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## Overview of the Alaska Violent Death Reporting System

### Background

Prior to 2003, Alaska violent death data were collected and described independently by several organizations across the state. Although these data were of high quality, they were not integrated and provided only a limited view of the characteristics of violent deaths in Alaska. In 2003, Alaska became one of six states funded by the Centers for Disease Control and Prevention (CDC) to implement the National Violent Death Report System (NVDRS) model that collates information into a centralized database to monitor the magnitude and characteristics of violent death at the national, state, and local levels. Currently, 19 states participate in NVDRS.

NVDRS defines a violent death as a death resulting either from the intentional use of physical force or power against oneself, another person, or a group or community. NVDRS case definitions are coded on the basis of the *International Classification of Diseases, 10th Revision (ICD-10)*.

An average of 228 violent deaths occur in Alaska annually. The Alaska Violent Death Reporting System (AKVDRS) attempts to answer critical questions about the nature and cause of these violent deaths in order to guide the development of effective Alaska-specific prevention and intervention strategies.<sup>1</sup> Using the NVDRS guidelines,<sup>2</sup> AKVDRS coordinates the collection, aggregation, and analysis of data regarding deaths associated with intentional self harm, assault, an accidental firearm injury, terrorism, legal intervention, and any undetermined cause of death (Table).

The primary objectives of AKVDRS are to:

- link violent death record data from disparate sources;
- provide timely information through rapid data retrieval;
- describe the circumstantial and environmental factors that contribute to violent deaths; and
- characterize perpetrators, including their relationship to the victim(s).

**Table. AK VDRS Case Identification by ICD-10 Code**

Manner of Death	ICD-10 Codes	
	Death <1 year after injury	Death >1 year after injury*
Intentional self harm (suicide)	X60-X84	Y87.0
Assault (homicide)	X85-X99, Y00-Y09	Y87.1
Undetermined intent	Y10-Y34	Y87.2, Y89.9
Accidental firearm	W32-W34	Y86 (due to firearms)
Legal intervention <sup>†</sup>	Y35.0-Y35.4, Y35.6-Y35.7	Y89.0
Terrorism	U01, U03	U02

\*Deaths as a result of injury(ies) sustained and meeting the NVDRS definition has no time limit and are included in the data year of death.

<sup>†</sup>Deaths caused by police and other persons with legal authority to use deadly force, excluding legal executions.

### AKVDRS Methodology

On a monthly basis, the Alaska Bureau of Vital Statistics (BVS) Death Certificate Database is queried for violent death-related ICD-10 codes (Table). To ensure that all potential

violent deaths are identified, the Injury Surveillance Program conducts quarterly on-site reviews of BVS death certificates.

Once an initial list of potential violent deaths is generated, additional documents are requested for each case, including death certificates and reports from the offices of the medical examiner, law enforcement, and forensic laboratories. Information abstracted includes demographics for the victims and suspects, precipitating circumstances, incident location, weapon type, and victim toxicologic tests results. Secondary documents are also collected, when available, including those from emergency medical services and hospitals, the news media, and the court system. For child deaths, additional information is collected on the victim's household, caregiver, supervision, and previous contact with protective services.

In order to corroborate and identify discrepancies in data obtained from disparate sources, all documents are abstracted independently. Over 700 potential variables are reviewed and coded for each case. After reviewing all of the available information, the abstractor assigns each decedent a manner of death (Table), which is entered into the AKVDRS database. Depending on what is found during the abstraction process, the "abstractor-assigned manner of death" may be different than the manner of death recorded on the death certificate. For example, a death certificate coded as "natural" with an immediate cause of death listed as "systemic infection" may have "gunshot wound acquired during a fight" listed as an underlying cause, which is not given an ICD-10 code. The AKVDRS data are analyzed biannually and summary data are shared with stakeholders through various mechanisms (e.g., *Bulletins*, presentations, fact sheets, and annual reports).<sup>1</sup>

In addition to aiding Alaska's efforts for the prevention of violent deaths, the AKVDRS contributes de-identified data to the NVDRS, which pools all of the state-based violent death reporting system data together. The NVDRS public dataset is available on CDC's Web-based Injury Statistics Query and Reporting System (WISQARS) website.<sup>3</sup> CDC also provides periodic summary reports in the *Morbidity and Mortality Weekly Report*.<sup>4</sup>

### Comment

The results of a 5-year review of AKVDRS data from 2004–2008 are available in a companion *Bulletin*.<sup>5</sup> Through compiling data from multiple sources statewide, the AKVDRS can be used to monitor the occurrence of violence-related fatal injuries and assist public health authorities in the development, implementation, and evaluation of programs and policies to prevent violent deaths in Alaska.

### References

1. Alaska Violent Death Reporting System. Alaska Department of Health and Social Services. Available at: <http://www.epi.alaska.gov/injury/akvdrs>
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