



Department of Health and Social Services  
William H. Hogan, MSW, Commissioner

Division of Public Health  
Ward Hurlburt, MD, MPH, CMO/Director

Editors:  
Joe McLaughlin, MD, MPH  
Louisa Castrodale, DVM, MPH

3601 C Street, Suite 540  
Anchorage, AK 99503 <http://www.epi.alaska.gov>

Local (907) 269-8000  
24 Hour Emergency 1-800-478-0084

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## Suicide Epidemiology Update — Alaska, 2004–2008

### Introduction

Alaska had the highest suicide incidence rate in the nation in 2007, the most recent year for which national comparison data are currently available.<sup>1</sup> Suicide was the second leading cause of death among Alaskans aged 5–44 years from 2006–2008 and the sixth leading cause of death overall in Alaska in 2008.<sup>2</sup> In 2007, the estimated number of suicide-related years of potential life lost prior to age 65 in Alaska was 3,907.<sup>1</sup>

### Methods

Suicide data from 2004–2008 were obtained from the Alaska Violent Death Reporting System (AKVDRS), 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.<sup>3,4</sup> Deaths were counted if the decedent was fatally injured in Alaska. Rates were calculated using the National Center for Health Statistics Bridge-Race Vintage 2009 Postcensal Population estimates.

### Summary Results

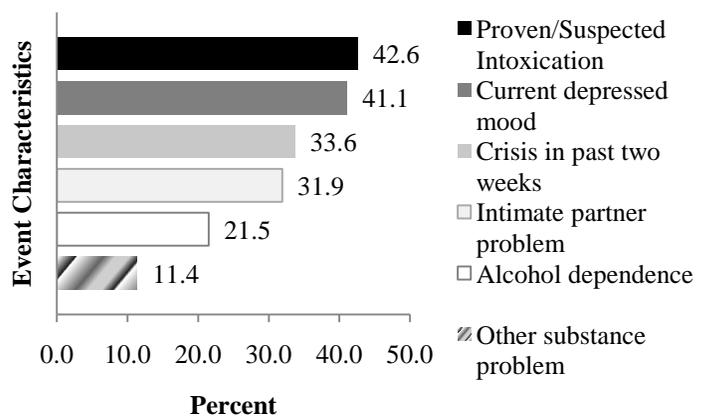
During 2004–2008, 740 cases of intentional self harm (suicide) were recorded in AKVDRS, yielding an annual average of 148 deaths (range: 138–166), and accounting for 65% of the violent deaths in Alaska. The overall suicide rate from 2004–2008 was 26.3 per 100,000 persons, 2.3 times the national rate of 11.2 per 100,000 persons from 2004–2007.<sup>1</sup> With respect to the 740 suicides during 2004–2008,

- 599 (81%) decedents were male;
- the median age was 36 years (range: 10–91 years);
- 446 (60%) decedents were White and 244 (33%) were American Indian/Alaska Native (AI/AN);
- the AI/AN rate was 2.2 times greater than the White rate (40.9 vs. 18.5 per 100,000 persons, respectively);
- the highest rates by race, sex, and age were among AI/AN males aged 20–29 years (150.2 per 100,000 persons) and females aged 15–19 and 35–39 years (50.0 per 100,000 persons for both age-groups);
- rates varied by region (Table);
- the most commonly documented life stressors were physical health problems (142, 19%) and recent criminal legal problems (109, 15%);
- the most commonly documented event characteristics included proven or suspected alcohol intoxication (315, 43%) and current depressed mood (304, 41%) (Figure 1);
- 315 (43%) decedents were either proven or suspected of alcohol intoxication, of which 32% (101/315) had a known alcohol problem; 135 (18%) decedents had a blood alcohol concentration (BAC)  $\geq 0.08$  mg/dL;
- 188 (25%) decedents had a documented current mental health problem, of which 77% (144/188) had a diagnosis of depression without bipolar disorder (Figure 2); and
- firearms were the most common suicide method among males (409/618\*, 66%); poisonings were the most common suicide method among females (122/234\*, 52%). (\*Note: Multiple weapons are sometimes associated with a single suicide; 852 weapons were documented overall.)

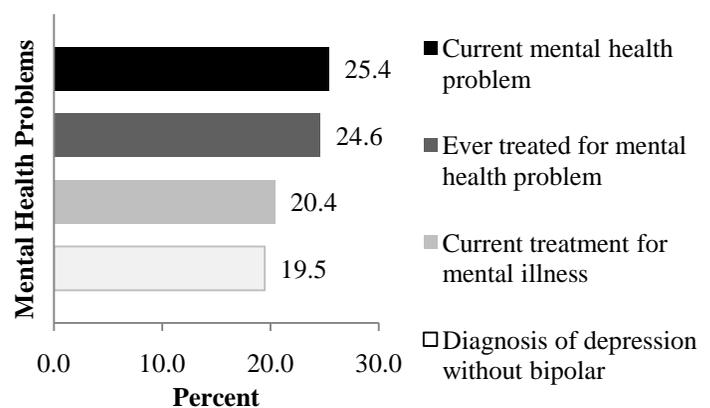
**Table. Number, Proportion and Rates of Suicide by Region (N=734) — Alaska, 2004–2008**

Region	Number (% of total)	Rate per 100,000
Anchorage/Mat-Su	331 (45.1)	18.5
Gulf Coast	74 (10.1)	19.7
Interior	107 (14.5)	20.7
Northern	77 (10.5)	65.0
Southeast	57 (7.8)	16.3
Southwest	88 (12.0)	44.6

**Figure 1. Event Characteristics of Suicides (N=740) — Alaska, 2004–2008**



**Figure 2. Mental Health Characteristics of Suicides (N=740) — Alaska, 2004–2008**



### Discussion

From 2004–2008, Alaska's highest suicide rates occurred among males, young adults, Alaska Natives, and persons living in rural regions of the state (particularly the Northern and Southwestern regions). A substantial proportion of decedents had known underlying risk factors for suicide, including mental illness, a recent personal crisis, alcohol and drug abuse, physical health problems, and a recent criminal legal problem. Statewide suicide prevention efforts should focus on reducing the underlying factors that lead to suicide and increasing those factors that promote resilience (i.e., protective factors) in our most vulnerable populations.

### Additional Resources

- Alaska Suicide & Crisis Hotlines: <http://suicidehotlines.com/alaska.html>
- Alaska Suicide Prevention Council: <http://www.hss.state.ak.us/suicideprevention/>
- American Indian/Alaska Native Suicide Prevention Resource Center: <http://www2.sprc.org/aian/index>
- Indian Health Service Suicide Prevention Website: <http://www.ihs.gov/nonmedicalprograms/nspp/>
- CDC's Suicide Prevention Website: <http://www.cdc.gov/ViolencePrevention/suicide/prevention.html>

### References

1. Centers for Disease Control and Prevention (CDC), Web-based Injury Statistics Query and Reporting System (WISQARS). Available at: <http://www.cdc.gov/injury/wisqars/fatal.html>
2. Alaska Bureau of Vital Statistics. Data and Statistics. Available at: <http://www.hss.state.ak.us/dph/bvs/data/default.htm>
3. Alaska Section of Epidemiology. Overview of the Alaska Violent Death Reporting System. *Bulletin* No 21, July 20, 2010. Available at: [http://www.epi.hss.state.ak.us/bulletins/docs/b2010\\_21.pdf](http://www.epi.hss.state.ak.us/bulletins/docs/b2010_21.pdf)
4. Alaska Section of Epidemiology. Overview of the Alaska Violent Death Reporting System. *Bulletin* No 22, July 20, 2010. Available at: [http://www.epi.hss.state.ak.us/bulletins/docs/b2010\\_22.pdf](http://www.epi.hss.state.ak.us/bulletins/docs/b2010_22.pdf)