conference  
<http://www.ba.osd.mil/2007mspc/>

CDC Web based suicide statistics  
[www.cdc.gov/nicpd/wisgans](http://www.cdc.gov/nicpd/wisgans)

VHA's Mental Health Strategic Plan for Suicide Prevention  
[www.va.gov/oh](http://www.va.gov/oh)

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Continuing studies of psychological conditions such as PTSD, substance use, and suicide in a previous cohort of combat veterans suggest we will continue to see increased service needs for health, mental health, employment, and education across the life course for veterans returning from Iraq and Afghanistan.

(Matthieu, et al, in progress; Price, et al., 2004; Virgo, et al., 1999)

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## Public Health Approaches to Suicide Prevention

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## Public Health Concepts

- Concept of risk reduction is central to prevention efforts
  - **Risk Factors**
    - Characteristics that if present, make an individual, more likely to engage in suicidal behavior than someone from the general community
      - (e.g. adolescents & adults - childhood trauma is risk factor, particularly childhood sexual abuse for adult suicide attempts)
    - Common Risk Approach
      - Diverse problems can share the same risk factors
        - » (e.g., elders-accidental falls & substance use)
  - **Protective Factors**
    - Factors that decrease probability of suicide relative to someone from the general community (e.g., increased social support)

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## Risk Factors Related to Suicide

- Youth and young adults:
  - comorbid major psychopathology: MDD, bipolar disorder, or schizophrenia & Cb)
  - alcohol &/or substance abuse/dependence
  - personal and family turmoil
  - legal problems
  - poor school or work performance;
  - prior attempts and family history of suicide.
- Adulthood:
  - comorbid depression and alcohol use/dependence
  - interpersonal disruptions & social isolation
  - poor work performance and unemployment
  - violence and legal problems
  - variable impact of marital and parental status
  - prior attempts and family history of suicide.
- Elders:
  - comorbid depression (often later onset, w/0 a prior history of psychopathology) and general medical conditions, often associated with pain *and* role function decline
  - social dependency or isolation
  - widowhood
  - personality inflexibility as a precursor
  - alcohol and Rx substance abuse present, though not to the extent of younger ages.
  - frequent contact with primary care providers.

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## Protective Factors Related to Suicide

- Social support
  - Enjoyment of close relationships with others
  - Human contact and support
- Family cohesion and support
  - For youth, perceived family and parental connectedness
- Parenthood, particularly for women
- Participation in religious activities
- Spirituality as a coping resource
- Access to clinical services and effective treatment for mental, physical and substance abuse disorders

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## Common Risk Factors & Stressors in the Military

<p><b>Psychological</b></p> <ul style="list-style-type: none"> <li>• Prior suicide gestures or attempts.</li> <li>• Psychiatric disorders:           <ul style="list-style-type: none"> <li>– Depression</li> <li>– Anxiety Disorders (e.g. PTSD).</li> <li>– Personality Disorders</li> </ul> </li> <li>• Substance abuse:           <ul style="list-style-type: none"> <li>– Alcohol Abuse</li> </ul> </li> <li>• Family history of suicide.</li> <li>• Hopelessness/helplessness.</li> <li>• Impulsivity.</li> <li>• Real or perceived sense of isolation.</li> </ul>	<p><b>Life Stressors</b></p> <ul style="list-style-type: none"> <li>• <b>Stress at Home</b> <ul style="list-style-type: none"> <li>– Relationship Problems</li> <li>– Domestic Violence</li> <li>– Recent Death</li> </ul> </li> <li>• <b>Stress at Work</b> <ul style="list-style-type: none"> <li>– Work Dissatisfaction</li> <li>– Poor Performance</li> <li>– Trouble Handling Stress</li> <li>– Operational Stressors</li> </ul> </li> <li>• <b>Financial/Legal Problems</b> <ul style="list-style-type: none"> <li>– Military legal/admin</li> <li>– Disciplinary Action</li> <li>– Civil Legal or Criminal</li> </ul> </li> </ul>
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## Protective Factors for Preventing Suicide in the Military

- Social Support
- Leadership responsibilities
- Effective coping & problem-solving skills
- Policies and culture promoting:
  - Help-seeking behavior
  - Protecting those who seek help
- Unit cohesion, camaraderie, and support
- Access to assistance
- Healthy lifestyle promotion
- Existential/spiritual support
- Positive attitude about getting help
- Optimistic outlook
- Beliefs counter to suicide that support self-preservation (Ireland, 2007 MI, Suicide Conference)

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## General Framework for Physical and Mental Health Issues

- Public Health Interventions
  - include such things as vaccinations that are targeted for everyone to receive
- Prevention Programs
  - increase protective factors to avoid onset of disease are targeted for those who have heightened risk factors
- Therapy and Treatment
  - intervene when clinical problem is already present
- Health Systems and Services
  - to provide safety net for the public when care is needed

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## Institute of Medicine Framework

- IOM's Mental Health Intervention Spectrum for Mental Disorders

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## IOM's Terminology to Describe Prevention Strategies

- Universal**
  - Focuses on an entire population/general public
    - Nation, state, local county or community, school or neighborhood.
- Selective**
  - Focuses on at-risk groups or subsets of the total population that have a greater probability of developing a disorder or negative outcome.
    - The aim is to prevent the onset of a disorder among specific subpopulations.
- Indicated**
  - Focuses on specific high-risk individuals within the population that are evidencing early signs of a disorder.
    - Programs are designed and delivered in groups or individually to reduce risk factors and increase protective factors.

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IOM 1992

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## Universal Approaches: Suicide Prevention

- Broadly based, cost effective, & designed to influence everyone by:
  - reducing suicide risk though removing barriers to care
  - enhancing knowledge of what to do and say to help suicidal individuals
  - increasing access to help
  - strengthening protective processes like social support and coping skills
- Include programs such as:
  - public education campaigns
  - means restriction
  - suicide awareness and skills training programs
  - education programs for:**
    - the media on reporting practices related to suicide
    - clinical providers**
    - community members/groups**
  - hotlines and crisis centers
    - crisis response plan/teams

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IOM, 2002

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## Selective Approaches: Suicide Prevention

- Targeted to at risk groups that have greater probability of becoming suicidal
  - Includes programs such as:
    - gatekeeper training for "frontline" adult caregivers and peer "natural helpers" in the community**
    - support and skill building groups for at-risk groups in the population
    - screening programs to identify, assess, and refer for treatment in particular at-risk groups
    - enhanced, accessible crisis services & referral sources

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## Indicated Approaches: Suicide Prevention

- Programs for young adults
  - Family support training; skill building support groups for high risk individuals
  - Case management/alternative programming and referral sources for crisis intervention and treatment
- Programs for adults and elders
  - Active treatment of depression
    - Depression care managers in primary care practices

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## IOM's Terminology to Describe Treatment Strategies or Approaches

- Treatment is provided to individuals that meet or almost meet diagnostic categories for mental disorders or disease.
  - Reduce symptom severity and duration of disorder.
- Case Identification**
  - Screening measures are utilized to identify emerging symptoms
- Standard Treatment for Known Disorders**
  - Reduce the likelihood of future co-occurring disorders
  - Reduce the length of time the disorder exists, halt a progression of severity, and halt the recurrence of the original disorder, or if not possible, to increase the length of time between episodes.

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IOM 1992

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### IOM's Terminology to Describe Maintenance Strategies or Approaches

- Maintenance is provided on long term basis for continuing illness with interventions that are supportive, educational, and/or pharmacological in nature.
  - Goal: Reduce disability associated with the disorder
- Compliance with Long Term Treatment
  - Goal: Reduction in relapse and recurrence
- Aftercare
  - Goal: Rehabilitation

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## Warning Signs of Suicide

What to look for and how to help.

Rudd, et al., 2006

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## Warning Signs of Suicide

*Are you or someone you care about at risk for suicide?*  
*Get the facts and take action.*

- Call 9-1-1 or seek immediate help from a mental health provider when you hear, say or see any one of these behaviors:
  - Someone threatening to hurt or kill themselves
  - Someone looking for ways to kill themselves: seeking access to pills, weapons, or other means to take their life
  - Someone talking or writing about death, dying, or suicide

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## Warning Signs of Suicide

Seek help by contacting a mental health professional or calling **1-800-273-TALK (8255)** for a referral should you witness, hear, or see anyone exhibiting any one or more of these behaviors:

- Hopelessness
- Rage, anger, seeking revenge
- Acting reckless or engaging in risky activities, seemingly without thinking
- Feeling trapped—like there's no way out
- Increasing alcohol or drug use
- Withdrawing from friends, family, or society
- Anxiety, agitation, unable to sleep, or sleeping all the time
- Dramatic changes in mood
- No reason for living; no sense of purpose in life

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## Mnemonic

**I** = Ideation  
**S** = Substance Abuse

**P** = Purposelessness  
**A** = Anxiety  
**T** = Trapped  
**H** = Hopelessness

**W** = Withdrawal  
**A** = Anger  
**R** = Recklessness  
**M** = Mood Change

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## The more warning signs observed, the greater the risk for suicide.

Take all signs seriously

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## Clinical Evidence for Psychological Interventions

Diagnosis	Beneficial	Likely to be Beneficial	Unknown Effectiveness
GENERALIZED ANXIETY DISORDER Search date February 2005		• CBT	• Applied relaxation
DEPRESSIVE COMORBID BIPOLAR DISORDER Search date May 2004	• Behavioral therapy • CT or CBT		• Behavioral or CT plus serotonin reuptake inhibitor • Electroconvulsive therapy
PHOBIC DISORDER Search date July 2004	• Cognitive behavioral therapy	• Applied relaxation • C-Self-reward therapy • Cognitive restructuring • Engage in the act in vivo	• Breathing retraining • Cognitive therapy • Imaginal reexposure • Psychoeducation
POST TRAUMATIC STRESS DISORDER Search date November 2005		• Prolonged exposure • Multiple session CBT in people with acute stress disorder (ASD)	• Prolonged exposure • Multiple session CBT in all people exposed to a traumatic event • Multiple session collaborative trauma support • Single session group debriefing
	TREATMENTS • Eye movement desensitization and reprocessing (EMDR)		TREATMENTS • After management • Drama therapy • Group therapy • Hospital stay • Inpatient behavioral program • Inpatient brief psychotherapy • Psychoeducative group/individual • Single session psychotherapy
SCHIZOPHRENIA Search date September 2004	PREVENTION/RELAPSE • CBT • Eye movement desensitization and reprocessing (EMDR) • Multiple session family intervention • Psychoeducational interventions	ADHERENCE • Behavioral therapy • Compliance therapy • Psycho educational interventions	PROBLEM SOLVING • CBT • Social skills training

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## Psychological Interventions for Attempted Suicide

- Continuity of care
  - Follow up care with same therapist, motivational interview, letter, assessment of motivation for treatment
- Emergency card
  - Card given indicating that a doctor was available, how to contact them or allowing readmission to a hospital
- Hospital admission
  - vs. immediate discharge
- Intensive outpatient follow up plus outreach
  - In-person or phone contact of the person in the community, including encouragement to attend health services
- Nurse led case management
  - vs. usual care (triage, psychiatric assessment, inpatient care)
- Telephone contact
  - Aimed at increasing motivation

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## Psychological Interventions for Attempted Suicide

**Therapies:**

- Problem Solving Therapy
  - Uses a set of sequential steps in solving problems and aims at minimizing negative emotion and maximizing identification, evaluation, and implementation of optimal solutions.
- Psychodynamic Interpersonal Therapy
  - Aimed at improving interpersonal problems/relationships
- Manual-assisted Cognitive Behavioral Therapy
  - CBT assisted by a manual consisting of brief techniques.
- Dialectical Behavior Therapy
  - A multimodal therapy used particularly in the treatment of people with borderline personality disorder who repeatedly engage in deliberate self harm. It involves helping to replace extremes of emotions and behavior with behavior that is a moderate synthesis of extremes.

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## Where to Get More Information on Suicide Prevention

- Reducing Suicide: A National Imperative (2002). Institute of Medicine: National Academy of Sciences Press (<http://www.iom.edu/>)
- Rudd, M.D., Joiner, & T., Rajab, M.H. (2001). Treating suicidal behavior: An effective, time limited approach. New York: Guilford Press.
- Linehan, M.M. (1993). Cognitive behavioral treatment of borderline personality disorder. New York: Guilford Publications.

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Thanks!

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