

AMERICAN ACADEMY OF PEDIATRICS

Committee on Native American Child Health and Committee on Injury and Poison Prevention

The Prevention of Unintentional Injury Among American Indian and Alaska Native Children: A Subject Review

ABSTRACT. Among ethnic groups in the United States, American Indian and Alaska Native (AI/AN) children experience the highest rates of injury mortality and morbidity. Injury mortality rates for AI/AN children have decreased during the past quarter century, but remain almost double the rate for all children in the United States. The Indian Health Service (IHS), the federal agency with the primary responsibility for the health care of AI/AN people, has sponsored an internationally recognized injury prevention program designed to reduce the risk of injury death by addressing community-specific risk factors. Model programs developed by the IHS and tribal governments have led to successful outcomes in motor vehicle occupant safety, drowning prevention, and fire safety. Injury prevention programs in tribal communities require special attention to the sovereignty of tribal governments and the unique cultural aspects of health care and communication. Pediatricians working with AI/AN children on reservations or in urban environments are strongly urged to collaborate with tribes and the IHS to create community-based coalitions and develop programs to address highly preventable injury-related mortality and morbidity. Strong advocacy also is needed to promote childhood injury prevention as an important priority for federal agencies and tribes.

ABBREVIATIONS. AI, American Indian; AN, Alaska Native; IHS, Indian Health Service; AAP, American Academy of Pediatrics.

More than 700 000 American Indian and Alaska Native (AI/AN) children younger than 19 years old live in the United States.¹ These AI/AN children experience higher rates of morbidity and mortality from unintentional injuries than do other US children. The 881 injury deaths to AI children between 1992 and 1994 translate to an overall rate of 52.3 deaths per 100 000 children per year. This rate is almost twice the US rate of 28.3 per 100 000 children for all races (1993).² Rates of injury deaths are high for rural and urban AI/AN populations.³

Although rates of injury death have dropped considerably during the past 25 years, they remain disproportionately high among AI/AN children for the most common causes of injury. Fatality rates for motor vehicle occupant injuries are 3 times higher for AI/AN children than for white and black children.¹ Pedestrian-motor vehicle collision deaths are almost

4 times that for all US races combined, and drowning, the second leading cause of injury death, occurs at rates almost 2 times higher than those for white and black children. Native American children also die as a result of fire and burn injury at 2.8 times the rate of white children.

Some of the recognized important risk factors for unintentional injury mortality among AI/AN children include poverty, alcohol abuse, substandard housing, limited access to emergency medical services, rural residences, and low seat belt use rates.^{2,4-8} The high rates of injury-related death and disability make it especially important to emphasize and intensify injury prevention efforts within this population.

Injury prevention specialists use media campaigns, targeted education, safety technology, environmental modification, and passage of laws and regulations to achieve their aims. Each of these approaches has been used successfully by the tribes, often working in close partnership with the Indian Health Service (IHS) Injury Prevention Program. Some examples of successful injury prevention programs for AI/AN communities include a program promoting winter coats with flotation devices in Alaska to prevent drowning⁹; a livestock control program to reduce motor vehicle collisions with large animals¹⁰; and the Navajo Nation motor vehicle occupant safety program to boost seat belt use.¹¹

The sovereignty of tribes provides special challenges to the regulatory and legislative approach to injury control in AI/AN communities. Safety laws vary considerably among the 550 federally recognized tribes. Although some tribes fall under the jurisdiction of state laws (eg, California, Oklahoma, and Alaska), many enact their own laws and tribal codes. According to a recent inventory of tribal laws relating to occupant safety, only 14% of the responding tribes had passed their own laws requiring seat belt use, 46% had adopted state laws, and the remainder had no relevant law.¹² The regulatory and legislative approach is complex and may often require working with each tribe separately, similar to the enactment of laws in states.

The AI/AN groups are culturally and linguistically diverse with more than 200 native languages still spoken. Although similarities exist among some tribes, such as the Pueblo tribes, most tribes have unique cultural practices. Intervention strategies should account for these differences. For example, the promotion of the use of child safety seats is a well-accepted form of prevention for motor vehicle

The recommendations in this statement do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.
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crash injury, but the method used to promote them may need to be tailored to the cultural beliefs of the specific tribe. In some tribes, discussions of mortality, risk, and harm are forbidden.¹³ For example, health care professionals should not warn that death is a potential outcome if certain protective measures are not taken. One strategy used by the IHS Injury Prevention Program was to conduct a crash test using a cradle board to demonstrate the inadequacy of this device as a child vehicle restraint. Video footage of this test was sufficient to communicate the risk without having to predict risk of harm to the child.

Pediatricians can increase their understanding of tribal cultures in many ways. In many tribes, traditional healers, tribal elders, or community health workers can be approached respectfully and asked to provide guidance; in other tribes it may be more appropriate to work directly with the tribal health director. Many tribes have or are developing cultural centers to assist nonmembers to gain a greater understanding of the tribe.

Some general strategies also can be used to communicate with AI/AN patients. First, avoid comparisons between AI/AN people and people of other cultures. Second, providers should take extra time to convey information in a clear nonjudgmental style that is free of jargon. Common cultural attributes of the AI/AN people include cooperation and patience. They may respond quietly or ask few questions because of their beliefs about respect and consideration.

RECOMMENDATIONS

Because of concern about the high rate of childhood injury morbidity and mortality among AI/AN people, the American Academy of Pediatrics (AAP) supports the continued implementation and expansion of a broad-based injury prevention program among these populations. Pediatricians and others caring for AI/AN children should:

1. Form coalitions linking IHS and tribal injury control specialists with others interested in childhood injury control in the surrounding community and state. All should be encouraged to work within AI/AN communities to understand how best to introduce injury prevention strategies.
2. Respect tribal sovereignty and community-specific cultural factors when considering regulatory or legal approaches to injury prevention.
3. Provide assistance with advocacy for adoption of tribal seat belt and child car seat traffic safety laws or the adoption by tribes of state child motor vehicle safety laws. (The AAP and the IHS have developed model injury prevention legislation that may be helpful in some cases.)
4. Promote comprehensive seat belt and child car seat educational and media campaigns in AI/AN communities.
5. Support other targeted child safety efforts among rural and urban AI/AN populations that are known to be effective, including the promotion of bicycle helmet use, fire safety, the prevention of drowning and falls, and firearm safety. Pediatricians

can facilitate injury prevention in the clinic by use of the AAP TIPP (The Injury Prevention Program) materials with patients.

6. Support efforts to improve the quality of injury-related data through the establishment of confidential comprehensive data systems to monitor the epidemiology of all medically reported injuries and the improvement of coding of health records to decrease racial misclassification.
7. Advocate for increased emphasis on and funding by tribal and federal programs (eg, the IHS, the Centers for Disease Control and Prevention, and the National Highway Traffic Safety Administration) of injury control initiatives and appropriate injury prevention research in AI/AN communities.
8. Urge the IHS, tribally operated, and urban health programs to implement injury prevention programs as a cost-effective use of health care dollars.

Pediatricians and others involved in child health care have an opportunity and a challenge to reduce injury-related morbidity and mortality among AI/AN children. If the challenge can be met, Native American children will be protected from injuries at least as well as other US children, who have seen a more favorable reduction in injury mortality in recent years.¹⁴

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Emery A. Johnson, MD, MPH
Former Director, Indian Health Service
Richard J. Smith III, MS
Injury Prevention Specialist, Indian Health Service

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