

Kentucky Violent Death Reporting System

System Compiles and Analyzes Previously Disparate Data

by Sabrina Walsh and Li Liu

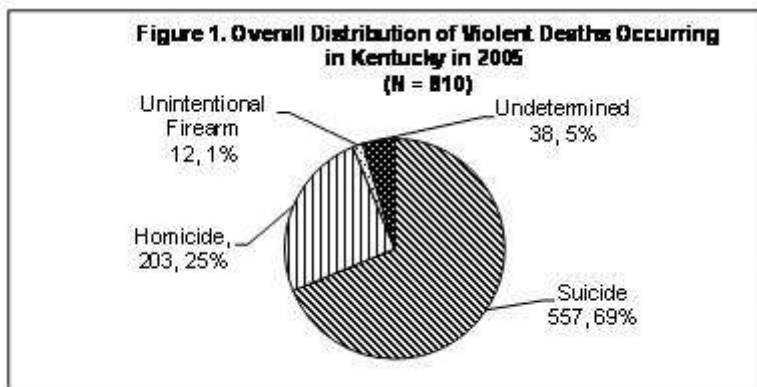
Violence is recognized by the Centers for Disease Control and Prevention (CDC) as a nationwide health problem that results in over 50,000 homicides and suicides each year. In order to better understand why violent deaths occur, the CDC developed the National Violent Death Reporting System (NVDRS), a nationwide, state-based surveillance system designed to track trends and characteristics of violent deaths with the goal of reducing these deaths.¹



In anticipation of becoming part of the CDC's NVDRS, and with the financial support of the Kentucky Department for Public Health (KDPH), efforts to initiate a statewide violent death reporting system for Kentucky began in January 2002. Kentucky joined the NVDRS in 2005 as one of 17 funded states. Ultimately, CDC hopes the NVDRS will include all states. Currently participating states are required to collect information about violent deaths from the following investigative agencies: police departments, coroners, medical examiners, forensic crime laboratories, and toxicology laboratories.

In Kentucky, information related to homicides, suicides, and firearm-related deaths has, in the past, remained inaccessible, sketchy, scattered and largely unusable. The coroner system is not centralized, and while police and forensic laboratory data are centralized and available, they are not collected and combined with additional investigative information for violent death research purposes. Through integrating multiple data sources in incidents of homicide, suicide and firearm-related fatalities to form the Kentucky Violent Death Reporting System (KVDRS), formerly disparate pieces of information can now be compiled and analyzed. This article provides a summary of major statistical findings contained in the KVDRS report "Violent Deaths in Kentucky 2005," which combines and analyzes information from the sources previously referenced.

In 2005, 810 violent deaths occurred in Kentucky. Suicide was the most common cause of violent death with an almost 3 to 1 ratio over homicide (Figure 1).



Suicide

Of the 557 suicides, 451 (81 percent) were men; decedents were between the ages of 35-59 in over half of suicides. Of the 375 (68 percent) firearm-related suicides, 320 (85 percent) were men, and 363 (97 percent) were white.

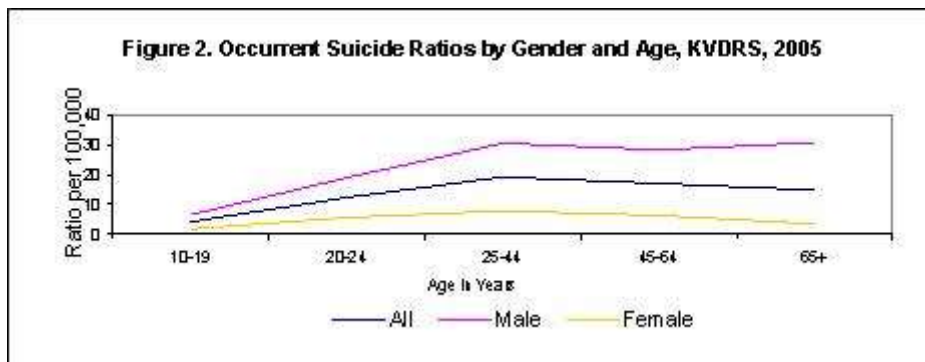


Figure 2 shows a higher rate of suicide in men increasing with age, while in women there is a smoother distribution that decreases in later years. While the majority of suicides involved a firearm, poisoning was a more common cause of suicide in women (26 percent) than in men (8 percent). Hanging was more common in minors (31 percent) versus adults (17 percent), and in nonwhites (27 percent) versus whites (17 percent). Case histories were recorded by the coroner and available to the KVDRS in 78 percent of suicides, yielding the following information.²

- Current depressed mood (55 percent), current mental health problem (52 percent) and current treatment for mental health (52 percent) comprised the top three circumstances surrounding a suicide.
- In 29 percent of suicides, the coroner noted an intimate partner problem as a contributing factor. In 44 percent of those cases, the decedent’s partner was in the process of leaving, breaking up with, separating, or divorcing the decedent, or a divorce had been recently finalized. Eighty-seven percent of decedents with an intimate partner problem were men.

Homicides

There were 203 recorded homicides in Kentucky in 2005 (including legal intervention: a death when the decedent was killed by a police officer or other peace officer). In contrast to suicides, in which most victims were white, non-Hispanic, there were more homicides among black males than other race/ethnicity groups.

When cases involving intimate partner-violence and/or jealousy/lovers’ triangles were identified, more deaths occurred in white individuals (27 percent) than in black individuals (6 percent). Where drug trading was noted, more deaths occurred in blacks (16 percent) than non-white Hispanics (7 percent).

Male and female victims of violent death had similar causes of death, although women were victims of strangulation/suffocation more often than men. Sharp instruments were more often used in homicides of victims with no high school diploma. Firearms were identified as the most common mechanism of death in homicides (74 percent); the distribution of deaths related to firearms is provided in Table 1.

Gun type	Suicide (N = 375)	Homicide (N = 143)	Legal Intervention (N=9)	Unintentional Firearm (N=11)	Undetermined (N=3)
Short gun	209 (55.7%)	101 (70.6%)	5 (55.6%)	4 (36.4%)	0 (0%)
Submachine Gun	0	1	0	0	0
Handgun, Unknown Type	66	41	1	2	0
Handgun, Pistol- Semi-automatic	71	42	4	1	0
Handgun, Revolver	72	17	0	1	0
Long gun	90(24.0%)	15(10.5%)	0(0%)	4(36.4%)	0(0%)
Rifle, Unknown Type	31	4	0	1	0
Rifle, Automatic	1	0	0	0	0
Rifle, Lever Action	2	0	0	0	0
Rifle, Single Shot	1	0	0	0	0

Shotgun, Unknown Type	48	8	0	2	0
Shotgun, Pump Action	2	1	0	0	0
Shotgun, Single Shot	4	2	0	0	0
Long gun, Unknown type	1	0	0	1	0
Unknown	76 (20.3%)	27 (18.9%)	4 (44.4%)	3 (27.3%)	3 (100%)

A case history was recorded and collected for 76 percent of the 2005 homicide cases. Circumstances surrounding male victims of homicide were most often precipitated by another crime and/or involved an argument, abuse or conflict (83 percent of cases). Of the female homicides, 36 percent were intimate partner violence-related compared to 6 percent of male homicides.

In addition to the circumstances surrounding a homicide, data were collected on the relationships of victims to suspects. There were 231 different victim-suspect relationships characterizing the 192 homicide victims. In over half of the incidents, the suspect was known to the victim; only 10 percent involved a stranger.

Toxicology

In 74 percent of cases of suicide and 84 percent of homicides, decedents were tested for alcohol and other volatiles, a large number of prescription medications, over-the-counter medications and illicit drugs. One third had alcohol present; antidepressants and opiates were found in almost 20 percent of individuals. Marijuana and cocaine were each found in 11 percent of decedents, while amphetamines were found in less than 5 percent. Antidepressants were found in more suicide victims, while cocaine and marijuana were more often found in homicide victims. More men had alcohol present, while more women had antidepressants and opiates present.

Additional Information

The full 2005 report contains additional information about these and other findings, as well as more information about the KVDRS, and can be downloaded from the project's Web site. Please contact the KVDRS offices at (859) 323-8591, or visit the Web site to contact staff members with other questions and requests for information. Future data analyses will be made available online as well.

Acknowledgements

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¹Additional information on the NVDRS can be found at <http://www.cdc.gov/ncipc/profiles/nvdrs/facts.htm>

²More than one circumstance may apply to an individual case.

About the Authors

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