National Violent Death Reporting System:

Monitoring and Tracking the Causes of Violent Deaths 2008

CDC's National Violent Death Reporting System (NVDRS) Grantees

- Alaska Department of Health and Social Services
- California Department of Health Services (4 counties)
- Colorado Department of Public Health and Environment
- Georgia Department of Human Resources
- Maryland Department of Health and Mental Hygiene
- Massachusetts Department of Public Health
- New Jersey Department of Health and Senior Services
- New Mexico Department of Health
- North Carolina Department of Health and Human Services
- Oklahoma State Department of Health
- Oregon Department of Human Services
- Rhode Island Department of Health
- South Carolina Department of Health and Environmental Control
- University of Kentucky
- Utah Department of Health
- Virginia Department of Health
- Wisconsin Department of Health and Family Services

"Understanding the circumstances related to violent deaths is critical if we are to design effective prevention activities for suicide or homicide. NVDRS, by linking data from death certificates and other data sources, will make this possible for the first time."

Mel Kohn, MD, MPH
Oregon State Epidemiologist

Department of Health and Human Services
Centers for Disease Control and Prevention

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Impact of Violence on Health

Violence is the threat or intentional use of physical force or power against oneself, another person, or a group or community that results in injury, death, psychological harm, maldevelopment, or deprivation. It is a significant public health problem in the United States. Each year, more than 18,000 people are murdered, and over 32,000 end their own lives. Among Americans between the ages of 15 and 24, homicide was the second leading cause of death in 2005, resulting in an average of 15 deaths per day. Suicide was the third leading cause of death in this group, with an average of 12 per day.

These data highlight the need for a purposeful and strategic approach to preventing violent deaths. However, a significant barrier to developing prevention efforts is the lack of available information about the circumstances that surround violent death. A national tracking system will help by linking fatality data from multiple sources, answering many of the following questions:

- What proportion of homicide is associated with illicit drug deals?
- What percentage of people who commit suicide are under treatment for mental illness at the time of death?
- What are the characteristics of those who kill others before killing themselves?

The National Violent Death Reporting System (NVDRS) collects data on violent deaths from death certificates, police reports, medical examiner and coroner reports, and crime laboratories. Individually, these sources explain violence only in a narrow context; together, they provide comprehensive answers to the questions that surround violent death: who, what, when, where, and, in many cases, why. No other system offers this benefit. NVDRS provides insight into the potential points for intervention and ways to evaluate and improve violence prevention efforts.

Development of NVDRS

Although there is no detailed tracking system for violent deaths, monitoring systems for other kinds of fatal injuries have already proven their worth. Since 1975, the Department of Transportation's Fatality Analysis Reporting System (FARS) has recorded information on fatal motor vehicle crashes, which result in 40,000 deaths annually in the United States. The data captured by this system have been critical to the research and prevention of motor vehicle-related deaths.

The success of FARS encouraged six private foundations to launch the National Violent Injury Statistics System (NVISS) in 1999. NVISS, administered through Harvard University, began collecting comprehensive, multisource data on violent deaths in 13 states. The system demonstrated that compiling data on violent injuries was both feasible and valuable for a better understanding of violence. This success ultimately led to the development of NVDRS.

In fiscal year 2002, Congress appropriated funds for the development and implementation of NVDRS by the Centers for Disease Control and Prevention (CDC). Six states were initially funded. In fiscal year 2008, Congress appropriated $3.221 million for CDC to continue funding the implementation of NVDRS in 17 states. The goal is eventually to include 50 states, the territories, and the District of Columbia in the system.

NVDRS Goals and Objectives

The ultimate goal of NVDRS is to provide communities with a clearer understanding of violent deaths so these deaths can be prevented. NVDRS accomplishes this by:

- Informing decision makers and program planners about the magnitude, trends, and characteristics of violent deaths so that appropriate prevention efforts can be put into place
- Facilitating the evaluation of state-based prevention programs and strategies

NVDRS has four main objectives:

- To link records about violent deaths that occurred in the same incident to help identify detailed circumstances that precede multiple homicides or homicides followed by suicides
- To provide timely preliminary information through faster data retrieval (currently, vital statistics data are not available until two years after the death)
- To describe, in detail, circumstances that may have contributed to the violent death
- To better characterize perpetrators, including their relationship to the victim(s)

NVDRS can link perpetrators to multiple victims, determine whether a homicide occurred in the course of another crime, and provide insight about the social circumstances surrounding suicides. This information is crucial in identifying potential intervention points, whether social, interpersonal, behavioral, or psychological. The timely collection of these data will allow for quick evaluation and initiation of effective prevention strategies.

Case Studies

The two case studies below illustrate how each data source provides unique information that helps investigators understand the circumstances surrounding the violent death.

Child Homicide Case Study

Death Certificates

- Closed head trauma
- Assault
- Homicide

Medical Examiner Records

- Baby sitter had anger management issues, history of alcohol abuse, no formal training in caring for children
- Victim was teething and experiencing separation anxiety
- Autopsy clinical markers of shaken baby syndrome

Police Reports

- Baby sitter was victim's aunt and had multiple children in her care
- Baby sitter had postpartum depression
- Baby sitter admitted shaking the baby when it would not stop crying
- Baby sitter was not under the influence of alcohol or drugs at the time of the incident

Suicide Case Study

Death Certificates

- Suicide
- Hanging

Medical Examiner Records

- Presence of marijuana and a blood alcohol content below the legal limit for intoxication
- School problems related to anger management issues
- Enrolled in a "boot camp" by his parents
- Attending counseling for mental health issues

Police Reports

- History of drug and alcohol problems
- Recently asked his ex-girlfriend to take him back but she refused
- Previous suicidal behavior using the same method

NVDRS Data

Since its inception in 1999, NVDRS has generated a number of findings which provide insight on where to focus additional research and prevention efforts.

Suicide

- Mental health problems were the most commonly noted circumstance for suicide victims in 2005, with 45.7% of victims described as experiencing a depressed mood at the time of their deaths. Nearly as many were described as having a diagnosed mental health problem (42.1%), though only 33.0% of suicide victims were being treated.
- Nearly 1/3 of the suicide victims in 2005 tested positive for alcohol.
- Nearly 30% of suicide victims disclosed their intent with time enough for someone to have intervened.
- Only 1 in 5 suicide victims had a noted history of previous attempts.
- Former or current military personnel accounted for 20% of all suicide deaths. Over 38% of these victims had a physical health problem that was believed to have contributed to the decision to commit suicide.

Homicide

- Approximately 1/3 of homicides in 2005 were precipitated by another crime including robbery, assault, drug trading, burglary, motor-vehicle theft, or rape/sexual assault.
- In nearly 20% of homicide cases in 2005, intimate-partner violence (IPV) was identified as a contributing factor. When IPV was a factor, over 78% of suspects were male, while 65% of victims were female.
- Incidents resulting in multiple deaths were most often homicides that were followed by suicide of the suspect (49.9%) or multiple homicides (41.6%).
- In 63.2% of cases, victims who were killed by law enforcement officers and were tested for alcohol were over the legal limit of 0.08 mg/DL.

Homicide Followed by Suicide

- Suicide victims who killed someone else just prior to killing themselves were most often males (90.0%).
- Most homicide victims (75%) were female.
- Intimate-partner problems frequently preceded homicide-suicides (78.5%).

State Highlights

Oregon

In 2002, suicide among older adults was identified as a significant public health problem in the state of Oregon. The same year, the state began utilizing NVDRS. Data from the Oregon Violent Death Reporting System (OR-VDRS) were used to create a profile of elderly suicide victims. For example, OR-VDRS found that 37% of older adult suicide victims made a visit to their physician within 30 days prior to their death. This important information was incorporated into Oregon's state-level suicide prevention plan. The plan recommended that primary care be better integrated with mental health services so that potential suicide victims receive more thorough treatment. Oregon has received a $100,000 grant from the Department of Health and Human Services, Substance Abuse and Mental Health Services Administration to begin implementing the plan.

Massachusetts

The Massachusetts Violent Death Reporting System (MA-VDRS) has provided the state with increased capacity to monitor homicides and suicides. The data have been used extensively by the Massachusetts Suicide Prevention Program to provide the most timely and detailed information on suicides in the Commonwealth. Several small communities located near large metropolitan areas have been able to identify trends in violent deaths, allowing them to address and prevent specific types of crimes. Data from MA-VDRS have also been used to better understand the precipitating factors of violent death among special populations, including foster children and young people in the custody of law enforcement officials. In addition, the data have been incorporated into several successful grant applications, one of which endeavors to prevent deaths associated with Shaken Baby Syndrome.

Virginia

Data from Virginia's Violent Death Reporting System (VA-VDRS) were incorporated into the state's 2005 annual report. The release of the report generated significant media attention, including coverage in *The Washington Post*. The report increased public knowledge related to violence. According to public inquiries received by VA-VDRS staff, there was considerable surprise among state residents that suicide is more common than homicide in Virginia. This underscores the need for more education around violent death.

South Carolina

Data from the South Carolina Violent Death Reporting System (SC-VDRS) were instrumental in assisting the South Carolina Mental Health Association in securing $1,032,663 in funding over three years from the Substance Abuse and Mental Health Services Administration (SAMHSA) to implement Project SAFE (Suicide Awareness for Everyone). The Association credited the use of SC-VDRS data and the strong partnership with the SC-VDRS program as key factors in securing the funding. The SC-VDRS data allowed the Association to submit a compelling application by helping them build a strong case for the magnitude of the problem in South Carolina, its impact on youth, and the contribution of mental health and substance abuse issues to the problem. The suicide prevention program is for youth in schools, colleges, substance abuse systems, mental health programs, foster care systems and other child and youth support organizations.

Future Directions

NVDRS will include all states in the future. Inclusion of additional states will allow the system to better identify regional differences in the patterns of violence across the country, and will allow for the collection of information about multiple violent death incidents that involve more than one jurisdiction.

CDC is working to make NVDRS data available to the public through WISQARS (Web-based Injury Statistics Query and Reporting System; www.cdc.gov/ncipc/wisqars). This interactive database system, produced and managed by CDC, provides customized reports of fatal and nonfatal injury-related data and has been widely used by researchers, practitioners, federal and nonfederal partners, the media and the general public. Several journal articles containing preliminary data have been published and can be found at www.cdc.gov/injury.

For more information or additional copies of this document, please contact:

Centers for Disease Control and Prevention, National Center for Injury Prevention and Control
4770 Buford Highway NE, Mail Stop F-64, Atlanta, GA 30341
Telephone: (800) CDC-INFO e-mail: cdcinfo@cdc.gov www.cdc.gov/injury