

7. Injury and Violence

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Injuries and violence have been major public health concerns in Indian Country for many years.¹ Generally, injuries are separated into two categories: unintentional injuries, which result from events such as motor vehicle crashes, falls, accidental poisoning, or drowning; and intentional injuries, which are caused deliberately by one person to another or to himself, such as physical abuse, homicide, or suicide.

According to the most recently available national data (1999-2011), intentional injuries are the leading cause of death for AI/AN ages 1-44 and the third leading cause of death for AI/AN of all ages combined.² Homicide is among the top five leading causes of death for AI/AN ages 1-44.² A 2010 study found that AI/AN women have the highest reported lifetime rates of domestic violence among all racial and ethnic groups, at 46%.³

For AI/AN in Idaho, unintentional Injury is the third leading cause of death, led by motor vehicle crashes and accidental poisoning (usually drug overdose). The disparity between AI/AN and NHW is particularly alarming among AI/AN under 30.

This section presents mortality data for unintentional injury and homicide, as well as screening for domestic or intimate partner violence. Suicide-related data can be found in the chapter on Mental Health and Suicide.

1. Smith, R.J., and Robertson L.S. (2000). Unintentional Injuries and trauma. In Roades ER (ed.), American Indian Health, Baltimore, MD: Johns Hopkins University Press.

2. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [online]. (2013) [cited 2014 Sep 25]. Available from URL: www.cdc.gov/ncipc/wisqars

3. Black, M.C., Basile, K.C., Breiding, M.J., Smith, S.G., Walters, M.L., Merrick, M.T., Chen, J., & Stevens, M.R. (2011). The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Summary Report. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Domestic and Intimate Partner Violence Screening

IHS tracks the percentage of AI/AN female patients ages 15-40 who were screened for domestic or intimate partner violence in the past year. The domestic violence screening rate has steadily increased for the Portland Area IHS and the national IHS since 2009, but has remained about the same for Idaho clinics. (Figure 7.1).

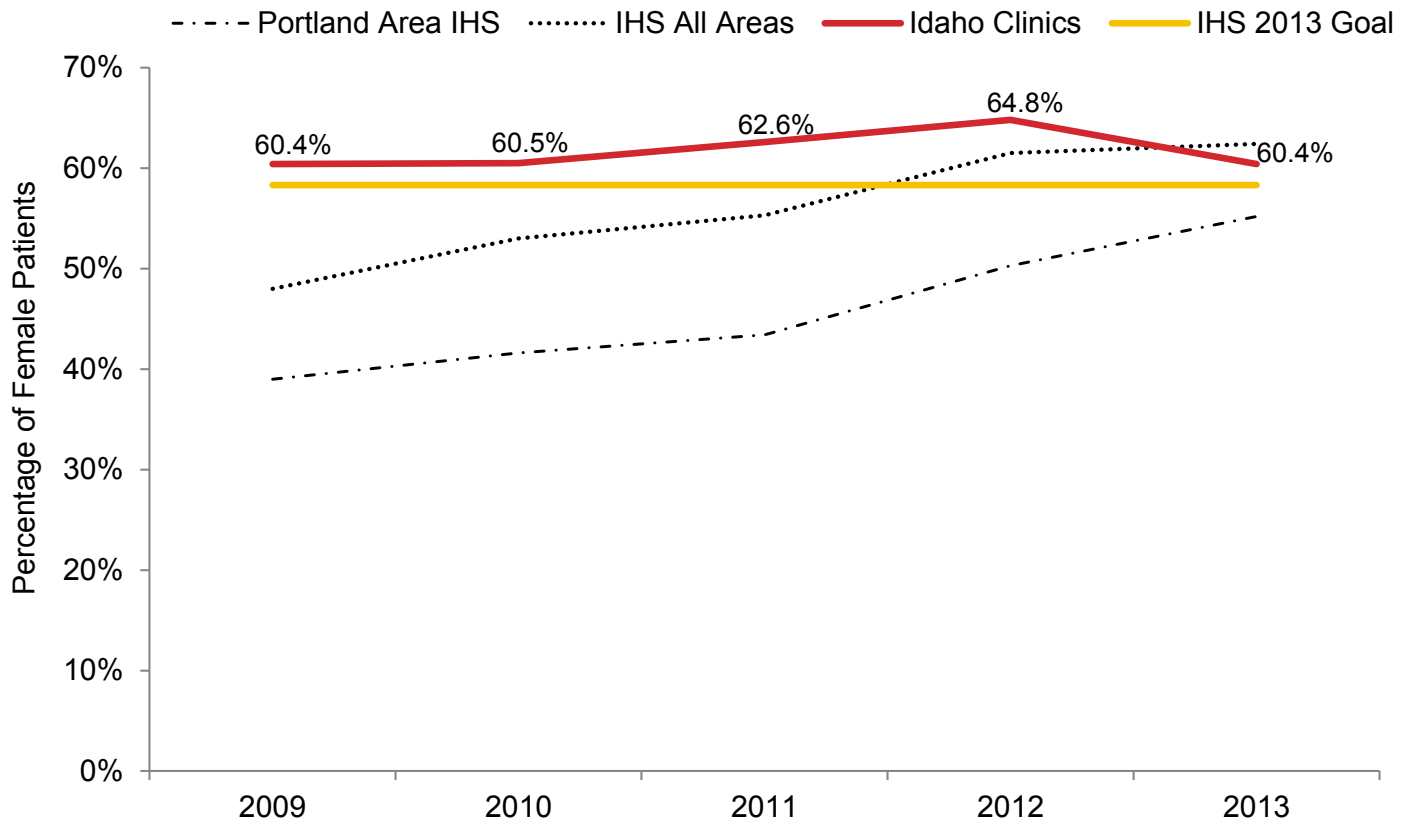
The screening rate for Idaho clinics has consistently been higher than the rates for the Portland Area and exceeded the national IHS rate until 2013. In 2013, the screening rates for Idaho clinics exceed the 2013 goal of 58.3%, while the Portland Area IHS rates fell short of the goal.

Data Source: Portland Area Indian Health Service.

Data Notes: Data labels only shown for Idaho clinics.

Idaho clinics include non-urban federal and tribal Indian health facilities in Idaho. Portland Area IHS clinics include non-urban federal and tribal Indian health facilities in Idaho, Oregon, and Washington.

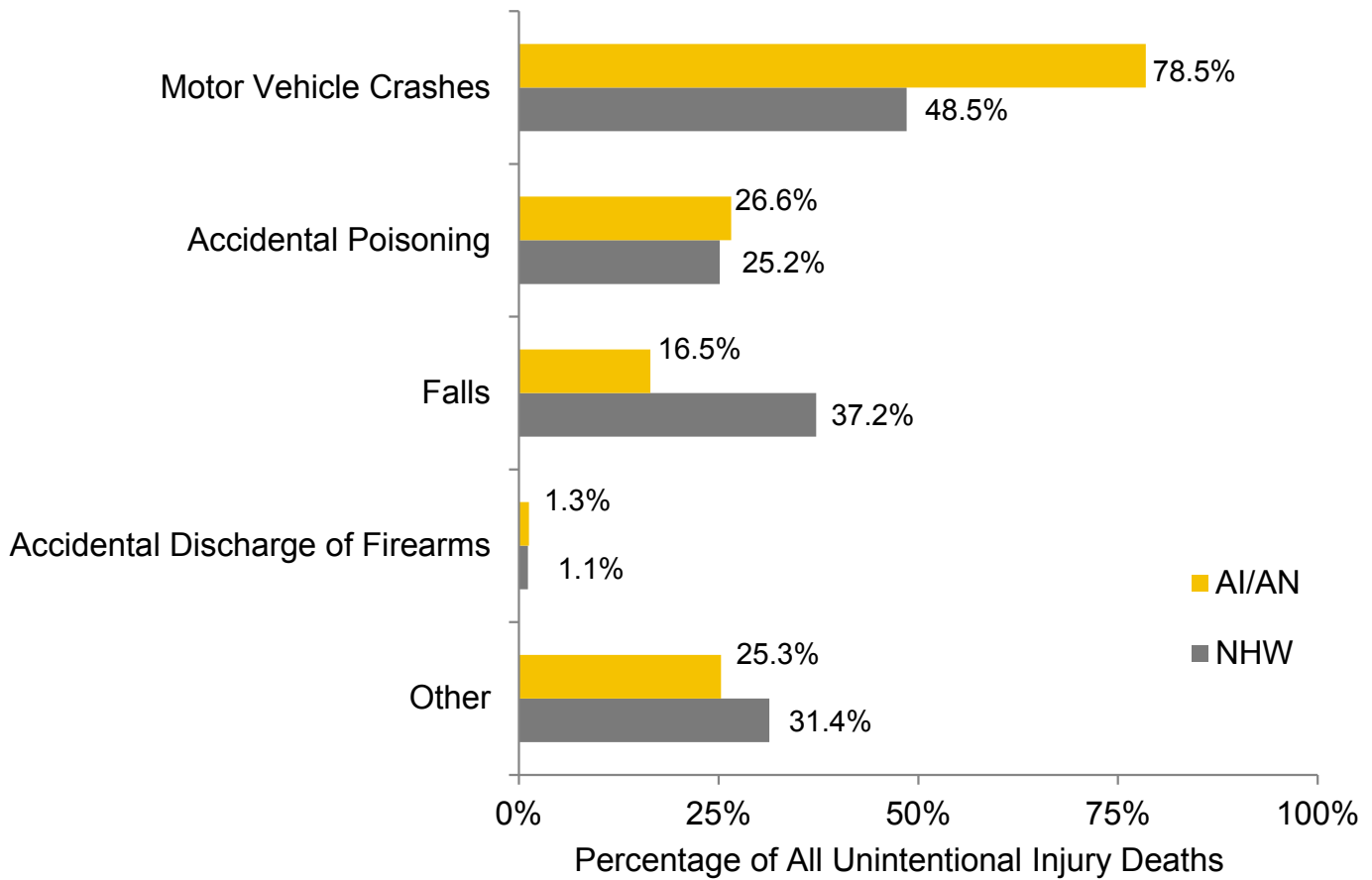
Figure 7.1: Domestic violence screening rates for IHS female patients, 2009-2013.



Causes of Unintentional Injury Deaths

The majority of unintentional injury deaths among both groups came from motor vehicle crashes (MVC) and accidental poisoning, although MVCs accounted for proportionally more deaths among AI/AN than NHW (Figure 7.2). NHW had a much higher proportion of unintentional injury deaths due to falls than AI/AN. This is possibly related to the difference in age at death as we find AI/AN are dying at younger ages of other causes while most fall deaths among NHW occur in those eighty years and older.

Figure 7.2: Leading causes of unintentional injury mortality by race, Idaho, 2006-2012.



Data Source: Idaho Death Certificate File (Idaho Dept. of Health and Welfare), 2006-2012, corrected for misclassified AI/AN race

Mortality from Unintentional Injuries

Unintentional Injury is the third leading cause of death for Idaho AI/AN. Figure 7.3 shows the age-adjusted death rates for unintentional injury among AI/AN and NHW in Idaho. Male AI/AN are about 20% more likely to die from unintentional injuries than females. Compared to NHW, AI/AN unintentional injury death rates are 53% higher. Idaho AI/AN unintentional injury death rates fall in the middle when compared to other AI/AN in the region, with lower rates than found among Washington populations, but higher rates than those seen in Oregon.

Table 7.1: Age-adjusted unintentional injury mortality rates by race and sex, Idaho, 2006-2012.

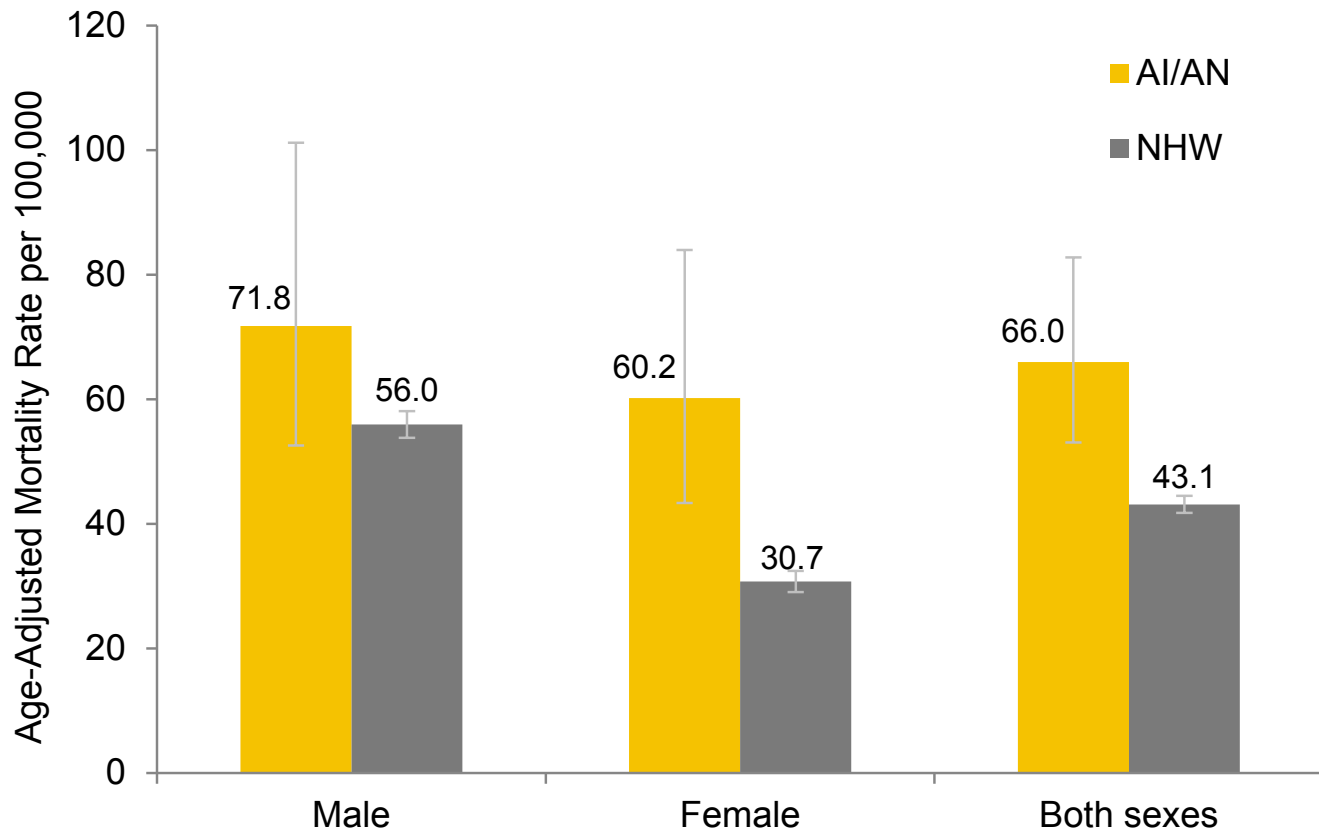
| Sex | AI/AN Rate (95% CI) | NHW Rate (95% CI) | AI/AN vs. NHW Rate Ratio (95% CI) |
|------------|------------------------|----------------------|--------------------------------------|
| Male | 71.8 (52.6, 101.2) | 56.0 (53.8, 58.1) | 1.28 (1.00, 1.64) |
| Female | 60.2 (43.3, 84.0) | 30.7 (29.1, 32.4) | 1.96 (1.48, 2.59) [‡] |
| Both Sexes | 66.0 (53.1, 82.8) | 43.11 (41.8, 44.5) | 1.53 (1.27, 1.84) [‡] |

CI = confidence interval

‡ Indicates a statistically significant difference (p<.05)

Data Source: Idaho Death Certificate File (Idaho Dept. of Health and Welfare), 2006-2012, corrected for misclassified AI/AN race

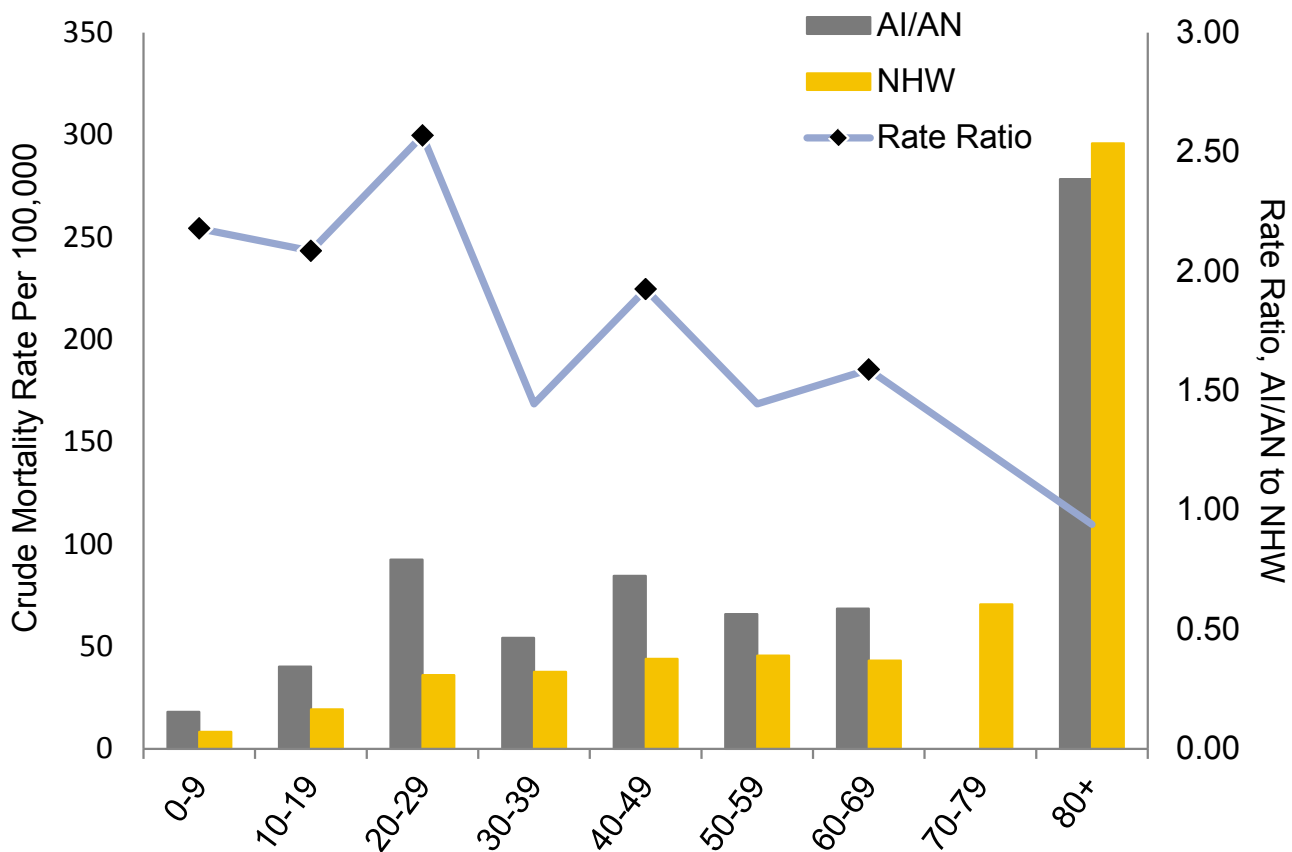
Figure 7.3: Age-adjusted unintentional mortality rates by race and sex, Idaho, 2006-2012.



Unintentional Injury Mortality Across Life Span

Figure 7.4 shows the death rates by age group for AI/AN and NHW. The blue line shows the rate ratio comparing the two populations. The AI/AN at highest risk for unintentional injury deaths were 20-29 year-olds and those 85 and older. The largest disparities occurred in children and young adults, with all age groups under 30 experiencing more than twice as many unintentional injury deaths than their NHW counterparts. AI/AN aged 20-29 experienced the largest disparity compared to NHW at 2.6 times higher.

Figure 7.4: Age-specific unintentional injury mortality rates by race, Idaho, 2006-2012.



Note: Rate Ratio is a comparison of AI/AN to NHW rates; a value above 1 indicates AI/AN rates are higher than NHW. Black markers are shown for age groups in which the AI/AN rates are statistically significantly higher than NHW rates.

Mortality from Homicide

Figure 7.5 shows the age-adjusted homicide rates among AI/AN and NHW in Idaho. Compared to NHW, AI/AN homicide rates were more than three times higher. AI/AN in Idaho have the lowest homicide rates among AI/AN in the Northwest region.

It should be noted that, due to small numbers, the rates presented here may be unstable (as seen in the wide confidence intervals). Statistical tests take into account this level of uncertainty, and thus the rate ratio comparisons with NHW shown in Table 7.2 can be interpreted as reflecting a true disparity, while differences in the actual rate estimates alone may not.

Table 7.2: Age-adjusted homicide mortality rates by race and sex, Idaho, 2006-2012.

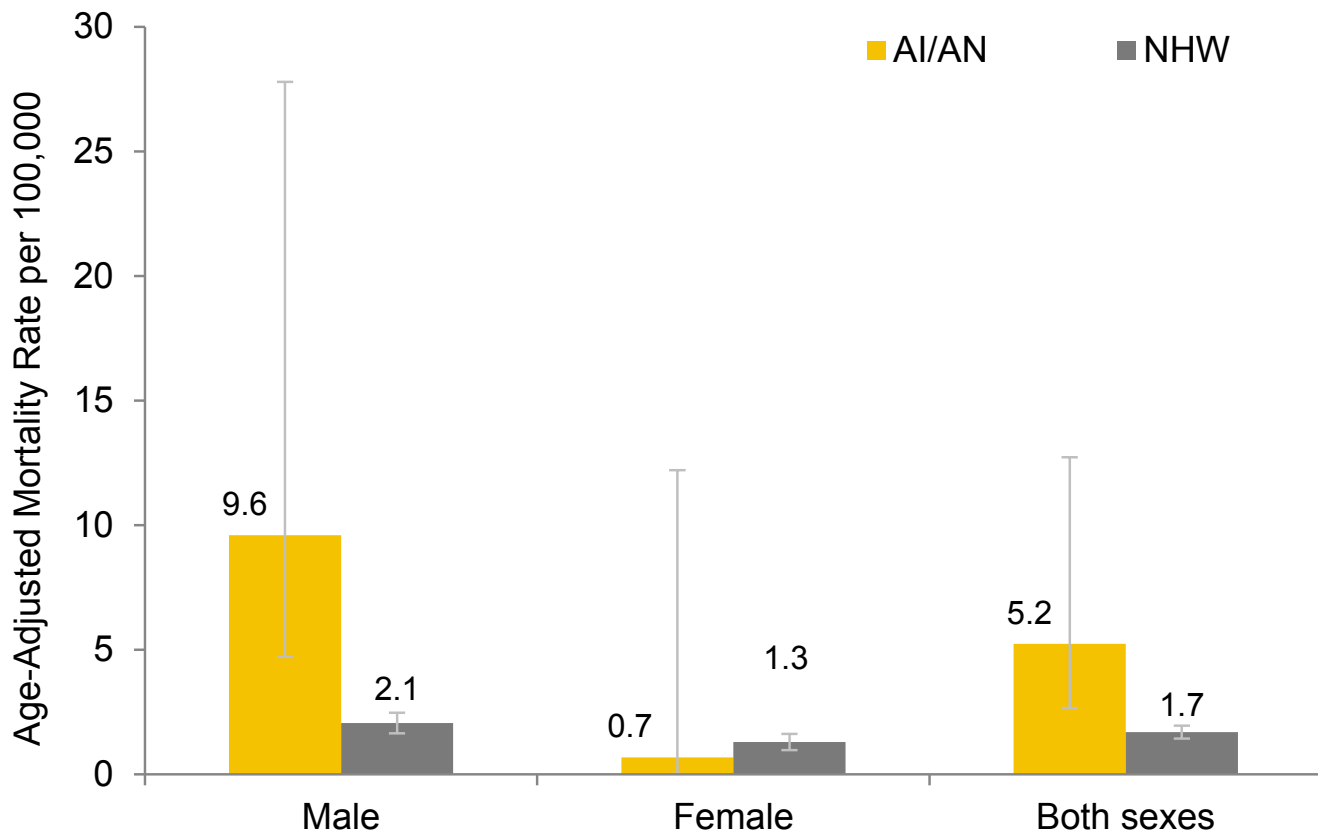
| Sex | AI/AN Rate (95% CI) | NHW Rate (95% CI) | AI/AN vs. NHW Rate Ratio (95% CI) |
|------------|------------------------|----------------------|--------------------------------------|
| Male | 9.6 (2.6, 27.8) | 2.1 (1.7, 2.5) | 4.66 (2.49, 8.70) [‡] |
| Female | 0.7 (0.0, 12.2) | 1.3 (1.0, 1.6) | 0.52 (0.07, 3.77) |
| Both Sexes | 5.2 (2.7, 12.7) | 1.7 (1.4, 2.0) | 3.08 (1.71, 5.54) [‡] |

CI = confidence interval

‡ Indicates a statistically significant difference (p<.05)

Data Source: Idaho Death Certificate File (Idaho Dept. of Health and Welfare), 2006-2012, corrected for misclassified AI/AN race

Figure 7.5: Age-adjusted homicide mortality rates by race and sex, Idaho, 2006-2012.



Program Spotlight: Injury Prevention Program

The Injury Prevention Program (IPP) works to develop and implement effective injury prevention strategies across the 43 Northwest Tribes. The IPP coordinates a Northwest Tribal Injury Prevention Coalition, whose members represent Northwest tribes, transportation safety organizations, and other key stakeholders. The IPP and Coalition members completed a 5-year Tribal Injury Prevention Plan in 2012, and are now working on implementing injury prevention and education strategies, with an emphasis on motor vehicle safety and elder falls prevention. The IPP also contributes to the collection, analysis and interpretation of injury data. The IPP is funded through a cooperative agreement with the Indian Health Service.

The IPP's goals are to:

- Provide a central location for coordination and dissemination of injury prevention resources and expertise for Northwest tribes.
- Collaborate with Northwest tribes to provide information, technical assistance and training for injury prevention, and to increase IP-related activities at the tribal level.
- Collect and evaluate community-specific data on injuries among American Indians in the Northwest, and support development of reducing injuries in targeted communities.

For more information, contact:

Luella Azule (Yakama/Umatilla)

Program Coordinator

lazule@npaihb.org

503-416-3263

http://www.npaihb.org/epicenter/project/injury_prevention_program