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Summary of Violent Deaths — Alaska, 2004–2008

Background

The Alaska Violent Death Reporting System (AKVDRS) is an active surveillance system that collects risk-factor data concerning all violence-related deaths that meet the National Violent Death Reporting System (NVDRS) case definitions.^{1,2} NVDRS data are used to assist the development, implementation, and evaluation of programs and policies designed to reduce and prevent violent deaths and injuries at the national, state, and local levels.

2004–2008 AKVDRS Summary Results

From 2004–2008, 1,139 violent deaths were identified and recorded in AKVDRS (Table). Of these 1,139 deaths,

- 740 (65%) were suicides;
- 868 (76%) decedents were male;
- The median age was 36 years (range: <1–91 years);
- The highest proportion of violent deaths by age-group occurred in persons aged 15–24 years (269, 24%);
- The highest proportions of violent deaths by race were White (633, 56%) followed by Alaska Native/American Indian (AN/AI) (380, 33%);
- The rate of violent death among AI/AN was 2.4 times greater than among non-AI/AN (63.8 vs. 26.2 per 100,000 persons, respectively);
- The highest proportion of violent deaths by race and gender were Whites males (503, 58%) and White females (130, 48%);
- The highest rates of violent deaths by race and gender were AN/AI males and females (90.1 and 36.7 per 100,000 persons, respectively);
- 610 (45%) deaths involved firearms, 354 (26%) involved poisoning, and 196 (14%) involved hanging/strangulation/suffocation;*
- 617 (54%) of the decedents were never married, 255 (22%) were married, and 205 (18%) were divorced; the remaining 24 (2%) decedents were separated, single, or of unknown marital status;
- The greatest proportion of violent deaths occurred in the Anchorage/Mat-Su region (503 deaths, 44%), followed by the Interior region (174 deaths, 15%);
- The highest rates of violent deaths were in the Northern and Southwest regions (85.3 and 70.4 per 100,000 persons, respectively);
- 598/868 (69%) male deaths occurred in a residence (house or apartment), 69 (8%) occurred in a natural area (e.g., field, river, beach, woods), 40 (5%) in a motor vehicle (excluding school bus and public transportation), 39 (5%) on street, sidewalk, or alley, and 122 (14%) in other locations;

- 208/271 (77%) female deaths occurred in a residence, 16 (6%) occurred in a natural area, 10 (4%) in a motor vehicle (excluding school bus and public transportation), and 45 (17%) in other locations;
- 636 (50%) decedents were tested for alcohol, of which 294 (46%) tested positive and 78 (12%) had a blood alcohol concentration (BAC) ≥ 0.08 mg/dL; and
- 559 (49%) decedents were tested for drugs;[†] of the tested decedents, 132 (24%) tested positive for marijuana, 70 (13%) tested positive for opiates,[‡] 46 (8%) tested positive for anti-depressants, 57 (10%) tested positive for cocaine, and 29 (5%) tested positive for amphetamines.

*Multiple weapons may be associated with a single violent death. The denominator for this field was 1,368.

[†]Illicit drugs, prescribed medications, and prescription drugs not prescribed to the victim; toxicology was determined by a medical examiner.

[‡]Includes heroin, morphine, and prescription painkillers.

AKVDRS/NVDRS Comparison

A comparison of 2007 data from AKVDRS and NVDRS (Table) shows that:

- Alaska's overall violent death rate was 1.7 times higher than the NVDRS rate (34.6 vs. 19.9 per 100,000 persons, respectively; $\text{Chi}^2 p < 0.0001$);
- Alaska's homicide/legal intervention rate was 1.3 times higher than the NVDRS rate (7.6 vs. 5.7 per 100,000 persons, respectively; $\text{Chi}^2 p < 0.0001$); and
- Alaska's suicide rate was 1.9 times greater than the NVDRS rate (21.7 vs. 11.6 per 100,000 persons, respectively; $\text{Chi}^2 p < 0.0001$).

Discussion

The 2004–2008 AKVDRS data indicate that males, persons aged 15–24 years, and Alaska Natives were disproportionately impacted by violent death in Alaska, and a substantial proportion of the decedents tested positive for alcohol and/or drugs. Furthermore, compared to other NVDRS-participating states overall, the violent death and suicide rates were substantially higher in Alaska.

References

1. Section of Epidemiology. Overview of the Alaska Violent Death Reporting System. *Bulletin* No 21, July 20, 2010. Available at: http://www.epi.alaska.gov/bulletins/docs/b2010_21.pdf
2. CDC. Surveillance for violent deaths — National Violent Death Reporting System, 16 states, 2007. *MMWR Mort Morb Wkly Rep* 2010;49(4):1-50. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5904a1.htm>

Table. Violent Deaths by Assigned Manner of Death and Year — Alaska, 2004–2008

Assigned Manner of Death	AKVDRS						NVDRS ²	
	2004	2005	2006	2007	2008	2004–2008	2007	
	Number of Deaths by Year (Rate per 100,000 persons) [†]					Number (%)	Average (Rate)	Number (Rate)
Intentional self harm (suicide)	154 (23.3)	138 (20.6)	134 (19.8)	148 (21.7)	166 (24.2)	740 (65)	148 (21.9)	9,245 (11.6)
Assault (homicide) and legal intervention*	43 (6.5)	38 (5.7)	44 (6.5)	52 (7.6)	35 (5.1)	212 (19)	42 (6.2)	4,563 (5.7)
Accidental firearm and terrorism	10	6	8	7	8	29 (2)	6	6,841
Undetermined intent	21 (3.2)	16 (2.4)	20 (3.0)	32 (4.7)	69 (10.1)	158 (14)	32 (4.7)	2,404 (3.0)
Total	225 (34.0)	197 (29.5)	206 (30.5)	236 (34.6)	275 (40.1)	1,139 (100)	228 (33.8)	16,319 (19.9)

*Deaths caused by police and other persons with legal authority to use deadly force, excluding legal executions.

[†]Rate not reported when number is ≤ 20 .