

Youth Suicide in Virginia

A Look at Youth Suicide in Virginia, 1996-2005

Suicide took the lives of 31,655 people in the United States in 2002. That same year 132,353 individuals were hospitalized for suicide attempts and 116,639 were treated in emergency departments and released. Suicide is the 11th leading cause of death in the United States¹.

Suicide is the third leading cause of death among youth and young adults between the ages of 10-24. 10-24 year olds accounted for 13.4% of all suicides in 2002. More teenagers die from suicide than from cancer, heart disease, AIDS, stroke, pneumonia and influenza, and chronic lung disease combined².

Each year, there are more suicide attempts among youth than suicides. Obtaining an accurate count of suicide attempts can be difficult because many may not be treated in hospitals or may not be coded as a self-inflicted injury. Also, not all self-inflicted injuries occur with suicide as the intent. However, a 1999 survey of high school students found that 19.3% of students had seriously considered attempting suicide, 14.5% had made plans to attempt suicide, and 8.3% had made a suicide attempt during the year preceding the survey³.

The following report will look at suicides that occurred among Virginia youth (10-24) from 1996 through 2005. It is important to note a change that occurred in death coding. In 1999 coding changed from ICD-9 version to ICD-10. This change needs to be taken into account when comparing 1998 and earlier data to 1999 and later data. A CDC study was conducted to examine the compatibility of ICD-9 coding and ICD-10 by creating comparability ratios. It was found that deaths coded as suicides had a ratio of 0.9962 (ratio of 1 means the same number of deaths would have been assigned whether the 9th or 10th ICD version was used). The ratio associated with suicide indicates that a slight drop in the classification of suicide deaths occurred under the ICD-10⁴. This drop in suicide classification may have played a small part in the decrease in suicides observed between 1998 and 1999.

National Violent Death Reporting System

The National Violent Death Reporting System (NVDRS) collects detailed information on violent deaths and suicides from 17 states; including Virginia. This information can provide valuable insight into the circumstances surrounding youth suicide. For example, a recent study conducted by Harvard University using NVDRS data found that 35% of youth suicide deaths occurred the same day the youth experienced a crisis (a breakup or an argument with a parent)⁵.

According to 2003-2004 data on suicides completed among 10-19 year olds from the Virginia Violent Death Reporting System⁶:

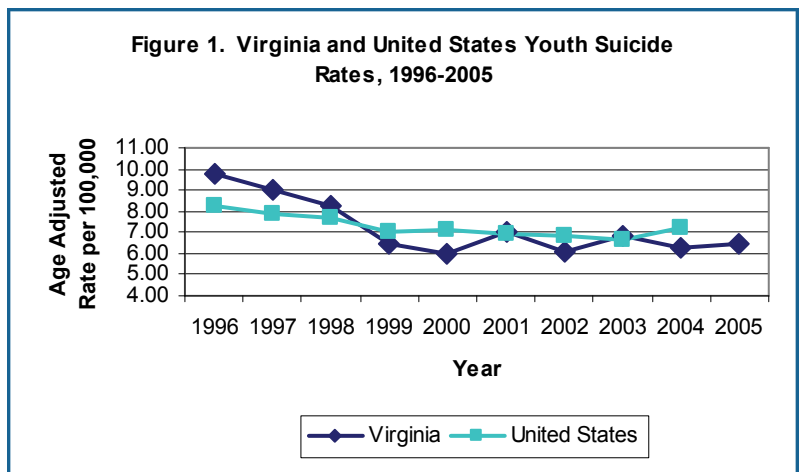
- 40% of suicide victims had a current mental health problem.
- 35% had been diagnosed with depression.
- 37% were currently seeking mental health treatment.
- 14.2% had a alcohol and/or drug problem.
- 37% left a suicide note.
- 32% experienced a crisis in the two weeks prior to suicide.
- 29% had intimate partner problems.
- 14% were having problems at school.

Youth Suicide In Virginia

1,066 suicides occurred among Virginia youth aged 10-24 years old from 1996-2005, for a ten year youth suicide rate of 7.2 per 100,000 population. Suicide was the third leading cause of death (following unintentional injury and homicide) for youth during this time period.

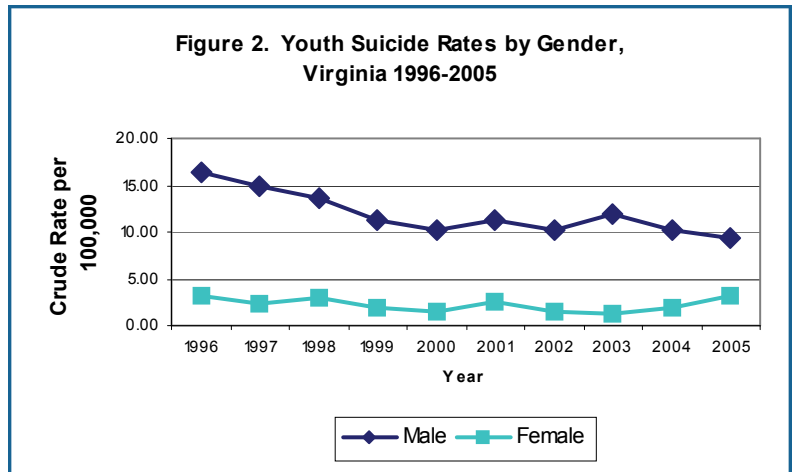
85% of the youth were male, 75% were White, NH, and 54% were 20-24 years old. The two leading mechanisms for suicide were firearms (62%) and suffocation (25%).

Figure 1 compares the age adjusted suicide rates for Virginia and U.S. youth 10-24 years old. In the late 90's the Virginia youth suicide rate was higher than national rates. After a 40% drop from 1996 to 2000, youth suicide rates in Virginia have fluctuated from year to year, while U.S. rates have remained fairly stable.



Youth Suicide by Gender

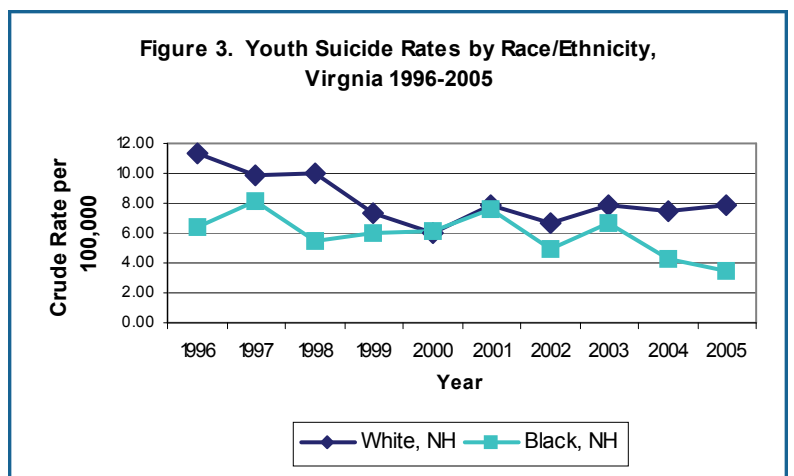
Males were more than 5 times as likely as females to die due to suicide. The ten year male suicide rate was 11.7 per 100,000, while the female rate was 2.2 per 100,000. Male suicide rates decreased 37% from 1996 until 2000. Rates fluctuated over the next three years, but have continued to decrease since 2003. Female suicide rates have been more stable over the ten year period, although they have begun to increase gradually since 2002.



The leading mechanisms of suicide for males were firearms (65%) and suffocation (24%). The three leading mechanisms of female suicide were firearms (45%), suffocation (30%), and poisoning (21%). Males were more likely to use firearms as a method of suicide than females.

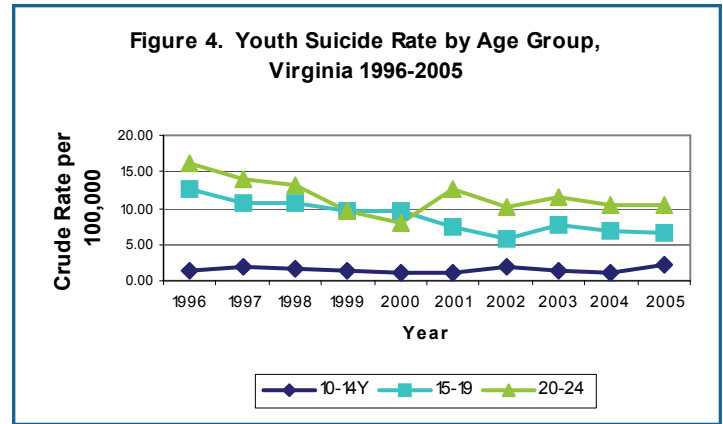
Youth Suicide by Race/Ethnicity

Overall, white, non-Hispanic youth suicide rates were 1.4 times higher than black, non-Hispanic rates, and two times higher than other, non-Hispanic and Hispanic, any race. Over the ten year period, white, non-Hispanic rates decreased from 1996 until 2000 and have gradually increased over the past five years. Overall, black, non-Hispanic rates have decreased over the ten year period, with marked increases in 1997, 2001, and 2003. Other, non-Hispanic and Hispanic, any race had a low number of suicides each year, resulting in unstable rates and so were not included in Figure 3.



Youth Suicide by Age Group

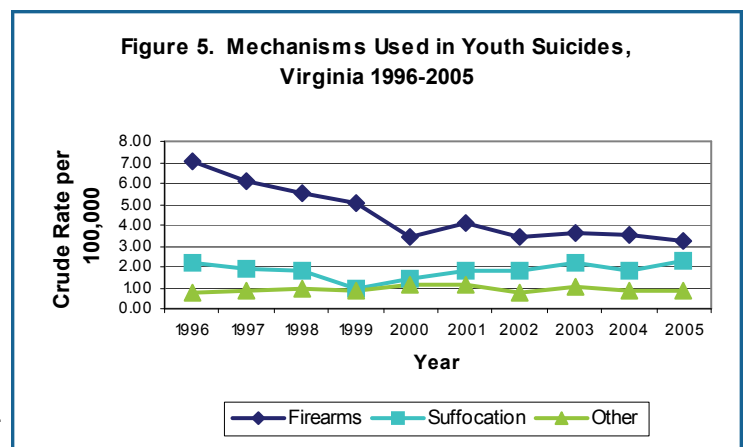
Overall, 20-24 year olds had a higher rate of suicide (11.5 per 100,000) than 15-19 year olds (8.6 per 100,000) and 10-14 year olds (1.5). Rates among 20-24 year olds decreased from 1996 until 2000, then increased drastically in 2001 before remaining fairly stable the following four years. Rates for 15-19 year olds decreased 53% from 1996 until 2002. Their rates increased again in 2003, but have continued to go down over the last two years. Rates among 10-14 year olds have remained fairly stable over the ten year period, with marked increases in 2002 and 2005.



Mechanism Used in Youth Suicide

As with all age groups, firearms and suffocation are the two leading mechanisms used by youth when completing a suicide. Overall, the rate of firearm usage was 2 times higher than that of suffocation and almost 5 times higher than all other methods.

Over the ten year period, suicide by firearms decreased 50% from 1996 until 2000. The rate increased in 2001, decreased in 2002 and has remained fairly stable over the last three years. Suffocation rates decreased from 1996 until 1999, but have been increasing since 2000. If current trends continue, suffocation may become the leading method of suicide within the next few years.

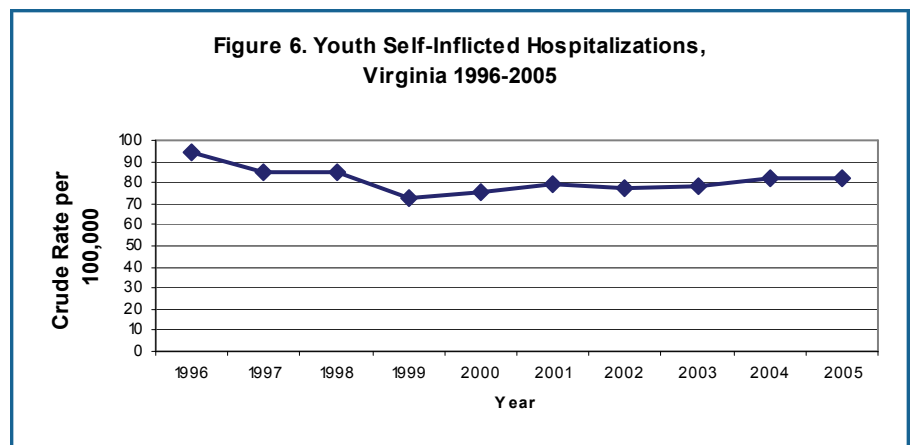


Youth Self-Inflicted Hospitalizations in Virginia

11,989 self-inflicted injuries occurred among Virginia youth aged 10-24 years old from 2001-2005. 65% of the youth were female, 68% were white, non-Hispanic, and 47% were 15-19 years old. The leading mechanism of self-inflicted injuries were poisoning (83.4%) and cut/pierce (12%).

The ten year self-inflicted injury rate was 80.9 per 100,000. Self-Inflicted injuries decreased from 1996 until 2000, but have been on a gradual rise since 2001. The female ten year self-inflicted rate (107.9 per 100,000) was almost two times as high as the male rate (55.6 per 100,000).

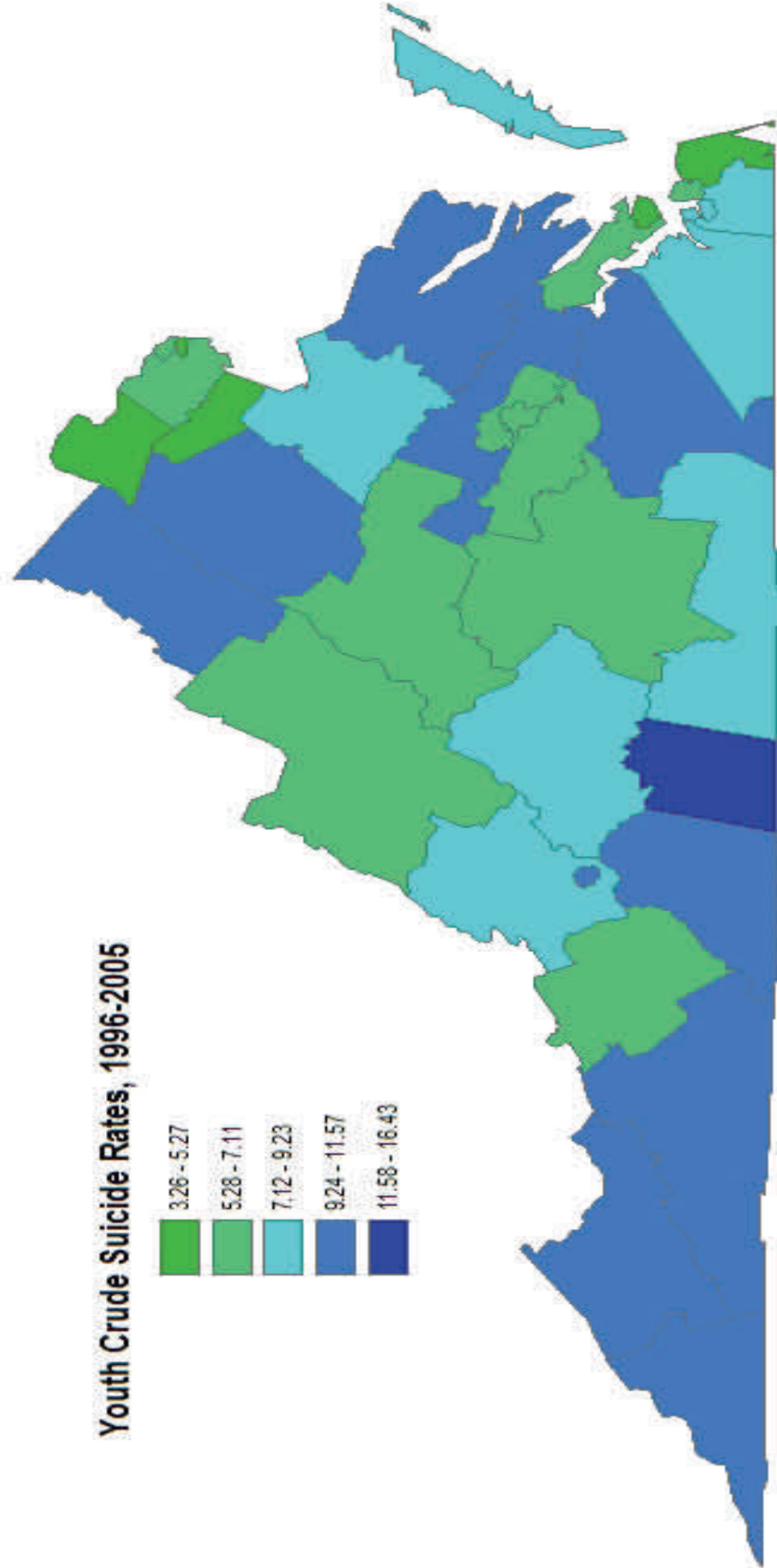
White, non-Hispanic's had the highest rate of self-inflicted injuries (83.6 per 100,000), followed by other, non-Hispanics (66.3 per 100,000), black, non-Hispanics (56.1 per 100,000), and Hispanics, any race (46 per 100,000).



YOUTH SUICIDE RATES BY HEALTH DISTRICT

	# Suicides	Population	Crude Rate per 100,000
Alexandria	7	167,158	4.19
Alleghany	29	314,267	9.23
Arlington	17	278,790	6.10
Central Shenandoah	39	622,756	6.26
Central Virginia	38	478,747	7.94
Chesapeake	33	448,957	7.35
Chesterfield	47	661,278	7.11
Chickahominy	25	250,022	10.00
Crater	33	313,974	10.51
Cumberland Plateau	26	225,272	11.54
Eastern Shore	8	99,980	8.00
Fairfax	107	1,872,210	5.72
Hampton	11	337,720	3.26
Henrico	31	489,102	6.34
Lenowisco	21	181,556	11.57
Lord Fairfax	40	367,406	10.89
Loudoun	18	342,145	5.26
Mount Rogers	33	341,312	9.67
New River	28	494,744	5.66
Norfolk (City)	42	653,961	6.42
Peninsula	42	701,222	5.99
Piedmont	14	215,129	6.51
Pittsylvania/Danville	34	206,906	16.43
Portsmouth	19	222,310	8.55
Prince William	40	759,076	5.27
Rappahannock	45	578,841	7.77
Rappahannock/Rapidan	26	273,946	9.49
Richmond (City)	29	423,646	6.85
Roanoke (City)	17	164,743	10.32
Southside	12	160,729	7.47
Thomas Jefferson	29	460,435	6.30
Three Rivers	27	241,056	11.20
Virginia Beach	48	951,358	5.05
West Piedmont	28	257,170	10.89
Western Tidewater	23	252,548	9.11

YOUTH SUICIDE RATES BY HEALTH DISTRICT



SUICIDE PREVENTION

Risk Factors From Suicide Prevention Resource Center:

- Mental disorders, particularly mood disorders, schizophrenia, anxiety disorders and certain personality disorders
- Alcohol and other substance use disorders
- Hopelessness
- Impulsive and/or aggressive tendencies
- History of trauma or abuse
- Some major physical illnesses
- Previous suicide attempt
- Family history of suicide
- Job or financial loss
- Relational or social loss
- Easy access to lethal means
- Local clusters of suicide that have a contagious influence
- Lack of social support and sense of isolation
- Stigma associated with help-seeking behavior
- Barriers to accessing health care, especially mental health and substance abuse treatment
- Certain cultural and religious beliefs (for instance, the belief that suicide is a noble resolution of a personal dilemma)
- Exposure to, including through the media, and influence of others who have died by suicide

Protective Factors from Suicide Prevention Resource Center:

- Effective clinical care for mental, physical and substance use disorders
- Easy access to a variety of clinical interventions and support for helpseeking
- Restricted access to highly lethal means of suicide
- Strong connections to family and community support
- Support through ongoing medical and mental health care relationships
- Skills in problem solving, conflict resolution and nonviolent handling of disputes
- Cultural and religious beliefs that discourage

**If you, or someone you know, are having thoughts of suicide please call the national suicide hotline: 1-800-273-TALK.
Or contact a mental health professional.**

What You Can Do....

If you think a person is at risk for depression or suicide, the next step is to actively intervene and refer the person to proper help.

- Take immediate and sufficient steps to ensure safety including eliminating access to firearms.
- Explore individual/family/group therapy/medication.
- Enlist family and community support.
- Involve mental health professionals trained to recognize and treat depression and related disorders.

Signs of Depression:

Depression is a biochemical imbalance in the brain that affects how people think and how they behave. Certain surface signs may indicate depression:

- Low self-esteem
- Anger management problems
- Irritability
- Getting into trouble with the law
- Becoming pregnant early in life
- Increased physical health problems
- Abusing alcohol or drugs
- Threatening suicide or homicide
- Significant change in appetite or weight
- Feelings of worthlessness or excess guilt
- Fatigue or loss of energy

RESOURCES

- Prevent Suicide Virginia
www.preventsuicideva.org
- Central Shenandoah Youth Suicide Prevention
<http://www.preventsuicidecsv.org/>
- Crisis Line of Central Virginia
<http://www.crisislineofcentralvirginia.org/>
- Virginia Department of Mental Retardation,
Mental Retardation, and Substance Abuse
<http://www.dmhmrzas.virginia.gov/>
- Division of Injury and Violence Prevention
<http://www.vahealth.org/civp>
- Suicide Prevention Resources Center
www.sprc.org
- National Suicide Prevention Lifeline
www.suicidepreventionlifeline.org
- National Mental Health Association
www.nmha.org
- SAVE: Suicide Awareness Voices of Education
www.save.org
- SPAN: Suicide Prevention Action Network
www.spanusa.org

REFERENCES

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3. SAVE: Suicide Awareness Voices of Education. <http://www.save.org/>.
4. Hoyert DL, Arias E, Smith BL, Murphy SL, Kochanek KD. Deaths: Final Data for 1999. National vital statistics reports; vol 49 no 8. Hyattsville, Maryland: National Center for Health Statistics. 2001.
5. Suicide Prevention Resource Center. NVISS Fact Sheet: Youth Suicide. <http://www.sprc.org/library/YouthSuicideFactSheet.pdf>.
6. Virginia Department of Health: Office of Chief Medical Examiner.

This report has been prepared by the Division of Injury and Violence Prevention, Virginia Department of Health with assistance from the Brain Injury Association of Virginia.

For more information, or to obtain additional copies, contact:

Christina Sloan, MPH
Data and Evaluation Coordinator
Division of Injury and Violence Prevention
Virginia Department of Health
109 Governor Street, 8th Floor
Richmond, VA 23219
Phone: (804) 864-7745
www.vahealth.org/civp



Division of Injury & Violence Prevention
Virginia Department of Health
109 Governor St., 8th Floor
Richmond, VA 23219 704S