

# In Harm's Way

## Suicide in America

Suicide is a tragic and potentially preventable public health problem. In 2000, suicide was the 11<sup>th</sup> leading cause of death in the U.S.<sup>1</sup> Specifically, 10.6 out of every 100,000 persons died by suicide. The total number of suicides was 29,350, or 1.2 percent of all deaths. Suicide deaths outnumbered homicide deaths by five to three. It has been estimated that there may be from eight to 25 attempted suicides per every one suicide death.<sup>2</sup> The alarming numbers of suicide deaths and attempts emphasize the need for carefully designed prevention efforts.

Suicidal behavior is complex. Some risk factors vary with age, gender and ethnic group and may even change over time. The risk factors for suicide frequently occur in combination. Research has shown that more than 90 percent of people who kill themselves have depression or another diagnosable mental or substance abuse disorder, often in combination with other mental disorders.<sup>2,3</sup> Also, research indicates that alterations in neurotransmitters such as serotonin are associated with the risk for suicide.<sup>4</sup> Diminished levels of this brain chemical have been found in patients with depression, impulsive disorders, a history of violent suicide attempts, and also in postmortem brains of suicide victims.



Adverse life events in combination with other risk factors such as depression may lead to suicide. However, suicide and suicidal behavior are not normal responses to stress. Many people have one or more risk factors and are not suicidal. Other risk factors include: prior suicide attempt; family history of mental disorder or substance abuse; family history of suicide; family violence, including physical or sexual abuse; firearms in the home; incarceration; and exposure to the suicidal behavior of others, including family members, peers, or even in the media.<sup>2</sup>

### Gender Differences

Suicide was the 8<sup>th</sup> leading cause of death for males and the 19<sup>th</sup> leading cause of death for females in 2000.<sup>1</sup> More than four times as many men as women die by suicide,<sup>1</sup> although women report *attempting* suicide during their lifetime about three times as often as men.<sup>5</sup> Suicide by firearm is the most common method for both men and women,

accounting for 57 percent of all suicides in 2000. White men accounted for 73 percent of all suicides and 80 percent of all firearm suicides.

### Children, Adolescents, and Young Adults

In 2000, suicide was the 3<sup>rd</sup> leading cause of death among 15- to 24-year-olds—10.4 of every 100,000 persons in this age group—following unintentional injuries and homicide. Suicide was also the 3<sup>rd</sup> leading cause of death among children ages 10 to 14, with a rate of 1.5 per 100,000 children in this age group. The suicide rate for adolescents ages 15 to 19 was 8.2 deaths per 100,000 teenagers, including five times as many males as females. Among people 20 to 24 years of age, the suicide rate was 12.8 per 100,000 young adults, with seven times as many deaths among men as among women.<sup>1,6</sup>

## Older Adults

Older adults are disproportionately likely to die by suicide. Comprising only 13 percent of the U.S. population, individuals age 65 and older accounted for 18 percent of all suicide deaths in 2000. Among the highest rates (when categorized by gender and race) were white men age 85 and older: 59 deaths per 100,000 persons, more than five times the national U.S. rate of 10.6 per 100,000.<sup>1,6</sup>

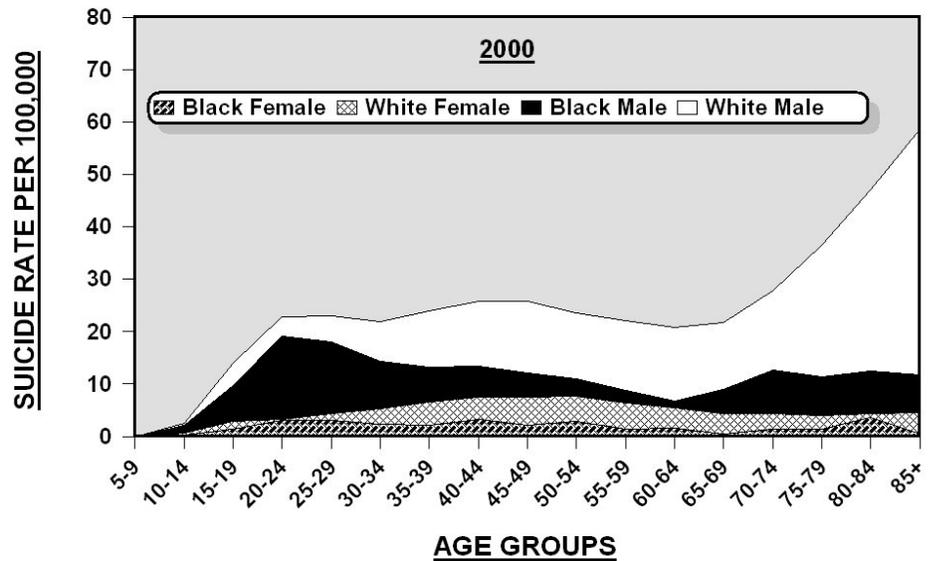
## Attempted Suicides

Overall, there may be between eight and 25 attempted suicides for every suicide death; the ratio is higher in women and youth and lower in men and the elderly.<sup>2</sup> Risk factors for attempted suicide in *adults* include depression, alcohol abuse, cocaine use, and separation or divorce.<sup>7,8</sup> Risk factors for attempted suicide in *youth* include depression, alcohol or other drug use disorder, physical or sexual abuse, and disruptive behavior.<sup>8,9</sup> As with people who die by suicide, many people who make serious suicide attempts have co-occurring mental or substance abuse disorders. The majority of suicide attempts are expressions of extreme distress and not just harmless bids for attention. A suicidal person should not be left alone and needs immediate mental health treatment.

## Prevention

Preventive efforts to reduce suicide should be based on research that shows which risk and protective factors can be modified, as well as which groups of people are appropriate for the intervention. In addition, prevention programs must be carefully tested to determine if they are safe, truly effective, and worth the considerable cost and effort needed to implement and sustain them.<sup>10</sup>

## U.S. SUICIDE RATES BY AGE, GENDER, AND RACIAL GROUP



Source: National Institute of Mental Health  
Data: Centers for Disease Control And Prevention, National Center For Health Statistics

Many interventions designed to reduce suicidality also include the treatment of mental and substance abuse disorders. Because older adults, as well as women who die by suicide, are likely to have seen a primary care provider in the year prior to their suicide, improving the recognition and treatment of mental disorders and other suicide risk factors in primary care settings may be one avenue to prevent suicides among these groups.<sup>11</sup> Improving outreach to men at risk for suicide is a major challenge in need of investigation.

Recently, the manufacturer of the medication clozapine received the first ever Food and Drug Administration indication for effectiveness in preventing suicide attempts among persons with schizophrenia.<sup>12</sup> Additional promising pharmacologic and psychosocial treatments for suicidal individuals are currently being tested.

***If someone is suicidal, he or she must not be left alone. Try to get the person to seek help immediately from his or her doctor or the nearest hospital emergency room, or call 911. It is also important to limit the person's access to firearms, medications, or other lethal methods for suicide.***

## For More Information

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American Association of Suicidology  
Phone: 202-237-2280  
Web site: www.suicidology.org

American Foundation  
for Suicide Prevention  
Phone: 212-363-3500  
Web site: www.afsp.org

National Hopeline Network  
Phone: 1-800-SUICIDE  
(1-800-784-2433)  
Toll-free, 24-hour crisis hotline

Suicide Prevention Advocacy Network  
Phone: 770-998-8819  
Web site: www.spanusa.org

## References

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<sup>2</sup>Moscicki EK. Epidemiology of completed and attempted suicide: toward a framework for prevention. *Clinical Neuroscience Research*, 2001; 1: 310-23.

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<sup>4</sup>Mann JJ, Oquendo M, Underwood MD, Arango V. The neurobiology of suicide risk: a review for the clinician. *Journal of Clinical Psychiatry*, 1999; 60(Suppl 2): 7-11; discussion 18-20, 113-6.

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<sup>6</sup>Office of Statistics and Programming, NCIPC, CDC. Web-based Injury Statistics Query and Reporting System (WISQARSTM): <http://www.cdc.gov/ncipc/wisqars/default.htm>.

<sup>7</sup>Kessler RC, Borges G, Walters EE. Prevalence of and risk factors for lifetime suicide attempts in the National Comorbidity Survey. *Archives of General Psychiatry*, 1999; 56(7): 617-26.

<sup>8</sup>Petronis KR, Samuels JF, Moscicki EK, Anthony JC. An epidemiologic investigation of potential risk factors for suicide attempts. *Social Psychiatry and Psychiatric Epidemiology*, 1990; 25(4): 193-9.

<sup>9</sup>Gould MS, Greenberg T, Velting DM, Shaffer D. Youth suicide risk and preventive interventions: a review of the past 10 years. *Journal of the American Academy of Child and Adolescent Psychiatry*, 2003; 42(4): 386-405.

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<sup>11</sup>Luoma JB, Pearson JL, Martin CE. Contact with mental health and primary care prior to suicide: a review of the evidence. *American Journal of Psychiatry*, 2002; 159: 909-16.

<sup>12</sup>Meltzer HY, Alphas L, Green AI, Altamura AC, Anand R, Bertoldi A, Bourgeois M, Chouinard G, Islam MZ, Kane J, Krishnan R, Lindenmayer JP, Potkin S; International Suicide Prevention Trial Study Group. Clozapine treatment for suicidality in schizophrenia: International Suicide Prevention Trial (InterSePT). *Archives of General Psychiatry*, 2003; 60(1): 82-91.

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