

Suicide Trends in Virginia

A Report from the Virginia Violent Death Reporting System

2003-2010

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by:

Marc E. Leslie, MS, VVDRS Coordinator
Richmond Baker, VVDRS Surveillance Coordinator
Jennifer Burns, VVDRS Surveillance Coordinator
Debra Clark, VVDRS Surveillance Coordinator
Rachael Luna, VVDRS Surveillance Coordinator

Questions or comments should be directed to:

Marc Leslie
(804) 205-3855
marc.leslie@vdh.virginia.gov

VVDRS online: <http://www.vdh.virginia.gov/medExam/NVDRS.htm>

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Virginia Violent Death Reporting System Advisory Committee Members

Christina Benton, MPH
Suicide Prevention Coordinator
Division of Prevention and Health Promotion
Virginia Department of Health

Leah L.E. Bush, MS, MD
Chief Medical Examiner
Office of the Chief Medical Examiner
Virginia Department of Health

Joseph L. Cannon
Special Agent in Charge
Department of Alcoholic Beverage Control

K. Scott Downs
First Sergeant
Virginia Department of State Police

Andrew Goddard
President
Virginia Center for Public Safety

Sherrie N. Goggans
Project Manager
Virginia Sexual and Domestic Violence Action Alliance

John W. Jones
Executive Director
Virginia Sheriff's Association

Rita L. Katzman
Program Manager
Child Protective Services
Virginia Department of Social Services

Peter M. Marone, MS
Director
Virginia Department of Forensic Science

James M. Martinez, Jr., MEd
Director
Office of Mental Health Services
Virginia Department of Behavioral Health and
Developmental Services

Janet M. Rainey
Director
Division of Vital Records
Virginia Department of Health

Calvin T. Reynolds
Director
Division of Health Statistics
Virginia Department of Health

Dana G. Schrad, Esq.
Executive Director
Virginia Association of Chiefs of Police

Johanna W. Schuchert
Executive Director
Prevent Child Abuse Virginia

Introduction

The Virginia Violent Death Reporting System (VVDRS)¹ is utilized to examine suicide trends in Virginia for the eight year period from 2003 to 2010. While the overall suicide rate has risen during this period, the numbers and rates for most subpopulations show no clear pattern of increasing or decreasing.

Data come from the Virginia Violent Death Reporting System. The VVDRS abstracts data from several sources, primarily the Virginia Office of the Chief Medical Examiner, law enforcement, the Virginia Division of Vital Records, and the Virginia Department of Forensic Science.

Overall

From 2003 to 2010 the number of suicides, and the resulting suicide rate, has increased. With the exception of 2007, the number and rate of suicides increased every year reflecting a clear upward trend (see **Figure 1**).

Gender

The suicide rate increased for both males and females, but showed more fluctuation than the overall rate. Males suicide rates decreased for two consecutive years before they rose again, creating an overall picture that they are increasing. Additionally, the male suicide rate dropped again in 2009 before increasing in 2010. Female suicide rates decreased in three non-consecutive years, but, as for males, the overall trend is an increase. For females, however, the rate for 2010 is lower than the rate for 2006 and 2007, suggesting a less-clear directional pattern, and perhaps a more cyclical trend (see **Figure 2**).

Race

The rates for Whites mirrored the overall trends, increasing generally over the eight year period with some minor exceptions. For Blacks, the rates fluctuated, generally staying within a small range, with the rate never going below 5.8 and peaking at 6.7. The Black suicide rate for 2010 is *lower* than the rate for 2003 (see **Figure 3**).

The suicide trends for Asians and Native Americans are difficult to interpret due to the relatively small numbers of deaths. The Asian suicide rate fluctuates wildly, nearly doubling one year and then halved the next. There were nine Native American suicides over the eight year period, with never more than two in a year, and two years where there were no suicides.

Race & Gender

White males showed a generally increasing suicide rate, with the exception of two consecutive years. White females, Black males, and Black females all have similar patterns with rates going up and down and no clear direction either way. These three groups all appear to have a rate that is generally staying the same, but with some annual fluctuation (see **Figure 4**).

Age

For those ages 45-54, the trend is clearly upward; this is the only age group that shows a clear tendency to increase. The youngest age groups (10-14, 15-19, and 20-24) show relatively flat trends; some years rates go up, some years they go down, but the overall trend is that they stay roughly in the same range.

¹ Virginia is one of eighteen states participating in the National Violent Death Reporting System (NVDRS). For more about the NVDRS, see <http://www.cdc.gov/ViolencePrevention/NVDRS/index.html>. For definitions of terms see the NVDRS coding manual: http://www.cdc.gov/violenceprevention/pdf/NVDRS_Coding_Manual_Version_3-a.pdf.

All other age groups have rates that go up and down. Ages 65-74 and 75-84, for example, both fluctuate up and down, but have 2010 rates that are lower than 2003. This analysis shows that there can be a great deal of variability from year to year for most age groups. Overall, the slow, steady increase in suicide rates for persons ages 45-54 suggests this age group is at disproportionate risk for suicide (see **Figure 5**).

Geography

From 2003-2010, each of Virginia's 134 localities had at least one resident suicide. Rates ranged from a high of 27.8 (Dickenson County, Buchanan County) to a low of 1.8 (Lexington).

Grouping localities into Health Planning Regions (HPRs) allows for a comparison of suicide rates on a regional basis. The Southwest HPR has the highest rate (16.1) overall and for each of the eight years. The overall trend for the Southwest HPR is a rising suicide rate. The second highest rate each year is the Northwest HPR (6 of the 8 years) or the Central HPR (2 of the 8 years) (see **Figure 6**).

Interpreting Suicide Trends Over Time

It should be cautioned that suicide rates are subject to variation from year to year; a rate may increase or decrease for a long period of time and then suddenly reverse direction. This fluctuation is more rapid and notable when working with relatively small numbers of cases. As a general rule, interpretations based on small numbers of deaths (less than 20) are considered to be statistically unreliable.

Conclusion

The overarching trend is that suicide appears to be increasing. The statewide rate for 2010 is well above the rate for 2003, and, during the study period, that rate declined in only one of the eight years. Rates among subpopulations are more varied; identifying the direction of a trend is far more difficult and complex.

Figure 1: Suicide Numbers and Rates in Virginia, 2003-2010

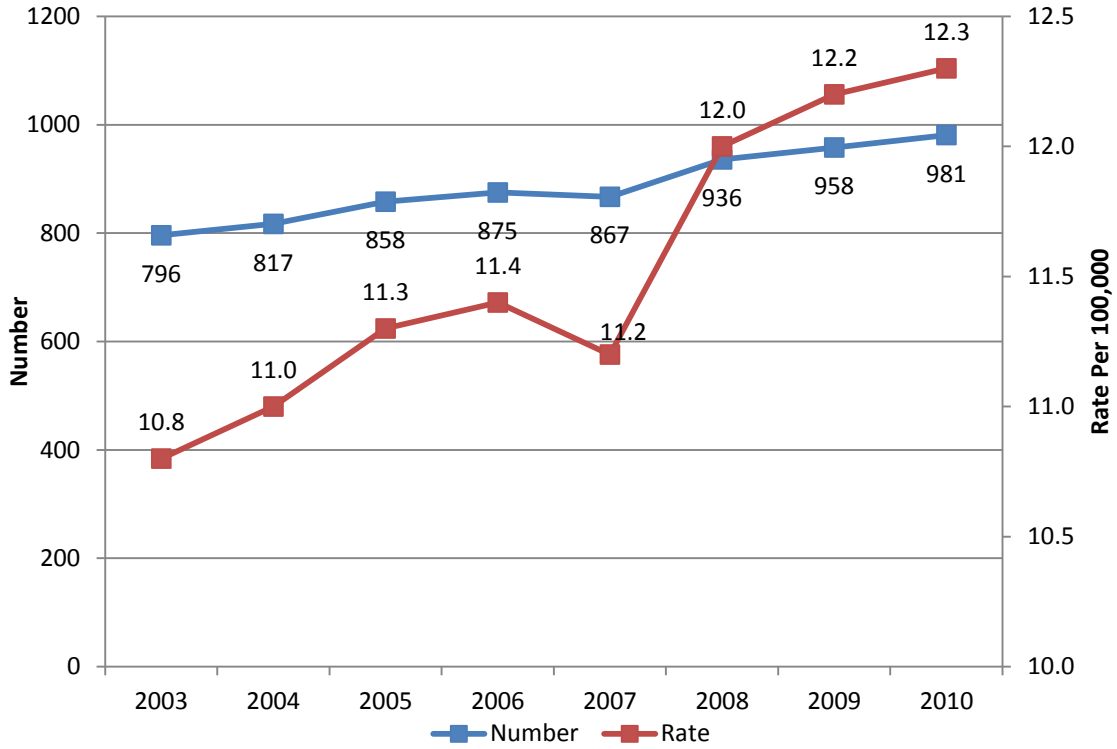


Figure 2: Suicide Rate in Virginia by Gender, 2003-2010

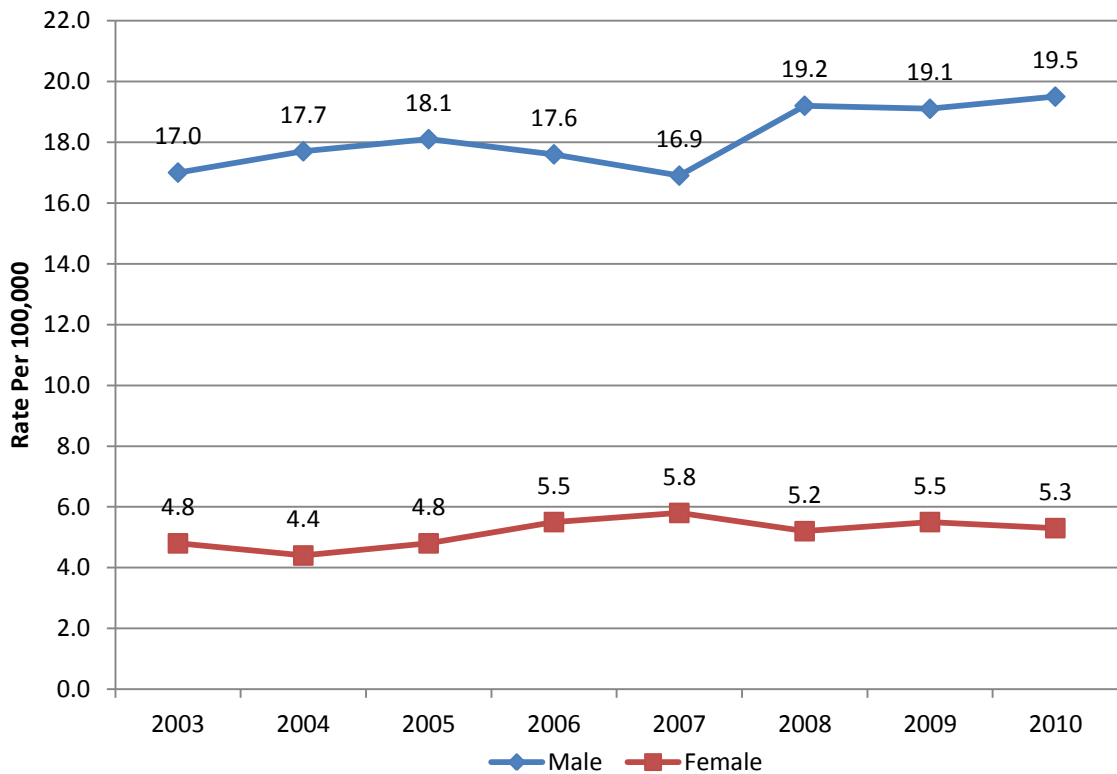


Figure 3: Suicide Rate in Virginia by Race, 2003-2010

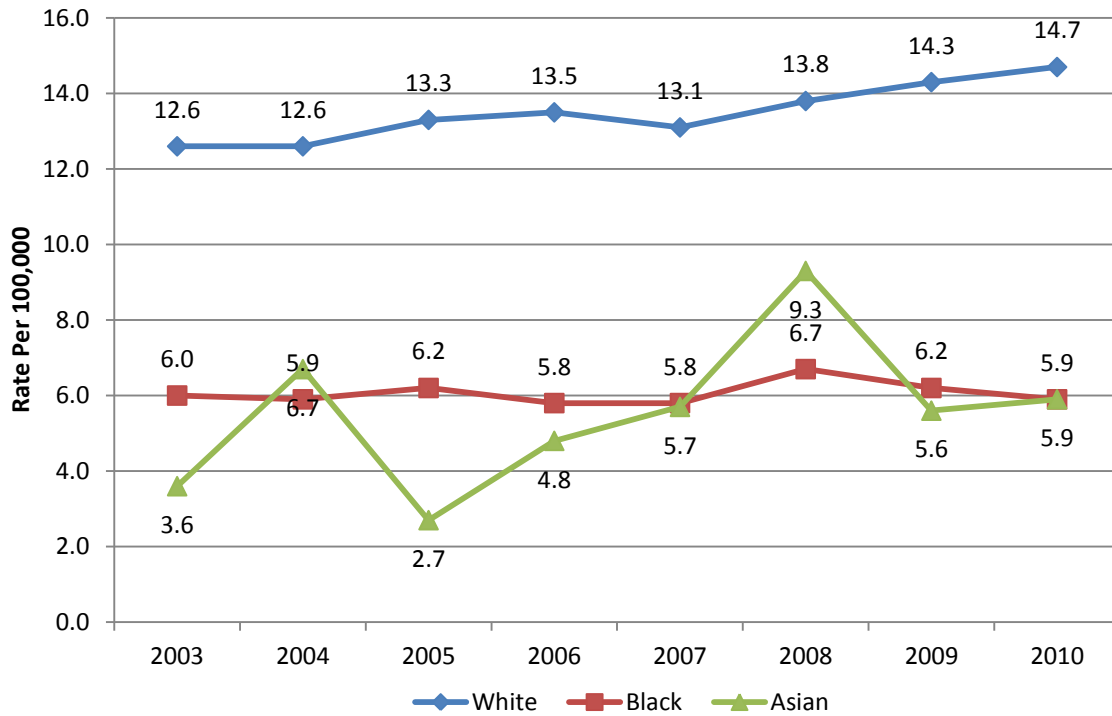


Figure 4: Suicide Rate in Virginia by Race/Gender, 2003-2010

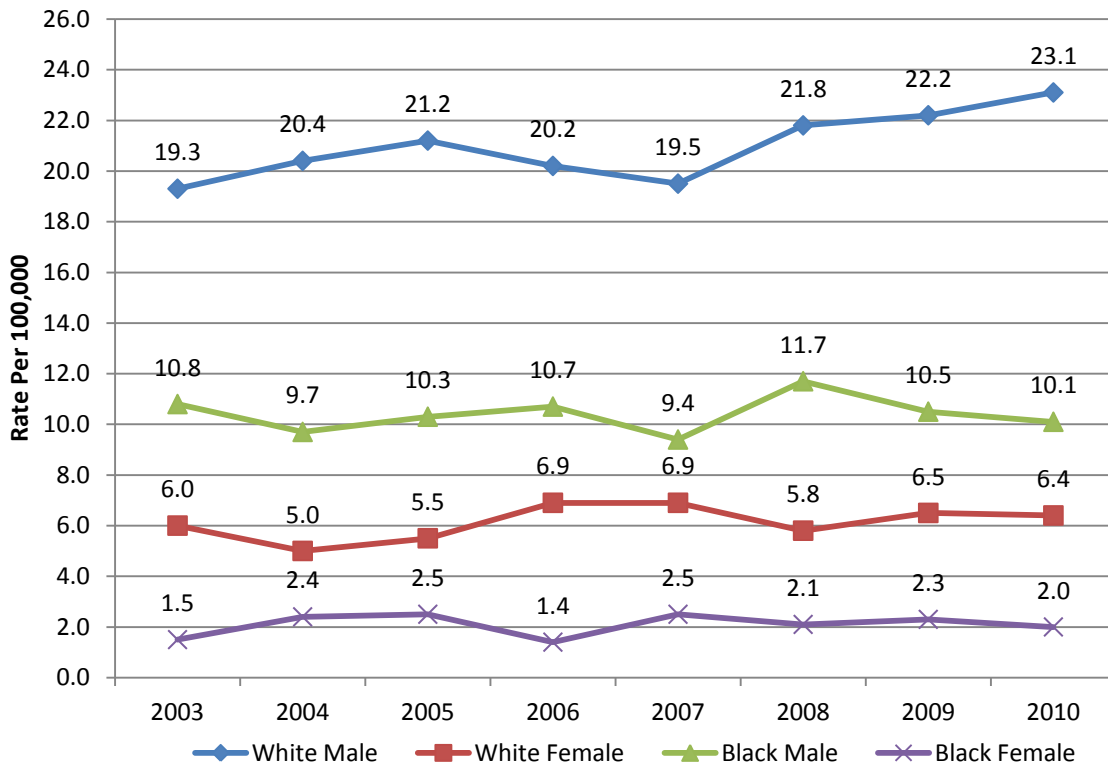


Figure 5: Suicide Rate in Virginia by Age Group, 2003-2010

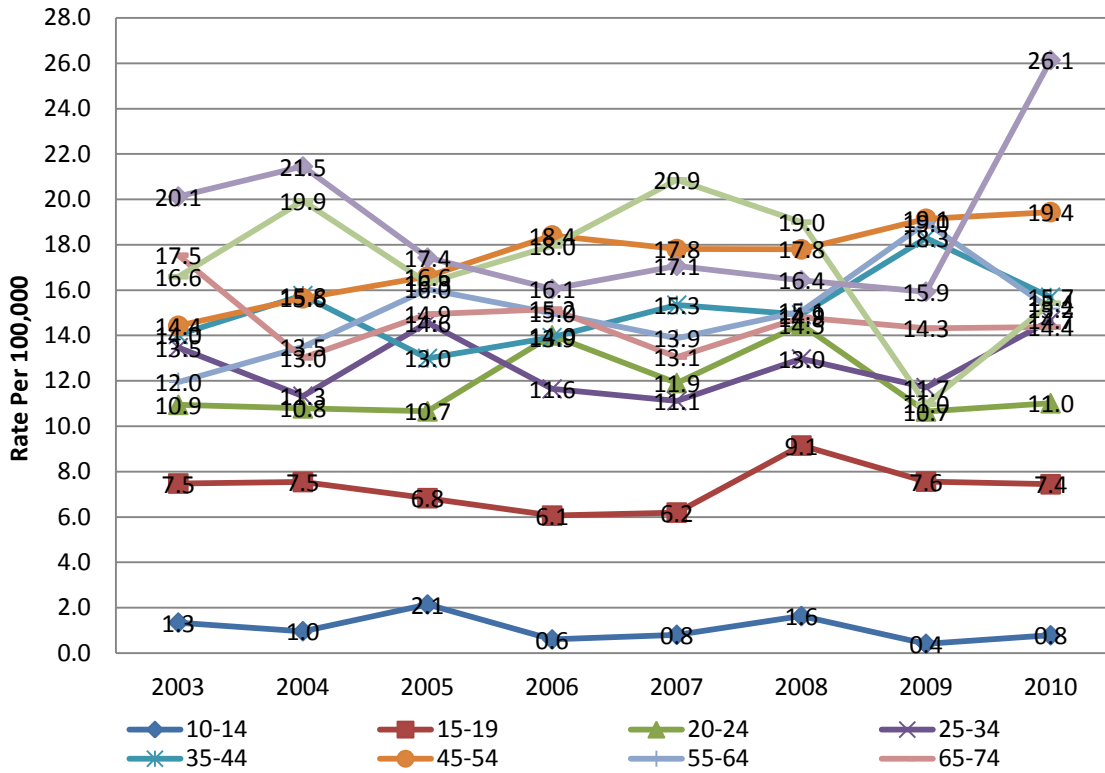


Figure 6: Suicide Rate in Virginia by Health Planning Region, 2003-2010

