Suicide

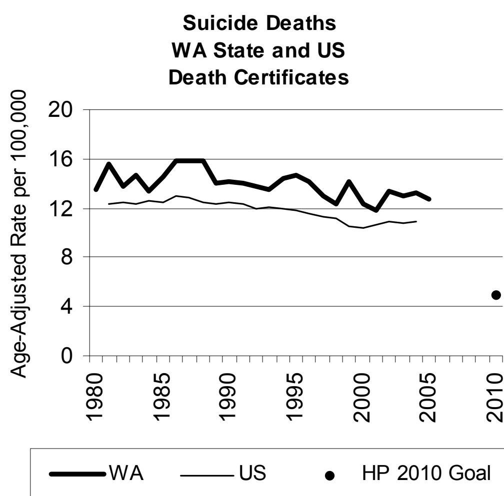
Definition: Suicide deaths are those from an injury, poisoning, or suffocation where there is evidence that a self-inflicted act led to the person's death. Suicide includes all intentional, self-inflicted deaths. Hospitalizations for 1989–2005 and deaths from 1980–1998 include all death records with and ICD 9 code including E950-E959. Deaths from 1999–2005 include records with ICD 10 codes of X60-X84 or Y87.0.

Summary

In 2005, 814 Washington State residents died by suicide (age-adjusted rate 13 per 100,000). Suicide is the eleventh leading cause of death for all Washington residents and the second leading cause among youth ages 15–24. The highest rates of suicide occur among men 75 years old or older. The most promising way to prevent suicide and suicidal behavior is through the early recognition and treatment of depression and other psychiatric illnesses. Interventions work best when done as part of a comprehensive approach to prevention.

Time Trends

From 1980 to 2005, Washington experienced a decline in its age-adjusted suicide rate from 14 per 100,000 to 13 per 100,000.



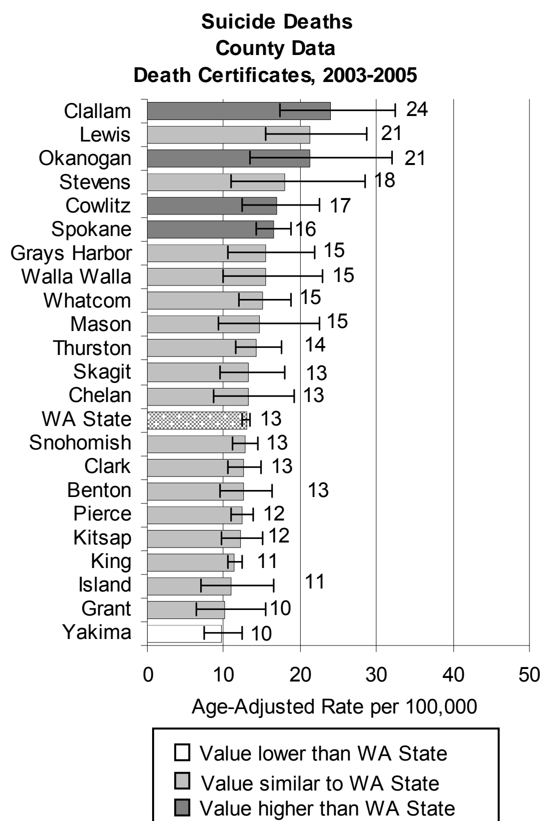
In 2004, the most recent year for which national data are available, the U.S. age-adjusted suicide rate was 11 per 100,000, lower than the Washington rate. This is consistent with the national finding that suicide rates are generally higher than the national average in the states west of the Rocky Mountains.[1]

Year 2010 Goals

The national *Healthy People 2010* goal is to reduce the age-adjusted rate of suicide to 5 per 100,000. If the current rate of decline continues, Washington will not meet this goal.

Geographic Variation

The following chart does not include 17 counties in which fewer than 20 Washington residents died of suicide during 2003–2005. Death rates for these counties fluctuate even when combining three years.



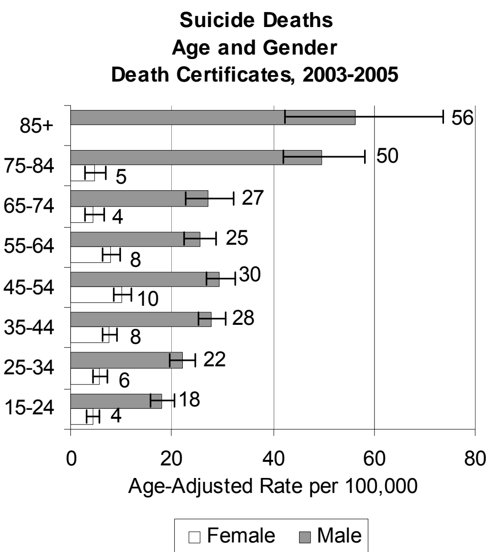
For 2003–2005 combined, Clallam, Lewis, Okanogan, and Spokane counties had age-adjusted suicide death rates higher than the state rate. Yakima was the only county with a suicide death rate lower than the state rate.

Analysis of the variation in suicide rates by census tracts groupings for 2001–2005 shows that Washington residents living in the Western Olympic Region and in Spokane were about twice as likely to die from suicide as other state residents.

Shading shows areas with high relative risk for suicide

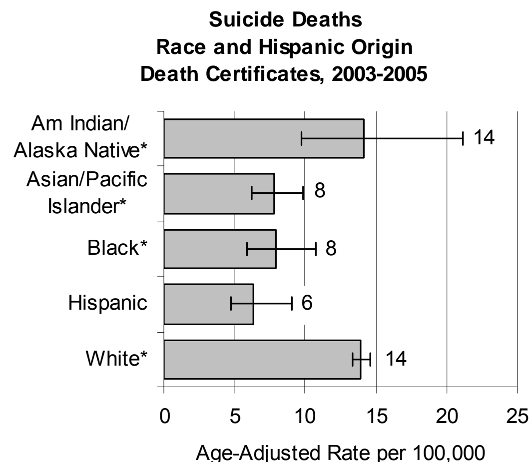
Age and Gender

During 2003–2005, males in Washington accounted for 79% of completed suicides. Men ages 75 and older had the highest suicide rates. Although elderly men's rates are the highest, men ages 35–54 have the highest number of suicides. Washington residents younger than 15 and women 85 and older had fewer than 20 deaths. Death rates for these two groups fluctuate even when combining three years of data, so the chart does not include them.



Race and Hispanic Origin

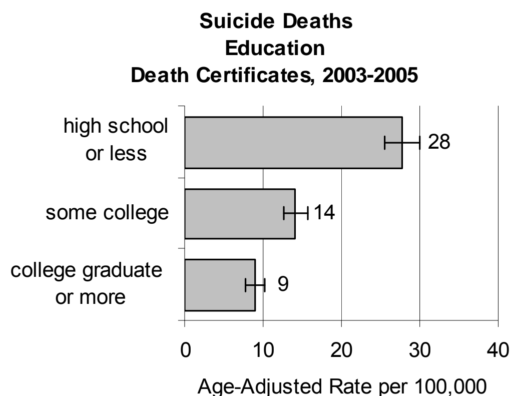
In Washington in 2003–2005 combined, age-adjusted suicide rates were highest for whites and American Indians and Alaska Natives. Research has not assessed the relative importance of race, ethnicity, poverty, and education in relation to rates of suicide.



* Non-Hispanic

Income and Education

In Washington in 2003–2005, the age-adjusted suicide rate among those with high school education or less was about three times the rate for those who have graduated from college. Direct measures of income and suicide rates are not available in Washington, but in Washington for 2000–2002 combined, suicide rates increased as the proportion of people living in poverty increased.[2]



People with lower educational attainment and fewer economic resources might have less social support and more frequent stressful life events,[3] both of which could place them at higher risk of suicide.

Other Measures of Impact and Burden

Non-fatal suicide attempts. In 2005, there were 3,507 hospitalizations in Washington for nonfatal suicide attempts (rate 56 per 100,000). Females had a higher rate of hospitalized suicide attempts (69 per 100,000) than males (42 per 100,000). The number of patients treated in emergency departments but not hospitalized is much higher, and many people who have made suicide attempts do not seek medical care. Nationally, the 2004 rate for nonfatal suicide attempts treated in hospital emergency rooms was 126 per 100,000.[4] This rate is almost 12 times higher than the national rate for completed suicides.

Premature mortality. In Washington, suicide is the second leading cause of death for youth 15–24 years and caused 17% of the deaths in this age group in 2005.

In the 2006 Healthy Youth Survey, 15% (±1%) of Washington 10th graders reported they had considered attempting suicide in the past year, and 12% (±1%) reported having a plan for their suicide attempt.

Depression contributes to youth suicide. In 2006, about 30% (±1%) of Washington 10th graders reported that at some point in the past year, they had been so sad or hopeless almost every day for two weeks or more in a row that they stopped doing their usual activities. About 16% (±1%) of 10th graders reported having no adults to turn to when they were depressed, and 43% (±4%) of these youth reported it would be very unlikely for them to seek help if they were feeling depressed or suicidal.

Emotional and economic cost. Family members and friends of those who have killed themselves experience significant emotional pain. Those who have attempted suicide experience both emotional and often physical pain. These cannot be quantified. But financial costs can be measured.

The estimated total economic burden of suicide in the United States in 1995 was $111 billion. This figure includes medical expenses of $4 billion, work-related losses of $27 billion, and quality of life costs of $80 billion.[5] These figures underestimate the true costs because suicide deaths are not always reported as such, and data about suicide attempts are incomplete. In addition, such estimates, in common with economic analyses of other health problems, require assumptions that might not be accurate.

Risk and Protective Factors

The U.S. Department of Health and Human Services included a comprehensive list of suicide risk and protective factors in the National Strategy for Suicide Prevention.[6]

Risks associated with suicide and suicidal behavior include:

- Previous suicide attempt(s)
- Mental disorders, particularly depression
- Alcohol and substance abuse
- Family history of suicide
- History of trauma or abuse
- Feelings of hopelessness
- Impulsive or aggressive tendencies
- Barriers to accessing mental health treatment
- Personal losses (relational, social, work, or financial)
- Physical illness
- Easy access to lethal means
- Unwillingness to seek help because of the stigma attached to mental health and substance abuse disorders or suicidal thoughts
- Cultural and religious beliefs—for instance, the belief that suicide is a noble resolution of a personal dilemma
- Local clusters of suicide
- Feeling cut-off from other people.

Protective factors for suicide include:

- Effective clinical care for mental, physical, and substance abuse disorders
- Easy access to a variety of clinical interventions, including mental health services, and support for help-seeking
- Restricted access to lethal means of suicide
- Family and community support
- Support from ongoing medical and mental health care relationships

- Skills in problem solving, conflict resolution, and nonviolent handling of disputes
- Cultural and religious beliefs that discourage suicide and support self-preservation instincts.

Intervention Strategies

The *Surgeon General's Call to Action To Prevent Suicide*[7] says the most promising way to prevent suicide and suicidal behavior is an evidence-based public health approach to early recognition and treatment of depression, substance abuse, and other psychiatric illnesses. Both the *National Strategy for Suicide Prevention*[6] and the U.S. Institute of Medicine (IOM) report *Reducing Suicide: A National Imperative*[8] were developed in response to the *Call to Action*. These documents make recommendations in three areas: increase awareness, improve interventions, and develop research aimed at reducing suicide. Strategies listed in this section come from these two reports.

Researchers have not evaluated these strategies for their effectiveness in directly reducing suicide, but many of them have proven effectiveness in reducing risk for suicide, such as substance abuse and depression, or strengthening protective factors such as social and emotional connectedness.

Awareness. Broadening awareness of suicide and its risk and protective factors among the public and health care providers is recommended. This approach includes promoting awareness that many suicides are preventable and developing and implementing strategies to reduce the stigma associated with mental illness, substance abuse, and suicide and with seeking help for such problems.

Intervention. Multi-faceted interventions that address risk factors for suicide and support the protective factors at the individual, family, and community levels are highly recommended.

Health care providers can play an important role in the early identification and treatment of people who are suicidal. Improving the ability of primary care providers to recognize and treat depression, substance abuse, and other major mental illnesses associated with suicide supports early intervention. Health care providers should be aware of community resources for treating substance abuse, depression, and other mental illness. An example of an evidence-based suicide prevention program that primary care providers can use is PROSPECT,[9,10] which provides guidelines for treatment and care management for community-dwelling adults ages 60 and older who have been diagnosed with depression. For health care providers working in an emergency room setting, evidence-based programs include lethal means restriction education for parents of youth who are seen in emergency rooms for mental health assessment or treatment[11] and an intervention for female adolescent suicide attempters and their mothers.[12]

Both reports note that public and private insurance programs should eliminate barriers so that mental health services can be accessed when and as needed. Washington State's mental health parity legislation of 2005 and 2007 are steps in the right direction that require health plans to cover mental health services in a manner comparable in scope and limitations to other health services.

The IOM and *National Strategy* reports both discuss the importance of education and training for all health, mental health, and human service professionals (including clergy, teachers, correctional workers, and social workers) about suicide risk assessment and recognition, treatment, management, and aftercare. They recommend including suicide in educational programs for health and human service providers to assure recognition and early intervention for suicidal individuals.

Authors of these reports also recommend training school personnel and other adults who work with youth —"gatekeepers"—to recognize the warning signs of suicidal behavior and to intervene. C-Care (Counselors Care)/CAST (Coping and Support Training)[13,14] is recognized as an effective school-based intervention to reduce suicide risk factors and increase protective factors and can be generalized to schools with diverse ethnic populations. Other promising school-based interventions include Columbia University TeenScreen,[15] Lifelines,[16] Reconnecting Youth,[17] SOS Signs of Suicide,[18] and Zuni Life Skills Intervention.[19] The generalizability of these interventions to diverse student populations varies. More research is needed in this area.

In addition to education and training for health and human services professionals, it is also important to teach family members of those at risk of suicide to recognize, respond to, and refer people showing signs of suicide. Community organizations, such as senior centers and workplaces, can also play a role in preventing suicide by providing either direct access or referrals to mental and physical health

services. Promoting help-seeking behavior among those contemplating suicide can be supported through these entities as well. Finally, both the IOM report and the *National Strategy* recommend reducing the availability of lethal means, such as firearms, to reduce suicide.

Research. Research is critical if we are to understand suicidal behavior as well as the barriers for seeking and obtaining help and support. Emerging interventions—both suicide prevention programs and clinical treatment—should be evaluated with diverse populations to assure the interventions are feasible to implement and effective. Developing data systems such as emergency department data or the National Violent Death Reporting System in Washington could give valuable information for prevention planning.

Data Sources (For additional detail, see Appendix B.)

Washington State Death Certificate Data: Washington State Department of Health, Vital Registration System Annual Statistical Files, Deaths 1980–2005, released December 2006.

Washington Hospitalization Data: Dataset compiled by the Washington State Department of Health Center for Health Statistics from the Washington Comprehensive Hospitalization Abstract System, Oregon Hospital Discharge data, and Veterans Hospital Administration datasets, December 2006.

National data: National Center for Injury Prevention and Control, National Centers for Health Statistics. Available on the Web-based Injury Statistics Query and Reporting System website at http://www.cdc.gov/ncipc/wisqars/.

For More Information

Department of Health Injury and Violence Prevention Program, (360) 236-2855. http://www.doh.wa.gov/hsqa/emstrauma/injury/

Suicide Prevention Resource Center. http://www.sprc.org

U.S. Centers for Disease Control and Prevention Division of Violence Prevention: Suicide Prevention Fact Sheet http://www.cdc.gov/ncipc/factsheets/suifacts.htm

Youth Suicide Prevention Program, http://www.yspp.org

Endnotes

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