

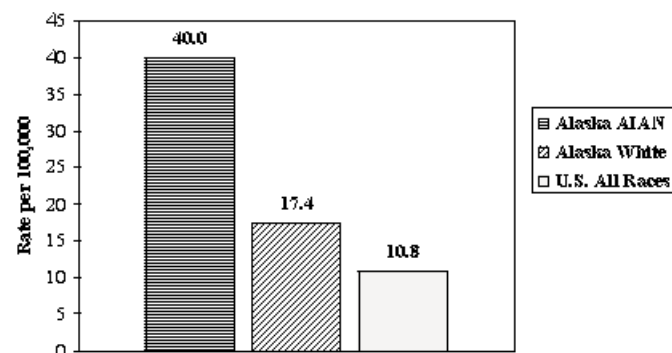
# The Prevention of Suicide in Alaska's Tribal Health Care Setting

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## Epidemiology of Suicide in Alaska

The Alaska Area has the highest suicide rate of all twelve IHS service Areas.<sup>1</sup> During the period 2000 to 2004, the age-adjusted suicide rate for American Indians and Alaska Natives (AI/ANs) in Alaska was 40.0 per 100,000. This rate is 2.3 times greater than the rate for White Alaskans (17.4 per 100,000) and 3.7 times greater than the US All Races population (10.8 per 100,000) (see Figure 1).<sup>2</sup>

**Figure 1: Suicide rates, 2000-2004, age-adjusted**



Suicide is the fourth leading cause of death among Alaska Native people, resulting in 229 deaths from 2000 to 2004 (see Table 1).<sup>2</sup> If the suicide rate among Alaska Natives (40.0 per 100,000) had been the same as the US All Races suicide rate (10.8 per 100,000), 167 fewer Alaska Native people would have died from suicide during this 5-year time period. Although the US White suicide rate decreased by 12% during 1979 to 2003, there was no significant change in the suicide rate among Alaska Native people during these years.<sup>3</sup>

While suicide rates in non-Native populations nationwide tend to be higher in older people, the opposite is true among Alaska Native people. Alaska Native people over the age of 55 are 57% less likely to commit suicide than the US White

**Table 1. Alaska Suicide Mortality Rates, 2000-2004, WISQARS**

Race	Both Sexes		Males		Females	
	Deaths	Age-Adjusted Rate	Deaths	Age-Adjusted Rate	Deaths	Age-Adjusted Rate
Am Indian/AK Native	229	40.0	171	59.9	58	19.8
White	403	17.4	326	28.2	77	6.3
All Races	650	20.4	508	31.8	142	8.8

population 55 and older. Conversely, suicide is the leading cause of death for young Alaska Native people ages 15 - 24 and is the second leading cause of death for 25 to 44 year olds. Alaska Native males suffer a suicide rate three times that of Alaska Native females (Table 1). Alaska Native males ages 15 - 24 years suffer the greatest burden. They are almost nine times as likely to die of suicide than US White males in this age group (150.8 per 100,000 vs. 17.6 per 100,000 for 2000-2004).<sup>2</sup> Alaska Native youth have the highest suicide rate of any IHS Area.<sup>4</sup>

The major risk factors for suicide in the general US population include mental and addictive disorders (including alcohol); easy access to lethal means; a history of previous suicide attempts; a history of physical or sexual abuse; a family history of suicidality; and recent and severe stressful life events.<sup>5</sup> Studies specific to AI/AN youth have found that previous suicide attempts, family disruption, loss of ethnic identity, and a lack of a religious or a spiritual connection put these youth at an even higher risk of suicide than youth in the general population.<sup>5</sup> The results of a 3-year suicide 'follow back' study of Alaskan suicides showed that risk factors salient to medical personnel include a disability or illness, a family history of mental illness, previous suicide attempts, aggressive behaviors, and substance abuse.<sup>6</sup> Access to firearms is also seen as a risk factor in a state where two-thirds of all suicide deaths involve firearms.<sup>7</sup>

A recent, systematic review of suicide prevention strategies found that two approaches were effective in preventing suicide: educating physicians on the recognition and treatment of depression; and restricting access to lethal

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means. Other interventions, such as public awareness and education campaigns, screening programs to identify at-risk individuals, and media efforts (e.g., establishing media guidelines and educating journalists) “need more evidence of efficacy.”<sup>8</sup>

### **Contact with Alaska Health Care System before Suicide**

The 3-year Alaska ‘follow back’ suicide study reviewed suicide decedents’ prior access to health care. It showed that 64% of all suicide decedents had seen a primary care physician within six months of their death.<sup>6</sup> Another recent study of Alaska Native males who died from suicide in northern Alaska found that contact with a primary care provider during the year before their death was common in this population. The retrospective case-control study compared 30 suicide cases to 30 controls matched for race, age, gender, and community of residence. Nearly three-fourths of suicide cases received some type of care in the region’s medical facilities (regional hospital and village clinics) during the 12 months preceding their death. Compared to the control group, Alaska Native males who died from suicide were 2.8 times more likely to have been treated at the hospital, 3.3 times more likely to have received care for an injury, and 22.2 times more likely to have been treated for an alcohol-related injury during the 12 months preceding their death.<sup>9</sup> These studies suggest that there may be opportunities in the primary care setting to identify those most at risk of suicide and refer these patients to appropriate care before they choose to end their life.

### **Innovative strategies in Alaska**

Within the Alaska Tribal Health System, tribally-operated health care organizations are working to reduce suicide in the health care setting in innovative ways. In addition to traditional pharmacotherapy, outpatient and inpatient behavioral health services and referrals to substance abuse treatment programs, several new programs are being implemented to reduce suicide rates. Initiatives include depression screening; safe firearm storage programs; gatekeeper training for community health aides on the recognition of warning signs of suicide; and case management services for Alaska Native people at risk of self-harm. A few of these programs are highlighted below.

*Depression Screening in a Primary Care Setting and Case Management Services.* The Southcentral Foundation, a tribal health organization in Anchorage, Alaska, has implemented a depression screening and intervention program in a primary care setting at the Alaska Native Medical Center. The screening and treatment protocol is modeled after the Institute for Healthcare Improvement’s Breakthrough Series. The protocol consists of two main components: a patient questionnaire and a provider interview, and was derived from the Primary Care Evaluation of Mental Disorders (PRIME-MD). PRIME-MD is a screening tool designed to assist general practitioners in the diagnosis of minor psychiatric disorders.

Screening for depression begins during intake with the Certified Medical Assistant or Licensed Practical Nurse. Based on responses to an initial set of questions, a second set of questions may be asked to gain more information regarding the severity of depression. After this initial screening and an interview with the provider, a determination is made if antidepressants and/or a referral to behavioral health services are needed. Education about self-care for depression is provided. Follow-up phone contact and in-person visits are made if anti-depressants are prescribed. Between 2001 and 2005, 58% of the patients screened positive for depression had not had a behavioral health visit or been diagnosed with a mood disorder within one year prior to screening.<sup>10</sup> Thus, prior to the implementation of the screening program, these patients may not have been identified as depressed. This suggests that more patients in need of mental health and other services are being recognized and helped.

In May 2006, the Southcentral Foundation launched the Dena’a Yeets’ (Athabascan for “Our Breath of Life”) Program, which provides support and case management services to adult Alaska Native men and women who are at risk of self-harm. Participants can self-refer or be referred to the program by a health care provider. Participants complete a self-harm survey that is used by program staff to develop a care plan. The care plan includes but is not limited to referrals to substance abuse treatment programs, housing services, food assistance programs, and counseling services. The program is designed to facilitate a sense of individual self-worth, cultural identity, and a desire for life by engaging clients and their children in cultural activities including talking circles, drum-making, fishing, and potlucks (Bergeron D. Personal communication, March 28, 2007).

*Referral to Gun Locker and Locking Medicine Cabinets for At Risk Youth.* A fellow of the Indian Health Service’s Injury Prevention Program Development Fellowship implemented an intervention in a village in southwest Alaska for parents or guardians of youth who have suicide risk factors. The program offered parents locking medicine or gun cabinets to store lethal means. Suicidal risk factors considered were trouble with the law; history of suicide attempts; diagnosed mood disorder/behavioral health involvement; recent traumatic event; and alcohol/drug abuse. Local EMS volunteers installed medicine and gun cabinets in the homes of participants. Twenty-four referrals for medicine cabinets were made by local village health aides and 19 medicine cabinets were successfully installed in homes. Seven program participants were referred to the program because of the potentially lethal effects of an overdose of a medication that was prescribed to a member in the home even though none of the youth had risk factors for suicide. Five referrals were not home during the installation phase of the medicine cabinets. Only two referrals were made for gun lockers, so recipients of gun lockers were drawn by lottery. Although installation of the medicine and gun cabinets was well received, no follow-up on the long term use of the

cabinets or the program's impact on suicide attempts was conducted (Hagan KD. Unpublished).

*Hospital-based Interventions in Rural Alaska.* The Maniilaq Association, a tribal health and social service organization in Northwest Alaska is in the process of implementing two hospital-based approaches to suicide prevention in collaboration with Project Life (a new program within Maniilaq Behavioral Health). The first is a long-term postal contact program modeled after a randomized controlled trial conducted by Motto and Bostrom.<sup>11</sup> This program will send letters to people who come into the ED for a suicide attempt. The letters are intended to provide unconditional support for people as well as decrease help-seeking barriers in times of crisis. The letters will be sent by Project Life staff on holidays, birthdays, anniversary dates, and periodically throughout a three-year period. Motto and Bostrom found that their program significantly reduced the suicide rate among clients receiving the letters and for years afterward.

The regional hospital, in collaboration with Project Life, is also implementing a suicide/depression screening process in the acute care and emergency department. In the pilot phase, acute care nurses will do the screening. The screening instrument consists of two primary questions, one focused on depressive symptoms and the other on behavioral risks associated with suicide in the region. If the patient answers "yes" to either question, the nurse will then ask seven additional questions which are focused on depression and suicide risk. If the patient responds affirmatively to any of these questions, they will be referred to Maniilaq Counseling Services. The procedures for doing screening and referral in a culturally appropriate way are currently in development.

In addition to supportive letters and acute care screenings done in the hospital and clinic, Project Life has a wide variety of activities including organizing digital storytelling projects focused on cultural and community strengths; raising suicide awareness and resilience skills in the classroom; promoting a media campaign focused on changing social acceptance of suicidal behavior; aiding institutions in the creation and implementation of suicide prevention protocols; and providing suicide awareness and intervention trainings for clergy, health aides, and other community gatekeepers. The project, which builds on findings from several community-based research projects,<sup>12-13</sup> began in 2006 and is funded by the Substance Abuse and Mental Health Services Administration.

## Conclusion

Suicide prevention initiatives, such as depression screening and education about restriction of lethal means, are becoming more common in the health care setting. Interventions developed within the general population should be thoroughly evaluated for cultural appropriateness, applicability, and effectiveness before implementation within a tribal health care setting. Tribal primary and acute care clinics show promise of being an effective place for identifying those

at-risk and providing education, referral, and support. Sustainability of such initiatives is one of the biggest challenges that tribal health care organizations will face, as most facilities struggle daily with limited financial resources. To ensure optimal allocation of limited resources, programs need to be evaluated using both primary outcomes (completed and attempted suicides, suicidal ideation) and intermediate impacts (such as help-seeking behavior, identification of at-risk individuals, entry into treatment, and antidepressant prescription rates).<sup>9</sup> Finding effective mechanisms for identifying risk factors and intervening in a clinical setting are the primary tasks of tribal health care organizations as they develop suicide prevention initiatives for their primary care settings.

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### Helpful Sites

Indian Health Service Community Suicide Prevention Website: [http://www.ihs.gov/NonMedicalPrograms/nspn/index.cfm?page=NSPN\\_A39\\_S124.cfm](http://www.ihs.gov/NonMedicalPrograms/nspn/index.cfm?page=NSPN_A39_S124.cfm)

Suicide Prevention Resource Center: [www.sprc.org](http://www.sprc.org)

Denaa Yeets Program: <http://www.southcentralfoundation.com/denaa.cfm>

Alaska Statewide Suicide Prevention Council: <http://www.hss.state.ak.us/suicideprevention/>

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# Introduction to *The IHS Provider* Special Issues on Injury Prevention

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There has been impressive progress toward reducing the burden of injuries among American Indians and Alaska Natives (AI/AN). Over a period of twenty years (1982 - 1984 vs. 2002 - 2004), the age-adjusted mortality rate for unintentional injuries fell 28%, compared to a 5% decline for the US as a whole.<sup>1</sup> Many challenges remain, however, in the realm of both unintentional injuries (e.g., motor vehicle crashes, falls, and poisonings) and intentional injuries (e.g., intimate partner violence, other assaults, and suicides). As noted in the following articles, for example, the suicide rate for AI/ANs in Alaska is almost four times greater than for the overall US population; the motor vehicle mortality rate for one American Indian community is nearly eight times the national average.

Our goal for these special issues of *The IHS Provider* is to raise the visibility of injuries as a leading cause of preventable

mortality and morbidity in American Indian and Alaska Native communities. In addition to sharing data for advocacy at the local and national levels, we highlight a number of successful interventions implemented by tribes, tribal organizations, and the IHS. An outstanding characteristic of these programs is that they employ strategies shown to be effective by rigorous evaluations. These are the public health equivalents of the “evidence-based” approaches recommended for clinical medicine.

Injuries can be devastating for individuals, families, and entire communities. We hope that these articles will stimulate new energy, and generate additional resources, for the prevention of both unintentional and intentional injuries.

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