NORTHWEST PORTLAND AREA INDIAN HEALTH BOARD

NORTHWEST TRIBAL CHILD SAFETY SEAT PROJECT

FINAL REPORT

DECEMBER 2003

A collaborative project between

Confederated Tribes of Colville
Confederated Tribes of Grand Ronde
Klamath Tribes
Nez Perce Tribe
Shoshone-Bannock Tribes
Spokane Tribe
Indian Health Service
Northwest Tribal Health Research Center, Northwest Portland Area Indian Health Board

Northwest Tribal Health Research Center,
Northwest Portland Area Indian Health Board

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Funding Information

This project was funded by the Indian Health Service as part of the Native American Research Centers for Health (NARCH) initiative, known at the Northwest Portland Area Indian Health Board (NPAIHB) as the Northwest Tribal Health Research Center.

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	Neil Sun Rhodes, BS, OHSU

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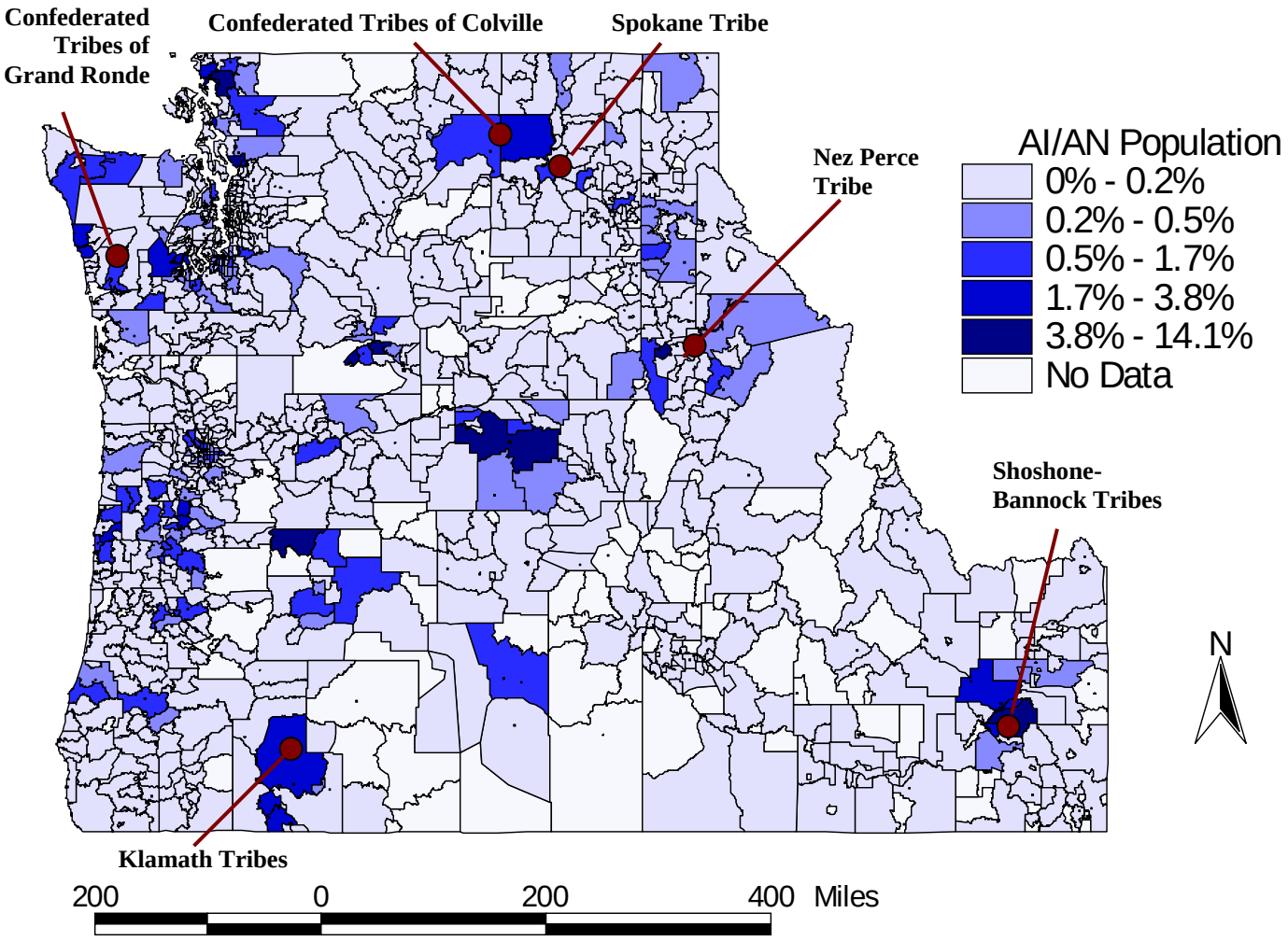
Shoshone-Bannock Tribes, Ft. Hall, Idaho	Jim Cutler, Injury Prevention Jade Edmo, CHR Iola Hernandez, Community Health Tamara Hollinger, Community Health
Spokane Tribe, Wellpinit, WA	Julia Havens, Health Educator

Website Information

www.npaihb.org

[3] Community Health Representatives
[4] Women, Infant, and Children

Map of Portland Area (Washington, Oregon, and Idaho) and Participating Northwest Tribal Child Safety Seat Project Tribes



NORTHWEST TRIBAL CHILD SAFETY SEAT PROJECT

PREFACE

The Northwest tribes have long recognized the need to exercise control over the design and development of health care delivery systems in their local communities. To this end, in 1972 they formed the Northwest Portland Area Indian Health Board (NPAIHB). The NPAIHB is a nonprofit tribal advisory organization that represents the tribes of Washington, Oregon, and Idaho on health-related matters and provides health-related technical assistance. The NPAIHB represents 43 federally recognized tribes throughout the Pacific Northwest. Tribes become members of the Board through Public Law 93-638 authorizing resolutions passed by the governing body for the tribe. Each tribal government appoints a delegate to represent them on the Board of Directors of the NPAIHB.

The Board of Directors meets quarterly to review Indian Health Service (IHS) policies and activities and to advise the Portland Area IHS from the perspectives of the tribal governments and Indian health care consumers. The mission of the NPAIHB is to assist Northwest tribes to improve the health status and quality of life of member tribes and Indian people in their delivery of culturally appropriate and holistic health care.

Approximately 170,000 American Indians/Alaska Natives (AI/AN) reside in Oregon, Washington, and Idaho, representing 6.8 percent of the nation's American Indian population. Indian reservations are dispersed across immense distances in the Northwest, usually in isolated areas with sparse populations. The tribes of the Northwest vary in population size, culture, and geographic location. Indian health care delivery faces many unique challenges.

Over the last ten years, health care delivery for Northwest Indians has evolved from a centralized system maintained by the IHS to a diverse environment. Currently, many Indian health care programs are operated by tribes under contracts (Title I) or compacts (Title III). This transfer of administration and management responsibilities to the tribes has had many positive results for tribal communities, including the opportunity to more directly impact reduction of morbidity and mortality of disease.

The purpose of this report is to provide child safety seat restraint use and driver restraint use information for American Indians residing in the six participating tribes of the Confederated Tribes of Colville; Confederated Tribes of Grand Ronde; Klamath Tribes; Nez Perce Tribe; Shoshone-Bannock Tribes; and, Spokane Tribe. A total of 599 community members with 813 children, 8 years of age and younger, participated in the Northwest Tribal Child Safety Seat Project. The data are presented in figures and tables and include reported counts and percents.

Motor vehicle injuries are a leading cause of morbidity and mortality among AI/AN children (CDC, 2003; IHS, 1997). The design and use of child safety seats are intended to reduce morbidity and mortality among infants and young children. The use of child safety seats has been shown to reduce the risk of injuries among children who are passengers in cars involved in motor vehicle crashes and reduce hospitalizations (Zaza et al., 2001). Despite child safety seat laws present in all 50 states, studies have shown 51%–82% of infant car seats and 30% of booster seats are improperly used, including incorrect installation or incompatibility of the seat with the child's physical characteristics (height, weight, and age) (Ramsey et al., 2000). This report represents one aspect of our efforts to provide tribal staff and members with information about American Indian and Alaska Native (AI/AN) people in the Portland Area (Oregon, Idaho, and Washington).

NORTHWEST TRIBAL CHILD SAFETY SEAT PROJECT

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NORTHWEST TRIBAL CHILD SAFETY SEAT PROJECT

BACKGROUND

Motor vehicle injuries are a leading cause of morbidity and mortality among AI/AN children (CDC, 2003; IHS, 2002; IHS, 1997) (see Table 1). The design and use of child safety seats are intended to reduce morbidity and mortality among infants and young children. The use of child safety seats has been shown to reduce the risk of injuries among children who are passengers in cars involved in motor vehicle crashes and reduce hospitalizations (Zaza et al., 2001). Despite child safety seat laws present in all 50 states, studies have shown 51%–82% of infant car seats and 30% of booster seats are improperly used, including incorrect installation or incompatibility of the seat with the child's physical characteristics (height, weight, and age) (Ramsey et al., 2000). The purpose of this report is to provide information on restraint use in six northwest tribal communities.

Table 1. Leading Causes of Infant Deaths for All IHS Areas, 1996-1998, and the U.S., All Races, 1997, and Percent of Total Deaths (IHS, 2002).

ALL IHS AREAS, 1996-1998		U.S. ALL RACES, 1997	
Cause of Death	**Percent**	**Cause of Death**	**Percent**
Congenital Anomalies	19.8	Congenital Anomalies	22.0
Sudden Infant Death Syndrome	18.1	Disorders Related to Short Gestation and Low Birthweight	14.0
Disorders Related to Short Gestation and Low Birthweight	8.0	Sudden Infant Death Syndrome	10.7
Unintentional Injuries	4.3	Respiratory Distress Syndrome	4.6
Pneumonia & Influenza	4.2	Newborn Affected by Maternal Complications of Pregnancy	4.4

Previous studies have been primarily conducted in urban settings and have involved direct observation of child safety seat use at fast-food restaurants, shopping centers, malls, parks, health care centers, day care centers, and schools. These studies have reported child safety seat use of 30%–82%, with generally higher percentages of use among infants and toddlers compared to older children (Decina and Knoebel, 1997; Margolis et al., 1992; Eby and Kostyniuk, 1999; Ferguson et al., 2000; Ramsey et al., 2000). Several factors were related to the frequency of child safety seat use. A positive relationship between driver seatbelt use and child safety seat use was reported in several studies (Margolis et al, 1992; Decina and Knoebel, 1997; Eby and Kostyniuk, 1999). Compared to non-family members, parents or other family members were more likely to use child safety seats for child passengers (Margolis et al., 1992; Decina and Knoebel, 1997; Eby and Kostyniuk, 1999). Child safety seat use was higher when the seat was infrequently removed from the vehicle (Decina and Knoebel, 1997) and for children, who traveled frequently in the vehicle, compared to children who traveled less than once a week (Margolis et al., 1992).

In an effort to determine the prevalence of appropriate use of child safety seats (including infant car seats, convertible seats and booster seats) as well as reasons for misuse or non-use among American Indians and Alaskan Natives (AI/AN) in the Portland Area (Oregon, Idaho, and Washington), the Northwest Portland Area Indian Health Board (NPAIHB), conducted an observational study in six (6) tribal communities. Local community health staff members from

each tribe, in conjunction with investigating members of the study, carried out the observation study outside local businesses, targeting vehicles with children between the ages of birth to approximately eight (8) years. The findings will ultimately help tribal communities develop an understanding of how child safety seats are utilized in Indian country and provide information for implementing effective interventions to increase the appropriate child safety seat use, thereby reducing injuries due to motor vehicle accidents.

ORGANIZATION OF THE REPORT

The report is organized into two sections providing overall descriptive information and then restraint use information on drivers and children in individual sections. We provide information for each tribe individually and information in aggregate where we have combined the results of all six tribes together. The aggregate are based on face-to-face interviews of 599 community members.

The data are presented in several formats. Within the body of the report, we have provided a summary highlighting the count and percent of select findings and have inserted bar graphs and bullets to depict the distribution of select variables. More detailed information is in the form of tables. The tables provide information on select variables.

SOURCES AND LIMITATIONS

SOURCES

Information on appropriate use of child safety seats (including infant car seats, convertible seats and booster seats) as well as reasons for misuse or non-use can provide important information on injury prevention efforts. However, results are based on the 599 individuals who agreed to be interviewed between June 3, 2003 and July 23, 2003. Although every attempt was made to randomly select community members, it is possible that the information presented in this report does not represent child safety seat use (or misuse or non-use) for all tribal members of the northwest.

In this report, the number of individuals participating in the interview is used as the denominator for calculation of reported responses. The percent is the number of reported responses divided by the total number of participants. For some questions, only individuals of specific gender, within certain age categories, or responding affirmatively to a filter question were included in the denominator. For example, only respondents with children between 4 and 8 years of age were asked why a booster seat was not used, if no booster seat or child seat was present. Any exceptions to this format are described in footnotes.

LIMITATIONS

The information from this report may provide an important perspective to plan initiatives to improve the health status of American Indians in the northwest. Before considering the findings of the study, it is important to acknowledge a number of limitations of the data used in this report.

Small numbers
The small numbers of respondents make some of the results in this report considerably susceptible to random variation; therefore, considerable caution should be used in arriving at conclusions regarding either the statistical significance or the public health significance of results. In small populations, even one or two individuals with a reported response might result in a very high estimated percent for that behavior. Assistance with interpretation is available from the project staff members, 1-877-664-0604.

Although we included six tribes in this study, our sample of two tribes per state is small; therefore, our results may not generalize to all Northwest tribes. However, the data collected in this project will provide a useful snapshot of how people in Northwest Indian communities are using child safety seats and will provide a basis for further studies or interventions.

Bias
In our analyses, only community members who were in agreement to be interviewed were included. It is possible that the individuals included in our analyses are different in some way from the general population due to different rate of response. Our study observations are limited to tribal members who visit their local businesses. If certain members of tribal communities do not visit these businesses, they were not included in our survey.

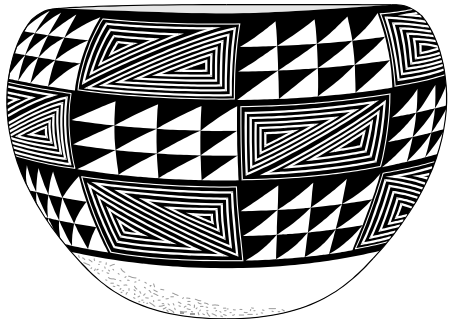
A fundamental difficulty in surveying the use of child safety seats is selecting observation sites where target-age children are concentrated, while minimizing potential bias in the demographics of drivers who may visit the site (Eby and Kostyniuk, 1999). We decided that local businesses were the best choice for observation sites in reservation settings, given the choices of sites available. Although our study sample essentially consisted of a convenience sample of persons visiting the businesses, a random sample of target-aged children was not feasible due to logistic considerations of contacting parents and guardians and visiting the homes of children.

It is also important to remember that this survey is a snapshot of the community in their use of seatbelts and child safety seats. Our study assessed the use or non-use of seatbelts during the time of our observations and interviews.

Response Rate
At each tribe, the interview team worked to complete 100 interviews. Many more individuals were approached but not all were interested in participating, some individuals did not have the time, or just outright refused. Response rates are a measure of the number of completed interviews divided by the total number of people who we approached to be interviewed. The overall response rate of the Northwest Tribal Child Safety Seat Project was 87.7% (see Table 2). Among tribes, the response rate ranged from 82.1% to 95.3%. For all six tribes, there was no statistical sex difference for refusals. Among those people who refused to participate in the survey, most individuals said that they were “in a hurry” or had “no time” for the survey (69.0%). Eighteen percent of the individuals who refused (17.9%) said they were “not interested” or “didn’t want to” participate in the survey. Seven percent (7.1%) of individuals gave other reasons for not wanting to participate, and 6.0% did not give a reason for their refusal.

Table 2. Response Rates by Tribe, Northwest Tribal Child Safety Seat Project, 2003

Tribe	Completed Interviews	Refusals	Response Rate
The Confederated Tribes of Colville	101	20	83.5%
The Confederated Tribes of Grand Ronde	98	8	92.5%
Klamath Tribes	98	10	90.7%
Nez Perce Tribe	101	5	95.3%
Shoshone-Bannock Tribes	100	19	84.0%
Spokane Tribe	101	22	82.1%
Total	599	84	87.7%



NORTHWEST TRIBAL CHILD SAFETY SEAT PROJECT

BACKGROUND OF THE PARTICIPATING TRIBES

A total of six Northwest tribes participated in the Northwest Tribal Child Safety Seat Project. Below are brief background descriptions of the Safety Seat tribes, including tribal leadership and project staff members.

The background information was taken directly from the Northwest Portland Area Indian Health Board (NPAIHB) web pages. The tribal information can be accessed at http://www.npaihb.org/profiles/tribal_profiles/interface.htm

Confederated Tribes of Colville

The Colville people are the descendants of eleven bands of Indians that were settled on the Colville Reservation. These bands are the Methow, Okanogan, San Poil, Arrow Lakes, Nespelem, Nez Perce, Palouse, Moses, Entiat, and Wenatchee. Most of the bands spoke a Salish or Sahaptin language, including nsalxcln, nhamcin, and nimipu. The 1.3 million acre Colville Reservation is located in the northeastern part of Washington, bordered on the west by the Okanogan River and on the south and east by the Columbia River. It covers parts of the Okanogan and Ferry Counties. Executive Order of President Grant created the Colville Indian Reservation in 1872. A 14-member council elected for two-year terms conducts tribal business. The Chairman, Vice-Chairman, and Secretary are selected from this body and committees are appointed from council membership to manage tribal affairs.

Confederated Tribe of Colville

Tribal Council
Joseph A. Pakootas, Business Council Chairman
Michael E. Marchand, Business Council Vice-Chair
Maggie Hutchinson, Business Council Secretary, Culture Committee Chair

Business Council Members and Committee Chairs
Margie Hutchinson, Tribal Government, Committee Chair and Business Council Secretary
Andrew Joseph Jr., Human Services, Committee Chair
D. R. Michel, Colville Business Council
Jeanne Jerred, Management & Budget, Committee Chair
Deb Louie, Natural Resources
Mel Tonasket, Colville Business Council
Richard Swan, Law & Justice, Committee Chair
Deb Louie, Veterans Committee Chair
Louella "Lou" Anderson, Colville Business Council
Harvey Moses, Jr, Employment & Education, Committee Chair

Project Staff Members
Myra Aubertin, Site Coordinator
Dianne Mellon, Surveyor

Joanne Gleason, Surveyor
Jim Norris, Surveyor
Angela Rios, Surveyor
Lionel "Quail" J. Orr, Jr., Surveyor
Anna Sandvig, Surveyor
Pam Phillips, Surveyor

Confederated Tribes of Grand Ronde

The Grand Ronde Confederation was restored to federal recognition on November 22, 1983, having been terminated in 1954. Ancestors of the Confederated Tribes of Grand Ronde lived in the Willamette Valley, the surrounding mountains, and the northern portion of the Oregon coast. They maintained a culture similar to the Coastal cultures of whom they are a part. Beginning in 1856, the US government removed over 20 Indian bands from their homelands and relocated them on the Grand Ronde Indian Reservation. This reservation was established pursuant to treaty arrangements in 1855 and an Executive Order of June 30, 1857. The reservation contained approximately 60,000 acres and was located on the eastern side of the Coast Range of Mountains on the headwaters of the Yamhill River in the Willamette Valley, about 60 miles southwest of Portland and about 25 miles from the ocean. In early 1989 the tribe successfully acquired a 10,300-acre reservation, mostly timberlands, near the town of Grand Ronde in Polk County. The Tribe's territories include Washington, Marion, Yamhill, Polk, Tillamook, and Multnomah counties.

We gratefully acknowledge the contributions of each of these individuals:

Confederated Tribes of Grand Ronde

Tribal Council
Cheryle A. Kennedy, Chairwoman
Reynold L. Leno, Vice-Chair
June Sell-Sherer, Secretary
Valerene Grout, Tribal Council
Ed Larsen, Council
Robert "Bob Haller, Council
Jack Giffen Jr., Council
Jan D. Reibach, Council
Valorie Robertson**,** Council

Project Staff Members
Tracy Biery, Site Coordinator

Klamath Tribes

The Klamath Tribes are composed of the Klamaths, the Modocs, and the Yahooskin. The tribes have lived in the Klamath Basin of Oregon from time beyond memory. The tribes of the Klamaths lived along the Klamath Marsh, on the banks of Agency Lake, near the mouth of the Lower Williamson River, on Pelican Bay, beside the Link River, and in the uplands of the Sprague River Valley.

Because of the widespread trade networks established by the Tribes long before the settlers arrived, freighting was an economic enterprise that turned out to be extremely successful during the reservation period. In August of 1889, there were 20 Tribal teams working year-round to supply the private and commercial needs of the rapidly growing county. A Klamath Tribal Agency - sponsored sawmill was completed in 1870 for the purpose of constructing the Agency. By 1873, Tribal members were selling lumber to Fort Klamath and to many other private parties, and by 1896 annual sales to parties outside of the reservation were estimated at a quarter of a million board feet. With the arrival of the railroad in 1911, reservation timber became extremely valuable. The economy of Klamath County was sustained by it for decades.

By the 1950's the Klamath Tribes were one of the wealthiest Tribes in the United States. They owned and judiciously managed for long term yield, the largest remaining stand of Ponderosa pine in the west. In 1954, the Klamath Tribes were terminated from federal recognition as a tribe by an act of congress. Not only did they see the end of federal recognition and supplemental human services, but also tragically the reservation land base of approximately 1.8 million acres was taken by condemnation. This single act of Congress had devastating effects on the Klamath Tribes and several other tribes across the country.

In 1986, the Klamath Tribes were successful in regaining Restoration of Federal Recognition. Although their land base was not returned, they were directed to compose a plan to regain economic self-sufficiency. Our Economic Self-Sufficiency Plan (ESSP) reflects the Klamath Tribes' continued commitment to playing a pivotal role in the local economy. In 1997, the Klamath Tribes opened the Kla-Mo-Ya Casino.

During the BRFSS project, the tribe actively participated in meeting project objectives and goals in an efficient and timely manner. With honor and respect, we acknowledge the tribal leadership that was in place when the project first began — for it was the support of the tribal leadership that made our project possible.

Klamath Tribes

Tribal Council
Allen Foreman, Chairman
Joe Hobbs, Vice-Chairman
Torina Case, Secretary
Gail Hatcher, Treasurer
Corrine Hicks, Tribal Council
Brandy Snoozy, Tribal Council
Helen Crume-Smith, Tribal Council
Rosemary Treetop, Tribal Council
Moe Jimenez, Tribal Council
Philip Jackson, Tribal Council

Project Staff Members
Mary Clites, Site Coordinator
Emily Brown, Surveyor

Nez Perce Tribe

The Nez Perce people belong to the Sahaptin linguistic group of the Northwest Plateau Region. At one time, they occupied an area that covered North Central Idaho, Northeastern Oregon, and Southeastern Washington. The 1855 Treaty reserved most of their ancestral homelands. However, the discovery of gold in the 1860's led to the Treaty Council of 1863, and the adjustment of the boundaries of the Reservation. Some of the Nez Perce (the "Non-Treaty Nez Perce") refused to sign this treaty. The U.S. federal government attempted to force their compliance in 1877. A war resulted ending in a surrender at Bear Paw, Montana, following a 1,700 mile, four-month fighting retreat by these Nez Perce toward Canada. The Dawes General Allotment Act of 1877 followed, whereby the remaining land was distributed within the tribe. Then in 1893, the Nez Perce were pressured into signing an agreement in which all unallotted land was declared "surplus" and sold to the Government for homesteading. The result of the Dawes Act was a Nez Perce Reservation reduced to about 86,500 acres, less than 12% of the 1863 Treaty lands.

In 1948, the Nez Perce Tribe became a self-governing body under an approved constitution and by-laws. The Nez Perce Tribal Executive Committee is composed of nine members distributed geographically throughout the reservation. The Reservation is 88,314 square acres along US 12 east of Lewiston, Idaho; the tribal population is 3,250. Tribal headquarters are in the city of Lapwai. Principal industries include forest products, agriculture, sand, and gravel.

The Northern Idaho Indian Health Center is a 527 square meter outpatient clinic in Lapwai, Idaho. The clinic is 32 years old and was operated by the DHHS until recently, when the Tribe took over its management under a 638 contract. The Tribe now hires health professionals directly, formerly through the Indian Health Service. The Health Center employs 3 physicians, 1 nurse practitioner, 2 public health nurses, 3 registered nurses, 2 mental health social workers, a health educator, 2 dentists, and 2 dental assistants. The total patient population is 4500.

We gratefully acknowledge the contributions of each of these individuals:

The Nez Perce Tribe

Executive Committee
Anthony D. Johnson, Chairman
Wilfred A. Scott, Vice-Chairman
Jacob B. Whiteplume, Secretary
Jennifer D. Oatman, Treasurer
Jerrid T. Weaskus, Asst. Sec/Treasurer
Bill Picard, Chaplain
Samuel N. Penney, Member
Allen P. Slickpoo, Jr., Member
Julia Davis-Wheeler, Member

Project Staff Members
Leroy Seth, Site Coordinator
Carmen Payne, Surveyor
Jackienna Trail, Surveyor
Valerie Albert, Surveyor

Shoshone-Bannock Tribes

The Shoshone-Bannock Reservation was established by the Treaty of July 2, 1863, at Fort Bridger, Utah. A later treaty of July 30, 1883, defined the reservation further as the land area bordered on the East by the Portneuf Mountains and on the West by Raft River. An Executive Order, July 14, 1867, set apart the Reservation for the Boise and Bruneau Bands of the Shoshone and Bannock Indian Tribes. The original 1,800,000 acres were reduced to 1,336,000 acres in 1869, and in 1900 additional land was ceded to the government, leaving the existing 540,764 acres within the Reservation. The aboriginal lands included large areas of Idaho and surrounding states. Included were the Salmon and Snake River country spanning into what is now southern Idaho. The Shoshone-Bannock Tribes, Inc., became a federally chartered corporation under the Indian Re-organization Act on April 17, 1937. The Shoshone-Bannock Tribal Constitution and By-laws were adopted by the Tribes and approved by the Secretary of the Interior on April 30, 1936. The Fort Hall Business Council is the official governing body of the Shoshone-Bannock Tribes, Inc.

The Reservation occupies 524,557 acres adjacent to Interstate 86 and Interstate 15 in southeast Idaho. The tribe is known for the Sun Dance held during late July and the Annual Shoshone-Bannock Indian Festival held in early August. The Town of Fort Hall is small and unincorporated with an elevation of 4,754 ft. It was one of the first permanent Europe-American settlements in Idaho, established in 1834 as a trading post. A military post was established in 1849. The original Fort was on the bank of the Snake River, 11 miles west of the present site.

The Not-So-Gah-Nee Health Clinic is a 28,915 square foot outpatient clinic, which opened October 9, 1990. Clinic offices include: Outpatient Clinic, Dental, Pharmacy, Lab, X-ray, Optometry, Podiatry, Audiology and Contract Health Services. Over 50,000 patients are seen yearly. The Health Center employs 4 Physicians, 1 Physician Assistants, 3 Nurse Practitioners, 4 Licensed Practical Nurses, 6 Registered Nurses, 1 Clinical Social Worker, 2 Master of Social Work, 2 Bachelor of Social Work, 1 Nutritionist, 2 Health Educators, 3 Dentists, 1 Dental Hygienist, Lab technicians, Optometrist and technician, 2 Psychologists, and a Mental Health technician.

We gratefully acknowledge the contributions of each of these individuals:

The Shoshone-Bannock Tribes

Business Council
Frederick Auck, Chairman
Lawrence Bageley, Vice Chairman
Alonzo Coby, Secretary
Lee Kniffin, Treasurer
Blaine Edmo, Member
Doyle Teton, Member
Nancy Eschief, Member

Project Staff Members
Tamara Hollinger, Site Coordinator
Jim Cutler, Surveyor
Iola Hernandez, Surveyor
Jade Edmo, Surveyor

Spokane Tribe

The Spokane Indians are of the Interior Salish group, which has inhabited northeastern Washington, northern Idaho, and western Montana for centuries. The native language spoken by the Spokanes is common to other Salish tribes with only a slight variation in dialect. Generally speaking, the Spokanes can converse easily in their native tongue with the Kalispels, Coeur d' Alenes, and Flatheads.

The aboriginal lands occupied by the Spokanes lay in eastern Washington along the Spokane River and surrounding area encompassing some three million acres. The vast domain began on the Columbia River near the present town of Hunters' thence easterly along Hunters Creek to Deer Lake; thence to Mount Spokane and southerly through Peone Prairie and the present town of Opportunity to a point near Rosalia; thence west and slightly south to Ritzville and thence north to the old townsite of Peach, and up the Columbia River to the point of beginning.

The tribe originally consisted of three bands: Upper, Middle, and Lower. These terms were apparently applied by the white man to the three bands according to their location on the Spokane River. The Lower band usually occupied an area along the Spokane River from its mouth to the present site of Tumtum; the Middle band occupied the area from Tumtum to the mouth of Hangman Creek; and the Upper band lived in the Hangman Creek region and through the Spokane Valley as far as the present town of Post Falls, Idaho.

The word "Spokane" is generally accepted as meaning "Sun People" or "Children of the Sun", although the interpretation is somewhat controversial. In 1807 David Thompson, a trapper with the Northwest Fur Trading Company, first used the name "Spokane" in referring to the three Spokane bands.

Ties of blood, mutual interests, and dialects influenced the social and political organization of the Spokanes. There apparently was no overall chief of the three Spokane bands, but the chief of the Upper band usually announced important decisions concerning the whole tribe after consulting the other band chiefs. Upon the death of a chief, a sub-chief was usually selected as chief. The chieftianship was very seldom hereditary. Each band had a chief and several sub-chiefs. The members of the band considering the qualities of wisdom, dignity, wealth, warring abilities, and striking physical appearances, selected the chief. When the tribe divided into smaller groups for berrying, root digging, or hunting, a sub-chief was in charge of each party. The sub-chief was also important in the supervision of camp regulations such as storing and issuing food, guarding, and posturing horses.

We gratefully acknowledge the contributions of each of these individuals:

The Spokane Tribe
Tribal Health Board Members
Warren Seyler, Chairman
Greg Abrahamson, Vice Chairman
Robert Brisbois, Secretary
David Wynecoop, Member
Ronald Gutierrez, Member

Project Staff Members
Julia Havens, Surveyor

NORTHWEST TRIBAL CHILD SAFETY SEAT PROJECT

METHODS OF THE NORTHWEST TRIBAL CHILD SAFETY SEAT PROJECT

The six participating tribes were randomly selected to participate in the Northwest Tribal Child Safety Seat Project. A tribe's agreement to participate in the study was comprised of formal approval from the respective tribal health directors, health boards, and tribal councils or business councils. The project protocol and questionnaire were reviewed and approved by the Institutional Review Boards (IRBs) of the Indian Health Service (IHS) and Oregon Health and Science University (OHSU) (see Table 3).

Table 3. An overview of the formal approval dates for the participating tribes and the applicable IRBs.

Name of Tribe/IRB[5]	Tribal Resolution Number	Approval Date
Confederated Tribes of Colville	2002-483	August 13, 2002
Confederated Tribes of Grand Ronde		December 5, 2002
Klamath Tribes	2002-26	June 13, 2002
Nez Perce Tribe	02-297	June 11, 2002
Shoshone-Bannock Tribes	THHS-02-0366	May 28, 2002
Spokane Tribe	2002-268	June 24, 2002
IHS IRB	----	December 13, 2002
OHSU[6] IRB	----	February 25, 2003

DATA COLLECTION

Local businesses were targeted as the data collection sites because they are frequented by a cross-section of the tribal community, including adults with children of all ages. Many of the sites used in previous studies, such as fast-food restaurants and shopping centers, were not considered because of the lack of these businesses in rural, reservation areas. Most of the sites had a limited number of entrances to facilitate recruitment of target vehicles, and had adequate visibility and space for safely conducting interviews and observations. We did collect data at a couple of Head Start programs and other day care centers.

Prior to the start of the observation at each tribal site, permission was obtained from the proprietors or managers of the local businesses to use their parking lots for data collection.

[5] Institutional Review Board (IRB)
[6] Oregon Health and Science University (OHSU)

DESCRIPTION OF THE STUDY POPULATION

The focus of this study was the use of child safety seats. Children from birth to age 8 years, or less than 80 pounds, in the states of Oregon and Washington are required by law to wear a child safety seat (including infant car seat, convertible seat, or booster seat). Therefore, we targeted vehicles containing children who met this description. The survey also gathered data about the driver of the vehicle. Our sample unit was each individual vehicle containing at least one target-age child.

Our study involved a convenience sample; a community sample based on those vehicles that drive to the local tribal businesses. We attempted to intercept every potential target vehicle. Based on power calculations, we estimated that we needed to observe between 81-88 children to obtain accurate estimates of child safety seat use in communities with 500-1,000 target-aged children. We set a goal of 100 observations per tribal community.

ENROLLMENT AND CONSENT PROCESS

Each participant was given a brief description of the project and consented to participate by verbal agreement. The project investigators had initially proposed to elicit written informed consent but the process was too time-consuming and increased the potential of individuals to refuse to participate.

Each potential interviewee was provided with information on the purpose, general content, and time commitment involved in the in-person interview and child safety seat observation, and was given assurances of confidentiality. Each prospective participant had the opportunity to ask questions and was given the name and telephone number of the Principal Investigator in case they had any questions after the interview was completed. Each potential participant was informed that he or she was free to decline participation or refuse to answer specific questions or disallow observations.

A copy of the informed consent form and a copy of the information sheet were given to each participant. No personally identifying information was collected at the time of the interview and observations.

PROJECT STAFF

The Principal Investigator oversaw all aspects of the study. Within each tribal community, the study coordinators worked with tribal community health staff members to assist with data collection. In some communities, the selected individual already worked for the environmental health and injury prevention programs. Each interviewer was responsible for administering the in-person surveys and for ensuring the completeness of each form before approaching the next potential participant. All completed data collection forms were given directly to Dr. Romero or a designated staff person at the end of each day. The interviews were conducted during the week (Monday through Friday), usually from 8 a.m. to 6 p.m.

The interviewers attended 8 hours of training at Harborview Injury Prevention Research Center (HIPRC), Seattle, Washington, on May 9, 2003. HIPRC routinely collects observational data on car seat and seatbelt use and have held numerous child passenger safety workshops. Topics

covered at the training included child safety seat models, instruction on data collection techniques, and mock data collection practice. During the training session, emphasis was placed on establishing rapport and remaining neutral so that individuals driving older model vehicles or vehicles without working safety belts were not made to feel stigmatized or made to feel their use or non-use of child safety seats related to whether or not they were an adequate parent or guardian. The final hours of training were devoted to testing the data collection instruments and testing the interviewers on the identification of appropriate child safety seat use. The Principal Investigator, as necessary, provided additional training in the field.

The local community health staff members were responsible to advertise the Northwest Tribal Child Safety Seat Project by placing project announcements in key locations throughout each tribal community, starting 2 weeks before data collection.

DATA COLLECTION VARIABLES

During the interview, we verified the age of the target child to be 8 years of age or younger, and then proceeded to collect information on: ethnicity of driver; sex of driver; distance from home; driver's age; vehicle model year; child age, child weight, sex of child; driver's relation to child; at what age a child is old enough to use only an adult seatbelt; at what weight a child is big enough for an adult seatbelt; why a booster is being used (as applicable); main reason for not using child safety/booster seat (as applicable); knowledge of tribal seatbelt laws; interest in attending a workshop on child safety seats; and, where information on child safety seats was obtained. If more than one child, meeting our qualifications of age or weight, was in the vehicle, the questions specific to child passengers were asked of each subsequent child. Each of the participating tribes has copies of the data collection form, or the data collection form may be obtained from the project staff members, 1-877-664-0604.

The case definition for child safety seat use was the observance of a target child restrained in an age-appropriate child safety seat. Our case definition for child safety seat non-use was the observance of a target child not restrained in an age-appropriate child safety seat.

Direct observation of the child safety seat and its use were conducted. We collected information on driver restraint use, child position within the vehicle, and type of restraint used. Categories for restraint use included: none, rear facing infant seat, forward-facing seat with harness, high back booster with lap or shoulder belt, high back booster with shoulder belt behind back or under arm, no-back booster with lap or shoulder belt, no-back booster with lap belt only or shoulder belt behind back or arm, shield booster, lap or shoulder belt properly used, lap belt only, and lap or shoulder belt with shoulder belt behind back or under arm.

On reservations, it is not uncommon for individuals to drive more than one vehicle or for more than one individual to drive the same vehicle. In order to avoid repeat participants and duplicate data in the study we asked each potential participant if they had already been interviewed. We also relied on the familiarity of the tribal project staff members with their community in keeping track of individuals who may have already been interviewed.

The data was entered into an EpiInfo (v. 6.4) database file and then exported into SPSS (v. 11.5). The data collection forms were returned to the respective tribes for safekeeping in locked filing cabinets. For protection of information, several project procedures were followed: (1) Only project staff members have access to either the filing cabinets or computers; (2) All files

on project computers are password protected and accessible only by project staff members; and, (3) All project staff members signed NPAIHB confidentiality statements.

FIELD PROTOCOL

At each tribal site, the project staff members followed these steps:

1. When a target vehicle entered the site, one interviewer approached the driver.
2. The interviewer introduced himself or herself to the driver and explained the study.
3. If the driver expressed interest in participating, the interviewer obtained verbal consent.
4. After a copy of the informed consent form and information sheet had been given to the driver, the interview began.
5. Upon completion of the survey, each driver was thanked and given a brochure on child safety seat use, a Sacagawea dollar, and a project t-shirt in appreciation of their time.
6. If a driver refused to participate, none of the interview questions were asked. However, information on the sex of the driver and reason for refusal were documented. The project staff members documented the total number of refusals for use in calculating overall project response rates.
7. The interviewers double-checked the forms for completeness and placed the completed forms in a manila envelope. Only project staff members had access to completed forms.
8. Steps 1 through 7 were repeated when the next target vehicle entered the site.
9. Each interview took approximately 4 minutes to complete. If more than one target child was in a vehicle, data was collected on each child and the interview took approximately 2 to 4 minutes longer.

FIELD SCHEDULE

Data collection at all six Northwest Tribal Child Safety Seat Project tribes took over 2 months to complete (see Table 4). The goal of each tribe was to complete a minimum of 100 interviews.

Table 4. The data collection dates and sample size of each tribal Northwest Tribal Child Safety Seat Project site.

Tribe	Data Collection Dates (Beginning Date, End Date)		Sample Size
Confederated Tribes of Colville	June 16, 2003	June 20, 2003	101
Confederated Tribes of Grand Ronde	June 9, 2003	June 13, 2003	98
Klamath Tribes	June 3, 2003	June 28, 2003	98
Nez Perce Tribe	July 7, 2003	July 9, 2003	101
Shoshone-Bannock Tribes	June 23, 2003	June 24, 2003	100
Spokane Tribe	June 9, 2003	July 23, 2003	101
Total	June 3, 2003	July 9, 2003	599

DATA HANDLING AND ANALYSIS

Power calculations

Although child safety seat use in tribal communities may be as low as 30%, power calculations were based on a conservative estimate of 50% in order to ensure adequate numbers of subjects. At a 95% confidence level, we needed to observe 81–88 children to obtain accurate estimates of child safety seat use in communities with 500–1,000 target-age children, allowing for a maximum acceptable difference of +/- 10%. To allow for errors in our estimations and to ensure adequate sample size, we have set a goal of observing 100 target-aged children per tribal community.

Analysis

The overall prevalence of child safety seat use is estimated as the total number of children correctly secured in child safety seats divided by the total number of children observed in the survey. To describe our study sample, we calculated basic descriptive statistics, such as frequency distributions and means, for demographic and other characteristics, such as the age groups of drivers and child passengers, drivers' seatbelt use, drivers' relationships to child passengers, etc. Descriptive statistics are also used to describe non-responders by gender, location of data collection, and reason for refusal. Percentages of reported reasons for non-use and misuse of child safety seats were calculated to identify the most common barriers to seat use.

Our secondary study aims will focus on determining if drivers who correctly use child safety seats differ in systematic ways from those who do not. We hypothesize that some characteristics, such as young driver age, age of vehicle, or numerous child passengers in a vehicle may be predictive of incorrect child safety seat use. These two groups will be compared using bivariate statistics such as Chi-square tests and t-tests to determine if they differ by driver age group, driver seatbelt use, the presence or absence of a child safety seat law, and relationship to the child passenger. Using the same methods, these groups will also be compared by vehicle use patterns, such as frequency of use and numbers of passengers, and safety seat characteristics, such as how the seat was acquired, whether the driver installed the seat, and how often the seat is removed from the vehicle. Differences in groups will be tested at a significance level of $\alpha = 0.05$. These results will be made available to the participating tribes at a later date. For questions on the status or results of these analyses, please contact the Principal Investigator at 1-877-664-0604.

In addition, logistic regression analysis will be used to determine risk factors associated with incorrect child safety seat use while controlling for potential confounders, where the dependent variable will be incorrect child safety seat use. We will use a step-wise procedure to enter variables in the model based on the results of the bivariate analysis and will assess potential statistical interactions between variables by introducing interaction terms into the regression model.

Privacy and Confidentiality

In adherence to issues of privacy and confidentiality, the project staff members have not identified any individuals, nor are individuals identifiable in any report that has or will be prepared based on the data collected as part of these surveys. Project staff members have held data collected during the conduct of these surveys in the strictest confidence at all times. All datasets are stored on secure, password-protected computers accessible only by authorized staff members. All hard copy data are stored in locked file cabinets.

NORTHWEST TRIBAL SAFETY SEAT PROJECT

DATA RESULTS

Descriptive Statistics

The Northwest Tribal Child Safety Seat Project involved six northwest tribal communities, two from each state of Oregon, Idaho, and Washington. We interviewed a total of 599 drivers and obtained information on 813 children and their child safety seat use. Following we present information on all drivers and children combined.

Data were collected at several different sites on each reservation. Most surveys were conducted at grocery stores, trading posts, post offices, health clinics, and elementary schools. For all six tribes combined, the average interview lasted 4 minutes. The interviews ranged in duration from 1 minute to 25 minutes. The reported age of the drivers, both sexes combined, ranged from 14 years of age to 81 years of age, with the average age of the driver being 34 years of age. The median[7] driver age was 31 years. Seven percent (6.5%) of drivers were age 14-19 years (6.9% of females, 5.6% of males) (see Table 5). Thirty-eight percent (37.6%) of drivers were age 20-29 years (38.2% of females, 35.8% of males). Twenty-seven percent (27.0%) of drivers were age 30-39 years (26.5% of females, 28.4% of males). Fifteen percent (15.2%) of drivers were age 40-49 years (14.9% of females, 16.0% of males). Fourteen percent (13.7%) of drivers were 50 years of age or older (13.5% of females, 14.2% of males.)

Table 5. Age of drivers, by sex, Northwest Tribal Child Safety Seat Project, Aggregated Results, 2003

Age Category	Total (%)	Females (%)	Males (%)
14-19	6.5	6.9	5.6
20-29	37.6	38.2	35.8
30-39	27.0	26.5	28.4
40-49	15.2	14.9	16.0
50+	13.7	13.5	14.2

Each driver was asked how far he or she was from home. The distance from home (in minutes) ranged from 1 minute to 150 minutes. The average distance from home was 12 minutes (see Table 6). The median reported distance from home was 5 minutes, by car. Men and women were equal distances from home, with 53.0% of females reporting being within 5 minutes from home, by car, and 51.2% of males reporting being within 5 minutes from home, by car.

The average reported vehicle year was 1993; the median vehicle year was 1994. Reported vehicle year ranged from 1963 to 2003.

[7] The middle number in an ordered set of values; 50% are above this value, 50% are below this value.

Approximately seventy percent (69.8%) of drivers surveyed had one child aged 8 years or younger or less than 80 pounds in the vehicle.[8] Twenty-four percent (24.4%) of drivers surveyed had two children aged 8 years or younger or less than 80 pounds in the vehicle, and 5.3% had three children 8 years of age or younger or less than 80 pounds. Three drivers, less than one percent (0.5%) of those surveyed, had four children age 8 years or younger or less than 80 pounds in their vehicle.

Over half of drivers interviewed were the mothers of the children in the vehicle (50.5%), and 17.6% were the fathers of the children in the vehicle. These percents include stepparents and foster parents.[9] Sixteen percent (15.9%) of drivers were the grandparents or great-grandparents of the children in the vehicle, and 7.7% were the children's aunts or uncles. Almost three percent (2.5%) of drivers were the children's cousins, 1.3% were siblings, and 4.4% had a different relationship to the child, including sitter, family friend, teacher, or guardian.

Overall, we collected information on 813 children. The sex distribution of the children was nearly equal, 52.2% were female and 47.8% were male (see Table 6). The children's ages ranged from 2 days old to 11 years old. The average age, and the median age, of the children was 4 years old. Fourteen percent (13.8%) of children were less than 1 year old (birth to <1 year old), 31.6% were between 1 year and less than 4 years old (1 year to <4 years old), 53.3% were between 4 years and 8 years old (4 years to 8 years), and 1.4% of children were 9 years old or older (9 years and older). The average reported weight of the children was 42 pounds. The reported weight of children ranged from 6 pounds to 135 pounds, with a median weight of 40 pounds.

Most children were seated in a rear outboard seat (52.2%). Nearly one-third (32.7%) of children were seated in the front seat of the vehicle, and 14.8% were seated in a rear center seat.

Based on expert recommendations and the reported age and weight of the children, half of the children in our survey (49.8%) would be optimally restrained in either an infant seat or a child harness seat. Forty-four percent (44.0%) of children in our survey would be optimally restrained in booster seats, and 3.4% met age/weight requirements for the use of an adult lap/shoulder belt. For twenty-two children (2.7%), the optimal method of restraint was unclear. Children in this category were 2-year-olds who weighed more than 40 pounds, and children 9-years-old and older who weighed less than 80 pounds.

[8] The study criteria included the presence of at least one child 8 years of age or younger or weighing less than 80 pounds in a vehicle.

[9] A total of 16 respondents reported being either the stepparent or foster parent. Because the number is so small, we combined the categories of natural parent with stepparent and foster parent.

Table 6. Characteristics of Child Passengers (n=813) and Drivers (n=599), Northwest Tribal Child Safety Seat Project, Aggregated Results, 2003

	Percent (%)	n
Child Age (years)		
<1	13.8%	112
1-<4	31.6%	257
4-8	53.3%	433
9+	1.4%	11
Child Weight (pounds)		
<40	51.0%	292
40-80	45.0%	267
>80	4.0%	24
Sex of Child		
Male	47.8%	385
Female	52.2%	424
Seating Location of Child Passengers		
Front seat	32.7%	264
Rear outboard seat	52.5%	426
Rear center seat	14.8%	120
Recommended Restraint, Based on Age and Weight[10]		
Infant/child harness seat[11]	49.8%	405
Booster seat[12]	44.0%	358
Unclear/Borderline[13]	2.7%	22
Adult seatbelt[14]	3.4%	28
Driver Seatbelt Use		
Belted	51.5%	307
Unbelted	48.5%	289
Sex of Driver		
Male	27.2%	162
Female	72.8%	437
Driving Time Away from Home (minutes; mean)	12	598

[10] Based on recommendations from the American Academy of Pediatrics. Car safety seats: a guide for families, 2002. Available at: http://www.aap.org/family/carseatguide.htm. Accessed October 30, 2003.
[11] Children less than 40 pounds, or under 4 years of age.
[12] Children between 40 and 80 pounds and between 4 to 8 years of age. Includes 3-year old children weighing 40 pounds or more.
[13] Recommended method of restraint is unclear. This includes 2-year-old children weighing 40 pounds or more, and children 9 years old and older weighing less than 80 pounds
[14] Children weighing 80 pounds or greater.

Restraint use

Advocates recommend booster seats for children who have outgrown child harness seats (usually at 40 pounds or around 4 years of age) until they fit properly in the vehicle seatbelt.[15] [16] Children do not fit into the adult seatbelt well until they are 143 centimeters tall (approximately 56 inches), generally at around 80 pounds, and at least 8 years of age.[17] We defined a child who should use an infant or child seat as any child <40 pounds, or under 4 years of age. We defined a child who should use a booster seat as any child between 40 and 80 pounds and between 4 to 8 years old, or a child between 4 and 8 years old when weight data were not available. Three-year-old children weighing 40 pounds were also characterized as being booster seat eligible, because the majority of child harness seats have a top weight limit of 40 pounds. Children who were over 80 pounds or over 8 years of age were considered to be big enough for the adult lap and shoulder belt.

For all six tribes combined, 51.5% (51% of males, 52% of females) of drivers surveyed were wearing a seatbelt, while 48.5% were not (see Figure 7). Overall, 57.2% of those surveyed had all of the children age 8 years old or younger or less than 80 pounds using some kind of restraint (see Figure 8). Thirty-seven percent (36.6%) of vehicles had no children restrained. Overall, 29.3% of children were properly restrained, and 70.7% of children were either unrestrained or improperly restrained (see Figure 9). Forty-one percent (40.6%) of children surveyed were completely unrestrained in the vehicle. Men and women were equally likely to have the children properly restrained (29.5% of women and 28.7% of men).

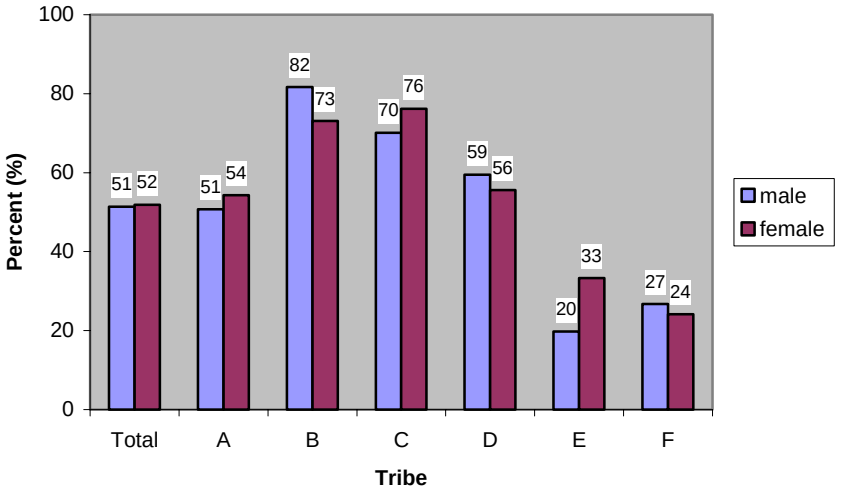
Younger children were more likely to be properly restrained than older children. Over half (53.6%) of children less than 1 year old were properly restrained. Forty-four percent (43.6%) of children 1 to 4 years of age were properly restrained, and 14.4% of children 4 to 8 years of age were properly restrained.

By recommended restraint type, children who were considered big enough to use an adult lap and shoulder belt were the most likely to be properly restrained (53.6%) (see Figure 10). Forty-four percent (43.7%) of children who would be optimally restrained in an infant or child seat were properly restrained. Ten percent (10.4%) of children who were booster seat eligible were properly restrained. For twenty-two children (2.7%), the optimal method of restraint was unclear. Children in this category were 2-year-olds who weighed more than 40 pounds, and children 9 years old and older who weighed less than 80 pounds. We classified 2-year-old children weighing more than 40 pounds as properly restrained in a booster seat because they exceed the weight limit for most child harness seats. We classified children 9-years-old and older weighing less than 80 pounds as properly restrained in an adult seatbelt. Of children in the unclear/borderline category, 40.0% were properly restrained by these definitions.

[15] American Academy of Pediatrics. Car safety seats: a guide for families, 2002. Available at: http://www.aap.org/family/carseatguide.htm. Accessed October 30, 2003.
[16] National Highway Traffic Safety Administration. A parent's guide to buying and using booster seats. Available at: http://www.nhtsa.gov/people/injury/childps/booster_seat/newboosterseats/finalcor2.pdf. Accessed October 30, 2003.
[17] Klinich KD, Pritz HB, Beebe MS, et al. *Study of Older Child Restraint/Booster Seat Fit and NASS Injury Analysis*. Springfield, Va: National Highway Traffic Safety Administration, US Dept of Transportation; 1994.

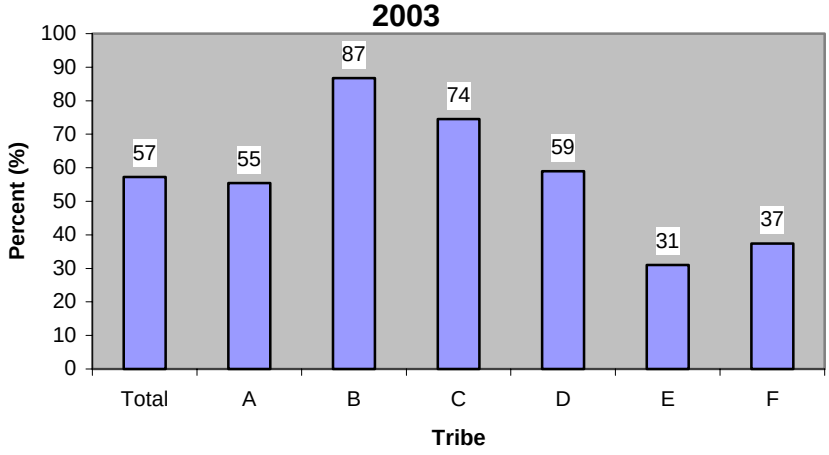
- Overall, an equal proportion of men and women drivers, 51% and 52% respectively, were wearing a seatbelt.
- Across tribes, between 20% and 82% of male drivers were restrained, and between 24% and 76% of female drivers were restrained.

Figure 1. Percent of male and female drivers wearing a seat belt by tribe, Northwest Tribal Child Safety Seat Project, 2003

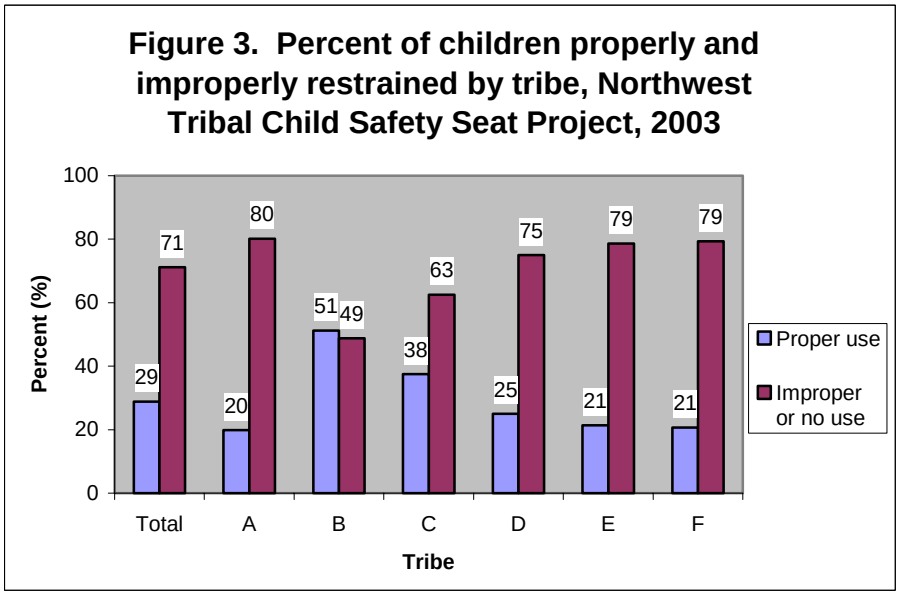


- Overall, 57% of vehicles had all of the children using some type of restraint.
- The percentage of vehicles with all children using some type of restraint ranged from 31% to 87% by tribe.

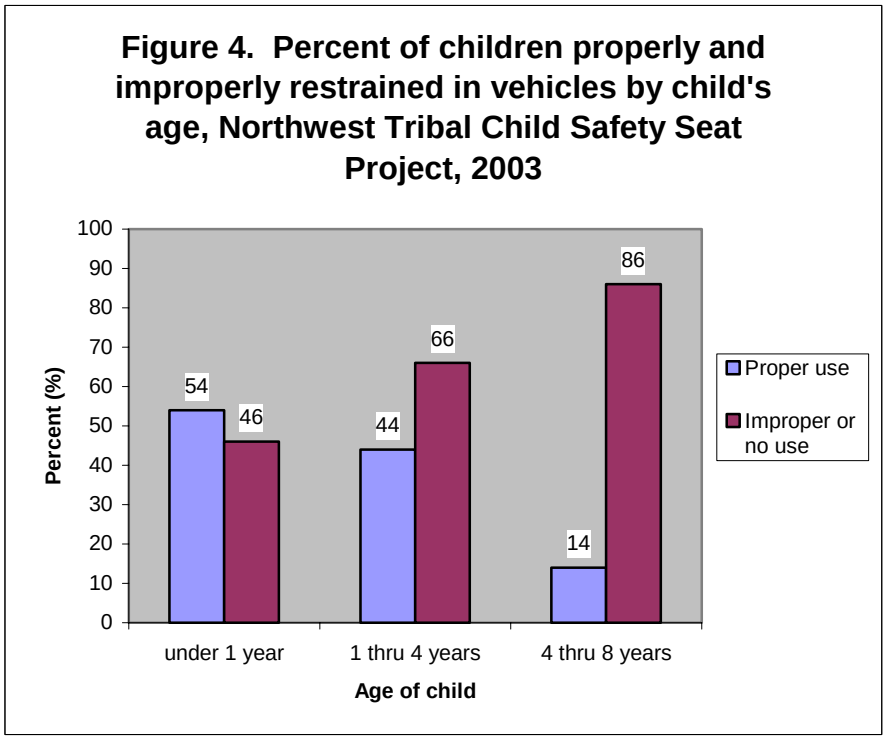
Figure 2. Percent of vehicles with all of the children using some type of restraint, Northwest Tribal Child Safety Seat Project, 2003



- Overall, 29% of children were properly restrained in the vehicle.
- 71% of children were either unrestrained, or improperly restrained in the vehicle.
- Proper restraint use ranged from 20% to 51% by tribe.

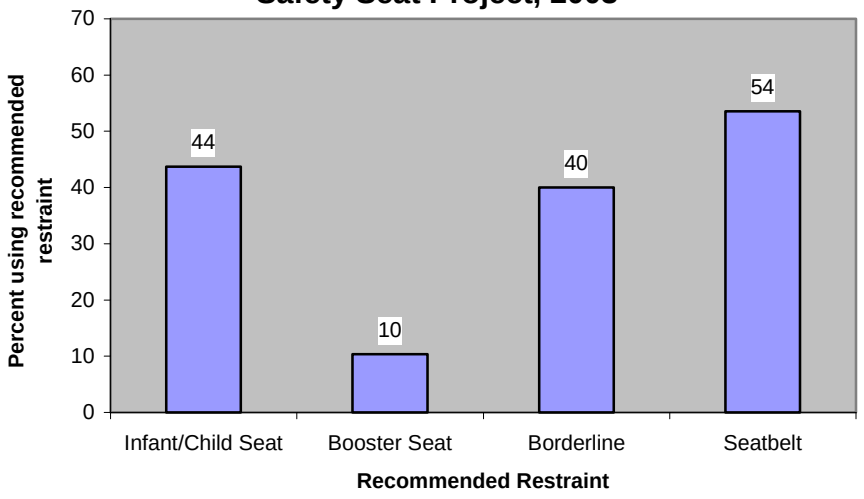


- Children less than 1 year old were most likely to be properly restrained (54%).
- 44% of children ages 1 to 4 years of age were properly restrained.
- Only 14% of children aged 4 through 8 years were properly restrained.



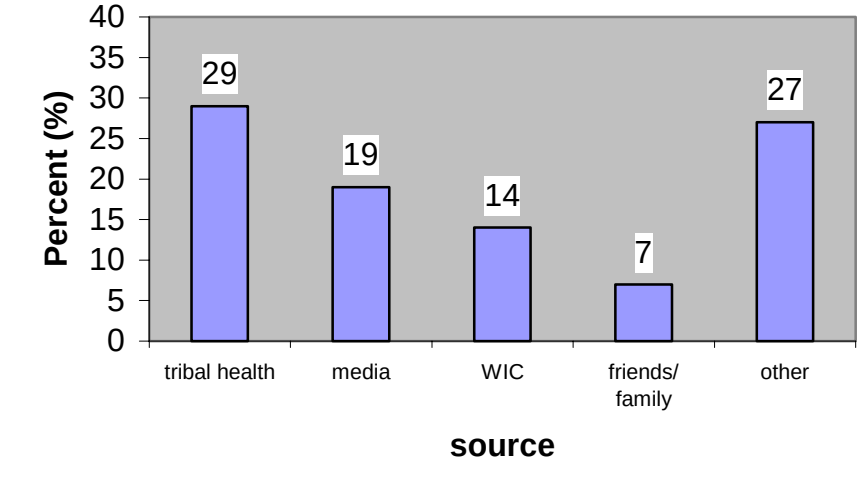
- The highest percentage of children properly restrained were children weighing more than 80 pounds who are considered to be big enough for an adult lap and shoulder belt (54%).
- 10% of booster seat eligible children were properly restrained.

Figure 5. Percent of children properly restrained, by recommended restraint, Aggregate results, Northwest Tribal Child Safety Seat Project, 2003



- Overall, 29% of survey participants reported getting their information on child safety seats from their tribal clinic or tribal wellness program.
- 19% reported getting information from the media, including television and newspapers.

Figure 6. Reported sources of information on child safety seats, Northwest Tribal Child Safety Seat Project, 2003



We looked at children who were improperly restrained to determine how they were improperly restrained. For children who should have been restrained in child harness seats and were not properly restrained, 42.9% were completely unrestrained, 42.9% were prematurely using booster seats, and 14.3% were prematurely using adult lap/shoulder belts.

For booster-aged children who were not using booster seats properly, 55.0% were completely unrestrained. One-quarter (25.0%) of booster-aged children were prematurely using adult lap/shoulder belts. Six percent (5.9%) were using a lap belt only, and another six percent (5.9%) were using an adult lap/shoulder belt with the shoulder belt behind the back or arm. Nearly four percent (3.5%) were in a booster seat, but were not using the belt properly. Three percent (3.4%) of children who should have been in booster seats were still in a child harness seat, although their weight exceeded the recommended limit for the child seat (40 pounds). One percent (1.3%) were using a shield booster with the shield on, which is not recommended for this age/weight group.

Table 7. Percent and types of child restraints used by tribe, Northwest Tribal Child Safety Seat Project, 2003

Type of Restraint Used	Total	Tribe A	Tribe B	Tribe C	Tribe D	Tribe E	Tribe F
none	40.8	43.2	11.4	21.3	41.7	67.9	56.6
rear-facing infant	7.7	6.2	10.6	9.6	5.3	9.2	6.2
forward-facing w/harness	18.7	13.7	24.4	22.8	18.2	14.5	19.3
high back booster w/ lap-shoulder belt	5.5	2.7	13.0	8.8	7.6	0.8	1.4
high back booster w/ improper belt	0.6	0.7	0.0	0.7	2.3	0.0	0.0
no-back booster w/ lap-shoulder belt	2.7	3.4	8.1	2.2	1.5	0.8	0.7
no-back booster w/ improper belt	0.7	2.1	0.8	0.0	0.0	0.0	1.4
shield booster	2.2	1.4	2.4	4.4	3.0	1.5	0.7
lap/shoulder belt proper use	13.4	12.3	22.8	17.6	15.2	3.1	10.3
lap belt only	4.2	8.9	4.1	8.1	2.3	0.0	1.4
lap/shoulder belt improper use	3.3	5.5	2.4	4.4	3.0	2.3	2.1

Children were 1.8 times more likely to be properly restrained if the driver of the vehicle was wearing a seatbelt (95% CI[18] 1.6, 2.0). Overall, 41.3% of children were properly restrained if the driver was belted, while only 15.3% were properly restrained when the driver was not wearing a seatbelt.

We asked drivers at what age they felt children were old enough to use an adult seatbelt. The average reported age was 7 years old. We also asked drivers at what weight they felt children were large enough to use an adult seatbelt. The average reported weight was 62 pounds.

Drivers with children aged 3 years and older (326 drivers) were asked if they had heard about booster seats. The vast majority (89.6%) reported that they had indeed heard about booster seats. These same drivers were asked if they owned a booster seat, and less than half (41.7%) reported that they did.

A total of 71 children in our survey were in booster seats. We asked the drivers why they had chosen to use a booster seat for the child in their vehicle. Over a quarter (25.4%) cited "safety" as their reason for using a booster seat. Over one-fifth (21.1%) gave no reason for using a booster seat, and 19.7% of drivers said a booster seat was "the best fit for the child." Eleven percent (11.3%) said they used a booster because they "got it for free," and another eleven percent (11.3%) said they used a booster because "it is the law." Four percent (4.2%) said they used a booster seat because "it allows the child to see out of the vehicle," and 12.7% cited other reasons for using a booster seat.

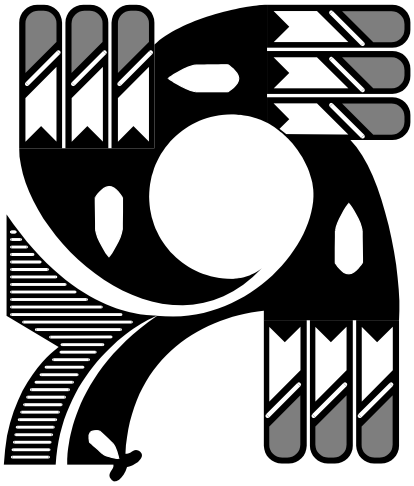
If there was a child aged 3 years or older in the vehicle, and the child was not using a booster seat, we asked drivers why they had chosen not to use a booster seat. We received 365 responses to this question. Nineteen percent (18.9%) said they did not use a booster seat because they either "do not have a booster seat" or because they "lost their booster seat." Sixteen percent of drivers gave no reason for not using a booster seat (15.9%). Fourteen percent (14.2%) of drivers said they did not use a booster seat because they thought the child was either "too big" or "too old" for a booster seat. Ten percent (10.4%) of drivers said they did not use a booster seat because the "seat is in another vehicle." Six percent (5.8%) said they "can not afford a booster seat," and five percent (5.2%) said they "did not know about booster seats." Five percent (4.7%) said they did not use a booster seat because they were "only driving a short distance," and 4.4% said they did not use a booster because there was "no room for the seat in the vehicle." Four percent (3.8%) of drivers said they did not use a booster seat because "the child does not like using the seat," and 3.0% felt that the child could be appropriately restrained with an adult seatbelt. The remaining 13.7% cited various other reasons for not using a booster seat.

Drivers were asked if their tribe had child safety seat laws. Of the 598 drivers who answered this question, 46.5% said they did not know if their tribe had child safety seat laws. Nearly one-third (32.1%) said that their tribe did have child safety seat laws, and over one-fifth (21.4%) of drivers said that their tribe did not have child safety seat laws. We also asked drivers (n = 597) if they would be interested in attending a workshop or training on child safety seats, and 58.5% said yes, they would be interested in attending a workshop or training on child safety seats.

We asked drivers where they obtain their information on child safety seats. Twenty-nine percent of drivers (28.7%) said they got their information from the tribe, tribal health, or tribal

[18] 95% confidence interval. The 95% CI is the range of values within which we can be 95% sure that the true value lies for the population from whom the survey respondents were selected.

wellness program. Nineteen percent (19.0%) said they got their information from television or newspapers. Fourteen percent (14.4%) said they got their information from the Women, Infants, and Children (WIC) program. Seven percent (6.7%) got their information from friends or family, and 4.3% said they have no information on child safety seats. Three percent (3.2%) said they got their information from reading child safety seat boxes, and 3.0% said that they got their information from the child's school. The remaining 20.7% reported getting their information from various other sources, including brochures, the hospital, police, common knowledge, and from stores.



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References

American Academy of Pediatrics. Care safety seats: a guide for families, 2002. Retrieve from website on October 30, 2003 from http://www.aap.org/family/carseatguide.htm

Centers for Disease Control and Prevention. Injury Mortality Among American Indian and Alaska Native Children and Youth---United States, 1989-1998. Morbidity and Mortality Weekly Report 2003;52(30):697-701.

Decina LE, Knoebel KY. Child safety seat misuse patterns in four states. Accid Anal and Prev. 1997;29(1):125–32.

Eby DW, Kostyniuk LP. A statewide analysis of child safety seat use and misuse in Michigan. Accid Anal Prev. 1999;31:555–66.

Ferguson SA, Wells JK, Williams AF. Child seating position and restraint use in three states. Inj Prev. 2000;6:24–28.

Indian Health Service. 2002 Regional Differences in Indian Health. U.S. Department of Health and Human Services, Indian Health Service, Office of Public Health, Rockville, MD.

Indian Health Service. 1997 Trends in Indian Health. U.S. Department of Health and Human Services, Indian Health Service, Office of Public Health, Rockville, MD, ISSN 1095-2896.

Klinich KD, Pritz HB, Beebe MS, et al. Study of Older Child Restraint/Booster Seat Fit and NASS Injury Analysis. Springfield, VA: National Highway Traffic Safety Administration, US Dept of Transportation; 1994.

Margolis LH, Wagenaar AC, Molnar LJ. Use and misuse of automobile child restraint devices. Am J Diab Child. 1992;146:361—66.

National Highway Traffic Safety Administration: Fiscal Year 2002 Annual Report, Retrieve from website on July 16, 2003 from http://www.ihs.gov/nonmedicalprograms/opheng/2002%20ihs%20annual%20report%20to%20nhtsa.pdf

Ramsey A, Simpson E, Rivara FP. Booster seat use and reasons for nonuse. Pediatrics. 2000;106(2):1–5.

Zaza S, Sleet D, Thompson R, Sosin D, Bolen J. Reviews of Evidence Regarding Interventions to Increase Use of Child Safety Seats. Am J Prev Med 2001;21(4S):31–47.