

# Wisconsin's Violent Death Reporting System: Monitoring and responding to Wisconsin's violent deaths

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## Abstract

In 2003, the Centers for Disease Control and Prevention (CDC) awarded the Wisconsin Department of Health and Family Services, Injury Prevention Program, a grant to participate in a multistate project called the National Violent Death Reporting System (NVDRS). The purpose of the Wisconsin Violent Death Reporting System (WVDRS) is to link violent death records (death certificates, police reports, medical examiner and coroner reports, crime laboratories, and perhaps child fatality review teams) from the same event, promote more timely information retrieval, describe in detail circumstances that may have contributed to the violent death, and identify and characterize

perpetrators and their relationships to victims. This article describes the development of WVDRS and its importance in understanding and preventing violent injury and death in Wisconsin.

## Introduction

The World Health Organization (WHO) defines violence as the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in, or has a high likelihood of resulting in, injury, death, psychological harm, maldevelopment, or deprivation.<sup>1</sup> The CDC adds to this definition by stating that the person using the force or power need only have intended to use force or power; they need not have intended to produce the consequence that actually occurred. "Physical force" needs to be globally interpreted to include the use of poisons or drugs. "Power" includes acts of neglect or omission by one person who has control over another.<sup>2</sup>

Violent injury deaths are a major public health problem in nationally and in Wisconsin. In 2002, Wisconsin ranked 35th and 25th nationally for suicides and homicides, respectively.<sup>3</sup> That year, Wisconsin experienced 832 violent deaths. Of these deaths, 626 (75.2%) were suicides, 190 (22.8%) were homicides, eight were legal intervention, and

eight were undetermined. Total hospital charges for violent injuries in Wisconsin in 2002 (>6000 hospitalizations) were more than \$68 million.<sup>4</sup> Total emergency department visit charges for violence-related injuries (21,000 visits) in 2002 were more than \$19 million.<sup>5</sup> Suicide and homicide were among the top five causes of death for ages 1-44 years, and firearms were the leading method of injury in both homicides and suicides.<sup>6</sup> These data begin to demonstrate the burden of violent injury deaths in Wisconsin.

Currently, the Wisconsin Division of Public Health does not have comprehensive, integrated data regarding these deaths. A variety of state and local agencies have detailed information that answer some of the fundamental questions about patterns and trends in violence, but this information is fragmented and not accessible to everyone. Linking data sets is important and useful in monitoring and responding to violent deaths in Wisconsin. Without such a system, we cannot answer such critical questions as the following:

- Where do youth obtain weapons used in acts of violence?
- What proportion of suicide victims is undergoing treatment for depression at the time the suicide occurs?
- What proportion of homicides is drug-related?
- How often do murder-suicides occur?

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**Table.** ICD-10 Codes Used to Determine Violence-Related Incidents

Manner of Death	ICD-10 Codes
Suicides	X60-X64, Y87.0
Homicides	X85-Y09, Y87.1
Legal Interventions	Y35, Y89.0
War Operation (Terrorism)	U01-U03
Firearm-Related Unintentional (Accidental)	W32-W34
Undetermined Intent	Y10-Y34, Y87.2

- What are the most common circumstances leading to unintentional (“accidental”) gun deaths among children?

Much of the information needed to answer these questions and the associated risk factors and circumstances is already available; however, it is often collected in isolation and not examined comprehensively. Without a centralized system that gathers and links information on all violent deaths, public health officials, law enforcement, and Wisconsin communities have only a small portion of the information they need to help prevent these untimely deaths.

### Development of the Reporting System

The CDC has taken on the challenge of developing a reporting system, leading to the development of the NVDRS, which collects and links data on suicides, homicides, deaths by legal intervention (excluding executions), and deaths of undetermined intent, as well as unintentional firearm injury deaths and deaths related to acts of war (terrorism). Deaths are included in the system if their underlying cause ICD-10 code falls into one of the above categories (See Table). Data are gathered from four primary data sources: (1) death certificates, (2) medical examiner/coroner reports, (3) police reports, and (4) crime laboratories. By collecting and linking the information from these sources, the NVDRS provides the “who, what, where, when, why,

and how” of violent deaths, which will optimally lead to the development, implementation, and evaluation of community prevention strategies and interventions.

Development of the NVDRS builds on more than a decade of work, including several publications documenting and proposing first a firearm injury reporting system (FIRS) and eventually a violent injury reporting system (VIRS).<sup>7-15</sup> Based on the early pilot work at the Medical College of Wisconsin (MCW), the CDC supplied funding to several states, including Wisconsin, in the mid-1990s to implement a FIRS.<sup>8,10,11,16</sup> Upon exhaustion of this federal funding, MCW continued to manage the FIRS and pilot VIRS with foundation funding. In 1999, also with funding from several foundations, the Harvard Injury Control Research Center developed the National Violent Injury Statistics System (NVISS) with assistance from, and the experience of, funded pilot sites including the MCW VIRS. The NVISS was a pilot to determine the feasibility and usefulness of linked violent death data.

In 2002, six awards were made to state health departments to develop the first state Violent Death Reporting Systems, the first step in a NVDRS. In 2003, seven more states (including Wisconsin) were funded, and in 2004, four more states were funded, bringing the current total of funded states to 17. The intent is for all 50 states to be partners in the NVDRS, establish-

ing a national monitoring and reporting system for violent deaths.

WVDRS resides within the Department of Health and Family Services. In collaboration with MCW and a variety of data partners, WVDRS provides objective, high-quality, timely data useful for monitoring the magnitude, characteristics, and trends of violent deaths, as well as the development, implementation, and evaluation of prevention strategies and policies both at the state and local levels in Wisconsin. The WVDRS goals and objectives are consistent with those of the state health plan, *Healthiest Wisconsin 2010*.

### Importance in Prevention of Violent Injury

WVDRS now collects and compiles data from the Wisconsin Office of Vital Records, county coroner and medical examiners, local police and sheriffs’ departments, Office of Justice Assistance, and the Wisconsin crime laboratories. More than 270 data elements are collected from these sources. Identifying information remains confidential and secure, with only aggregate information being shared, and only de-identified data shared with CDC. Annual and specialized reports are expected to be developed with aggregate county and state level data. WVDRS will also enhance current data reporting by working with data providers to establish timelier electronic reporting systems. One enhancement to be completed by the end of the five-year CDC grant is to have each of the four data sources report electronically into a centralized data repository that is easily queried.

### Summary


The information being gathered in Wisconsin through WVDRS will be useful within our state to answer

critical questions regarding violent deaths in a more standardized and timely manner, as well as to contribute to a national picture of violent deaths. When analyzed, linked data will assist medical examiners and coroners, vital records, and crime lab investigators to respond with greater efficiency and accuracy to inquiries from the public. Law enforcement will be able to examine comprehensive statistics for neighborhoods, counties, regions, and throughout the state to further understand the complex issues related to homicides, and to better enforce and evaluate crime interventions. Public and mental health professionals will be able to focus and evaluate suicide prevention efforts. Community-based organizations will be able to better assess, design, implement, and evaluate violence and suicide prevention programs. Policymakers will be able to identify successful prevention efforts and guide funding and legislative initiatives.

Having timely and accurate violent injury data is critical. Comprehensive WVDRS data will help public health officials, law enforcement, the medical community, policy makers, and communities better monitor and respond to violent deaths in Wisconsin.

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