AN URBAN INDIAN HEALTH INSTITUTE REPORT

The Health Status of Urban American Indians and Alaska Natives

An Analysis of Select Vital Records and Census Data Sources

March 16, 2004

Urban Indian Health Institute
A division of the Seattle Indian Health Board

This report was prepared by Public Health – Seattle & King County on contract with the Seattle Indian Health Board's Urban Indian Health Institute.

The Urban Indian Health Institute (UIHI) is a division within the Seattle Indian Health Board (SIHB), a community health center targeting urban American Indians and Alaska Natives. The UIHI provides centralized nationwide management of health surveillance, research, and policy considerations regarding the health status deficiencies affecting urban American Indians and Alaska Natives.

Cover artwork by Joyce Troyer-Willson who is a member of the Tsimshian Tribe from Ketchikan, Alaska. She belongs to the Gishbuwidwada (Blackfish) Clan. Ms. Troyer-Willson served as a member of the SIHB Board of Directors for 10 years and served as Board President from 1985 to 1990. Her portfolio includes a totem pole raised in her ancestral village of Metlakatla, Alaska.

To learn more about the Urban Indian Health Institute and to obtain copies of this report, please go to the website, www.uihi.org.

Urban Indian Health Institute
A division of the Seattle Indian Health Board
P.O. Box 3364
Seattle, Washington 98114
(206) 324-9360
www.uihi.org

Table of Contents

Appendices

ACKNOWLEDGEMENTS

The UIHI would like to recognize the Public Health – Seattle & King County for their assistance in making this report possible. We would like to extend a special thank you to Mike Smyser, MPH from the Epidemiology, Planning and Evaluation Unit for all his hard work and dedication to this project.

The UIHI would also like to recognize the Indian Health Service, National Epidemiology Program whose mission is to provide a solid foundation for public health interventions and functions. The UIHI serves as the only urban focused "Tribal" Epidemiology center and is essential to completing the picture of National Indian Health status.

INTRODUCTION

The Urban Indian Health Institute (UIHI), a division of the Seattle Indian Health Board, was created in July of 2000 as a national center to study health and social problems faced by urban American Indians and Alaska Natives. In spite of a growing awareness that more Indian people now live in American cities than on Indian reservations, federal policy toward Indian affairs continues to focus its information-gathering and financial resources on reservation communities. The UIHI assumed this lack of attention by those responsible for implementing the federal Indian policy had resulted in limited data describing the conditions faced by urban Indians, which subsequently delays successful interventions in urban environments. But this was a hypothesis, not a statement of fact.

To this end, we examined the most often used sources of national data from an urban Indian perspective. We believed we would find both technical problems as well as numeric problems with existing data that would limit its usefulness. But we also felt by gathering and analyzing existing data, we could document the shortcomings of our current understanding of urban Indians and perhaps raise the interest of both public and private authorities that might share in our desire to aid this under-recognized group of Americans.

This report provides a thorough review of national data on urban Indians from the U. S. Census and the National Center for Health Statistics. The report is intentionally limited to the U. S. counties served by the 34 non-profit Indian organizations that contract with the federal Indian Health Service. In reviewing the data, an additional 60 metropolitan areas had large enough AI/AN populations who could potentially benefit from an Urban Indian Health Organization in their area.

The report illustrates some of the difficulties we face in trying to study a highly diverse and geographically dispersed urban Indian population, a fundamental characteristic of urban Indians today. Problems with statistical methodologies as well as the need for a greater sensitivity to confidentiality when dealing with Indian communities show up in the report figures. These are not unique factors to urban Indians, but they show some of the challenges we face as our work progresses.

I wish to thank the Public Health – Seattle & King County for their assistance in compiling this report. Their technical capabilities have taught us a great deal about the scientific difficulties we face. I would also like to thank Dr. Philip R. Lee, former Assistant Secretary for Health during the Clinton Administration and an internationally recognized authority on health policy for giving us a letter endorsing the study. In spite of the shortcomings in the presented data, we believe the findings illustrate that urban Indians face significant health and social problems that are not being adequately addressed by the federal government if the goal of reducing health disparities for minority populations by 2010 is to be achieved.

In the future, the Urban Indian Health Institute will issue other reports and more targeted information to help urban Indian organizations, government agencies, and policy makers with their work. We invite your thoughts, comments, and suggestions on this report and questions that you may have about urban Indians that can help us plan and direct our studies.

Ralph Forquera, Executive Director
Urban Indian Health Institute
Seattle Indian Health Board

STANFORD UNIVERSITY
PROGRAM IN HUMAN BIOLOGY • STANFORD, CA 94305-2160
(650) 725-0336 • FAX (650) 725-5451

February 2004

To Interested Parties,

Throughout the decade of the 1990s, proposals to address spiraling health care costs and the unequal manner in which health care is delivered in this nation gave rise to a new found recognition of health disparities, particularly among America's poor and ethnic minority populations. In my role as Assistant Secretary for Health, I was privileged to have the opportunity to visit many times with one gravely underserved group, American Indians. To this end, I participated in a series of listening sessions across Indian Country where I learned a great deal about the challenges Indians faced in getting proper health care. One group in particular stood out, the urban Indian.

Urban Indians represent the largest segment of Indian people in the United States. But because they no longer live on Indian reservations, they frequently lose health care benefits promised to them by the United States government for giving up their lands. Many urban Indians struggle with the move to American cities and all too frequently experience poorer health than others and formidable barriers in accessing health care services.

The federal Indian Health Service provides a miniscule amount of money each year to fund non-profit, urban Indian health agencies to help improve access to health care. But as more and more Indians move to American cities, this help never close to adequate becomes merely a drop in the bucket. The lack of adequate information to justify the need for greater assistance has been an excuse used to limit resources directed at urban Indians.

This report, for the first time, documents the severe health disparities experienced by urban Indians. The findings, while limited because of inadequate data and financial sources directed to assist urban Indians, likely underestimate the full extent of the health problems. However, the report clearly shows that urban Indians are at a greater risk of poor health than most other Americans.

As the debate over how to address health disparities in America continues, it is important that the health of urban Indians be added along side reservation Indians and other disenfranchised groups. This report makes it clear that to leave this gravely underserved population from policies and programs designed to address improvements in health care for all Americans is unacceptable. The first Americans should be the first priority in achieving the goal of Healthy People 2010 to eliminate health disparities.

Sincerely,

Philip R. Lee, M.D.
Consulting Professor of Human Biology, Stanford University
and Professor of Social Medicine (Emeritus), Department of Medicine,
and Senior Advisor, Institute for Health Policy Studies, School of Medicine, UCSF

Report Highlights – At a Glance

At the turn of the 20th century, over one million Americans reporting American Indian or Alaska Native (AI/AN) heritage on the 2000 census lived in 34 urban areas which are currently served by Urban Indian Health Organizations (UIHO) funded in part by the U.S. Indian Health Service. This report briefly reviews selected census, mortality, and birth data in an effort to assess the health status of Urban Indians living in UIHO service areas. Key findings from this assessment include:

Population Statistics and Socioeconomic Status (SES)

- Four million Americans indicated on the 2000 census that they were of American Indian or Alaska Native heritage. Of these, nearly 70% lived in urban areas and 25% lived in counties served by UIHO.
- Based on 1999 income, nearly one in four Indians (25%) residing in UIHO areas lived in poverty [i.e., below 100% of Federal Poverty Level (FPL)] and nearly half (48%) lived in households with incomes below 200% FPL. These rates are substantially higher than the rates for the general (all races combined) population (i.e., 14% below 100% FPL and 30% below 200% FPL).
- Similar disparities which may put Indians at a disadvantage with respect to better health and health care access compared to the general population are evident in other socioeconomic (SES) and census indicators (e.g., educational attainment, employment status, single-parent status, disability).
- SES and other census indicators for AI/AN alone or in combination with other races were in general slightly better than the rates for persons reporting AI/AN race alone. However, for all measures examined, significant disparities remained when either group was compared to the general population.

Maternal and Child Health

- Over the 1991 to 2000 period, the annual average number of births to AI/AN mothers in UIHO areas was 8,000.
- Over the 1991 to 2000 period, AI/AN mothers living in UIHO areas were less likely than the total for all mothers in these areas to deliver infants with low birth weights. However, several factors that may be associated with poor infant health were more common among children of AI/AN mothers. These factors included: 1) mother's age less than 18 (80% higher than the rate for all mothers combined), 2) single marital status (73% higher), 3) premature delivery (13% higher and increasing over time), 4) late or no prenatal care (115% higher and decreasing), and 5) smoking during pregnancy (61% higher and decreasing).
- Over the period from 1995 to 2000, infant mortality among children born to AI/AN mothers living in UIHO service areas was 33% higher than the rate for all children. This rate has remained level over this time period, while the general rate has decreased.
- Sudden Infant Death Syndrome was the leading cause of infant death among children born to AI/AN mothers living in UIHO service areas. The rate of SIDS was 157% higher when compared to the overall rate for all children combined.

General Mortality

- Available mortality data for the period 1990 to 1999 pertaining to Indians living in UIHO service area and nationwide are substantially underreported due to miscoding of Indian race on death certificates.
- Despite racial miscoding on death records, several significant disparities are evident with respect to higher rates of death due to accidents (38% higher than the general population rate), chronic liver disease and cirrhosis (126% higher), and diabetes (54% higher). Alcohol-related deaths in general were 178% higher than the rate for all races combined.

This assessment documents SES and health indicators demonstrating both progress toward better health among Indians living in UIHO areas, and also the existence and continuation of substantial health disparities when compared to the general population. Improvements in data collection pertaining to AI/AN race are urgently needed to better understand the true health status of Indians living both in urban areas and nationwide and to accomplish national goals of eliminating health disparities by the year 2010.

Page Intentionally Left Blank

A. Overview and Methods

More American Indians and Alaska Natives (AI/AN) now live in major metropolitan regions of the nation than on Indian reservations. The 2000 census found that nearly 70% of Americans self-identifying as American Indian or Alaska Native alone or in combination with another race were living in urban areas. In spite of this geographic shift, and because the urban Indian populations in these areas are geographically dispersed and relatively small compared to the general population, little is known about their general health status.

The U.S. Indian Health Service (IHS) has recognized this geographic shift for many years and to better provide services to Indians living in urban areas, has provided funding to non-tribal, non-profit agencies that provide either direct or referral health services to Urban Indians living in 34 major metropolitan urban areas (Figure A-1, and Appendix A-1). These agencies in this report are referred to collectively as Urban Indian Health Organizations (UIHO).

This report examines several sources of data in order to better describe the health status and health needs of AI/AN living in areas served by the Urban Indian Health Organizations.

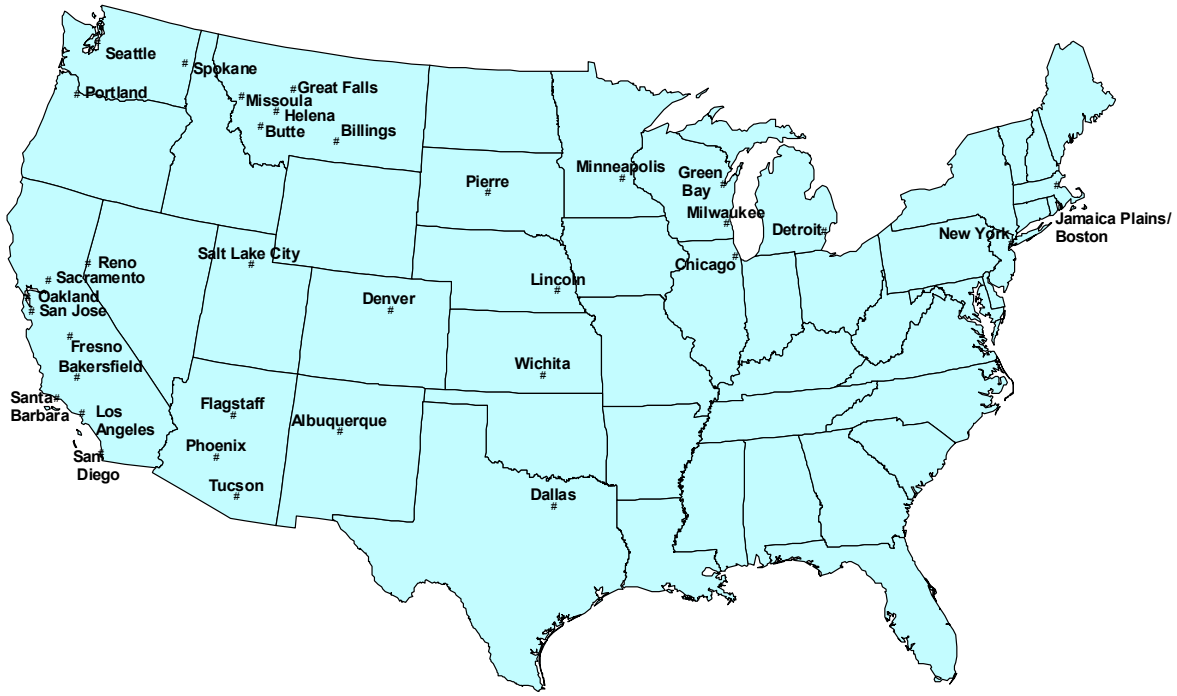
Methods

Types of Data. Four major national sources of data for which AI/AN race is collected were used. These sources of data include:

1) 1990 and 2000 U.S. Census data,
2) Mortality records derived from death certificates covering the period from 1990 to 1999;
3) Natality or birth certificate data for the period 1991 to 2000; and
4) Combined infant mortality and birth data for the period 1995 to 2000.

Due to the unavailability of infant mortality data for the years 1992 to 1994, only the years 1995 to 2000 were analyzed.

Figure A-1. Cities with Urban Indian Health Organizations funded by the U.S. Indian Health Service, 2003.



Geography. The smallest geographic unit available to all datasets was the county of residence. Data, therefore, are analyzed according to UIHO service areas that comprise counties designated by each program as the location in which a significant number or proportion of their patients or clients reside (see Appendix A-1 for a list of counties included in program service areas). The combined infant mortality-natality data, however, were further restricted to counties with populations of 250,000 or more based on the 1990 census for confidentiality reasons (see Appendix A-1). In general, it is important to keep in mind that Indians living in counties included as UIHO service areas undoubtedly obtain health services or health referrals from other agencies (including IHS facilities located on reservations) both inside and outside of the local UIHO service area counties. This report, therefore, is intended to reflect only the health status and potential need of Indians living in these areas, and not the care or services provided by the UIHO.

Race Classifications. The AI/AN race classification in this report has several variations due to the manner in which this information has been collected. Mortality, natality, and linked birth/mortality data utilize five racial categories (white, black, AI/AN, Asian/Pacific Islander, and Other) as was collected in the 1990 census. Data from the 2000 census, however, allowed for six main racial categories (white, black, AI/AN, Asian, Hawaiian or other Pacific Islander, and Other). The 2000 census also allowed persons completing the census to choose whether they were of mixed racial backgrounds. In this report "American Indian/Alaska Native," "AI/AN," and "Indian" are used interchangeably and, unless otherwise specified, refer to a *single* race category that is applicable, but not necessarily always completely comparable, to all datasets analyzed for this report.

Calculation of Rates. In order to make comparisons between populations living in different areas, rates are calculated which generally include the number of events divided by the relevant population. As an example, a mortality rate is calculated by dividing the number of deaths by the population. These rates, however, may be affected by age differences in the make up of the population. In the case of mortality, it would naturally be expected that an area with a large proportion of elderly residents would have a higher death rate than one with a smaller proportion of elderly residents. With the exception of age-specific rates, all mortality rates reflecting the entire population are age-adjusted to a standardized year 2000 age distribution[i].

Statistical Population Estimates. Mortality and birth rate populations are calculated using population estimates based on the 2000 census which have been adjusted to reflect 1990 census racial groupings. These estimates, created by the U.S. National Centers for Health Statistics, are called "bridged" race populations.[ii]

Statistical Significance. The term "significant" when comparing numerical data implies a statistically significant difference in rates. In this report error margins or 95% confidence intervals (CIs), a measure that reflects the effect of random chance associated with the occurrence of an event, are reported in the appendices. When the CIs of rates being compared do not overlap, the rates are said to be "statistically significant" or unlikely to occur as a matter of random chance.

Adjustment Factors for Racial Miscoding in Vital Records. Substantial miscoding of AI/AN race on vital records has been documented.[iii,iv] Although adjustment factors have been developed and used by Indian Health Service at the regional and state levels, these adjustment factors are not used in this report since they were not developed for use at the county level. In addition, the IHS adjustment factors were created by matching death records with IHS patient registries. These estimates of miscoding, therefore, likely underestimate persons who are

not enrolled in the IHS system. This may be particularly true for persons who live in urban settings who either never use IHS facilities or who are not members of Federally recognized tribes who would, therefore, not be entitled to IHS services.

Disease Classification. Leading causes of both infant and general mortality in this report are classified using the Tenth Revision of the International Classification of Diseases (ICD-10) which began to be used with U.S. mortality records in 1999. Prior to 1999, data were coded using ICD-9. Since mortality data presented in this report are derived from data which used different systems, all leading causes of death for pre-1999 records have definitions using either ICD-9 or ICD-10 codes and discrepancies that arise between the two systems are adjusted using comparability ratios developed by the U.S. National Centers for Health Statistics.[v]

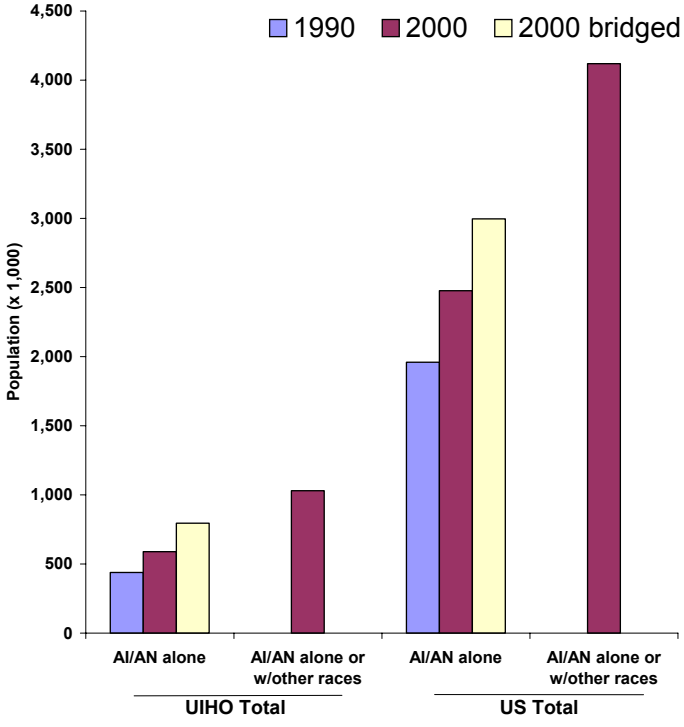
Analysis Restrictions. In general, with the exception of census data, data are presented as a ten-year average in the case of mortality (1990-99) and natality data (1991-2000), and as a six-year average for infant mortality records. These averages improve the stability of the estimates and protect individual confidentiality. In addition, mortality and natality data are not presented when the number of events (e.g., births, deaths) for a particular area is less than ten.

Data Analysis. The results presented in this report were created using VistaPHw software created by Public Health – Seattle & King County for analysis of vital statistics and census data.[vi]

B. Population Statistics

- On the 2000 U.S. Census over four million Americans indicated their racial background to be American Indian or Alaska Native (AI/AN) alone or in combination with another race (Figure B-1 and Appendix B-1).
- The 2000 census was the first in the nation's history to allow persons to identify as one or more races. Of those identifying as AI/AN, approximately 60% or two and a half million persons identified as AI/AN alone.
- The 1990 census, however, allowed only one race selection, thus making direct comparisons to the 2000 census difficult. Since many vital statistics measures have depended on the single race designation allowed in the 1990 census, the U.S. National Centers for Health Statistics (NCHS) have developed "bridged" population estimates based on the 2000 census which are in the single race categories similar to the 1990 census. Using these bridged population figures, NCHS estimates that in 2000 nearly three million Americans (an increase of over 50% from 1990) would have been likely to self-identify as AI/AN if they had been asked about their race in the same manner as on

Figure B-1. American Indian/Alaska Native population living in Urban Indian Health Organization (UIHO) service areas and US Total, 1990 and 2000.



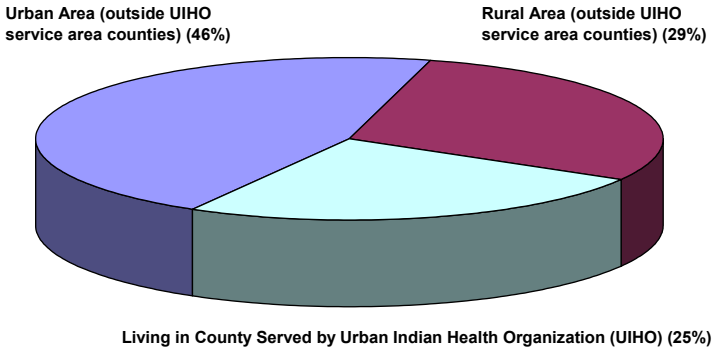
Source: 1990 and 2000 U.S. Census.
Bridged estimates developed by U.S. National Center for Health Statistics (http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm).

the 1990 census (Figure B-1 and Appendix B-1). In addition, nearly 800,000 AI/AN (an increase of over 80% compared to the 439,000 who self-identified as AI/AN in 1990) would be living in UIHO service areas.

- Of the persons who identified themselves as AI/AN alone or in combination with some other race, one quarter (25%) lived in counties served by UIHO (Figure B-2 and Appendix B-2). Another 46% of Indians, however, lived in census defined urban areas which lay outside UIHO service areas.

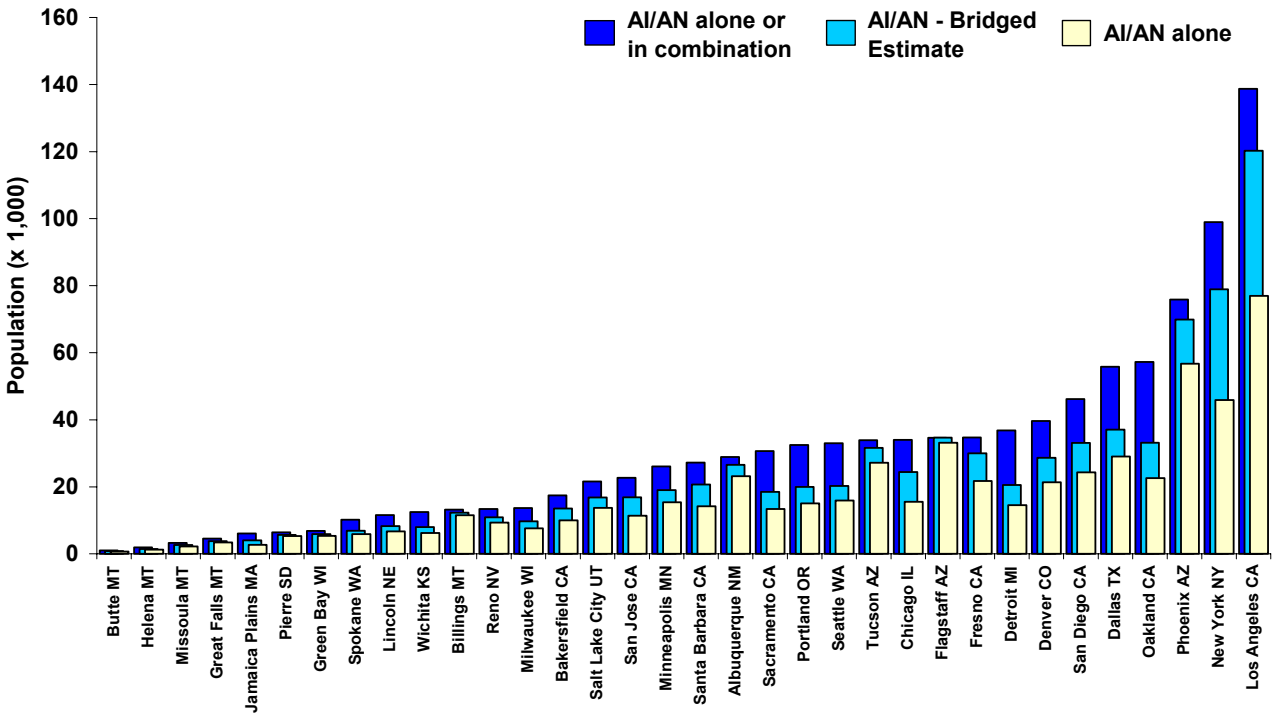
- The population of Indians living in counties served by UIHO varies substantially by location of the organization. Populations of AI/AN alone or in combination with other races range from about 1,000 in the Butte MT area to nearly 140,000 in the Los Angeles CA area (Figure B-3 and Appendix B-1).

Figure B-2. American Indian and Alaska Native population residing in the U.S., 2000.



Source: U.S. Census 2000

Figure B-3. American Indian/Alaska Native (AI/AN) population living in Urban Indian Health Organization service areas, 2000.

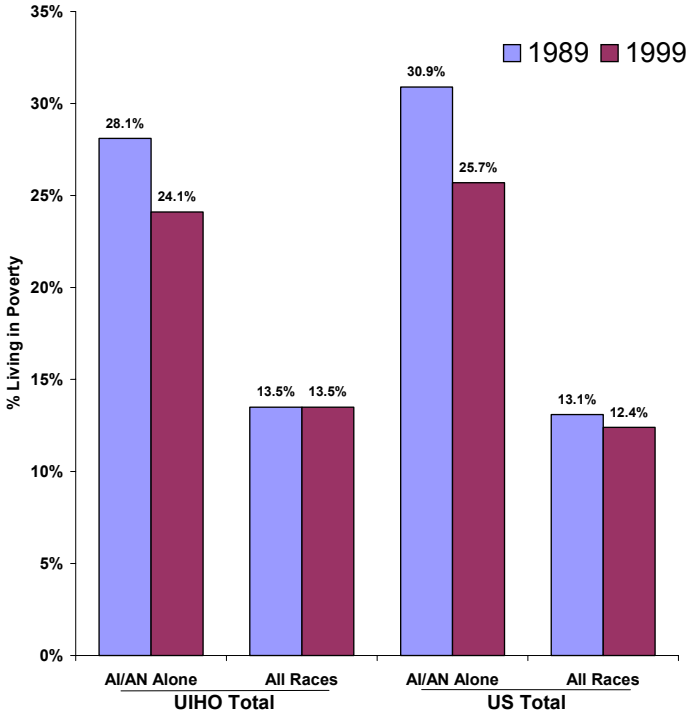


Source: 2000 U.S. Census.

Poverty Status

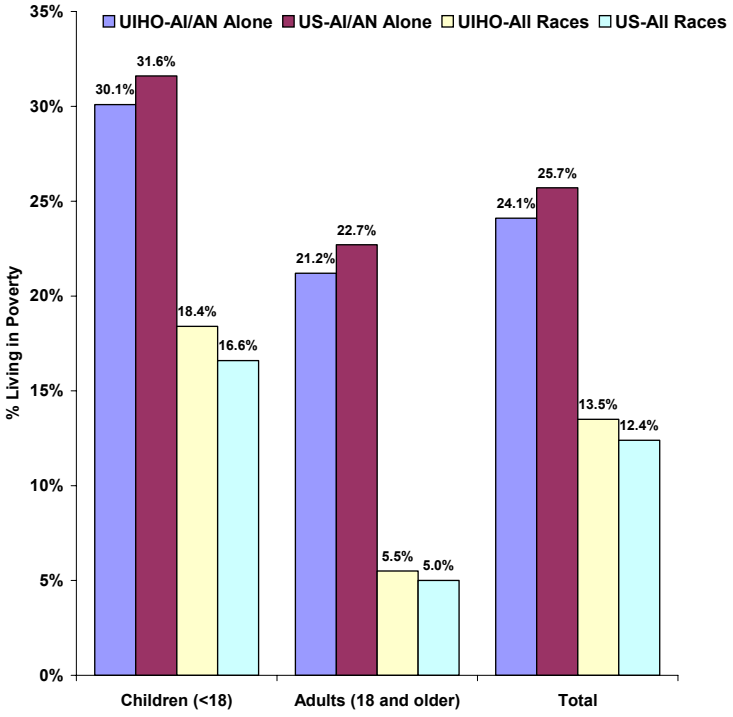
- According to 1999 income reported on the 2000 U.S. Census, nearly one in four Indians (24%) residing in UIHO service areas lived in households with incomes below poverty (Figure B-4 and Appendix B-3). While this rate was lower than the rate recorded for 1989 (28%), it was nearly twice as high as the rate for all persons living in these areas (14%).
- The poverty rate for all AI/AN living in the U.S. was slightly higher than for those living in the urban organization areas (26% and 24%, respectively).
- The highest rates of poverty were among Indian children living in the urban organization areas and in the U.S. as a whole (30% and 32%, respectively) (Figure B-5). These rates were nearly twice as high as the corresponding total populations (18% and 17%, respectively).
- Poverty rates for Indian adults were lower than the rates for children (21% for adult Indians in urban organization areas and 23% for Indians nationwide), but nearly four times higher than the comparable general adult rates (6% and 5%, respectively).
- In 1999, nearly half (48%) of Indians living in UIHO service areas lived in households with incomes below 200% of poverty (Appendix B-4). This rate was similar to the rate for all AI/AN nationwide (51%), but was substantially higher than the rate for the general population (about 30% in both the UIHO areas and nationwide).
- AI/AN poverty in UIHO service areas ranged from 13% in the San Jose CA service counties to 56% in the Butte MT area (Figure B-6, Appendices B-3 and B-4). In all areas, AI/AN poverty exceeded the rates for the corresponding total population (e.g., 8% and 15% in the San Jose and Butte areas, respectively.)

Figure B-4. Poverty status, 1989 and 1999.



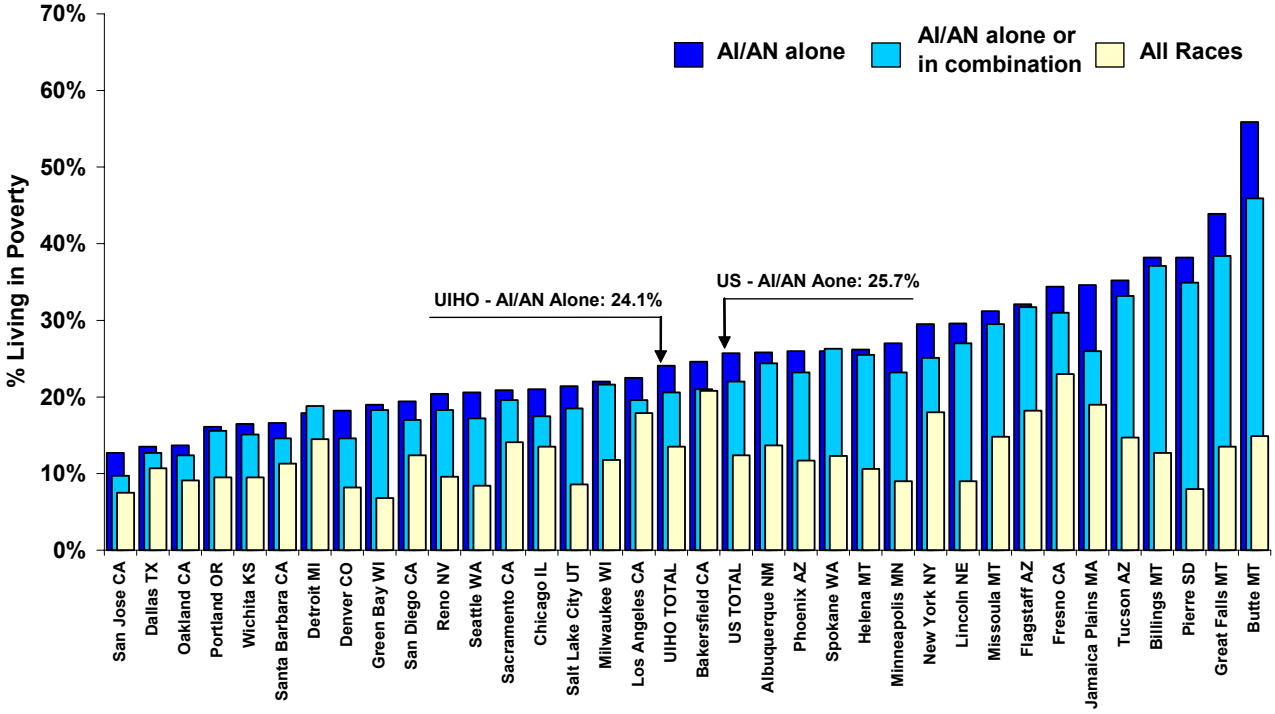
Source: 1990 and 2000 U.S. Census

Figure B-5. Poverty status by age groupings, 1999.



Source: 2000 U.S. Census

Figure B-6. Percent living in households with income less than poverty, 1999.



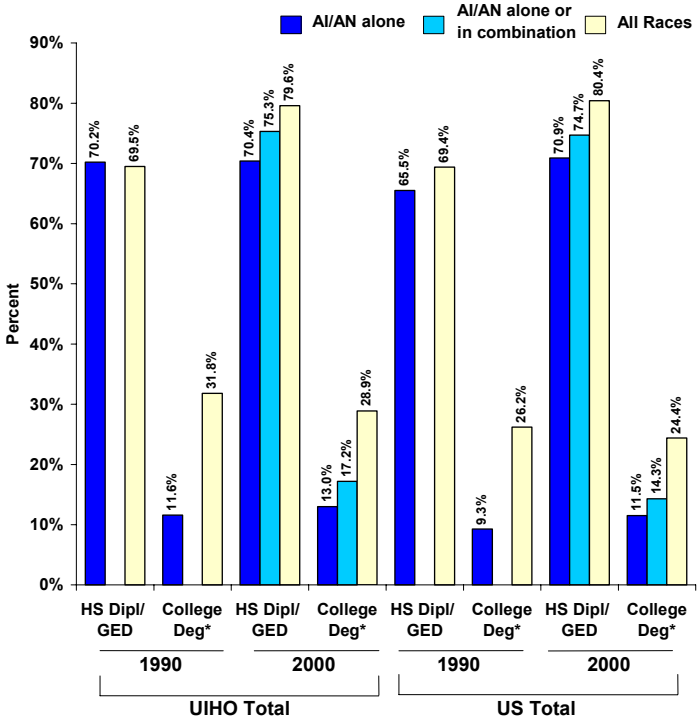
Source: 2000 U.S. Census.

- Poverty among AI/AN alone or in combination with other races was somewhat lower than the AI/AN alone rate, but still substantially higher than the corresponding total rates for all races combined.

Educational Attainment

- In 2000, about 70% of Indians, age 25 and older, who lived in UIHO service areas and nationwide reported having a high school diploma or GED compared to 80% for the general population (Figure B-7 and Appendix B-5).
- The percentage of AI/AN who lived in UIHO areas and reported having a 4-year college degree or higher, was less than half the rate for the general population (13% and 29%, respectively).

Figure B-7. Educational attainment (age 25 and older), 1990 and 2000.

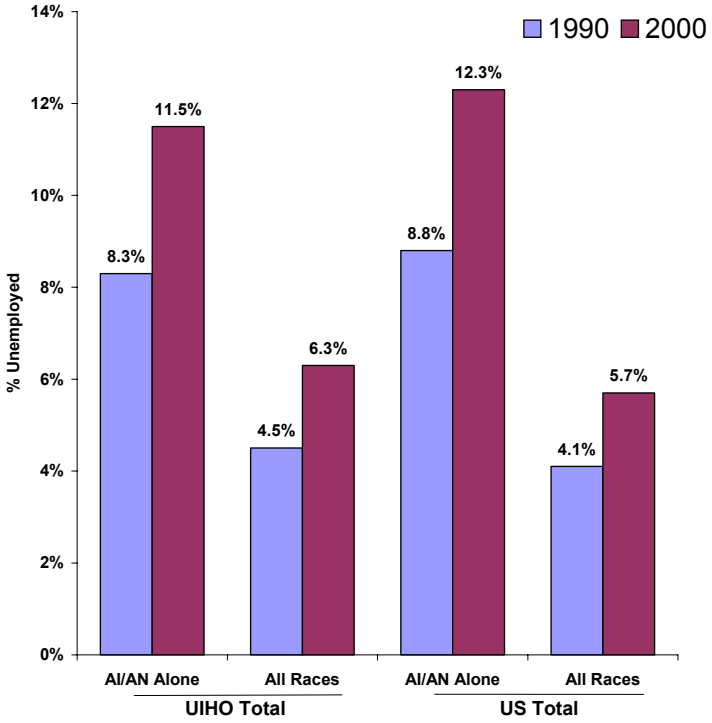


*College degree refers to a four-year bachelor's degree or higher.

Employment Status

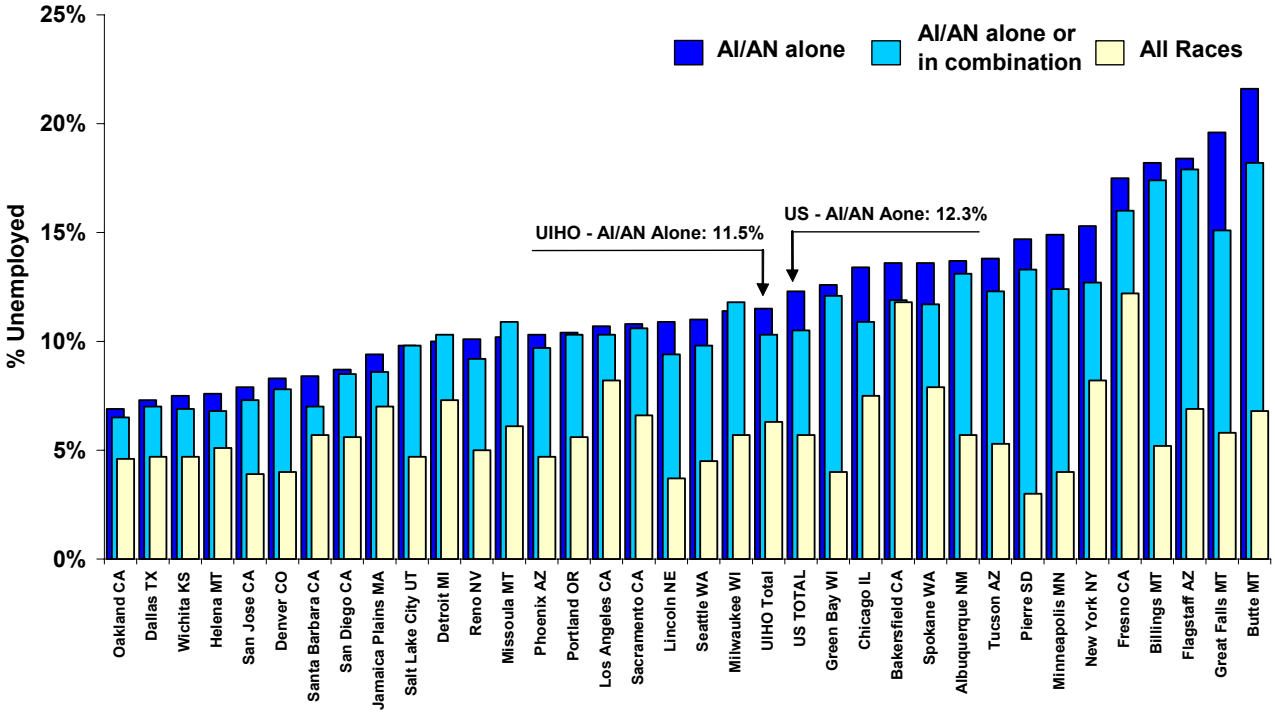
- In 2000, unemployment among AI/AN was similar in both urban and national settings with about 12% of AI/AN reporting not being employed. Unemployment among the total population, however, was half the AI/AN rate or 6% (Figure B-8, B-9 and Appendix B-6).
- In general unemployment rates reported in the 2000 census were higher than those reported in 1990. These differences, however, may have been due to differences in the way employment-related questions were asked on census forms.[vii]
- Unemployment varied greatly by service area with 7% of AI/AN reporting being unemployed in the Oakland CA area and 22% in the Butte MT area (Figure B-9 and Appendix B-6).

Figure B-8. Unemployment trends, 1990 and 2000.



Source: 1990 and 2000 U.S. Census

Figure B-9. Unemployment by service areas, 2000.

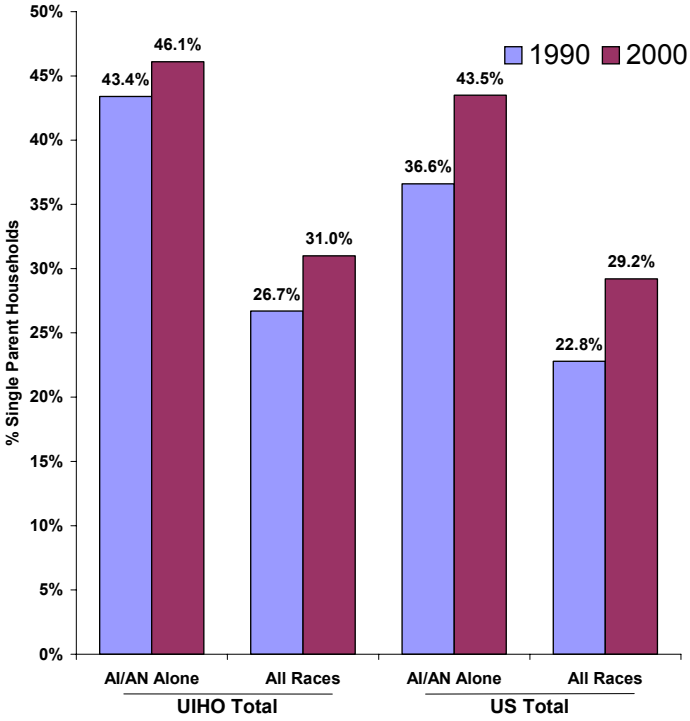


Source: 2000 U.S. Census.

Single Parent Households

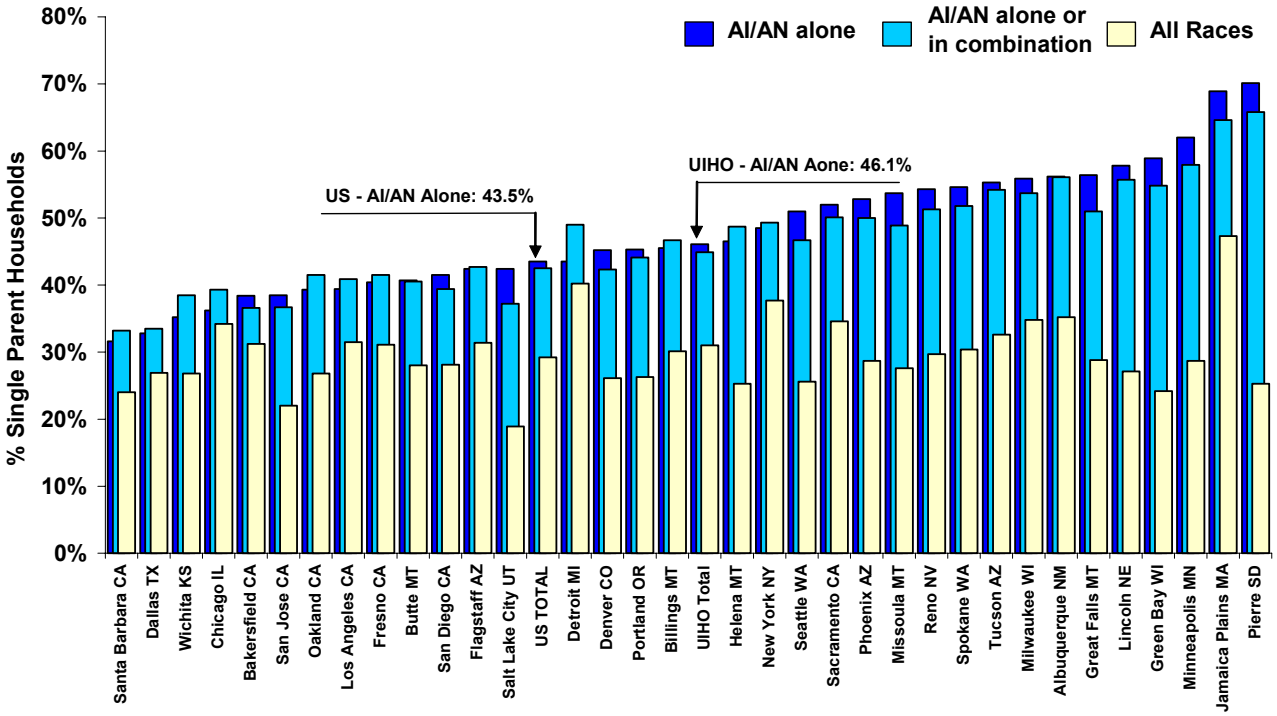
- In 2000, more children under the age of 18 lived in households with only a single parent present than in 1990 (Figure B-10 and Appendix B-7).
- Among Indians, 46% of households were headed by a single parent in the urban organization areas, compared to 44% for all Indians nationwide. All race population totals were significantly lower, with 31% of households in the urban organization areas being headed by a single parent and 29% nationwide.
- Considerable variation exists by region with 32% of AI/AN households in the Santa Barbara CA area having a single parent compared to the Pierre SD area where 70% of households had only a single parent (Figure B-11 and Appendix B-7).

Figure B-10. Single parent households, 1990 and 2000.



Source: 1990 and 2000 U.S. Census

Figure B-11. Single parent households by service areas, 2000.

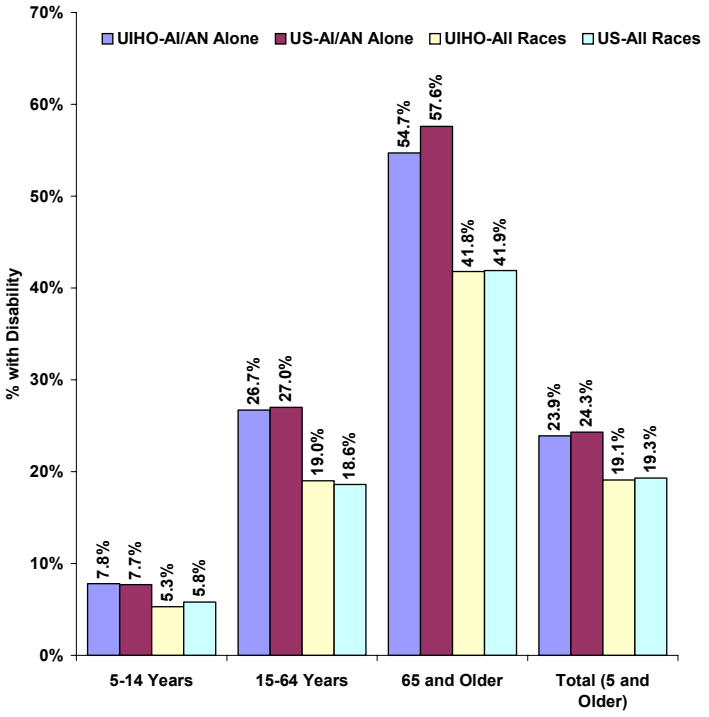


Source: 2000 U.S. Census.

Disability Status

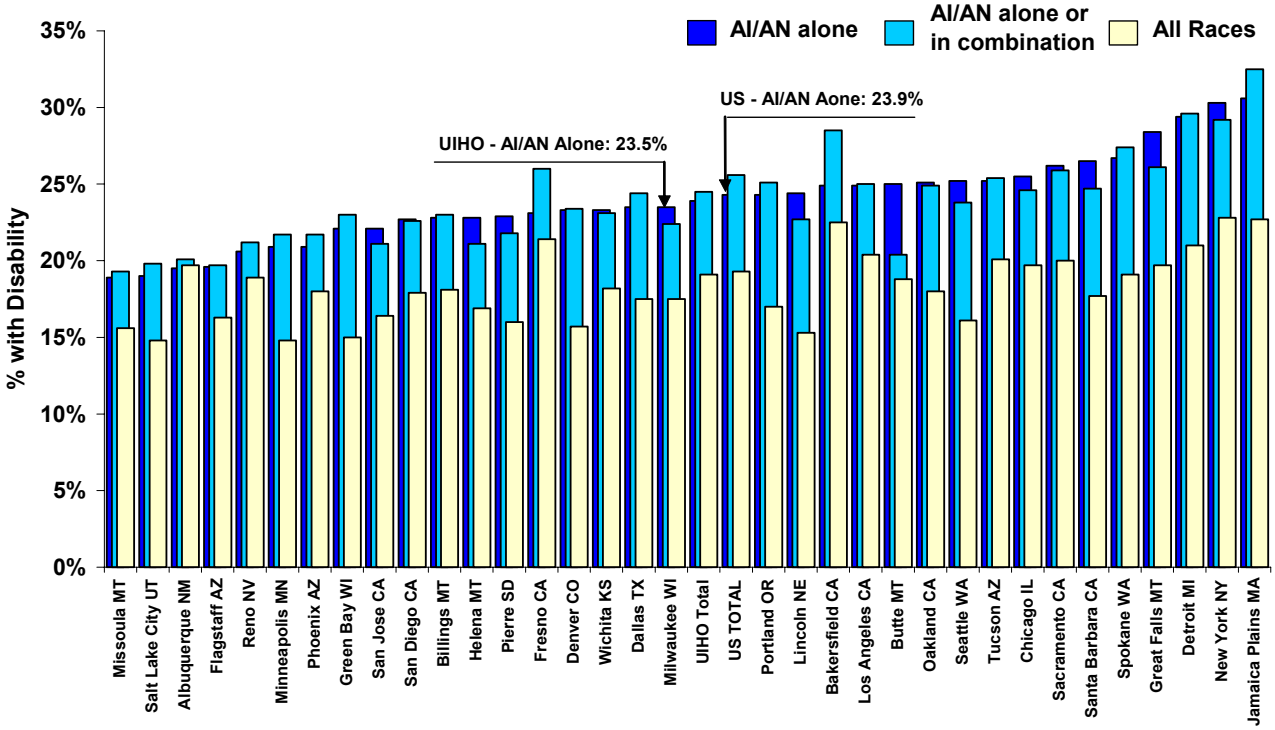
- In 2000, nearly one in four (24%) Indians in both urban organization areas and nationwide reported having a disability compared to one in five persons (19%) in general (Figure B-12 and Appendix B-8).
- Substantial disparities in the percentages of persons having a disability among AI/AN are particularly evident at older ages. Among persons 15 to 64 years of age, 27% of Indians reported having a disability compared to 19% overall. For persons 65 years and older, 55% to 58% of Indians living in urban organization areas and nationwide, respectively, reported having a disability, compared to 42% of persons of all races taken as a whole.
- Reports of disability also varied by area, ranging from 19% of Indians in the Missoula MT area reporting a disability to 30% in the Jamaica Plains MA area (Figure B-13 and Appendix B-8).

Figure B-12. Disability by age groups, 2000.



Source: 2000 U.S. Census

Figure B-13. Disability status by service areas, 2000.



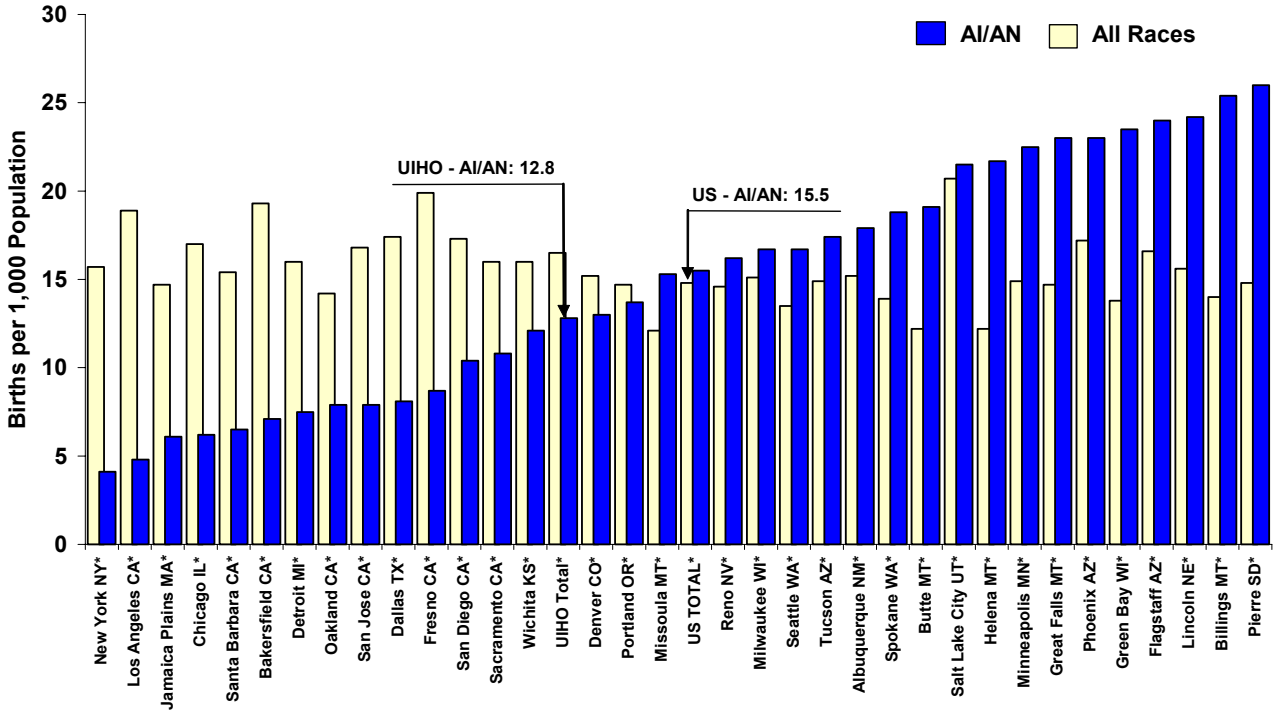
Source: 2000 U.S. Census.

C. Maternal and Child Health

Birth Statistics

- Close to 400,000 infants were born to mothers who reported that they were of American Indian or Alaska Native heritage over the ten-year period from 1991 to 2000. Of these, over 80,000 or an average of 8,000 infants annually were born in counties served by Urban Indian Health Organizations. (Appendix C-1).
- Although the national AI/AN birth rate during the 1991 to 2000 period was higher than the general U.S. birth rate (15.5 and 14.8 per 1,000 persons, respectively), the AI/AN rate in urban organization counties was nearly one quarter lower than the general birth rate recorded in these areas (12.8 and 16.5 per 1,000 person, respectively). (Figure C-1 and Appendix C-1).
- Some of the differences observed between rates in the urban organization counties may be due to racial misclassification on birth certificates. This is especially evident with respect to individual organization area rates, which range from 4 births per 1,000 persons in the New York NY area to 26 births per 1,000 persons in the Pierre SD area. In particular, AI/AN birth rates that are well below the overall U.S. rate should be examined further to determine whether racial miscoding on the birth certificates in these areas is a major source of the observed discrepancies.

Figure C-1. Births to mothers who are American Indians/Alaska Natives (AI/AN) living in Urban Indian Health Organization (UIHO) service areas, 1995-2000.

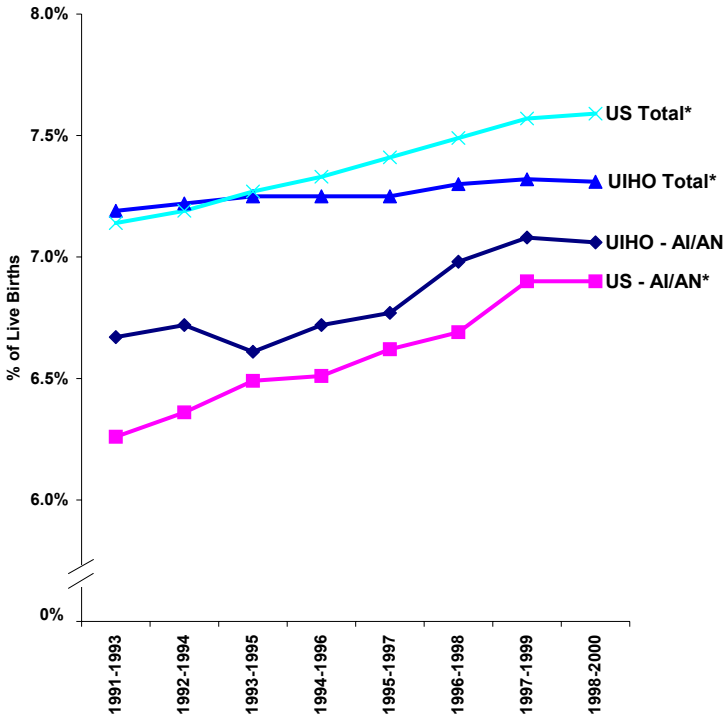


*Significant difference between rates for AI/AN and all races combined. Source: U.S. Centers for Health Statistics.

Low Infant Birth Weight

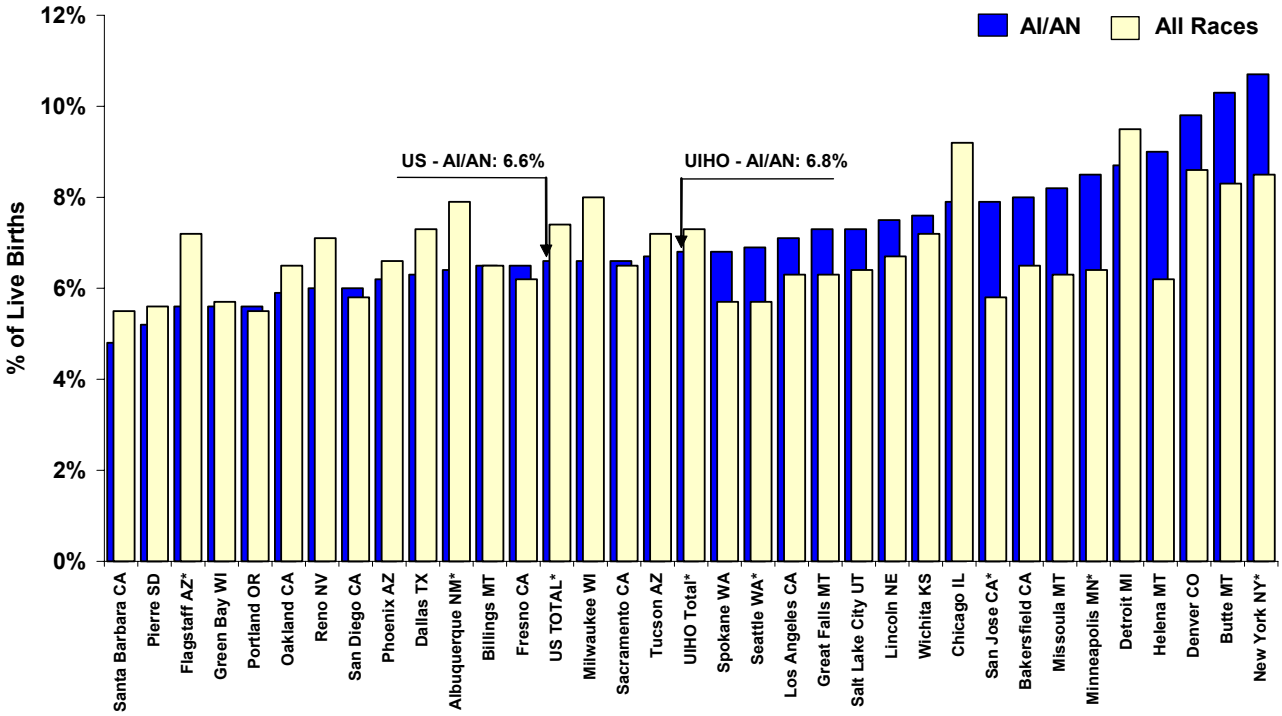
- From 1991 to 2000, a significantly lower percentage of infants of AI/AN mothers were born in UIHO service areas and nationwide with low birth weight (less than 2,500 grams) compared with the rates for all infants combined (Figure C-2 and Appendix C-2).
- However, this trend was not consistent in all urban organization areas, with the lowest rates of low infant birth weight being observed in Santa Barbara CA (4.8%) and the highest rate observed in the New York NY area (10.7%).
- The rate of infants with low birth weight has also increased significantly nationwide and among all races in the UIHO areas (Figure C-3)

Figure C-3. Low birth weight trends, three-year averages, 1991-2000.



* Significant increasing trend. Source: U.S. Centers for Health Statistics.

Figure C-2. Low birth weight by service areas, ten-year averages, 1991-2000.

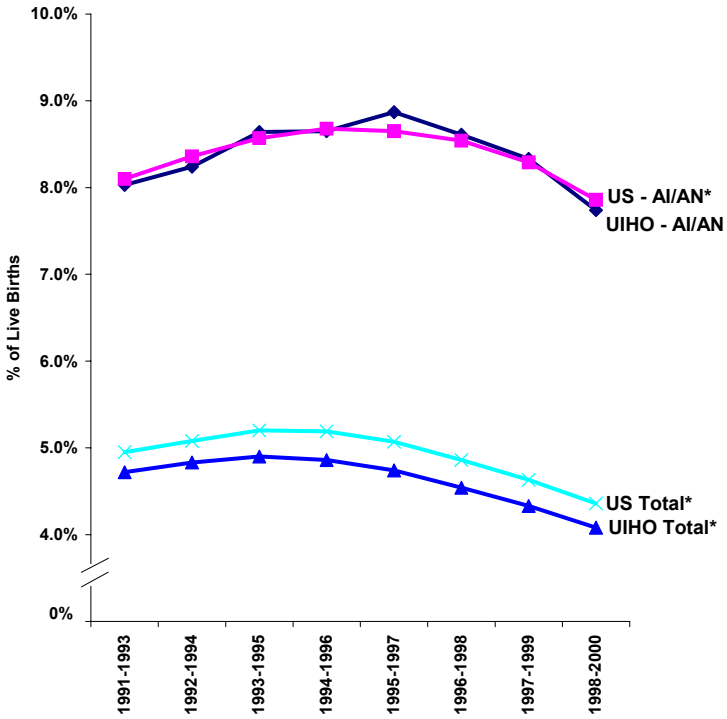


Notes: Results pertain to UIHO service areas with 10 or more occurrences of low birth weight to AI/AN mothers.
*Significant difference between rates for AI/AN and all races combined.
Source: U.S. Centers for Health Statistics.

Births to Teenage Mothers and Mother's Marital Status

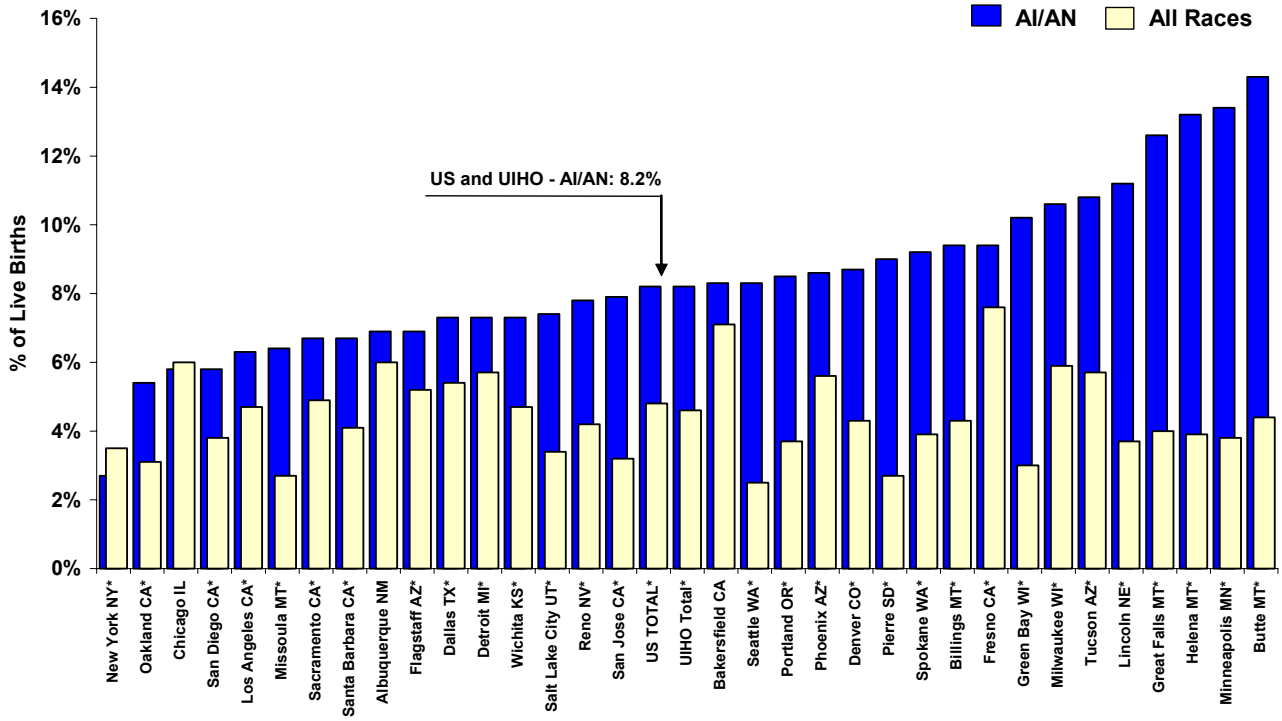
- Births to Indian mothers under age 18, in UIHO areas and nationwide, accounted for approximately 8% of the infants born in the period from 1991 to 2000. This rate was significantly higher than the rate for all mothers which was about 5% both nationwide and in the urban organization counties (Figure C-4 and Appendix C-2).
- Over this 10-year period, however, the rate of teen mothers has dropped significantly among AI/AN mothers nationwide and among all mothers both nationwide and in the urban organization areas (Figure C-5).
- In addition, over half of all children born to Indian mothers were born to mothers who were not married (60% in UIHO areas and 57% nationwide). These rates are substantially higher than the corresponding all-race rates (35% in the UIHO counties and 32% nationwide). (Appendix C-2).

Figure C-5. Trends in births to teen mothers (age 18 and under), three-year averages, 1991-2000.



* Significant decreasing trend. Source: U.S. Centers for Health Statistics.

Figure C-4. Births to teen mothers (age 18 and under) by service areas, ten-year averages, 1991-2000.

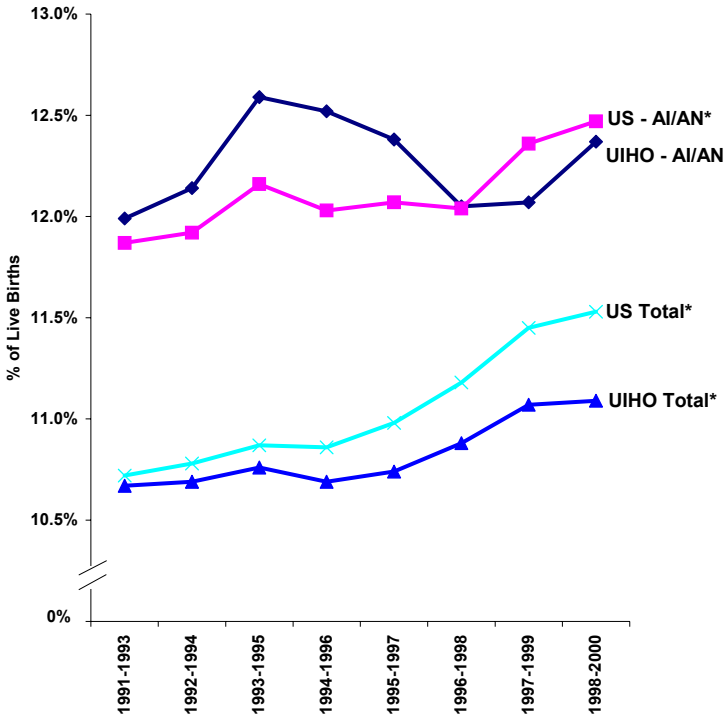


Notes: Results pertain to UIHO service areas with 10 or more occurrences of births to teen AI/AN mothers.
*Significant difference between rates for AI/AN and all races combined.
Source: U.S. Centers for Health Statistics.

Premature Births

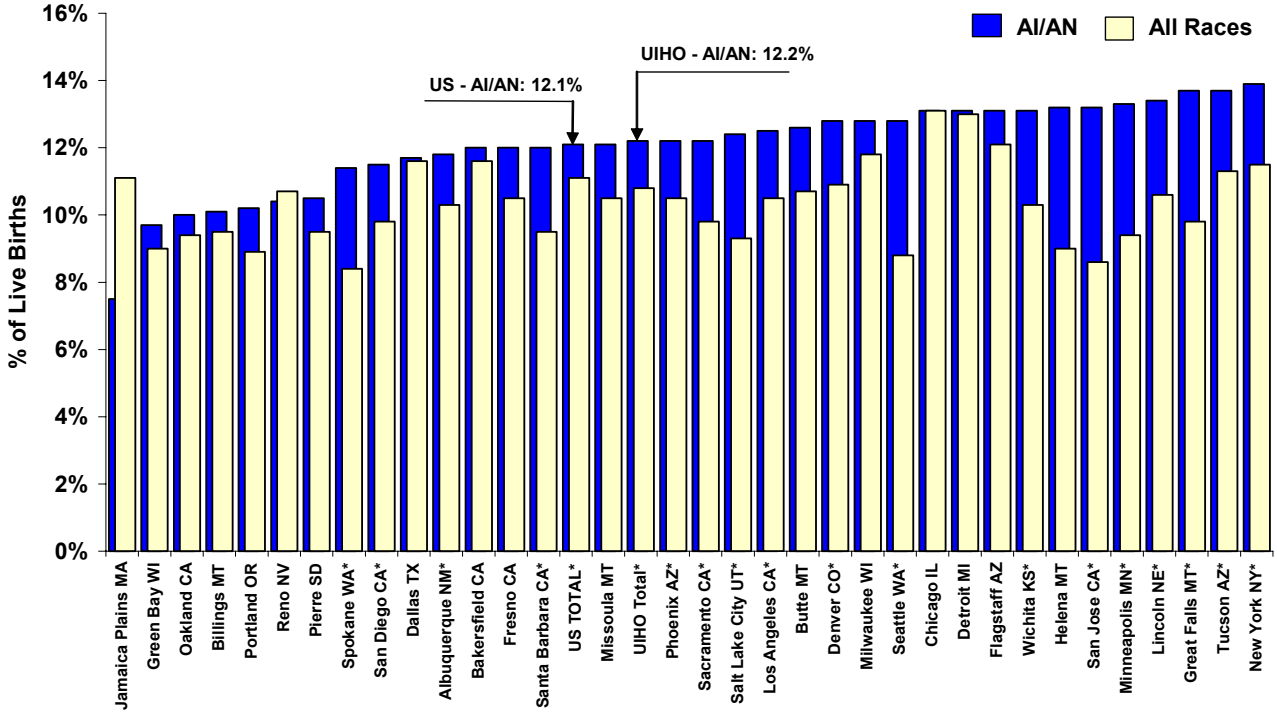
- The rate of premature births to AI/AN mothers (about 12% in both UIHO areas and nationwide) was significantly higher than the rates for all races combined in corresponding areas (approximately 11%) (Figure C-6 and Appendix C-2).
- Similar to the rates for all races combined, rates of prematurity have also increased significantly for AI/AN mothers nationwide during the period from 1991 to 2000 (Figure C-7).
- Variations by organization areas are also evident with the lowest rates of prematurity among AI/AN mothers occurring in the Jamaica Plains MA area (8%) and the highest rate occurring in the New York NY area (14%) (Figure C-6 and Appendix C-2).

Figure C-7. Trends in premature births, three-year averages, 1991-2000.



* Significant increasing trend. Source: U.S. Centers for Health Statistics.

Figure C-6. Premature births by service areas, ten-year averages, 1991-2000.

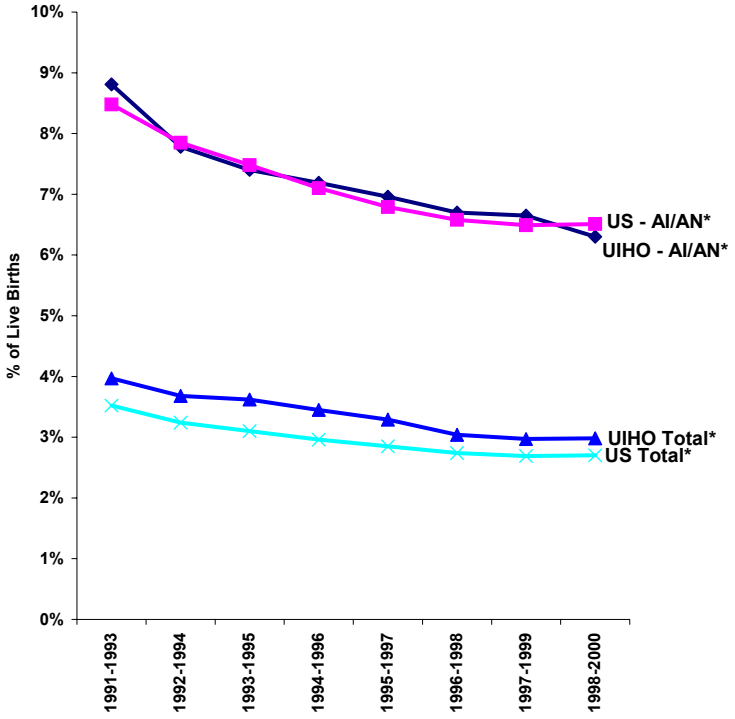


Notes: Results pertain to UIHO service areas with 10 or more premature births to AI/AN mothers.
*Significant difference between rates for AI/AN and all races combined.
Source: U.S. Centers for Health Statistics.

Late or No Prenatal Care

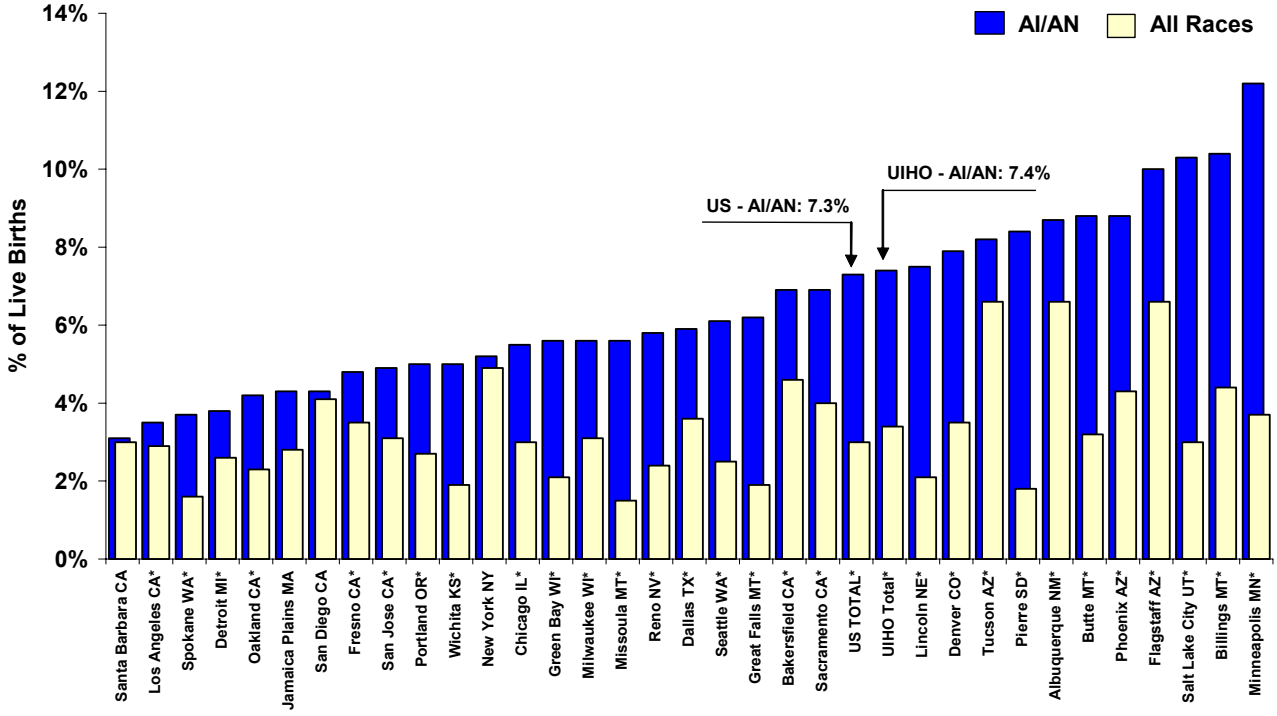
- Over 7% of AI/AN mothers both in UIHO service areas and nationwide who delivered children over the period from 1991 to 2000 either did not receive prenatal care until the 3rd trimester of pregnancy or did not receive it at all. These rates were significantly higher than the corresponding rates for all mothers combined with about 3% receiving late or no prenatal care (Figure C-8 and Appendix C-2).
- Despite continuing overall disparities, the rate in receiving late or no prenatal care has decreased significantly, both nationally and in the urban organization areas (Figure C-9).
- Rates of receiving late or no prenatal care varied greatly by urban organization areas, with the lowest rates observed in the Santa Barbara CA (3%) area and the highest rates in the Minneapolis MN area (12%) (Figure C-8 and Appendix C-2).

Figure C-9. Trends in receiving late or no prenatal care, 1991-2000.



* Significant trend. Source: U.S. Centers for Health Statistics.

Figure C-8. Late or no prenatal care by service areas, ten-year average, 1991-2000.

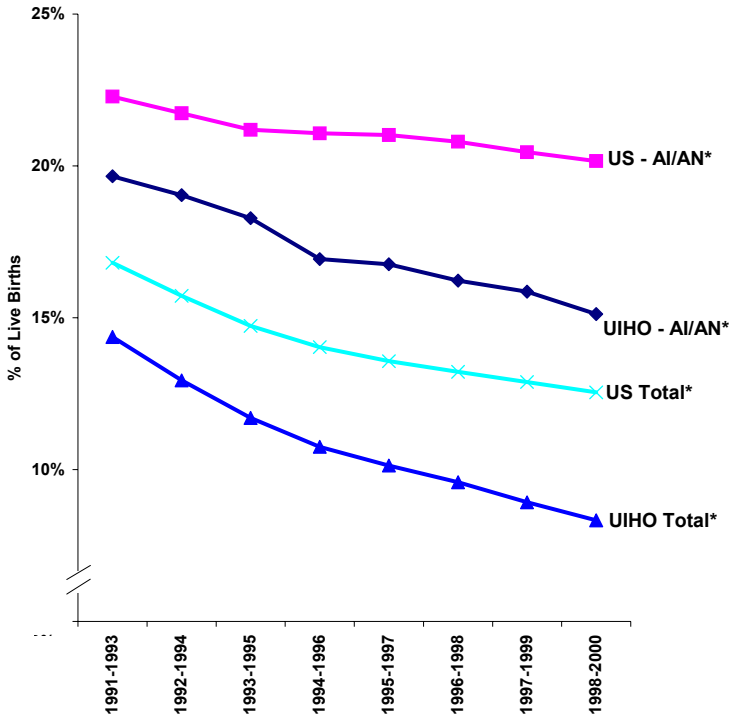


Notes: Results pertain to UIHO service areas with 10 or more to AI/AN mothers who received late or no prenatal care to AI/AN mothers.
*Significant difference between rates for AI/AN and all races combined.
Source: U.S. Centers for Health Statistics.

Smoking during Pregnancy

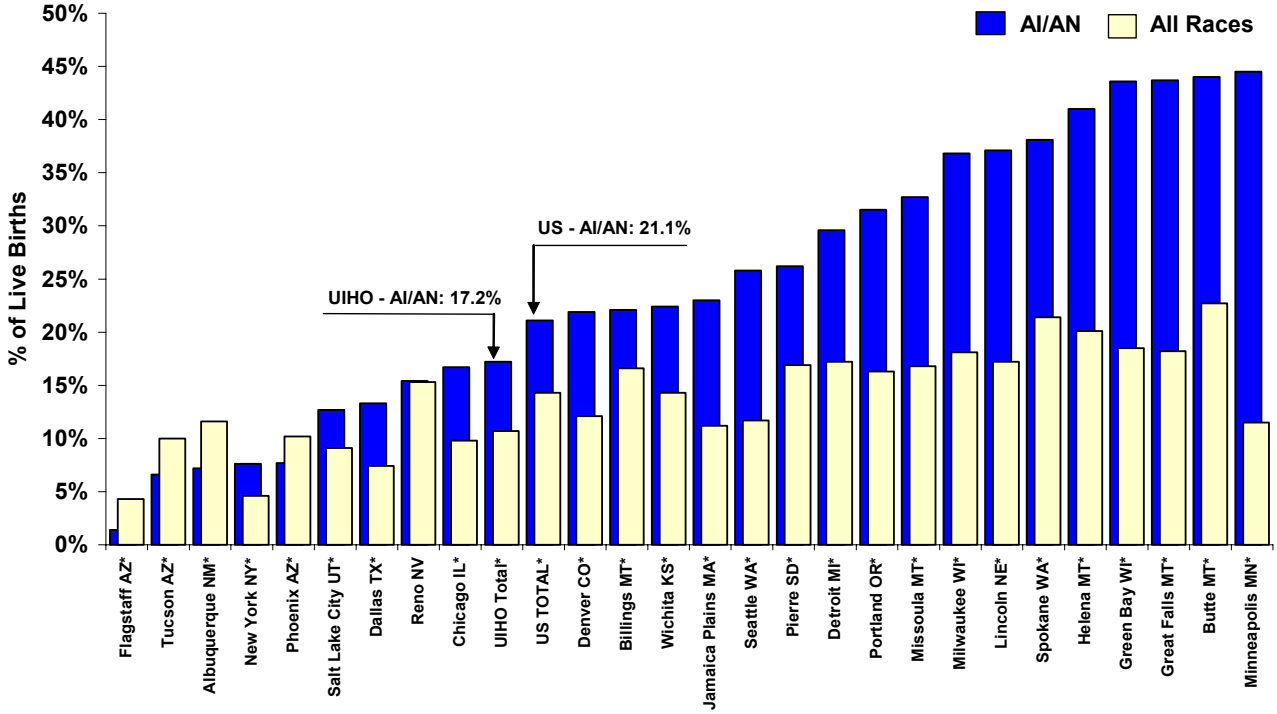
- At both the urban organization and national levels, the rates of smoking during pregnancy by AI/AN mothers were significantly higher (17% in UIHO areas and 21% nationwide) than the rates for mothers of all races combined (about 11% in UIHO areas and 14% nationwide) (Figure C-10 and Appendix C-2).
- The rate of smoking over the 10-year period from 1991 to 2000, however, has decreased significantly both in UIHO areas and nationwide (Figure C-11).
- These rates differed significantly by organization area and ranged from about 1% in the Flagstaff AZ area to 45% in the Minneapolis MN area (Figure C-10 and Appendix C-2).

Figure C-11. Trends in smoking during pregnancy, three-year averages, 1991-2000.



* Significant downward trend. Source: U.S. Centers for Health Statistics.

Figure C-10. Smoking during pregnancy by service areas, ten-year averages, 1991-2000.

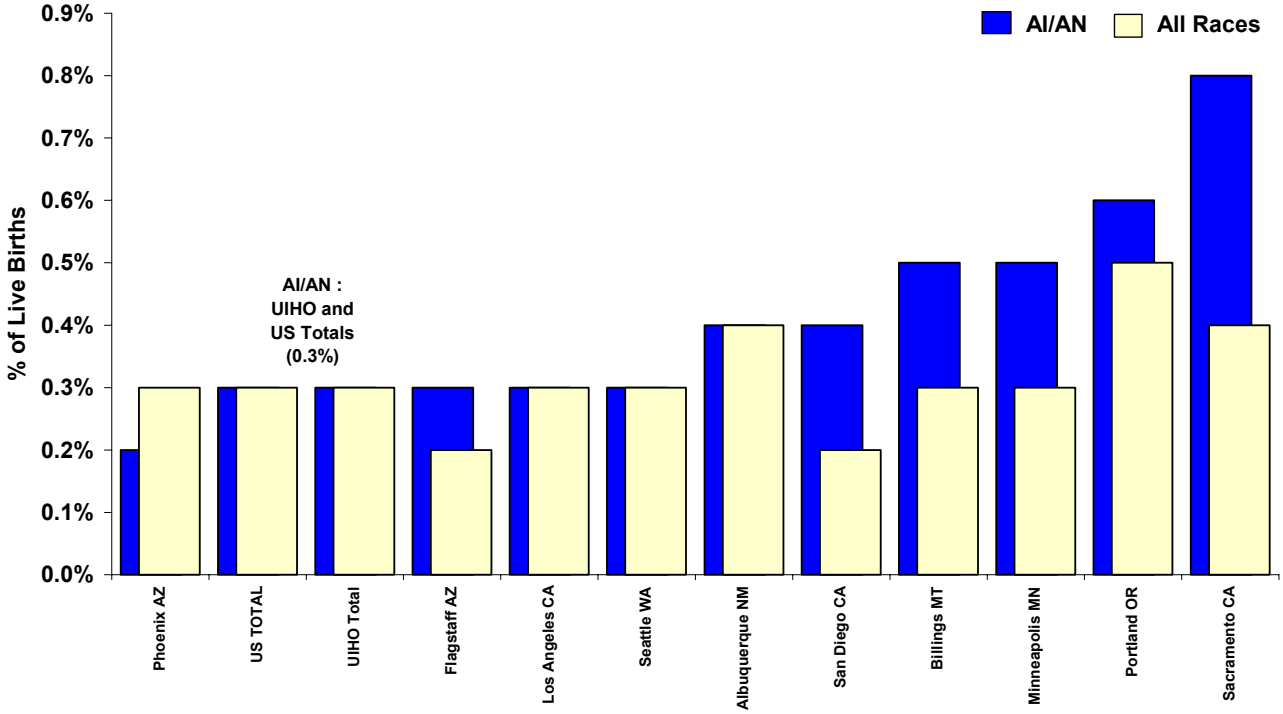


Notes: Results pertain to UIHO service areas with 10 or more births to AI/AN mothers who smoked during pregnancy.
*Significant difference between rates for AI/AN and all races combined.
Source: U.S. Centers for Health Statistics.

Alcohol Use during Pregnancy

- At both the urban organization and national levels, the rates of alcohol consumption during pregnancy by mothers were the same among Indians as for all races, or 0.3% (Figure C-12 and Appendix C-2).
- No significant trends were observed over the 10-year period from 1991 to 2000.
- Although some differences were observed with respect to alcohol consumption during pregnancy in some of the UIHO areas when the rates for Indian mothers were compared to all race totals, these differences were not statistically significant (Figure C-12 and Appendix C-2).

Figure C-12. Use of alcohol during pregnancy by service areas, ten-year average, 1991-2000.

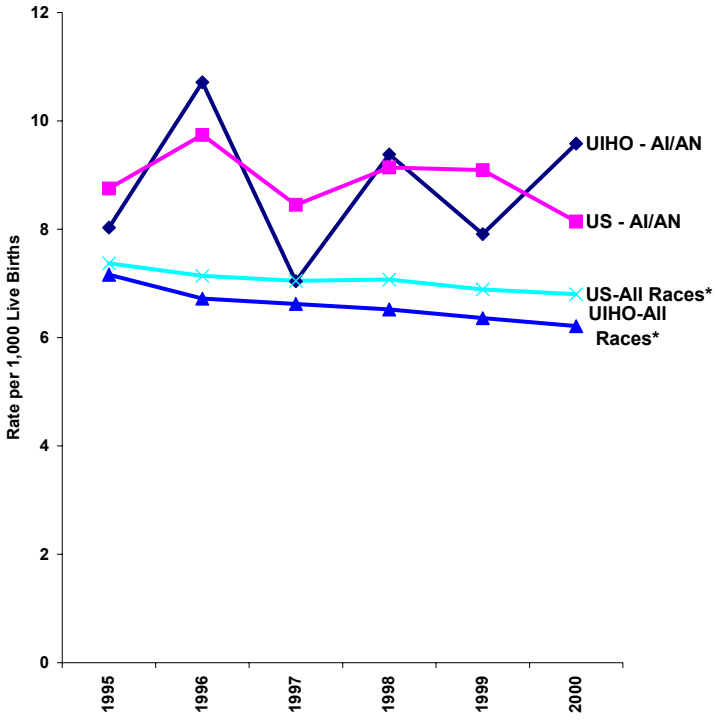


Notes: Results pertain to UIHO service areas with 10 or more to births to AI/AN mothers who consumed alcohol during pregnancy.
*Significant difference between rates for AI/AN and all races combined.
Source: U.S. Centers for Health Statistics.

Infant Mortality

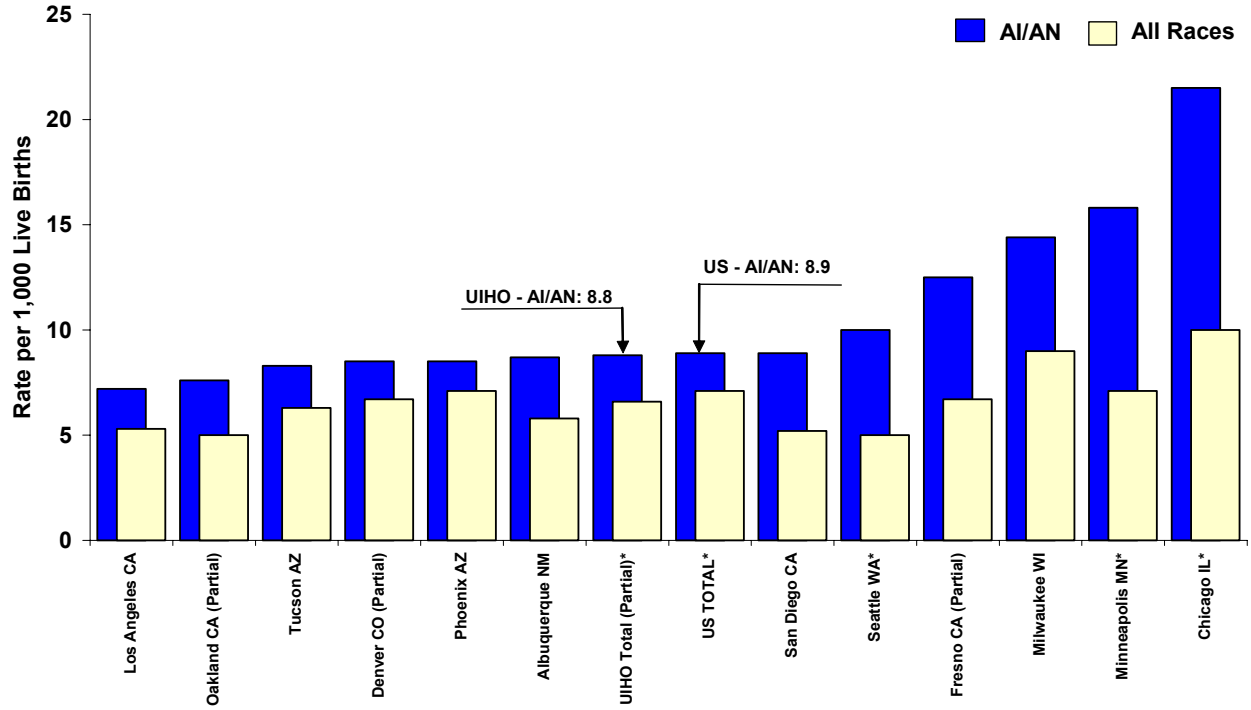
- The average mortality rates over the period 1995 to 2000 among infants born to AI/AN mothers are nearly the same in UIHO areas with county populations over 250,000 and nationwide (8.8 and 8.9 per 1,000 live births, respectively) (Figure C-13 and Appendix C-3). Both rates, however, were significantly higher than the rates corresponding to the general populations of these areas (6.6 and 7.1 per 1,000 live births, respectively).
- Although mortality rates declined over the period from 1995 to 2000 among infants of all races combined, both in the UIHO areas and nationwide, no significant trends are evident among infants born to AI/AN mothers (Figure C-14).
- Among UIHO areas, infant mortality ranged from 7.2 per 1000 live births in the Los Angeles CA area to 21.5 per 1000 live births in the Chicago area.

Figure C-14 Trends in infant mortality, 1995-2000



*Significant downward trend.
Source: U.S. Centers for Health Statistics.

Figure C-13. Infant mortality by service areas, six-year averages, 1995-2000.

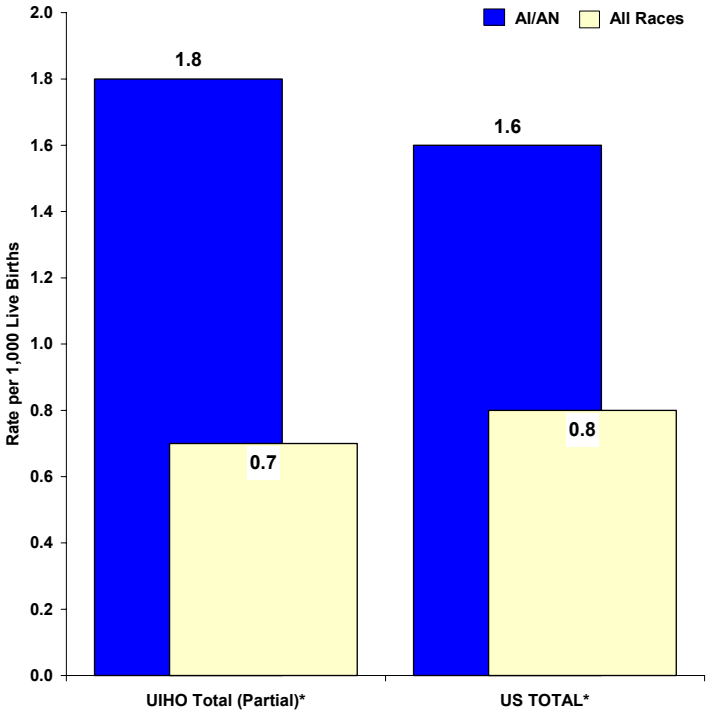


Notes: Results pertain to UIHO service areas with 10 or infant deaths to AI/AN mothers.
*Significant difference between rates for AI/AN and all races combined.
"Partial" refers to the inclusion of only those counties with a 1990 population of 250,000 or more.
Source: U.S. Centers for Health Statistics

Infant Mortality due to SIDS

- Sudden Infant Death Syndrome (SIDS) was the leading cause of death among infants born to AI/AN mothers living in UIHO counties with populations of 250,000 or more. The AI/AN rate was over twice as high as the rate for all infants in the corresponding area (1.8 and 0.7 per 1,000 live births, respectively) (Figure C-15).
- The SIDS mortality rate among children born to AI/AN mothers nationwide (1.6 per 1,000 live births) was not statistically different than the UIHO area rate.

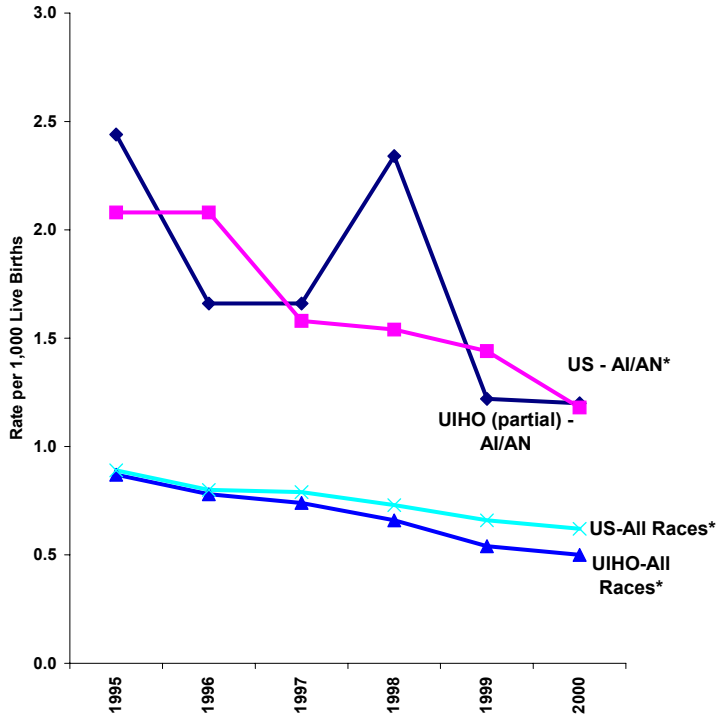
Figure C-15. Infant mortality due to SIDS, 1995-2000.



*Significant difference between AI/AN and All Races rates.
"Partial" refers to the inclusion of only those counties with a 1990 population of 250,000 or more. Source: U.S. Centers for Health Statistics

- Although a significant downward trend in mortality is observed for infants born to AI/AN mothers nationwide over the 1995 to 2000 period, no significant trend is evident among those living in the UIHO areas (Figure C-16). The overall trends for SIDS deaths in the general population during this period were downward in both UIHO areas and nationwide.

Figure C-16. Trends in infant mortality due to SIDS, 1990-1999.

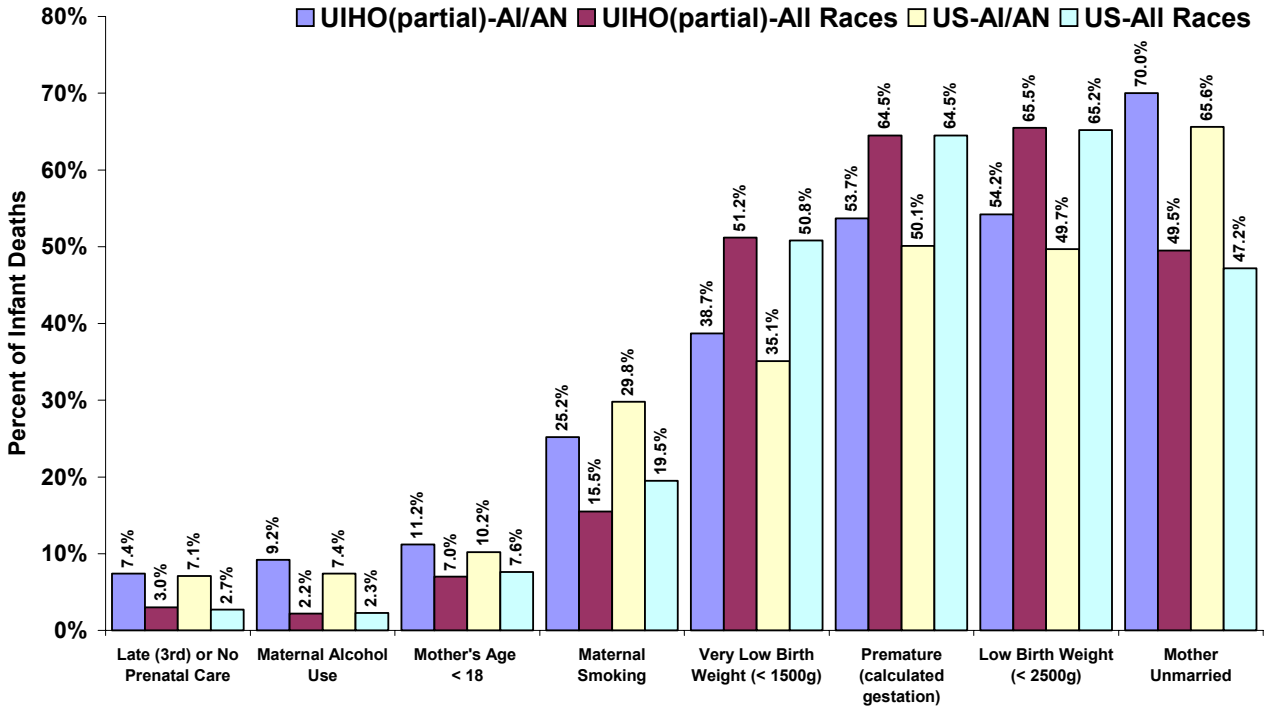


*Significant downward trend. Source: U.S. Centers for Health Statistics.
"Partial" refers to the inclusion of only those counties with a 1990 population of 250,000 or more. Source: U.S. Centers for Health Statistics

Factors Associated with Infant Deaths

- The most common factors associated with death among infants born to AI/AN mothers living in UIHO areas over the period from 1995 to 2000 were single marital status (associated with 70% of the infant deaths), low birth weight (54%), and prematurity (54%) (Figure C-17 and Appendix C-4). Very low birth weight of the infant was associated with 39% of the infant deaths. Of these factors, only single marital status was more common among AI/AN mothers than among mothers of all races combined (i.e., 70% and 50%, respectively).
- Smoking during pregnancy (25%), mother's age less than 18 (11%), maternal alcohol consumption (9%), and late or no prenatal care (7%) were all significantly more common among AI/AN mothers with infant deaths than among all mothers combined.

Figure C-17. Factors associated with infant deaths, six-year averages, 1995-2000.



All AI/AN rates were significantly different than the corresponding rates for all races combined. "Partial" refers to the inclusion of only those counties with a 1990 population of 250,000 or more. Source: U.S. Centers for Health Statistics

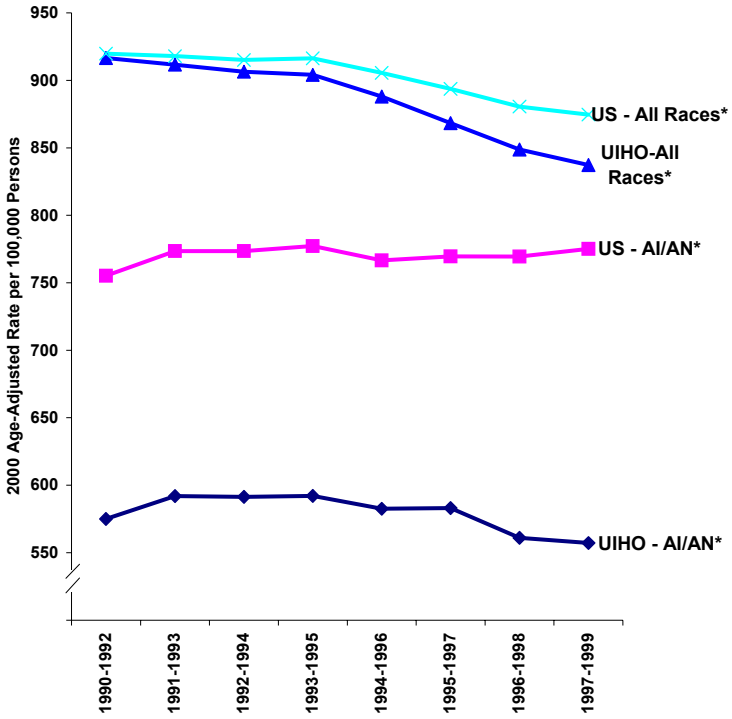
D. General Mortality Statistics

Miscoding of Indian race on death certificates has been documented in several sources[iii, iv] and adjustment factors have been developed to address misreporting at a regional level.[iv] However, currently available adjustment factors were not developed for use at the county level and, therefore, are not reflected in the results presented in this report, nor do the adjustment factors apply to some urban areas where rates may be half or less than half the rate for the general population in the UIHO areas combined. Therefore, many of the results presented here may be unrealistically low due to these misreporting problems. Those areas where rates fall well below the rates for the general population living in the UIHO areas should especially be targeted for efforts to devise strategies for improving the collection of racial background on vital statistics records.

All Causes of Mortality

- During the 10-year period from 1990 to 1999 nearly 100,000 deaths nationwide have been reported among Indians. Of these nearly one fifth (about 18,000 or an annual average of 1,800) have been among Indians living in UIHO service areas (Appendix D-1).
- While this period has seen a significant decrease in mortality among all races both nationwide and in the urban organization areas, Indian mortality nationwide has increased (Figure D-1). However, in urban organization areas there has been a significant decline in reported deaths.

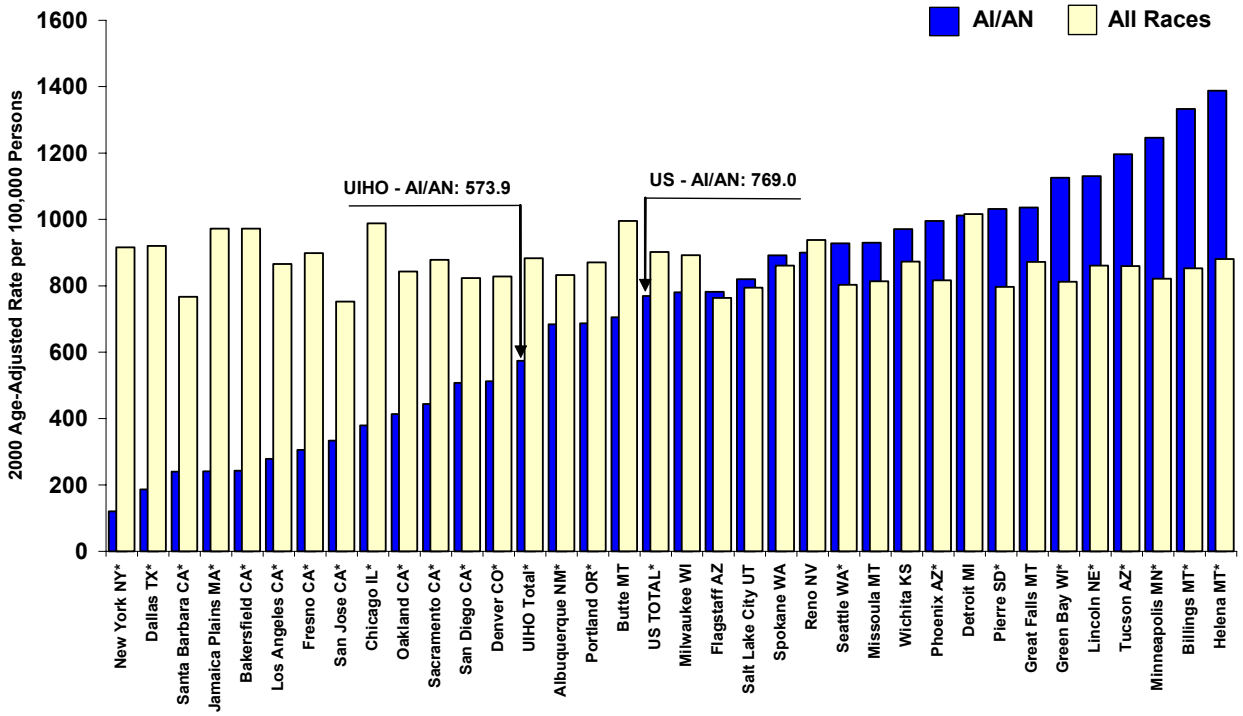
Figure D-1. Mortality trends, three-year averages, 1990-1999.



*Significant downward trend.
Source: U.S. Centers for Health Statistics.

- Significant discrepancies between age-adjusted AI/AN and total mortality rates exist. For example, the ten-year average rate of total mortality was 883.2 deaths per 100,000 persons living in UIHO areas, the rate among AI/AN living in these areas was 35% lower, or 573.9 per 100,000. Nationwide the AI/AN rate was somewhat higher (569.0 per 100,000) or about 15% less than the total rate (about 902.1 per 100,000) (Figure D-2 and Appendix D-1).
- By organization area, mortality rates range from a low of 120.1 per 100,000 in the New York NY area to 1,387.6 in the Helena MT area.

Figure D-2. Mortality by service areas, ten-year averages, 1990-1999.

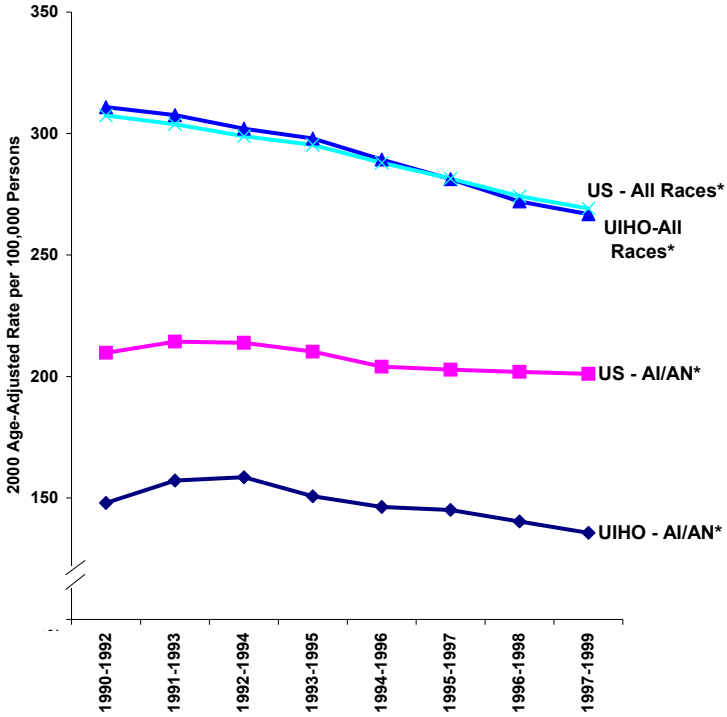


Notes: Results pertain to UIHO service areas with 10 or more AI/AN deaths.
*Significant difference between rates for AI/AN and all races combined.
Source: U.S. Centers for Health Statistics.

Heart Disease Mortality

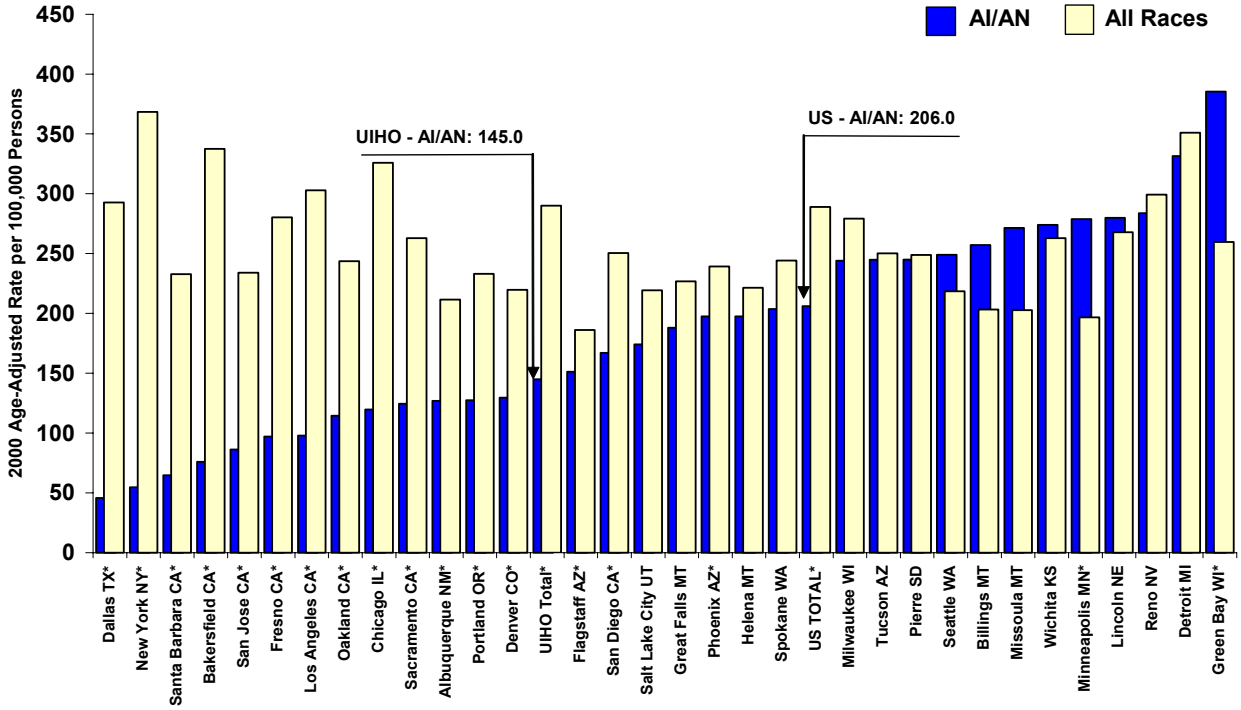
- Although the general heart disease mortality rates both in UIHO areas and nationwide have been nearly the same (10-year average about 290 per 100,000), significant differences exist between the rates for AI/AN living in the urban organization areas and nationwide (10-year average rate was 145.0 per 100,000 among AI/AN in UIHO areas, while 206.0 per 100,000 for nationwide) (Figure D-3 and Appendix D-1).
- Heart disease mortality has decreased significantly during the period 1990 to 1999 among Indians and among the general population (Figure D-4).
- By area, the rates among AI/AN ranged from 45.7 per 100,000 in the Dallas TX area to 385.4 per 100,000 in the Green Bay WI area.
- Significantly higher rates between AI/AN and all races were observed in the Minneapolis MN and Green Bay WI areas.

Figure D-4. Trends in heart disease mortality, three-year averages, 1990-1999.



*Significant downward trend.
Source: U.S. Centers for Health Statistics.

Figure D-3. Heart disease mortality by service areas, ten-year averages, 1990-1999.

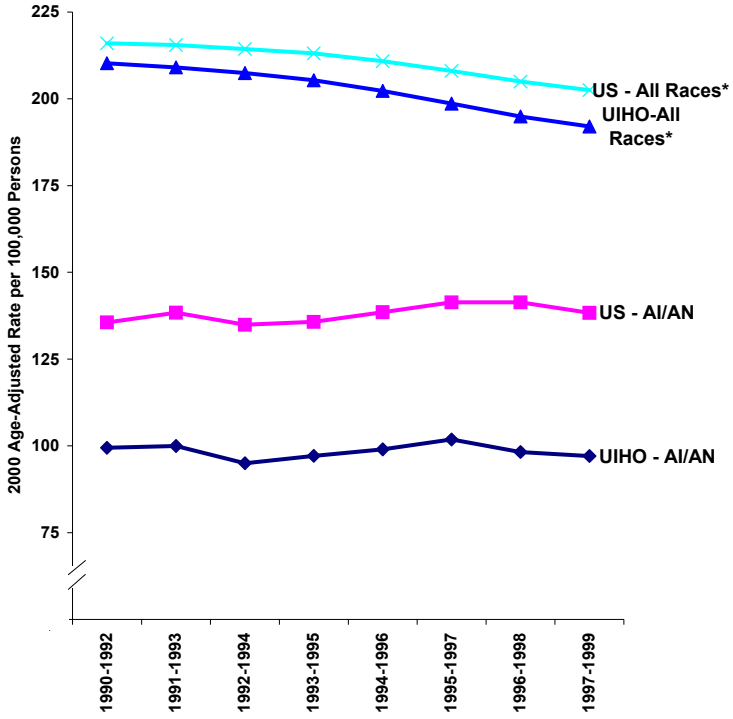


Notes: Results pertain to UIHO service areas with 10 or more AI/AN deaths due to heart disease.
*Significant difference between rates for AI/AN and all races combined. Source: U.S. Centers for Health Statistics.

Cancer Mortality

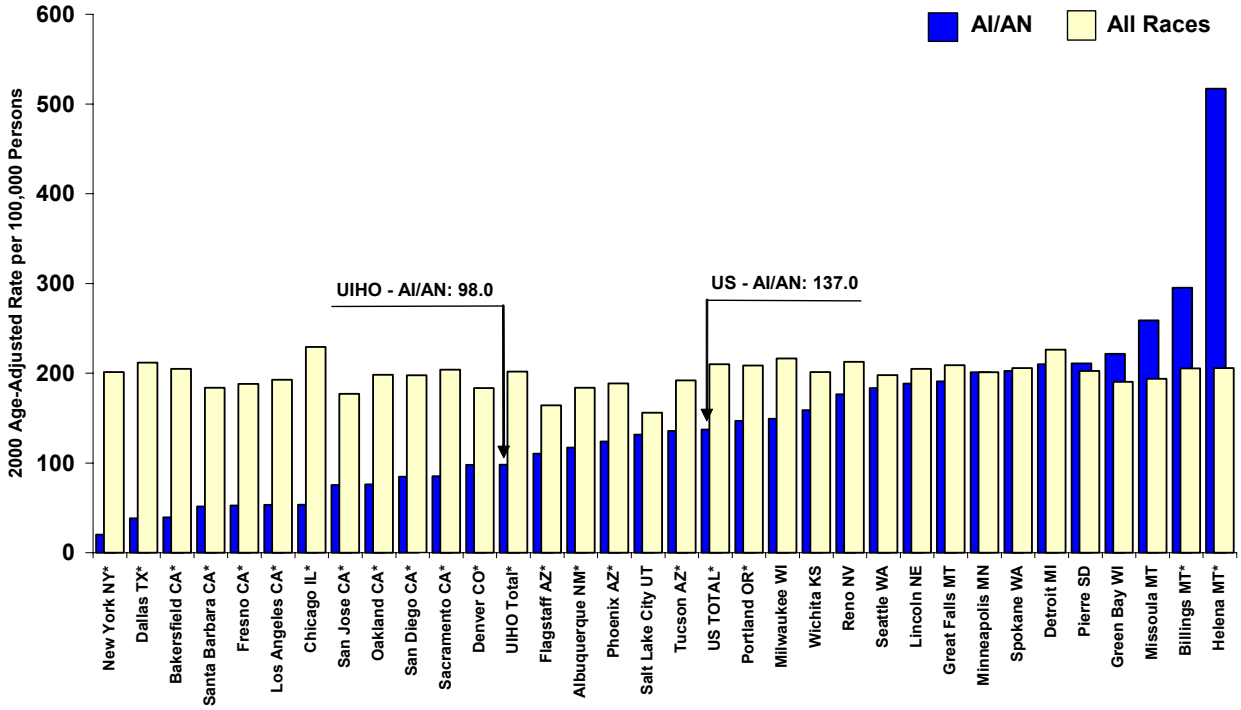
- Cancer was the 2nd leading cause of death among Indians both in the urban organization areas and nationwide.
- The 10-year average rate for AI/AN was significantly lower for AI/AN living in the urban organization areas compared with Indians nationwide (98.0 per 100,000 compared to 137.3 per 100,000, respectively). These rates were both substantially lower than the total rates both nationwide and in the urban organization areas (210.0 per 100,000 and 201.8 per 100,000, respectively). (Figure D-5 and Appendix D-1).
- Cancer mortality rates ranged by area from 20.0 per 100,000 in the New York NY area to 295.2 per 100,000 in the Billings MT area.
- While the overall all-race cancer rate has begun to decrease during the period from 1990 to 1999, the cancer rate among AI/AN has remained level (Figure D-6).

Figure D-6. Trends in cancer, three-year averages, 1990-1999.



*Significant downward trend.
Source: U.S. Centers for Health Statistics.

Figure D-5. Cancer mortality by service areas, ten-year averages, 1990-1999.

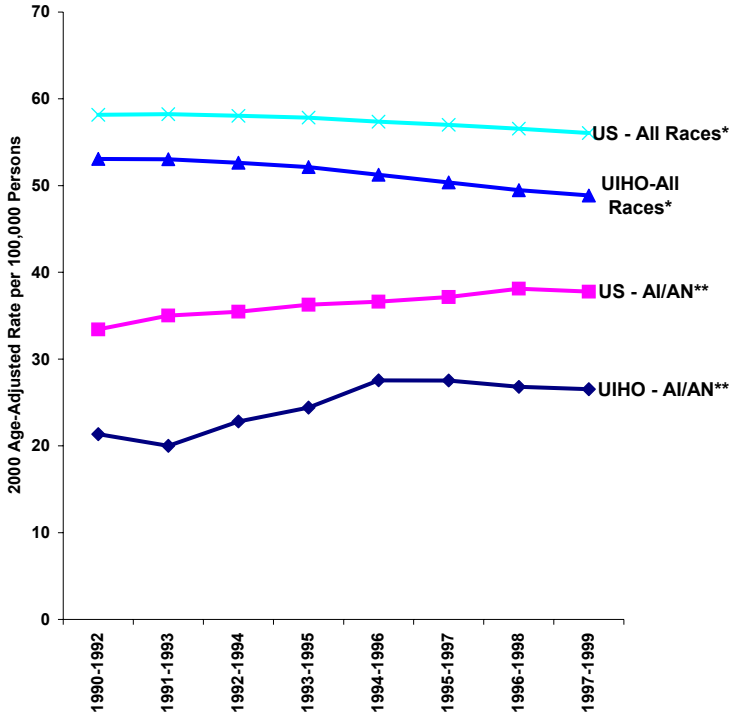


Notes: Results pertain to UIHO service areas with 10 or more AI/AN deaths due to cancer.
*Significant difference between rates for AI/AN and all races combined. Source: U.S. Centers for Health Statistics.

Lung Cancer Mortality

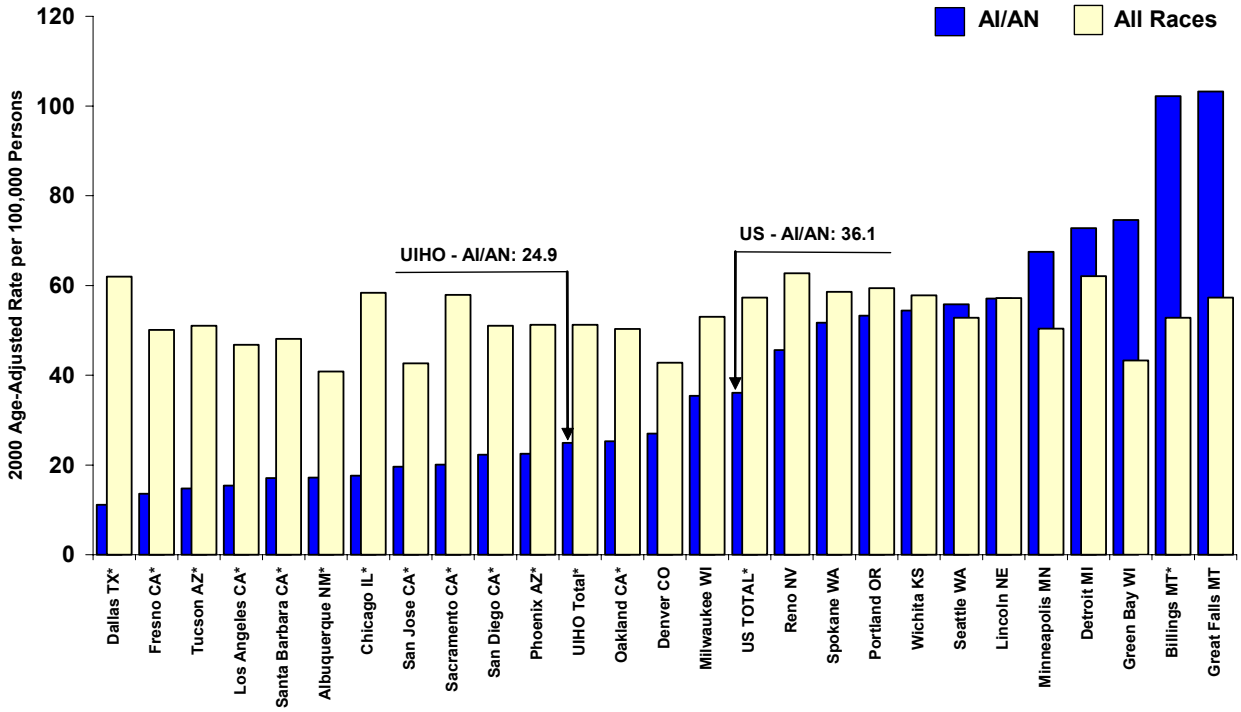
- Lung cancer mortality was the leading type of cancer among Indians living in the UIHO areas and nationwide.
- The average ten-year rates over the period from 1990 to 1999 among AI/AN living in the UIHO areas were lower than the rate for Indians nationwide (24.9 per 100,000 and 36.1 per 100,000, respectively). These rates were both significantly below the cancer mortality rates for all races (51.2 per 100,000 in UIHO areas and 57.3 per 100,000 nationwide) (Figure D-7 and Appendix D-1).
- Lung cancer mortality rates ranged from 15.4 per 100,000 in the Los Angeles CA area to 102.2 per 100,000 in the Billings MT area.
- Despite decreasing overall lung cancer rates both nationwide and in the UIHO areas, lung cancer among Indians in both urban organization areas and nationwide has increased (Figure D-8).

Figure D-8. Trends in lung cancer mortality, three-year averages, 1990-1999.



*Significant downward trend. ** Significant increasing trend.
Source: U.S. Centers for Health Statistics.

Figure D-7. Lung cancer mortality by service areas, ten-year average, 1990-1999.

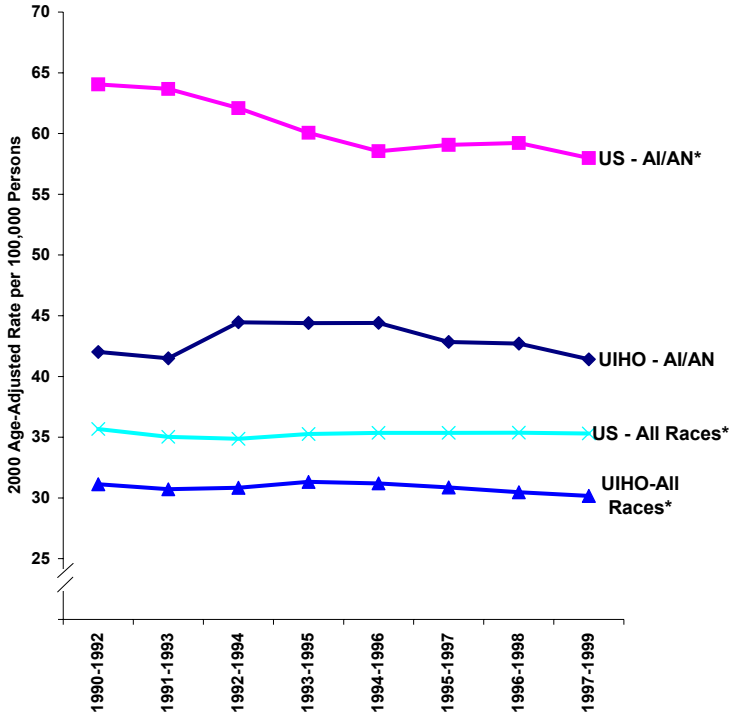


Notes: Results pertain to UIHO service areas with 10 or more AI/AN deaths due to lung cancer.
*Significant difference between rates for AI/AN and all races combined. Source: U.S. Centers for Health Statistics.

Unintentional Injury Mortality

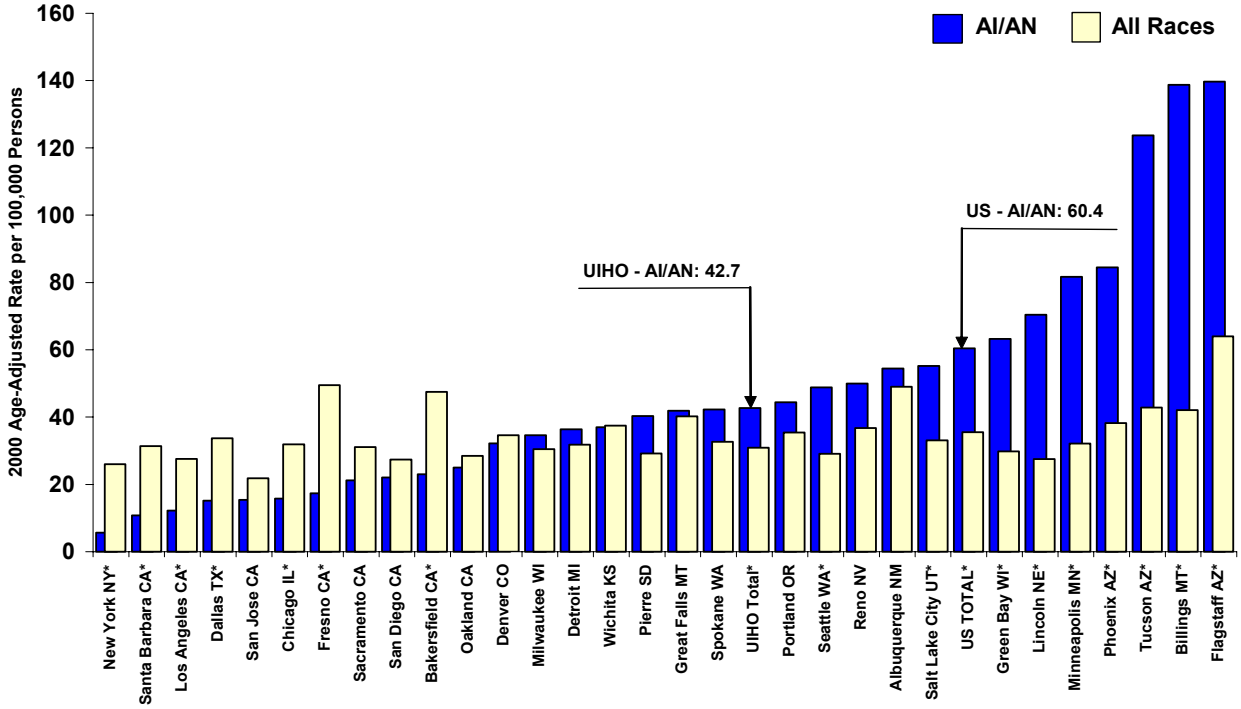
- Mortality due to accidents or unintentional injury was the 3rd leading cause of death among Indians living in UIHO areas.
- Despite underestimates resulting from misclassification of Indian race on death certificates, unintentional injury mortality among Indians in both the urban organization areas and nationwide (42.7 per 100,000 and 60.4 per 100,000, respectively) significantly exceeded the comparable overall rates (30.9 per 100,000 and 36.1 per 100,000, respectively). (Figure D-9 and Appendix D-1).
- Mortality rates ranged from 5.6 per 100,000 (New York NY) to 139.7 per 100,000 (Flagstaff AZ).
- During the 1990 to 1999 period, the rate of unintentional injury mortality decreased overall nationwide and in the urban organization areas and among Indians nationwide (Figure D-10).

Figure D-10. Trends in unintentional injury mortality, three-year averages, 1990-1999.



*Significant downward trend.
Source: U.S. Centers for Health Statistics.

Figure D-9. Unintentional injury mortality by service areas, ten-year averages, 1990-1999.

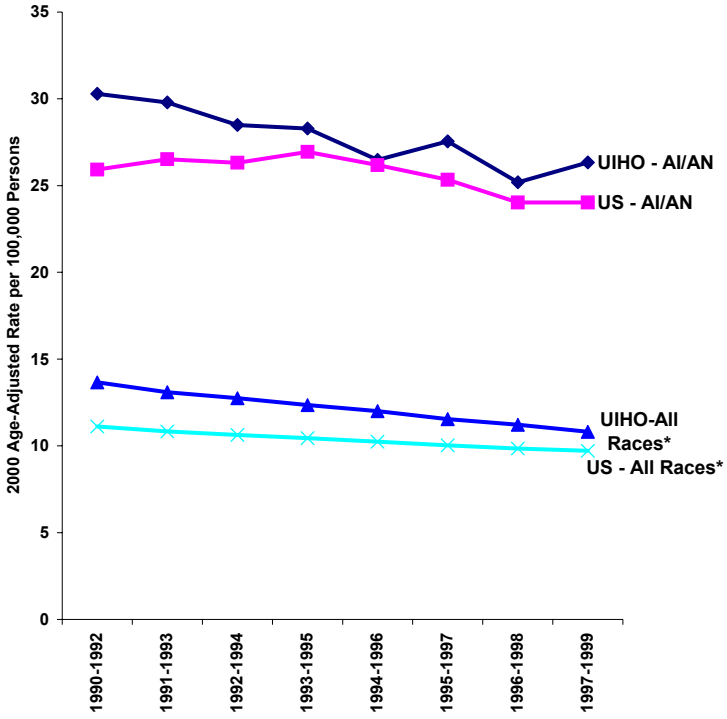


Notes: Results pertain to UIHO service areas with 10 or more AI/AN deaths due to unintentional injuries.
*Significant difference between rates for AI/AN and all races combined. Source: U.S. Centers for Health Statistics.

Chronic Liver Disease and Cirrhosis Mortality

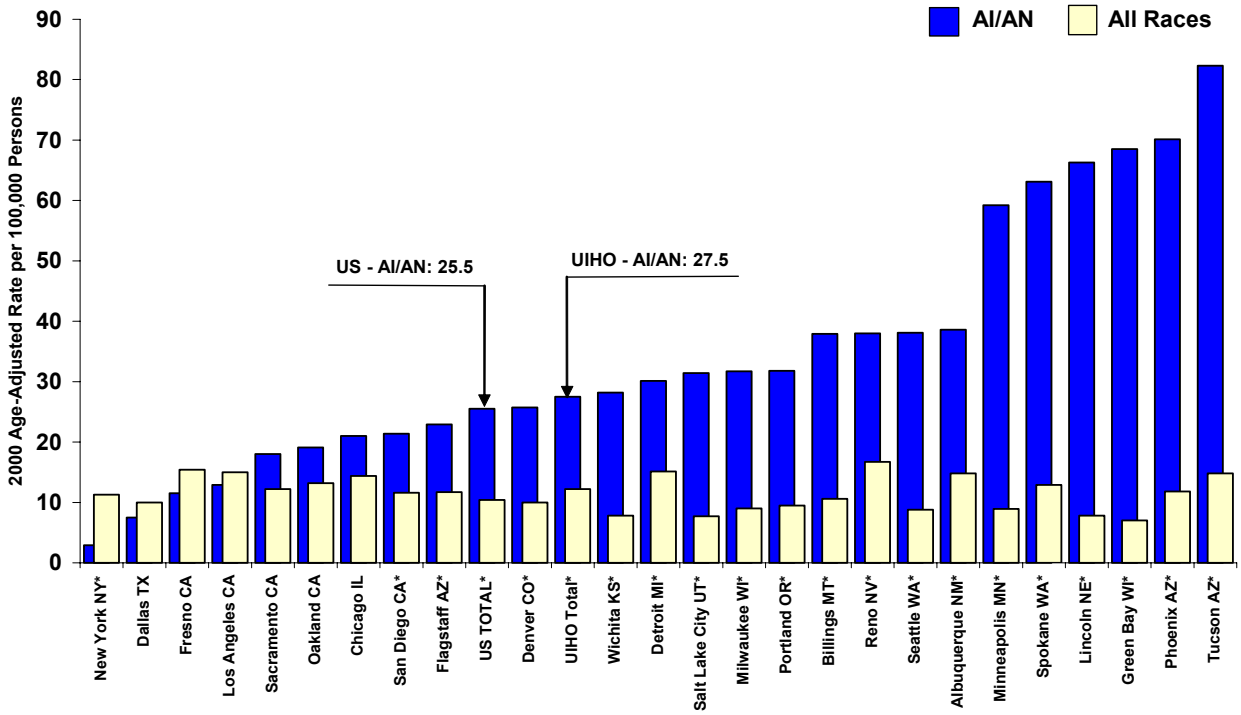
- Mortality due to chronic liver disease and cirrhosis was the 4th leading cause of death among Indians living in the urban organization areas.
- The mortality rate due to this condition over the period from 1990 to 1999 among Indians in UIHO areas was 27.5 per 100,000 and 25.5 per 100,000 nationwide. Both rates were significantly higher than the comparable all-race rates (12.2 per 100,000 and 10.4 per 100,000, respectively) (Figure D-11 and Appendix D-1).
- Mortality rates ranged by area from 2.9 per 100,000 in the New York NY area to 82.3 per 100,000 in the Tucson AZ area.
- Despite overall decreases nationwide and in the urban organization areas from 1990 to 1999, the rates of mortality among Indians have not changed significantly during this time period (Figure D-12).

Figure D-12. Trends in chronic liver disease mortality, three-year averages, 1990-1999.



*Significant downward trend.
Source: U.S. Centers for Health Statistics.

Figure D-11. Chronic liver disease mortality by service areas, ten-year average, 1990-1999.

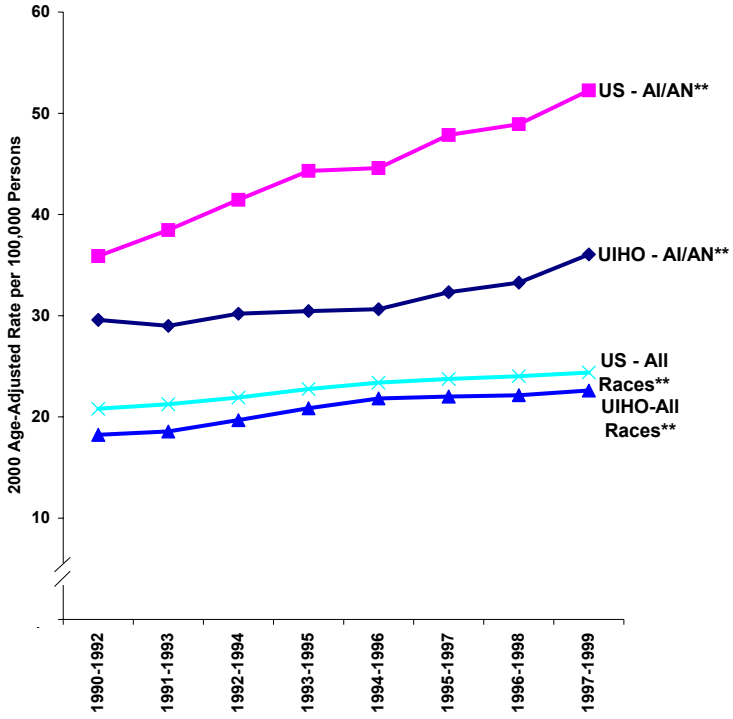


Notes: Results pertain to UIHO service areas with 10 or more AI/AN deaths due to chronic liver disease.
*Significant difference between rates for AI/AN and all races combined. Source: U.S. Centers for Health Statistics.

Diabetes Mortality

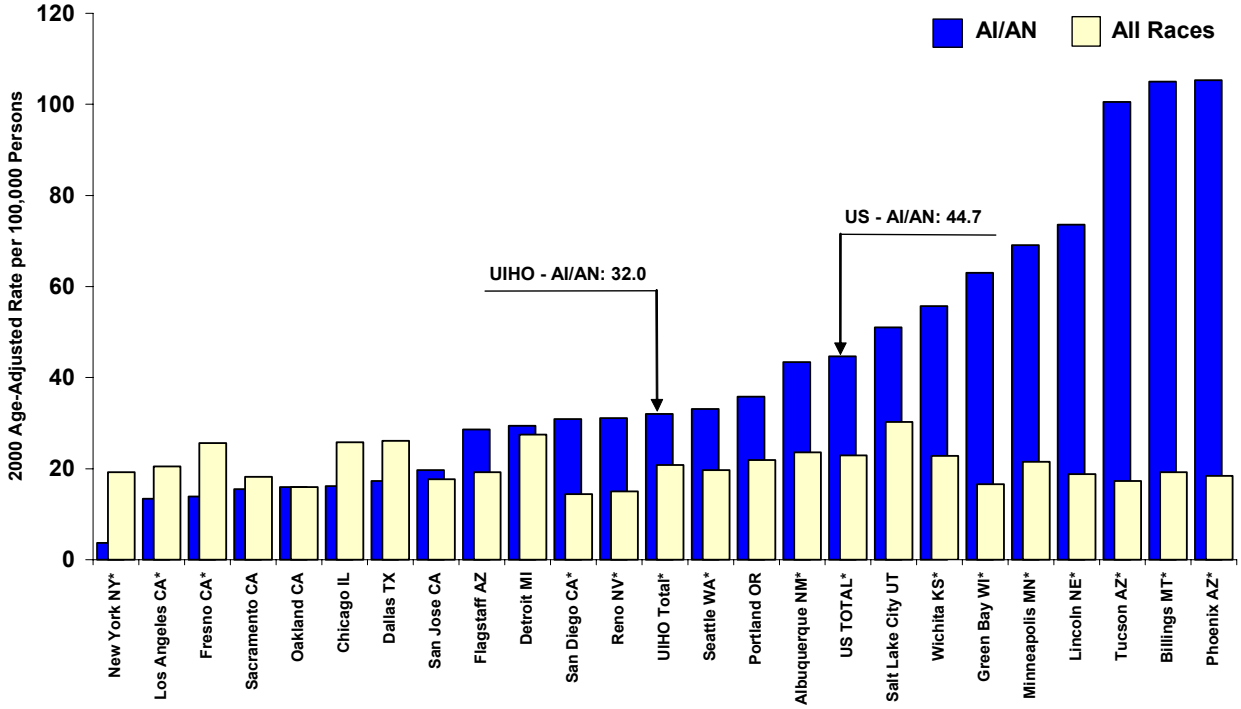
- Mortality due to diabetes mellitus was the 5th leading cause of death among Indians living in UIHO service areas.
- Over the period from 1990 to 1999 diabetes mortality among Indians in UIHO service areas and nationwide (32.0 and 44.7 per 100,000, respectively) was significantly higher than among the general population (20.8 and 22.9 per 100,000, respectively) (Figure D-13 and Appendix D-1).
- The Indian diabetes mortality rates varied substantially by organization area ranging from a low of 3.7 per 100,000 in the New York NY to 105.3 per 100,000 in the Phoenix AZ area.
- While a significant increase in diabetes mortality is evident in both UIHO areas and nationwide, diabetes mortality is increasing at a faster rate among AI/AN than among the general population (Figure D-14).

Figure D-14. Trends in diabetes mortality, three-year averages, 1990-1999.



** Significant increasing trend.
Source: U.S. Centers for Health Statistics.

Figure D-13. Diabetes mortality by service areas, ten-year average, 1990-1999.

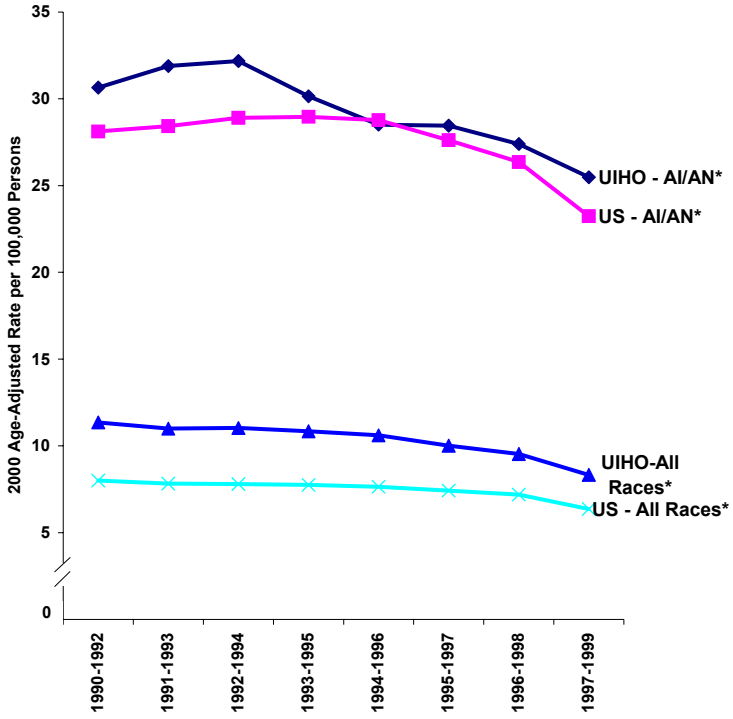


Notes: Results pertain to UIHO service areas with 10 or more AI/AN deaths due to diabetes.
*Significant difference between rates for AI/AN and all races combined. Source: U.S. Centers for Health Statistics.

Alcohol-Related Mortality

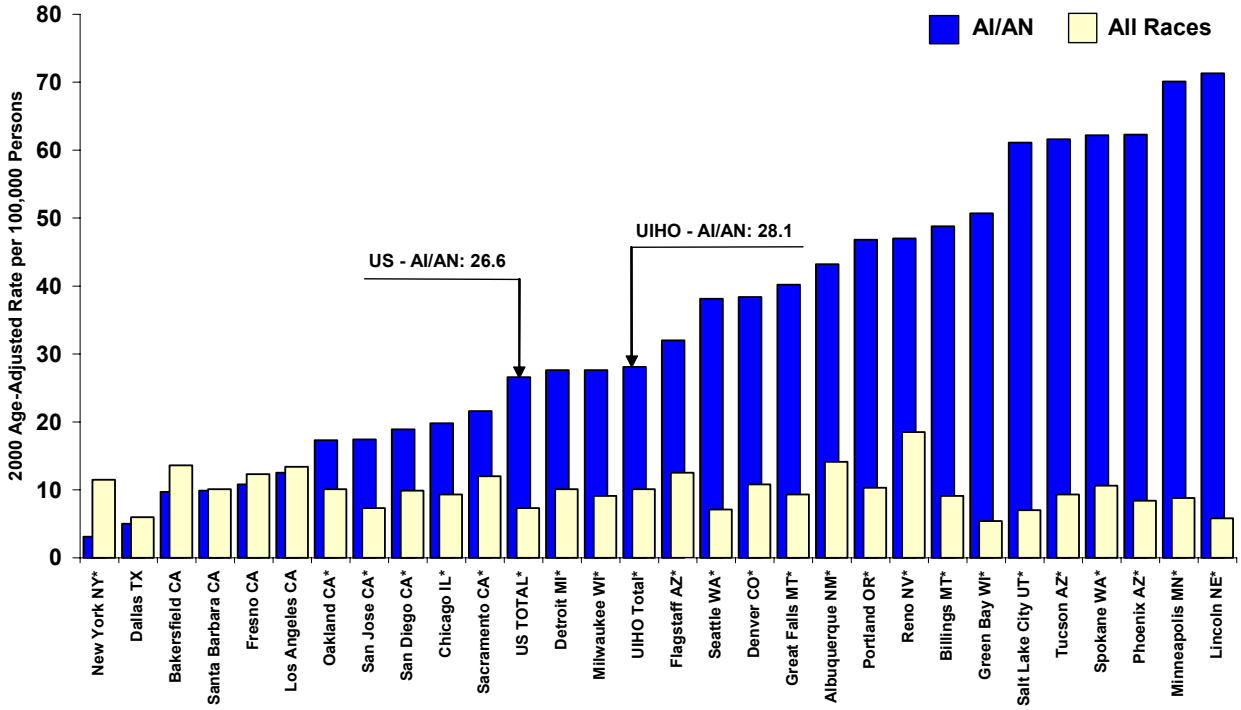
- Alcohol-related mortality includes causes of death that are likely to be associated with alcohol misuse. From 1990 to 1999, Indians living in UIHO service areas and nationwide had significantly higher rates of alcohol-related mortality (28.1 and 26.6 per 100,000, respectively) than the general population (10.1 and 7.3 per 100,000, respectively) (Figure D-15 and Appendix D-1).
- By area, alcohol-related mortality ranged from 3.1 per 100,000 in the New York NY area to 71.3 in the Lincoln NE area.
- Alcohol-related mortality has decreased over the time period from 1990 to 1999 both among Indians and the general population (Figure D-16). However, some of the decrease in mortality in this category may be offset with the significant increase in drug-related mortality that has also occurred over this time period (Appendix D-1).

Figure D-16. Trends in alcohol-related mortality, three-year averages, 1990-1999.



*Significant downward trend.
Source: U.S. Centers for Health Statistics.

Figure D-15. Alcohol-related mortality by service areas, ten-year averages, 1990-1999.



Notes: Results pertain to UIHO service areas with 10 or more AI/AN deaths due to alcohol-related causes.
*Significant difference between rates for AI/AN and all races combined. Source: U.S. Centers for Health Statistics.

Age-Specific Mortality

Age-specific mortality for Indians living in UIHO service areas and nationally is detailed in Appendix D-2.

- With the exception of children age one to 14, age-specific mortality for Indians living in UIHO areas is lower than corresponding rates for the general population. These differences are likely due to misclassification of Indian race on death certificates.
- Among Indian children ages one to 14, the UIHO area rate is nearly the same as the corresponding rate for children of all races living in these areas.
- For all age groups examined, the UIHO area rates among AI/AN in each of the age specific groups were lower than the rates for all Indians nationwide.

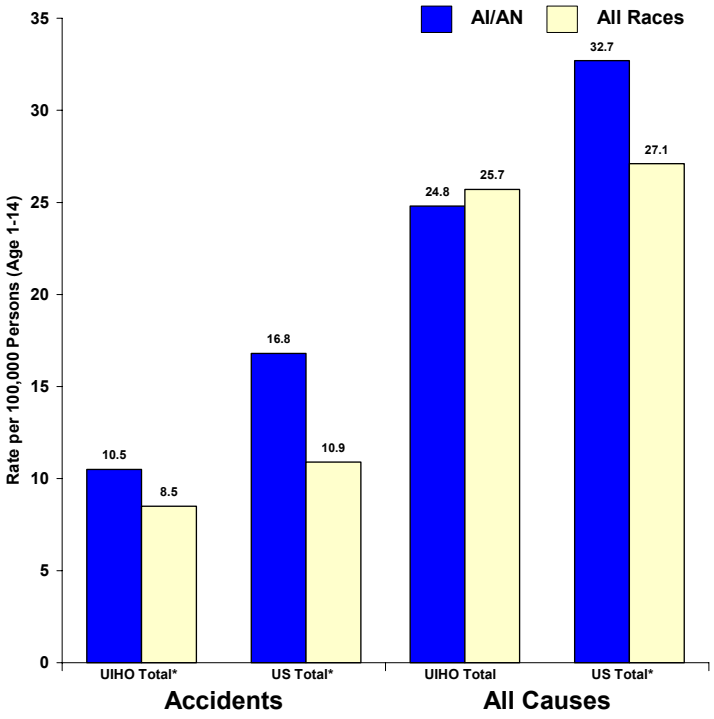
Ages One to 14 Years

- The leading cause of death among Indian children who were one to 14 years in age and living in urban organization areas was accidents or unintentional injury. The rate of death among these children was significantly higher than for the general population (10.5 and 8.5 per 100,000, respectively) (Figure D-17).

Ages 15 to 24 Years

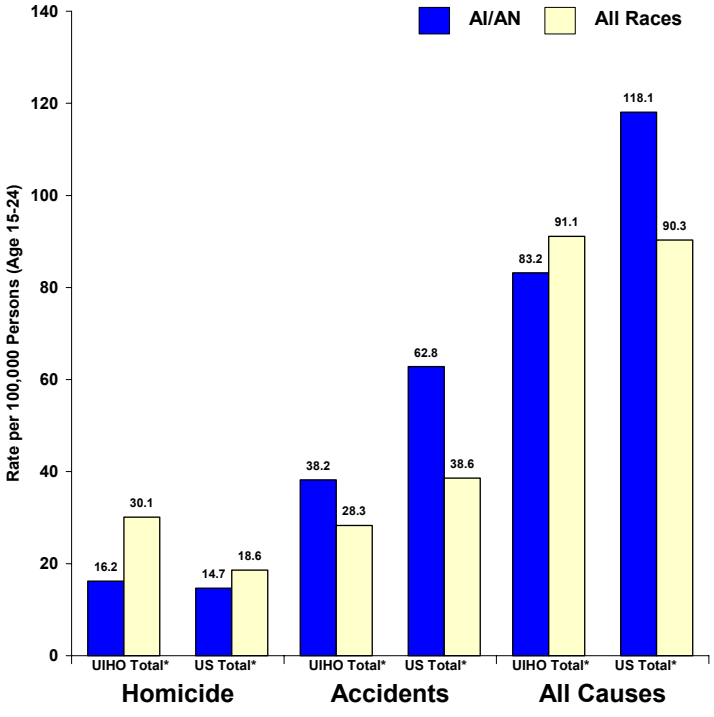
- In the urban organization areas, the leading cause of death among teenagers and young adults ages 15 to 24 was accidents, which occurred at a rate significantly higher than the rate for all teens and young adults in this age group (38.2 and 28.3 per 100,000, respectively) (Figure D-18).
- Homicide, the second leading cause of death among AI/AN was significantly lower than the corresponding rate for all races combined (16.2 and 30.1 per 100,000, respectively).

Figure D-17. Mortality among persons ages one to 14 years, ten-year averages, 1990-1999.



*Significant difference between rates for AI/AN and all races combined.
Source: U.S. Centers for Health Statistics.

Figure D-18. Mortality among persons ages 15 to 24 years, ten-year averages, 1990-1999.

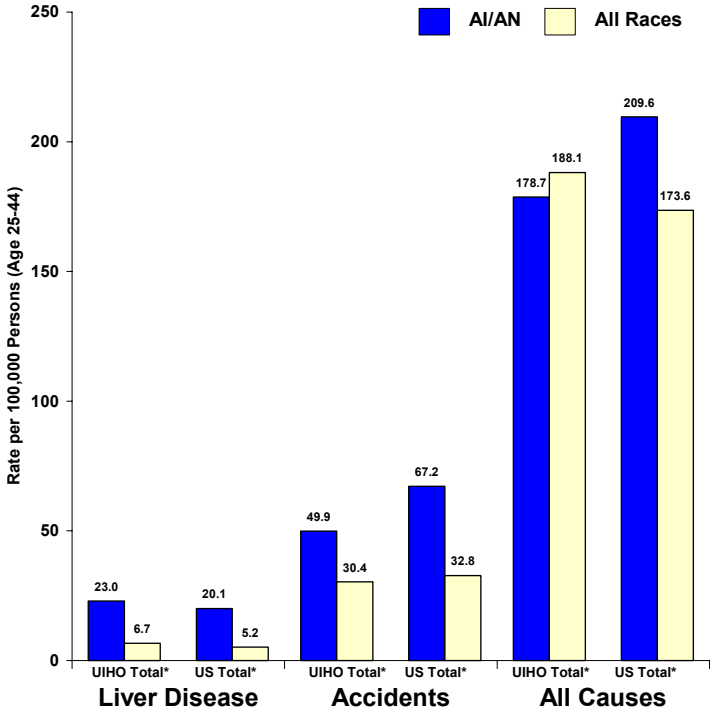


*Significant difference between rates for AI/AN and all races combined.
Source: U.S. Centers for Health Statistics.

Ages 25 to 44 Years

- Among Indians age 25 to 44 living in the urban organization areas, accidents and liver disease were the first and second leading causes of death, respectively. In both instances, the AI/AN rates were higher than the corresponding general population rates for these ages (Figure D-19).

Figure D-19. Mortality among persons ages 25 to 44 years, ten-year average, 1990-1999.

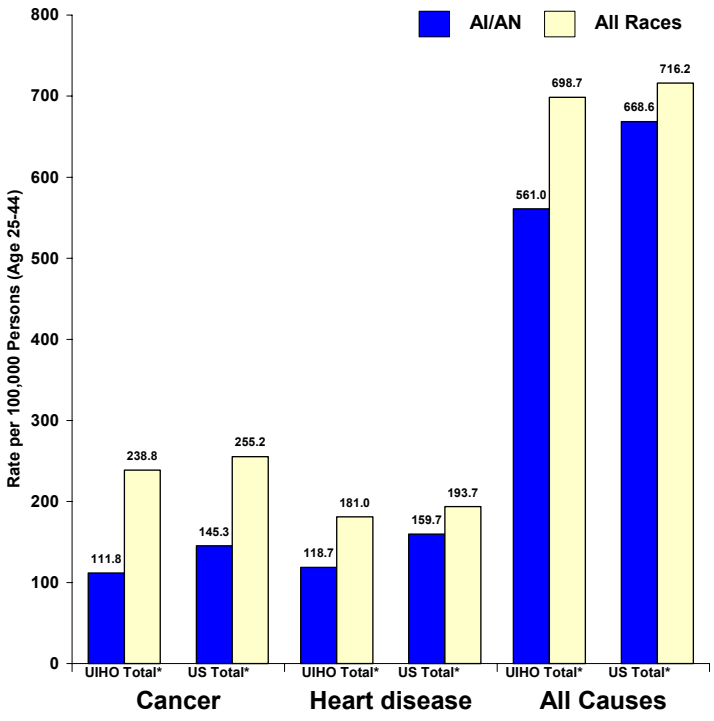


*Significant difference between rates for AI/AN and all races combined.
Source: U.S. Centers for Health Statistics.

Ages 45 to 64 Years

- Heart disease and cancer were the first and second leading causes of death among Indians age 45 to 64 living in the urban organization areas. Mortality rates for both of these causes of death, however, were significantly lower the corresponding rates for this age group with all races are combined (Figure D-20).

Figure D-20. Mortality among persons ages 45 to 64 years, ten-year averages, 1990-1999.

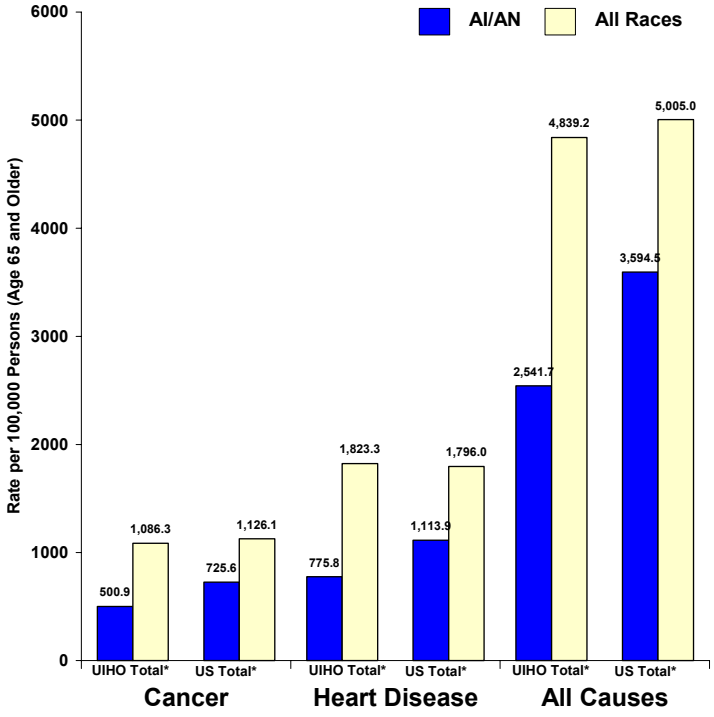


*Significant difference between rates for AI/AN and all races combined.
Source: U.S. Centers for Health Statistics.

Ages 65 Years and Older

- Similar to Indians ages 46 to 64 living in UIHO areas, the first and second leading causes of death were heart disease and cancer, respectively. In both cases the rates were significantly below the corresponding general rates for persons in this age group living in these areas (Figure D-21).

Figure D-21. Mortality among persons ages 65 years and older, 1990-1999.



*Significant difference between rates for AI/AN and all races combined.
Source: U.S. Centers for Health Statistics.

E. Summary and Recommendations

This assessment documents SES and health indicators from census and selected vital record sources demonstrating both progress toward better health among Indians living in UIHO areas, and also the existence and continuation of substantial health disparities when compared to the general population.

From census data, significant disparities are evident with respect to rates of poverty, disability status, and other socioeconomic indicators (i.e., educational attainment, employment status, and single-parent status). These disparities are likely to put Indians at a disadvantage with respect to better health and health care access compared to the general population. These disparities are also generally consistent for AI/AN living in any of the 34 UIHO areas, although rates may differ considerably from one area to the next.

Although there is a large degree of consistency in disparities with respect to SES and disability status measures across UIHO service areas, these disparities are in many cases not reflected in currently available mortality and natality data. This discrepancy is most likely due to miscoding of AI/AN race on vital records such as birth and death certificates.

Improvements in data collection pertaining to AI/AN race are urgently needed to better understand the true health status of Indians living both in urban areas and nationwide. These improvements are particularly needed in light of national efforts to eliminate health disparities among Indians and other racial groups by the year 2010.[viii] Without accurate data, it is not possible to assess the true need for programs to address existing health disparities. In the case of mortality data, misclassification of AI/AN race on death certificates is likely to be so large that many disparities go undetected and unmonitored. Improvement in data quality is not evident for the time periods analyzed.

Based on this assessment, several improvements in data collection and analysis may be helpful in future assessments of the health status of Indians living in UIHO service areas and Indians living in urban areas in general:

- Additional and new studies are needed to understand why mortality rates for Indians living in some urban areas are substantially below that of the general population. Some possible factors that may contribute to this effect include: 1) miscoding of AI/AN race on birth and death certificates; 2) existing population bridging methods may have inadvertently produced population estimates which may be inaccurate in some areas; and 3) rates may also reflect some degree of reality if substantial numbers of Indians living in some urban areas return to their reservations for health services available through the Indian Health Service or to be with family and other tribal members during periods of illness or at the end of life.
- Health departments in areas where miscoding on death certificates appears to be extremely high should be encouraged to conduct call back or other types of surveys to determine local rates of misclassification. In addition, these programs need to work more closely with persons and agencies completing death certificates to ensure accurate coding on these forms. Benchmarks need to be established and improvements in coding need to be monitored over time to ensure progress.
- Due to smaller populations or numbers of events in some areas, creation of grouped areas or regions may be helpful to ensure that relevant data are available for all areas. With respect to combined infant mortality and natality, data for counties with less than 250,000 persons are needed to improve the availability of estimates for all UIHO areas.
- Until issues with racial misclassification are resolved to a point where these data are more reliable, creation of natality and mortality estimates adjusted to reflect socioeconomic characteristics of areas may be helpful, particularly in areas where misclassification may be very high and estimates are correspondingly unrealistic.
- Future studies of the health status of Indians living in UIHO service area and of Urban Indians also need to include assessments of other sources of data reflecting health behaviors and social determinants of health (such as economic opportunity, daily stress, discrimination when seeking health services, mental health, trust or confidence in the health care system, language or other cultural factors). All of these factors and many others influence an individual's health outlook and need to be considered when developing strategies to improve the health of American Indians and Alaska Natives and other populations.

F. References

[i] U.S. National Center for Health Statistics. Age adjustment using the 2000 projected U.S. population. *Statistical Notes*. 2001 (Number 20).
[ii] U.S. National Center for Health Statistics. United States Census 2000 Populations with Bridged Race Categories" (Series 2, No. 135). 2003
[iii] U.S. National Center for Health Statistics. Quality of death rates by race and Hispanic origin: a summary of current research, *Vital and Health Statistics*. 1999. (Series 2, No. 128)
[iv] U.S. Indian Health Service. Adjusting for miscoding of Indian race on state death certificates, November 1996.
[v] U.S. Nation Center for Health Statistics. Comparability of cause of death between ICD-9 and ICD-10: preliminary estimates. *National Vital Statistics Reports* . 2001. 49 (2).
[vi] http://www.vistaphw.net and http://www.doh.wa.gov/OS/Vista/HOMEPAGE.HTM
[vii] U.S. Census Bureau. Technical Documentation: Census 2000 Summary File 3, 2002 (Data Note 4).
[viii] http://www.healthypeople.gov

Appendix A-1. Urban Indian Health Organizations, by city location and service area counties

Urban Organization Name	Location by City and State	Service Area Counties	Service Area Counties (pop. > 250,000 in 1990)
First Nations Community Health Source	Albuquerque, NM	Bernalillo	Bernalillo
Bakersfield American Indian Health Project	Bakersfield, CA	Kern	*
Indian Health Board of Billings, Inc.	Billings, MT	Big Horn and Yellowstone	*
North American Indian Alliance	Butte, MT	Silver Bow	*
American Indian Health Services of Chicago, Inc.	Chicago, IL	Cook	Cook
Urban Inter-Tribal Center	Dallas, TX	Collin, Dallas, Denton, Ellis, Hood, Johnson, Kaufman, Parker, Rockwall, Tarrant and Wise	Collin, Dallas, Denton and Tarrant
Denver Indian Health and Family Services	Denver, CO	Adams, Arapahoe, Boulder, Denver, Douglas, Gilpin and Jefferson	Adams, Arapahoe, Denver and Jefferson
American Indian Health and Family Services	Detroit, MI	Genesee, Ingham, Kent and Wayne	Genesee, Ingham, Kent and Wayne
Native Americans for Community Action	Flagstaff, AZ	Coconino	
Fresno Indian Health Association	Fresno, CA	Fresno, Madera and Tulare	Fresno and Tulare
Indian Family Health Center	Great Falls, MT	Cascade	*
United Amerindian Health Center, Inc.	Green Bay, WI	Brown and Door	*
Helena Indian Alliance	Helena, MT	Jefferson, and Lewis & Clark	*
North American Indian Center of Boston, Inc.	Jamaica Plains, MA	Suffolk	Suffolk
Nebraska Urban Indian Health Coalition	Lincoln, NE	Douglas, Lancaster, Sarpy, Washington (NE) and Woodbury (IA)	Douglas
United American Indian Involvement Inc	Los Angeles, CA	Los Angeles	Los Angeles
Gerald L. Ignace Indian Health Center, Inc.	Milwaukee, WI	Milwaukee and Waukesha	Milwaukee and Waukesha
Indian Health Board of Minneapolis	Minneapolis, MN	Hennepin and Ramsey	Hennepin and Ramsey
Missoula Indian Center	Missoula, MT	Missoula	*
American Indian Community House	New York, NY	Bronx, Essex, Kings, Nassau, New York, Queens, Richmond and Westchester	Bronx, Kings, Nassau, New York, Queens, Richmond and Westchester
Native American Health Center	Oakland, CA	Alameda, Contra Costa, Marin, San Francisco and San Mateo	Alameda, Contra Costa, San Francisco and San Mateo
Native American Community Health Center	Phoenix, AZ	Maricopa	Maricopa
South Dakota Urban Indian Health, Inc.	Pierre, SD	Brown, Hughes, Minnehaha and Stanley	*
Native American Rehabilitation Assoc. of the NW, Inc.	Portland, OR	Clackamas, Multnomah, Washington (OR) and Clark (WA)	Clackamas, Multnomah, Washington (OR)
Nevada Urban Indian, Inc.	Reno, NV	Carson City, Churchill, Douglas, Storey and Washoe	Washoe
Sacramento Urban Indian Health Project, Inc.	Sacramento, CA	Sacramento	Sacramento
Indian Walk-In Center	Salt Lake City, UT	Davis, Salt Lake, Tooele, Utah and Weber	Salt Lake and Utah
San Diego American Indian Health Center	San Diego, CA	San Diego	San Diego
Indian Health Center of Santa Clara Valley, Inc	San Jose, CA	Santa Clara	Santa Clara
American Indian Health & Services	Santa Barbara, CA	San Luis Obispo, Santa Barbara, and Ventura	Santa Barbara and Ventura
Seattle Indian Health Board	Seattle, WA	King	King
N.A.T.I.V.E. Project	Spokane, WA	Spokane	Spokane
Inter-Tribal Health Care Center	Tucson, AZ	Pima	Pima
Hunter Health Clinic	Witchita, KS	Butler, Reno, Sedgwick and Sumner	Sedgwick

* No service area counties had populations greater than 250,000 in 1990.

Appendix B-1. Population of American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990 and 2000

Health Organization Service Area	1990 Census AI/AN alone	1990 Census % of All Race Total	1990 Census All Race Total	2000 Census AI/AN alone	2000 Census % of All Race Total	2000 Census AI/AN alone or w/other races	2000 Census % of All Race Total	2000 Bridged Race* AI/AN alone	2000 Bridged Race* Difference (Census-Bridged)	2000 Bridged Race* % of All Race Total	2000 All Race Total
US TOTAL	1,959,234	0.8%	248,709,873	2,475,956	0.9%	4,119,301	1.5%	2,995,603	519,647	1.1%	**281,421,906**
UIHO Total	438,506	0.8%	56,733,125	589,283	0.9%	1,030,579	1.6%	794,445	205,162	1.2%	**66,066,846**
Albuquerque NM	16,296	3.4%	480,577	23,175	4.2%	28,857	5.2%	26,514	3,339	4.8%	**556,678**
Bakersfield CA	7,026	1.3%	543,477	9,999	1.5%	17,399	2.6%	13,519	3,520	2.0%	**661,645**
Billings MT	9,524	7.6%	124,756	11,510	8.1%	13,143	9.3%	12,238	728	8.6%	**142,023**
Butte MT	520	1.5%	33,941	704	2.0%	1,021	3.0%	839	135	2.4%	**34,606**
Chicago IL	10,289	0.2%	5,105,067	15,496	0.3%	33,941	0.6%	24,367	8,871	0.5%	**5,376,741**
Dallas TX	19,336	0.5%	3,949,075	29,037	0.6%	55,809	1.1%	37,044	8,007	0.7%	**5,120,721**
Denver CO	11,492	0.8%	1,412,959	21,358	0.9%	39,606	1.6%	28,682	7,324	1.2%	**2,405,327**
Detroit MI	15,877	0.5%	3,324,689	14,568	0.4%	36,817	1.1%	20,533	5,965	0.6%	**3,350,958**
Flagstaff AZ	28,233	29.2%	96,591	33,161	28.5%	34,579	29.7%	34,642	1,481	29.8%	**116,320**
Fresno CA	12,529	1.2%	1,067,501	21,739	1.7%	34,732	2.7%	29,994	8,255	2.3%	**1,290,537**
Great Falls MT	3,072	4.0%	77,691	3,394	4.2%	4,555	5.7%	3,782	388	4.7%	**80,357**
Green Bay WI	4,047	1.8%	220,284	5,374	2.1%	6,798	2.7%	5,885	511	2.3%	**254,739**
Helena MT	1,177	2.1%	55,434	1,264	1.9%	1,945	3.0%	1,470	206	2.2%	**65,765**
Jamaica Plains MA	2,087	0.3%	663,906	2,689	0.4%	6,054	0.9%	4,002	1,313	0.6%	**689,807**
Lincoln NE	5,823	0.7%	847,551	6,714	0.7%	11,543	1.2%	8,270	1,556	0.9%	**959,128**
Los Angeles CA	45,508	0.5%	8,863,164	76,988	0.8%	138,696	1.5%	120,262	43,274	1.3%	**9,519,338**
Milwaukee WI	7,666	0.6%	1,263,990	7,582	0.6%	13,640	1.0%	9,737	2,155	0.7%	**1,300,931**
Minneapolis MN	19,421	1.3%	1,518,196	15,384	0.9%	26,021	1.6%	19,003	3,619	1.2%	**1,627,235**
Missoula MT	1,818	2.3%	78,687	2,193	2.3%	3,243	3.4%	2,590	397	2.7%	**95,802**
New York NY	30,672	0.3%	9,521,930	45,866	0.4%	98,922	1.0%	78,879	33,013	0.8%	**10,305,132**
Oakland CA	21,462	0.6%	3,686,592	22,635	0.5%	57,262	1.4%	33,130	10,495	0.8%	**4,123,740**
Phoenix AZ	38,017	1.8%	2,122,101	56,706	1.8%	75,867	2.5%	69,897	13,191	2.3%	**3,072,149**
Pierre SD	994	6.7%	14,817	5,282	2.6%	6,425	3.2%	5,666	384	2.8%	**202,994**
Portland OR	6,734	1.2%	583,887	15,024	0.8%	32,460	1.8%	19,989	4,965	1.1%	**1,789,457**

Source: 1990 and 2000 U.S. Census

Appendix B-1. Population of American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990 and 2000

	1990 Census			2000							
				Census				Bridged Race*			
Health Organization Service Area	AI/AN alone	% of All Race Total	All Race Total	AI/AN alone	% of All Race Total	AI/AN alone or w/other races	% of All Race Total	AI/AN alone	Difference (Census-Bridged)	% of All Race Total	All Race Total
Reno NV	7,543	2.2%	343,211	9,308	2.0%	13,345	2.9%	10,862	1,554	2.4%	**460,583**
Sacramento CA	12,068	1.2%	1,041,219	13,359	1.1%	30,649	2.5%	18,469	5,110	1.5%	**1,223,499**
Salt Lake City UT	10,641	0.8%	1,362,418	13,681	0.8%	21,575	1.2%	16,816	3,135	1.0%	**1,743,185**
San Diego CA	20,066	0.8%	2,498,016	24,337	0.9%	46,177	1.6%	33,072	8,735	1.2%	**2,813,833**
San Jose CA	9,269	0.6%	1,497,577	11,350	0.7%	22,648	1.3%	16,864	5,514	1.0%	**1,682,585**
Santa Barbara CA	10,463	0.8%	1,255,786	14,225	1.0%	27,234	1.9%	20,681	6,456	1.5%	**1,399,225**
Seattle WA	17,305	1.1%	1,507,319	15,922	0.9%	33,022	1.9%	20,247	4,325	1.2%	**1,737,034**
Spokane WA	5,539	1.5%	361,364	5,847	1.4%	10,212	2.4%	6,866	1,019	1.6%	**417,939**
Tucson AZ	20,330	3.0%	666,880	27,178	3.2%	33,910	4.0%	31,653	4,475	3.8%	**843,746**
Wichita KS	5,662	1.0%	542,472	6,234	1.0%	12,472	2.1%	7,981	1,747	1.3%	**603,087**

Source: 1990 and 2000 U.S. Census

Appendix B-2. Population of American Indians and Alaska Natives (AI/AN) living in U.S. Census Defined Urban Areas within Urban Indian Health Organization service area counties (UIHO), 2000

	2000					
Health Organization Service Area	Estimated AI/AN alone urban population	% of AI/AN alone urban Populatin	Total AI/AN alone population	Estimated AI/AN alone or w/other races urban population	% of AI/AN alone or w/other races urban population	Total AI/AN alone or w/other races population
US TOTAL	1,504,379	60.8%	**2,475,956**	2,819,854	68.5%	**4,119,301**
UIHO Total	518,135	87.9%	**589,283**	941,418	91.3%	**1,030,579**
Albuquerque NM	20,847	90.0%	**23,175**	26,239	90.9%	**28,857**
Bakersfield CA	8,851	88.5%	**9,999**	15,080	86.7%	**17,399**
Billings MT	4,670	40.6%	**11,510**	5,949	45.3%	**13,143**
Butte MT	670	95.2%	**704**	918	89.9%	**1,021**
Chicago IL	15,496	100.0%	**15,496**	33,941	100.0%	**33,941**
Dallas TX	25,731	88.6%	**29,037**	49,575	88.8%	**55,809**
Denver CO	20,577	96.3%	**21,358**	38,175	96.4%	**39,606**
Detroit MI	13,732	94.3%	**14,568**	34,897	94.8%	**36,817**
Flagstaff AZ	15,487	46.7%	**33,161**	16,538	47.8%	**34,579**
Fresno CA	17,141	78.8%	**21,739**	27,941	80.4%	**34,732**
Great Falls MT	3,113	91.7%	**3,394**	4,076	89.5%	**4,555**
Green Bay WI	4,347	80.9%	**5,374**	5,596	82.3%	**6,798**
Helena MT	766	60.6%	**1,264**	1,227	63.1%	**1,945**
Jamaica Plains MA	2,689	100.0%	**2,689**	6,054	100.0%	**6,054**
Lincoln NE	6,504	96.9%	**6,714**	11,253	97.5%	**11,543**
Los Angeles CA	76,309	99.1%	**76,988**	137,242	99.0%	**138,696**
Milwaukee WI	7,476	98.6%	**7,582**	13,403	98.3%	**13,640**
Minneapolis MN	15,338	99.7%	**15,384**	25,911	99.6%	**26,021**
Missoula MT	1,658	75.6%	**2,193**	2,467	76.1%	**3,243**
New York NY	45,709	99.7%	**45,866**	98,502	99.6%	**98,922**
Oakland CA	22,312	98.6%	**22,635**	56,359	98.4%	**57,262**
Phoenix AZ	49,700	87.6%	**56,706**	67,977	89.6%	**75,867**
Pierre SD	4,538	85.9%	**5,282**	5,521	85.9%	**6,425**
Portland OR	13,847	92.2%	**15,024**	29,748	91.6%	**32,460**

Source: 2000 U.S. Census

Appendix B-2. Population of American Indians and Alaska Natives (AI/AN) living in U.S. Census Defined Urban Areas within Urban Indian Health Organization service area counties (UIHO), 2000

	2000					
Health Organization Service Area	Estimated AI/AN alone urban population	% of AI/AN alone urban Populatin	Total AI/AN alone population	Estimated AI/AN alone or w/other races urban population	% of AI/AN alone or w/other races urban population	Total AI/AN alone or w/other races population
Reno NV	6,877	73.9%	**9,308**	10,701	80.2%	**13,345**
Sacramento CA	12,951	96.9%	**13,359**	29,734	97.0%	**30,649**
Salt Lake City UT	13,222	96.6%	**13,681**	20,774	96.3%	**21,575**
San Diego CA	20,147	82.8%	**24,337**	40,979	88.7%	**46,177**
San Jose CA	11,297	99.5%	**11,350**	22,447	99.1%	**22,648**
Santa Barbara CA	13,596	95.6%	**14,225**	25,727	94.5%	**27,234**
Seattle WA	14,788	92.9%	**15,922**	31,457	95.3%	**33,022**
Spokane WA	5,469	93.5%	**5,847**	9,335	91.4%	**10,212**
Tucson AZ	18,435	67.8%	**27,178**	24,705	72.9%	**33,910**
Wichita KS	5,298	85.0%	**6,234**	10,520	84.3%	**12,472**

Source: 2000 U.S. Census

Appendix B-3. Percent of American Indians and Alaska Natives (AI/AN) with household incomes below poverty living in Urban Indian Health Organization service area counties (UIHO), 1990 and 2000

Health Organization Service Area	1990						2000								
	AI/AN alone			All Races			AI/AN alone			AI/AN alone or w/other races			All Races		
	Children (<18)	Adults (18 and older)	Total	Children (<18)	Adults (18 and older)	Total	Children (<18)	Adults (18 and older)	Total	Children (<18)	Adults (18 and older)	Total	Children (<18)	Adults (18 and older)	Total
US TOTAL	38.8%	26.8%	30.9%	**18.3%**	**11.3%**	**13.1%**	31.6%	22.7%	25.7%	27.1%	19.5%	22.0%	**16.6%**	**5.0%**	**12.4%**
UIHO Total	36.8%	24.1%	28.1%	**19.6%**	**11.4%**	**13.5%**	30.1%	21.2%	24.1%	25.6%	18.2%	20.6%	**18.4%**	**5.5%**	**13.5%**
Albuquerque NM	32.9%	28.4%	30.0%	**20.0%**	**12.6%**	**14.6%**	30.9%	23.6%	25.8%	28.1%	22.6%	24.4%	**18.4%**	**5.6%**	**13.7%**
Bakersfield CA	28.9%	15.1%	18.5%	**24.8%**	**13.3%**	**16.9%**	30.0%	22.1%	24.6%	26.2%	18.5%	21.0%	**28.2%**	**7.9%**	**20.8%**
Billings MT	55.4%	44.8%	49.4%	**18.6%**	**12.5%**	**14.2%**	45.8%	32.7%	38.2%	43.9%	32.2%	37.1%	**17.7%**	**5.0%**	**12.7%**
Butte MT	67.9%	32.2%	42.5%	**19.4%**	**13.1%**	**14.7%**	88.4%	44.9%	55.9%	67.4%	38.3%	45.9%	**19.5%**	**6.4%**	**14.9%**
Chicago IL	24.6%	17.5%	19.4%	**22.3%**	**11.5%**	**14.2%**	28.4%	17.7%	21.0%	22.4%	15.4%	17.5%	**19.3%**	**5.3%**	**13.5%**
Dallas TX	17.5%	14.5%	15.3%	**15.7%**	**10.2%**	**11.7%**	17.9%	11.9%	13.5%	16.2%	11.2%	12.7%	**14.2%**	**4.2%**	**10.7%**
Denver CO	34.1%	22.0%	25.4%	**14.9%**	**9.9%**	**11.2%**	23.4%	16.3%	18.2%	17.4%	13.4%	14.6%	**10.1%**	**3.4%**	**8.2%**
Detroit MI	39.1%	25.5%	29.7%	**26.1%**	**14.5%**	**17.7%**	20.0%	17.0%	17.9%	23.5%	16.8%	18.8%	**20.0%**	**5.7%**	**14.5%**
Flagstaff AZ	47.2%	43.7%	45.3%	**26.8%**	**21.3%**	**23.1%**	36.6%	28.9%	32.1%	35.8%	28.8%	31.7%	**22.7%**	**7.6%**	**18.2%**
Fresno CA	37.6%	17.9%	24.2%	**32.1%**	**16.5%**	**21.4%**	43.4%	29.5%	34.4%	39.0%	26.7%	31.0%	**32.1%**	**8.8%**	**23.0%**
Great Falls MT	60.3%	44.6%	51.5%	**17.6%**	**12.2%**	**13.7%**	52.3%	39.2%	43.9%	44.0%	34.7%	38.4%	**19.2%**	**5.3%**	**13.5%**
Green Bay WI	50.2%	31.8%	38.6%	**12.3%**	**8.1%**	**9.2%**	22.3%	17.3%	19.0%	20.8%	16.7%	18.3%	**8.4%**	**2.8%**	**6.8%**
Helena MT	27.1%	24.0%	25.0%	**14.7%**	**9.8%**	**11.2%**	39.6%	20.2%	26.2%	33.7%	20.9%	25.5%	**13.1%**	**4.5%**	**10.6%**
Jamaica Plains MA	53.0%	27.6%	35.3%	**27.9%**	**15.7%**	**18.1%**	46.6%	28.7%	34.6%	35.4%	22.4%	26.0%	**25.2%**	**8.6%**	**19.0%**
Lincoln NE	55.4%	33.7%	42.3%	**13.0%**	**9.1%**	**10.2%**	34.5%	27.0%	29.6%	33.9%	22.9%	27.0%	**11.6%**	**3.6%**	**9.0%**
Los Angeles CA	24.7%	14.5%	17.1%	**21.9%**	**12.7%**	**15.1%**	28.1%	20.0%	22.5%	24.5%	17.5%	19.6%	**24.6%**	**7.2%**	**17.9%**
Milwaukee WI	36.2%	19.0%	24.9%	**21.7%**	**9.6%**	**12.8%**	28.0%	18.8%	22.0%	26.4%	18.5%	21.6%	**18.0%**	**4.3%**	**11.8%**
Minneapolis MN	57.2%	36.2%	44.4%	**14.9%**	**8.4%**	**9.9%**	32.4%	24.3%	27.0%	25.6%	21.7%	23.2%	**12.6%**	**3.6%**	**9.0%**
Missoula MT	64.4%	42.8%	50.5%	**19.6%**	**16.1%**	**17.0%**	36.9%	27.7%	31.2%	31.7%	28.2%	29.5%	**15.2%**	**7.0%**	**14.8%**
New York NY	29.5%	20.8%	23.1%	**24.9%**	**13.4%**	**16.0%**	37.3%	25.6%	29.5%	33.6%	21.5%	25.1%	**25.3%**	**7.6%**	**18.0%**
Oakland CA	16.0%	13.1%	13.7%	**13.0%**	**8.1%**	**9.2%**	15.5%	13.1%	13.7%	13.6%	11.9%	12.4%	**11.3%**	**3.9%**	**9.1%**
Phoenix AZ	40.8%	31.1%	34.8%	**17.3%**	**10.6%**	**12.3%**	31.1%	23.2%	26.0%	27.3%	20.9%	23.2%	**15.9%**	**4.7%**	**11.7%**
Pierre SD	70.4%	45.7%	56.3%	**13.9%**	**8.9%**	**10.4%**	40.0%	37.0%	38.2%	37.5%	33.1%	34.9%	**9.4%**	**3.4%**	**8.0%**

Source: 1990 and 2000 U.S. Census

Appendix B-3. Percent of American Indians and Alaska Natives (AI/AN) with household incomes below poverty living in Urban Indian Health Organization service area counties (UIHO), 1990 and 2000

	1990						2000								
	AI/AN alone			All Races			AI/AN alone			AI/AN alone or w/other races			All Races		
Health Organization Service Area	Children (<18)	Adults (18 and older)	Total	Children (<18)	Adults (18 and older)	Total	Children (<18)	Adults (18 and older)	Total	Children (<18)	Adults (18 and older)	Total	Children (<18)	Adults (18 and older)	Total
Portland OR	33.5%	26.0%	28.1%	**16.8%**	**12.0%**	**13.1%**	17.5%	15.6%	16.1%	17.4%	14.9%	15.6%	**11.8%**	**4.0%**	**9.5%**
Reno NV	29.0%	22.9%	24.7%	**11.0%**	**8.5%**	**9.1%**	24.1%	18.5%	20.4%	21.4%	16.7%	18.3%	**12.7%**	**3.9%**	**9.6%**
Sacramento CA	27.4%	16.6%	19.7%	**19.9%**	**9.8%**	**12.5%**	26.5%	18.6%	20.9%	25.7%	16.6%	19.6%	**20.6%**	**5.4%**	**14.1%**
Salt Lake City UT	38.4%	33.2%	35.4%	**11.7%**	**10.0%**	**10.6%**	23.8%	20.3%	21.4%	21.2%	17.0%	18.5%	**9.1%**	**3.5%**	**8.6%**
San Diego CA	22.5%	15.3%	17.4%	**16.2%**	**9.7%**	**11.3%**	26.4%	16.4%	19.4%	22.7%	14.6%	17.0%	**16.9%**	**5.0%**	**12.4%**
San Jose CA	21.0%	11.4%	13.9%	**10.5%**	**6.6%**	**7.5%**	15.3%	11.7%	12.7%	11.6%	8.9%	9.7%	**9.0%**	**3.2%**	**7.5%**
Santa Barbara CA	17.1%	13.5%	14.5%	**12.1%**	**9.1%**	**9.8%**	20.6%	14.9%	16.6%	16.4%	13.8%	14.6%	**13.4%**	**4.8%**	**11.3%**
Seattle WA	35.2%	22.0%	25.6%	**9.8%**	**7.4%**	**8.0%**	26.3%	18.6%	20.6%	20.8%	15.9%	17.2%	**9.9%**	**3.6%**	**8.4%**
Spokane WA	38.8%	29.6%	32.6%	**16.9%**	**12.5%**	**13.7%**	29.1%	24.7%	26.0%	32.7%	23.4%	26.3%	**15.0%**	**5.2%**	**12.3%**
Tucson AZ	57.7%	49.3%	52.4%	**23.5%**	**15.1%**	**17.2%**	40.2%	32.6%	35.2%	38.2%	30.6%	33.2%	**20.0%**	**6.1%**	**14.7%**
Wichita KS	23.2%	18.2%	19.9%	**14.1%**	**9.1%**	**10.5%**	19.7%	14.9%	16.5%	18.0%	13.7%	15.1%	**12.2%**	**3.7%**	**9.5%**

Source: 1990 and 2000 U.S. Census

Appendix B-4. Percent of American Indians and Alaska Natives (AI/AN) with household incomes below poverty living in Urban Indian Health Organization service area counties (UIHO), 2000

Health Organization Service Area	Living in Poverty (<100%)			Living in Poverty (<200%)		
	AI/AN Alone	AI/AN alone or w/ other races	All Races	AI/AN Alone	AI/AN alone or w/ other races	All Races
US TOTAL	25.7%	22.0%	12.4%	51.4%	46.0%	29.6%
UIHO Total	24.1%	20.6%	13.5%	48.2%	42.7%	30.4%
Albuquerque NM	25.8%	24.4%	13.7%	55.8%	52.9%	32.9%
Bakersfield CA	24.6%	21.0%	20.8%	51.2%	46.4%	45.5%
Billings MT	38.2%	37.1%	12.7%	63.9%	63.5%	33.0%
Butte MT	55.9%	45.9%	14.9%	74.5%	66.9%	37.4%
Chicago IL	21.0%	17.5%	13.5%	42.7%	36.6%	29.5%
Dallas TX	13.6%	12.7%	10.7%	32.5%	30.5%	27.5%
Denver CO	18.2%	14.6%	8.2%	37.7%	33.0%	21.0%
Detroit MI	17.9%	18.8%	14.5%	38.6%	39.6%	30.5%
Flagstaff AZ	32.1%	31.7%	18.2%	61.8%	61.3%	39.2%
Fresno CA	34.4%	31.0%	23.0%	59.9%	55.6%	48.9%
Great Falls MT	43.9%	38.4%	13.5%	74.4%	66.1%	36.7%
Green Bay WI	19.0%	18.3%	6.8%	45.6%	46.4%	20.4%
Helena MT	26.2%	25.5%	10.6%	54.0%	49.6%	28.2%
Jamaica Plains MA	34.6%	26.0%	19.0%	52.7%	47.8%	36.7%
Lincoln NE	29.7%	27.0%	9.0%	57.9%	52.7%	23.9%
Los Angeles CA	22.5%	19.6%	17.9%	49.6%	43.1%	39.9%
Milwaukee WI	22.0%	21.6%	11.8%	42.5%	42.1%	26.0%
Minneapolis MN	27.0%	23.2%	9.0%	50.2%	45.7%	21.4%
Missoula MT	31.2%	29.5%	14.8%	56.6%	56.7%	35.4%
New York NY	29.5%	25.1%	18.0%	55.8%	47.4%	34.6%
Oakland CA	13.7%	12.4%	9.1%	32.1%	28.1%	21.3%
Phoenix AZ	26.0%	23.2%	11.7%	51.8%	48.5%	29.2%
Pierre SD	38.2%	34.9%	8.0%	64.1%	60.4%	23.1%

Source: 2000 U.S. Census

Appendix B-4. Percent of American Indians and Alaska Natives (AI/AN) with household incomes below poverty living in Urban Indian Health Organization service area counties (UIHO), 2000

Health Organization Service Area	Living in Poverty (<100%)			Living in Poverty (<200%)		
	AI/AN Alone	AI/AN alone or w/ other races	All Races	AI/AN Alone	AI/AN alone or w/ other races	All Races
Portland OR	16.1%	15.6%	9.5%	37.1%	37.4%	24.2%
Reno NV	20.5%	18.3%	9.6%	47.1%	43.9%	25.8%
Sacramento CA	20.9%	19.6%	14.1%	40.6%	40.3%	31.9%
Salt Lake City UT	21.4%	18.5%	8.6%	45.5%	41.6%	25.4%
San Diego CA	19.4%	17.0%	12.4%	44.2%	40.2%	30.6%
San Jose CA	12.7%	9.7%	7.5%	29.1%	25.2%	17.9%
Santa Barbara CA	16.6%	14.6%	11.3%	36.0%	33.0%	28.0%
Seattle WA	20.6%	17.2%	8.4%	37.8%	34.1%	19.6%
Spokane WA	26.0%	26.3%	12.3%	55.5%	55.8%	31.3%
Tucson AZ	35.2%	33.2%	14.7%	60.3%	58.1%	35.1%
Wichita KS	16.5%	15.1%	9.5%	37.0%	36.6%	26.2%

Source: 2000 U.S. Census

Appendix B-5. Educational Attainment of American Indians and Alaska Natives (AI/AN) at age 25 or older living in Urban Indian Health Organization service area counties (UIHO), 1990 and 2000

Health Organization Service Area	1990				2000					
	AI/AN alone		All Races		AI/AN alone		AI/AN alone or w/other races		All Races	
	High School Diploma or GED	4 Year College Degree or Higher	High School Diploma or GED	4 Year College Degree or Higher	High School Diploma or GED	4 Year College Degree or Higher	High School Diploma or GED	4 Year College Degree or Higher	High School Diploma or GED	4 Year College Degree or Higher
US TOTAL	65.5%	9.3%	**69.4%**	**26.2%**	70.9%	11.5%	74.7%	14.3%	**80.4%**	**24.4%**
UIHO Total	70.2%	11.6%	**69.5%**	**31.8%**	70.4%	13.0%	75.3%	17.2%	**79.6%**	**28.9%**
Albuquerque NM	79.8%	14.3%	**78.8%**	**30.0%**	82.4%	15.0%	83.8%	18.0%	**84.4%**	**30.5%**
Bakersfield CA	62.3%	6.1%	**64.1%**	**16.8%**	63.8%	6.9%	69.5%	7.8%	**68.5%**	**13.5%**
Billings MT	72.9%	10.9%	**78.9%**	**24.4%**	77.4%	11.5%	77.3%	12.1%	**87.5%**	**25.4%**
Butte MT	60.1%	0.0%	**77.6%**	**18.6%**	74.4%	8.4%	80.9%	9.1%	**85.1%**	**21.7%**
Chicago IL	70.1%	16.0%	**61.1%**	**35.1%**	65.8%	15.3%	75.2%	23.5%	**77.7%**	**28.0%**
Dallas TX	74.1%	15.8%	**71.5%**	**33.0%**	75.0%	18.8%	79.4%	20.9%	**80.0%**	**28.6%**
Denver CO	75.8%	13.1%	**80.9%**	**34.5%**	77.5%	17.0%	81.4%	20.1%	**87.1%**	**36.4%**
Detroit MI	69.7%	9.7%	**58.3%**	**31.0%**	75.1%	11.8%	77.7%	13.6%	**79.9%**	**19.8%**
Flagstaff AZ	51.7%	5.0%	**67.1%**	**36.5%**	62.7%	7.8%	63.4%	8.2%	**83.8%**	**29.9%**
Fresno CA	64.9%	7.6%	**61.9%**	**17.4%**	60.5%	7.1%	65.1%	8.7%	**65.7%**	**15.3%**
Great Falls MT	62.6%	7.3%	**80.7%**	**20.6%**	71.5%	7.2%	74.5%	8.8%	**87.1%**	**21.5%**
Green Bay WI	63.3%	3.5%	**81.2%**	**18.5%**	77.3%	11.0%	77.8%	12.7%	**86.5%**	**22.3%**
Helena MT	74.6%	14.1%	**85.4%**	**27.9%**	79.7%	11.3%	82.6%	13.6%	**91.2%**	**31.0%**
Jamaica Plains MA	71.4%	16.7%	**64.9%**	**38.3%**	60.4%	12.9%	69.3%	17.8%	**78.1%**	**32.5%**
Lincoln NE	74.3%	12.4%	**81.6%**	**28.2%**	76.4%	9.6%	81.5%	12.9%	**88.3%**	**29.6%**
Los Angeles CA	72.1%	13.4%	**63.4%**	**29.0%**	59.3%	11.6%	68.9%	17.3%	**69.9%**	**24.9%**
Milwaukee WI	70.3%	5.6%	**72.7%**	**27.6%**	75.2%	11.0%	77.5%	13.4%	**83.6%**	**26.7%**
Minneapolis MN	69.1%	9.1%	**84.3%**	**33.6%**	72.4%	11.8%	76.5%	14.3%	**89.7%**	**37.6%**
Missoula MT	80.6%	17.6%	**84.1%**	**29.1%**	80.3%	19.3%	83.5%	19.7%	**91.0%**	**32.8%**
New York NY	64.7%	18.9%	**60.2%**	**36.6%**	58.7%	13.9%	67.2%	19.8%	**75.3%**	**29.7%**
Oakland CA	76.7%	16.0%	**76.5%**	**38.7%**	76.5%	19.8%	82.4%	24.9%	**84.2%**	**38.8%**
Phoenix AZ	66.9%	7.7%	**78.9%**	**24.7%**	73.0%	11.2%	74.6%	13.3%	**82.5%**	**25.9%**

Source: 1990 and 2000 U.S. Census

Appendix B-5. Educational Attainment of American Indians and Alaska Natives (AI/AN) at age 25 or older living in Urban Indian Health Organization service area counties (UIHO), 1990 and 2000

Health Organization Service Area	1990				2000					
	AI/AN alone		All Races		AI/AN alone		AI/AN alone or w/other races		All Races	
	High School Diploma or GED	4 Year College Degree or Higher	High School Diploma or GED	4 Year College Degree or Higher	High School Diploma or GED	4 Year College Degree or Higher	High School Diploma or GED	4 Year College Degree or Higher	High School Diploma or GED	4 Year College Degree or Higher
Pierre SD	66.2%	8.2%	**81.8%**	**28.3%**	73.9%	9.3%	75.2%	9.9%	**88.1%**	**26.0%**
Portland OR	73.2%	10.9%	**79.3%**	**27.2%**	80.6%	15.5%	82.5%	17.5%	**87.5%**	**29.6%**
Reno NV	71.2%	8.8%	**80.5%**	**22.0%**	76.8%	9.3%	79.5%	11.8%	**84.6%**	**22.6%**
Sacramento CA	76.2%	13.2%	**76.5%**	**28.7%**	77.2%	13.6%	80.5%	15.6%	**83.3%**	**24.8%**
Salt Lake City UT	72.1%	8.0%	**85.0%**	**24.0%**	78.0%	12.9%	80.2%	15.3%	**88.0%**	**27.2%**
San Diego CA	75.9%	12.0%	**77.9%**	**29.3%**	73.3%	13.8%	78.2%	17.9%	**82.6%**	**29.5%**
San Jose CA	74.6%	17.6%	**79.7%**	**34.9%**	71.2%	16.3%	77.3%	21.6%	**83.4%**	**40.5%**
Santa Barbara CA	72.8%	10.5%	**78.3%**	**26.0%**	68.9%	13.5%	76.2%	17.1%	**80.9%**	**27.6%**
Seattle WA	76.1%	12.4%	**84.9%**	**36.2%**	79.5%	18.2%	83.8%	22.9%	**90.3%**	**40.0%**
Spokane WA	79.2%	9.6%	**82.8%**	**22.2%**	82.2%	13.3%	82.1%	15.9%	**89.1%**	**25.0%**
Tucson AZ	55.9%	5.3%	**77.6%**	**26.2%**	65.3%	9.4%	69.3%	12.7%	**83.4%**	**26.7%**
Wichita KS	75.2%	8.9%	**77.5%**	**24.3%**	79.1%	12.9%	80.3%	15.7%	**85.1%**	**23.6%**

Source: 1990 and 2000 U.S. Census

Appendix B-6. Unemployment Status of American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990 and 2000

Health Organization Service Area	1990		2000		
	AI/AN Alone	All Races	AI/AN Alone	AI/AN alone or w/ other races	All Races
US TOTAL	8.8%	**4.1%**	12.3%	10.5%	**5.7%**
UIHO Total	8.3%	**4.5%**	11.5%	10.3%	**6.3%**
Albuquerque NM	8.5%	**4.4%**	13.7%	13.1%	**5.7%**
Bakersfield CA	6.6%	**5.9%**	13.6%	11.9%	**11.8%**
Billings MT	19.7%	**4.4%**	18.2%	17.4%	**5.2%**
Butte MT	15.0%	**5.7%**	21.6%	18.2%	**6.8%**
Chicago IL	10.2%	**5.3%**	13.4%	10.9%	**7.5%**
Dallas TX	6.3%	**4.2%**	7.3%	7.0%	**4.7%**
Denver CO	8.5%	**4.0%**	8.3%	7.8%	**4.0%**
Detroit MI	11.6%	**6.6%**	10.0%	10.3%	**7.3%**
Flagstaff AZ	11.2%	**6.0%**	18.4%	17.9%	**6.9%**
Fresno CA	7.9%	**6.2%**	17.5%	16.0%	**12.2%**
Great Falls MT	9.5%	**3.7%**	19.6%	15.1%	**5.8%**
Green Bay WI	6.5%	**3.3%**	12.6%	12.1%	**4.0%**
Helena MT	9.6%	**3.5%**	7.6%	6.8%	**5.1%**
Jamaica Plains MA	11.0%	**5.5%**	9.4%	8.6%	**7.0%**
Lincoln NE	10.6%	**2.8%**	10.9%	9.4%	**3.7%**
Los Angeles CA	7.0%	**4.9%**	10.7%	10.3%	**8.2%**
Milwaukee WI	10.8%	**3.9%**	11.4%	11.8%	**5.7%**
Minneapolis MN	10.9%	**3.5%**	14.9%	12.4%	**4.0%**
Missoula MT	13.7%	**4.8%**	10.2%	10.9%	**6.1%**
New York NY	6.1%	**4.9%**	15.3%	12.7%	**8.2%**
Oakland CA	6.4%	**3.7%**	6.9%	6.5%	**4.6%**
Phoenix AZ	9.6%	**4.0%**	10.3%	9.7%	**4.7%**
Pierre SD	3.1%	**1.7%**	14.7%	13.3%	**3.0%**
Portland OR	8.4%	**3.9%**	10.4%	10.3%	**5.6%**

Source: 1990 and 2000 U.S. Census

Appendix B-6. Unemployment Status of American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990 and 2000

Health Organization Service Area	1990		2000		
	AI/AN Alone	All Races	AI/AN Alone	AI/AN alone or w/ other races	All Races
Reno NV	9.4%	**3.7%**	10.1%	9.2%	**5.0%**
Sacramento CA	7.5%	**4.1%**	10.8%	10.6%	**6.6%**
Salt Lake City UT	9.9%	**3.4%**	9.8%	9.8%	**4.7%**
San Diego CA	6.0%	**3.8%**	8.7%	8.5%	**5.6%**
San Jose CA	5.4%	**3.4%**	7.9%	7.3%	**3.9%**
Santa Barbara CA	6.3%	**3.4%**	8.4%	7.0%	**5.7%**
Seattle WA	5.5%	**3.0%**	11.0%	9.8%	**4.5%**
Spokane WA	7.9%	**4.5%**	13.6%	11.7%	**7.9%**
Tucson AZ	8.9%	**4.6%**	13.8%	12.3%	**5.3%**
Wichita KS	8.0%	**3.5%**	7.5%	6.9%	**4.7%**

Source: 1990 and 2000 U.S. Census

Appendix B-7. Percent of Households of American Indians and Alaska Natives (AI/AN) that consist of a single parent living with own children (age < 18) living in Urban Indian Health Organization service area counties (UIHO), 1990 and 2000

Health Organization Service Area	1990		2000		
	AI/AN Alone	All Races	AI/AN Alone	AI/AN alone or w/ other races	All Races
US TOTAL	36.6%	**22.8%**	43.5%	42.5%	**29.2%**
UIHO Total	43.4%	**26.7%**	46.1%	44.9%	**31.0%**
Albuquerque NM	42.6%	**26.4%**	56.2%	56.1%	**35.2%**
Bakersfield CA	33.9%	**26.0%**	38.4%	36.6%	**31.2%**
Billings MT	34.5%	**22.1%**	45.5%	46.7%	**30.1%**
Butte MT	76.2%	**20.1%**	40.7%	40.5%	**28.0%**
Chicago IL	34.9%	**29.3%**	36.2%	39.3%	**34.2%**
Dallas TX	30.0%	**21.4%**	32.8%	33.5%	**26.9%**
Denver CO	44.9%	**25.0%**	45.2%	42.3%	**26.1%**
Detroit MI	51.9%	**35.9%**	43.5%	49.0%	**40.2%**
Flagstaff AZ	34.9%	**24.2%**	42.4%	42.7%	**31.4%**
Fresno CA	39.7%	**27.2%**	40.4%	41.5%	**31.1%**
Great Falls MT	53.4%	**22.3%**	56.4%	51.0%	**28.8%**
Green Bay WI	58.9%	**18.0%**	58.9%	54.8%	**24.2%**
Helena MT	57.8%	**22.4%**	46.5%	48.7%	**25.3%**
Jamaica Plains MA	64.9%	**42.3%**	68.9%	64.6%	**47.3%**
Lincoln NE	54.7%	**22.2%**	57.8%	55.7%	**27.1%**
Los Angeles CA	36.5%	**26.1%**	39.4%	40.9%	**31.5%**
Milwaukee WI	47.8%	**29.2%**	55.9%	53.7%	**34.8%**
Minneapolis MN	70.4%	**24.4%**	62.0%	57.9%	**28.7%**
Missoula MT	61.6%	**25.4%**	53.7%	48.9%	**27.6%**
New York NY	45.8%	**32.5%**	48.5%	49.3%	**37.7%**
Oakland CA	36.4%	**24.2%**	39.3%	41.5%	**26.8%**
Phoenix AZ	45.2%	**23.8%**	52.8%	50.0%	**28.7%**
Pierre SD	58.7%	**20.0%**	70.1%	65.8%	**25.3%**

Source: 1990 and 2000 U.S. Census

Appendix B-7. Percent of Households of American Indians and Alaska Natives (AI/AN) that consist of a single parent living with own children (age < 18) living in Urban Indian Health Organization service area counties (UIHO), 1990 and 2000

Health Organization Service Area	1990		2000		
	AI/AN Alone	All Races	AI/AN Alone	AI/AN alone or w/ other races	All Races
Portland OR	48.4%	**27.9%**	45.3%	44.1%	**26.3%**
Reno NV	46.7%	**23.5%**	54.3%	51.3%	**29.7%**
Sacramento CA	45.6%	**29.5%**	52.0%	50.1%	**34.6%**
Salt Lake City UT	40.5%	**16.5%**	42.4%	37.2%	**18.9%**
San Diego CA	35.7%	**24.1%**	41.5%	39.4%	**28.1%**
San Jose CA	34.1%	**20.1%**	38.5%	36.7%	**22.0%**
Santa Barbara CA	31.8%	**19.3%**	31.6%	33.2%	**24.0%**
Seattle WA	48.5%	**22.3%**	51.0%	46.7%	**25.6%**
Spokane WA	55.0%	**25.4%**	54.6%	51.8%	**30.4%**
Tucson AZ	57.0%	**26.9%**	55.3%	54.2%	**32.6%**
Wichita KS	35.0%	**21.1%**	35.2%	38.5%	**26.8%**

Source: 1990 and 2000 U.S. Census

Appendix B-8. Disability Status of American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 2000

Health Organization Service Area	2000											
	AI/AN alone				AI/AN alone or w/other races				All Races			
	Ages 5 - 14	Ages 15 - 64	Ages 65 and Older	Total (Ages 5 and Older)	Ages 5 - 14	Ages 15 - 64	Ages 65 and Older	Total (Ages 5 and Older)	Ages 5 - 14	Ages 15 - 64	Ages 65 and Older	Total (Ages 5 and Older)
US TOTAL	7.7%	27.0%	57.6%	24.3%	9.0%	28.0%	56.8%	25.6%	**5.8%**	**18.6%**	**41.9%**	**19.3%**
UIHO Total	7.8%	26.7%	54.7%	23.9%	8.7%	27.0%	53.6%	24.5%	**5.3%**	**19.0%**	**41.8%**	**19.1%**
Albuquerque NM	5.4%	21.3%	50.6%	19.5%	6.6%	22.1%	52.7%	20.1%	**6.1%**	**18.9%**	**43.4%**	**19.7%**
Bakersfield CA	4.9%	29.1%	46.9%	24.9%	9.2%	32.8%	51.1%	28.5%	**6.1%**	**24.3%**	**47.1%**	**22.5%**
Billings MT	7.4%	27.6%	63.4%	22.8%	8.2%	27.7%	57.9%	23.0%	**6.7%**	**16.7%**	**41.2%**	**18.1%**
Butte MT	0.0%	29.2%	81.8%	25.0%	6.3%	22.4%	81.8%	20.4%	**5.1%**	**16.8%**	**40.9%**	**18.8%**
Chicago IL	6.2%	28.9%	55.3%	25.5%	7.9%	26.7%	51.5%	24.6%	**5.5%**	**19.3%**	**42.6%**	**19.7%**
Dallas TX	9.4%	25.1%	52.0%	23.5%	9.8%	26.1%	52.4%	24.4%	**5.1%**	**17.9%**	**42.4%**	**17.5%**
Denver CO	8.7%	25.6%	43.6%	23.3%	8.0%	26.2%	45.6%	23.4%	**5.2%**	**15.2%**	**38.9%**	**15.7%**
Detroit MI	15.2%	30.9%	60.4%	29.4%	15.0%	31.6%	58.0%	29.6%	**7.1%**	**20.7%**	**44.8%**	**21.0%**
Flagstaff AZ	4.6%	21.9%	67.6%	19.6%	4.5%	22.4%	67.0%	19.7%	**4.6%**	**16.6%**	**44.1%**	**16.3%**
Fresno CA	5.5%	26.8%	55.9%	23.1%	7.1%	30.1%	56.6%	26.0%	**5.2%**	**22.9%**	**46.0%**	**21.4%**
Great Falls MT	13.3%	31.0%	59.2%	28.4%	12.6%	29.7%	52.1%	26.1%	**7.3%**	**18.7%**	**39.6%**	**19.7%**
Green Bay WI	10.7%	23.0%	62.0%	22.1%	11.1%	25.2%	59.4%	23.0%	**6.2%**	**13.6%**	**36.0%**	**15.0%**
Helena MT	0.0%	27.6%	50.7%	22.8%	0.0%	26.6%	42.7%	21.1%	**4.3%**	**16.1%**	**40.0%**	**16.9%**
Jamaica Plains MA	3.5%	36.7%	64.8%	30.6%	9.8%	35.6%	61.3%	32.5%	**6.9%**	**22.0%**	**46.1%**	**22.7%**
Lincoln NE	8.2%	28.4%	56.0%	24.4%	9.4%	26.0%	55.4%	22.7%	**5.3%**	**14.5%**	**37.1%**	**15.3%**
Los Angeles CA	7.5%	28.2%	51.5%	24.9%	7.6%	27.3%	53.9%	25.0%	**4.6%**	**21.1%**	**44.8%**	**20.4%**
Milwaukee WI	12.2%	25.5%	50.0%	23.5%	11.2%	25.0%	49.0%	22.4%	**6.6%**	**16.6%**	**37.6%**	**17.5%**
Minneapolis MN	10.1%	23.7%	40.1%	20.9%	11.0%	24.7%	44.2%	21.7%	**5.6%**	**13.6%**	**35.7%**	**14.8%**
Missoula MT	7.4%	22.9%	39.8%	18.9%	6.1%	23.6%	44.7%	19.3%	**6.2%**	**14.2%**	**39.4%**	**15.6%**
New York NY	9.9%	34.5%	60.2%	30.3%	8.8%	32.6%	55.0%	29.2%	**5.8%**	**23.1%**	**42.6%**	**22.8%**
Oakland CA	8.7%	26.3%	53.8%	25.1%	8.1%	26.7%	54.5%	24.9%	**4.2%**	**17.0%**	**40.5%**	**18.0%**
Phoenix AZ	5.9%	24.6%	54.3%	20.9%	6.8%	25.4%	52.0%	21.7%	**5.2%**	**17.7%**	**38.3%**	**18.0%**
Pierre SD	12.8%	26.0%	52.4%	22.9%	12.3%	24.6%	48.2%	21.8%	**5.3%**	**14.8%**	**38.0%**	**16.0%**

Source: 2000 U.S. Census

Appendix B-8. Disability Status of American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 2000

Health Organization Service Area	2000											
	AI/AN alone				AI/AN alone or w/other races				All Races			
	Ages 5 - 14	Ages 15 - 64	Ages 65 and Older	Total (Ages 5 and Older)	Ages 5 - 14	Ages 15 - 64	Ages 65 and Older	Total (Ages 5 and Older)	Ages 5 - 14	Ages 15 - 64	Ages 65 and Older	Total (Ages 5 and Older)
Portland OR	11.8%	26.4%	42.9%	24.3%	12.5%	27.2%	49.1%	25.1%	**5.8%**	**16.0%**	**41.2%**	**17.0%**
Reno NV	5.2%	23.1%	48.6%	20.6%	6.2%	23.5%	46.4%	21.2%	**4.6%**	**18.9%**	**39.1%**	**18.9%**
Sacramento CA	7.8%	29.4%	56.2%	26.2%	10.4%	28.7%	58.1%	25.9%	**5.8%**	**20.1%**	**42.8%**	**20.0%**
Salt Lake City UT	5.4%	22.1%	47.9%	19.0%	7.9%	22.8%	53.7%	19.8%	**5.4%**	**14.7%**	**39.6%**	**14.8%**
San Diego CA	8.7%	24.2%	49.4%	22.7%	8.6%	24.0%	52.3%	22.6%	**4.7%**	**17.3%**	**40.8%**	**17.9%**
San Jose CA	9.1%	22.7%	61.5%	22.1%	7.7%	22.1%	50.9%	21.1%	**3.7%**	**16.2%**	**39.3%**	**16.4%**
Santa Barbara CA	7.9%	29.7%	56.2%	26.5%	10.3%	26.7%	50.8%	24.7%	**5.1%**	**17.3%**	**38.3%**	**17.7%**
Seattle WA	11.8%	26.6%	50.0%	25.2%	11.1%	25.2%	51.6%	23.8%	**5.2%**	**14.8%**	**39.8%**	**16.1%**
Spokane WA	10.8%	29.8%	43.8%	26.7%	12.5%	30.2%	46.8%	27.4%	**5.7%**	**17.9%**	**43.2%**	**19.1%**
Tucson AZ	6.5%	28.6%	60.9%	25.2%	7.5%	28.8%	58.4%	25.4%	**6.7%**	**18.8%**	**40.7%**	**20.1%**
Wichita KS	11.1%	24.6%	54.1%	23.3%	8.8%	25.6%	49.9%	23.1%	**5.4%**	**17.4%**	**41.3%**	**18.2%**

Source: 2000 U.S. Census

Appendix C-1. Births to mothers who are American Indians or Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties, 1991-2000.

Health Organization Service Area	AI/AN Alone		All Races	AI/AN compared to All Races	Trends over Time	
	Total Count	Rate per 1,000 population (95% confidence interval)	Rate per 1,000 population (95% confidence interval)		AI/AN 10-year trend (1991-2000)	AI/AN 6-year trend (1995-2000)
US TOTAL	390,606	15.5 (15.5-15.6)	14.8 (14.8-14.8)	+5%	Decreasing	Decreasing
UIHO Total	83,258	12.8 (12.7-12.8)	16.5 (16.5-16.5)	-23%	Decreasing	Decreasing
Albuquerque NM	4,028	17.9 (17.3-18.5)	15.2 (15.1-15.3)	+18%	Decreasing	ns
Bakersfield CA	854	7.1 (6.6-7.6)	19.3 (19.2-19.4)	-63%	ns	ns
Billings MT	2,825	25.4 (24.5-26.4)	14.0 (13.8-14.2)	+81%	Decreasing	ns
Butte MT	126	19.1 (15.9-22.7)	12.2 (11.8-12.5)	+57%	ns	ns
Chicago IL	1,123	6.2 (5.9-6.6)	17.0 (16.9-17.0)	-63%	Decreasing	Decreasing
Dallas TX	2,433	8.1 (7.8-8.5)	17.4 (17.4-17.4)	-53%	Decreasing	Decreasing
Denver CO	2,899	13.0 (12.5-13.4)	15.2 (15.1-15.2)	-15%	Decreasing	ns
Detroit MI	1,402	7.5 (7.1-7.9)	16.0 (15.9-16.0)	-53%	Decreasing	Decreasing
Flagstaff AZ	7,894	24.0 (23.4-24.5)	16.6 (16.4-16.9)	+44%	Decreasing	ns
Fresno CA	2,047	8.7 (8.3-9.1)	19.9 (19.8-19.9)	-56%	Decreasing	Decreasing
Great Falls MT	807	23.0 (21.4-24.6)	14.7 (14.4-15.0)	+56%	Decreasing	ns
Green Bay WI	1,210	23.5 (22.2-24.9)	13.8 (13.6-13.9)	+71%	ns	ns
Helena MT	289	21.7 (19.3-24.4)	12.2 (11.9-12.5)	+78%	ns	ns
Jamaica Plains MA	189	6.1 (5.3-7.0)	14.7 (14.6-14.8)	-58%	Decreasing	ns
Lincoln NE	1,756	24.2 (23.1-25.4)	15.6 (15.5-15.6)	+56%	ns	Increasing
Los Angeles CA	4,162	4.8 (4.7-5.0)	18.9 (18.9-19.0)	-74%	Decreasing	Decreasing
Milwaukee WI	1,494	16.7 (15.8-17.5)	15.1 (15.0-15.1)	+11%	ns	ns
Minneapolis MN	4,375	22.5 (21.8-23.2)	14.9 (14.8-15.0)	+51%	Decreasing	Increasing
Missoula MT	343	15.3 (13.7-17.0)	12.1 (11.9-12.3)	+26%	ns	ns
New York NY	2,276	4.1 (3.9-4.3)	15.7 (15.7-15.7)	-74%	Decreasing	Decreasing
Oakland CA	2,274	7.9 (7.5-8.2)	14.2 (14.2-14.3)	-45%	Decreasing	Decreasing
Phoenix AZ	13,083	23.0 (22.6-23.4)	17.2 (17.2-17.3)	+34%	Decreasing	ns
Pierre SD	1,223	26.0 (24.5-27.5)	14.8 (14.6-15.0)	+76%	ns	ns
Portland OR	2,317	13.7 (13.1-14.3)	14.7 (14.6-14.7)	-7%	Decreasing	ns

ns = Not statistically significant.

Appendix C-1. Births to mothers who are American Indians or Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties, 1991-2000.

Health Organization Service Area	AI/AN Alone		All Races		Trends over Time	
	Total Count	Rate per 1,000 population (95% confidence interval)	Rate per 1,000 population (95% confidence interval)	AI/AN compared to All Races	AI/AN 10-year trend (1991-2000)	AI/AN 6-year trend (1995-2000)
Reno NV	1,545	16.2 (15.4-17.1)	14.6 (14.5-14.7)	+11%	Decreasing	ns
Sacramento CA	1,858	10.8 (10.3-11.3)	16.0 (15.9-16.0)	-32%	Decreasing	Decreasing
Salt Lake City UT	3,108	21.5 (20.8-22.3)	20.7 (20.6-20.8)	+4%	Decreasing	ns
San Diego CA	2,938	10.4 (10.0-10.8)	17.3 (17.2-17.3)	-40%	Decreasing	Decreasing
San Jose CA	1,089	7.9 (7.5-8.4)	16.8 (16.7-16.8)	-53%	Decreasing	Decreasing
Santa Barbara CA	1,096	6.5 (6.2-6.9)	15.4 (15.3-15.5)	-58%	Decreasing	Decreasing
Seattle WA	3,220	16.7 (16.1-17.2)	13.5 (13.4-13.6)	+23%	Decreasing	ns
Spokane WA	1,215	18.8 (17.8-19.9)	13.9 (13.8-14.0)	+35%	Increasing	Increasing
Tucson AZ	4,908	17.4 (16.9-17.9)	14.9 (14.9-15.0)	+17%	Decreasing	ns
Wichita KS	852	12.1 (11.3-13.0)	16.0 (15.9-16.1)	-24%	Decreasing	ns

ns = Not statistically significant.

Appendix C-2. Risk factors for poor infant health among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties, 1991-2000.

Health Organization Service Area	AI/AN Alone		All Races		Trends over Time	
Risk Factor	Total Count	(95% Percent of confidence live births interval)	(95% Percent of confidence live births interval)	AI/AN compared to All Races	AI/AN 10-year trend (1991-2000)	AI/AN 6-year trend (1995-2000)
US TOTAL						
Low Birth Weight (< 2500g)	25666	6.6% (6.5-6.7)	7.4% (7.4-7.4)	-11%	Increasing	Increasing
Very Low Birth Weight (< 1500g)	4422	1.1% (1.1-1.2)	1.4% (1.4-1.4)	-18%	Increasing	ns
Mother's Age < 18	32203	8.2% (8.2-8.3)	4.8% (4.8-4.9)	+70%	Decreasing	Decreasing
Mother Unmarried	224287	57.4% (57.2-57.7)	31.9% (31.9-31.9)	+80%	Increasing	ns
Premature (calculated gestation)	43409	12.1% (12.0-12.3)	11.1% (11.0-11.1)	+10%	Increasing	Increasing
Late (3rd) or No Prenatal Care	27600	7.3% (7.2-7.4)	3.0% (3.0-3.0)	+140%	Decreasing	ns
Maternal Smoking	69272	21.1% (21.0-21.3)	14.3% (14.3-14.3)	+48%	Decreasing	Decreasing
Maternal Alcohol Use	1241	0.3% (0.3-0.4)	0.3% (0.3-0.3)	ns	ns	ns
UIHO Total						
Low Birth Weight (< 2500g)	5661	6.8% (6.6-7.0)	7.3% (7.2-7.3)	-6%	ns	ns
Very Low Birth Weight (< 1500g)	996	1.2% (1.1-1.3)	1.3% (1.3-1.3)	-10%	ns	ns
Mother's Age < 18	6844	8.2% (8.0-8.4)	4.6% (4.5-4.6)	+80%	ns	Decreasing
Mother Unmarried	50200	60.3% (59.8-60.8)	34.8% (34.7-34.8)	+73%	Increasing	ns
Premature (calculated gestation)	9161	12.2% (12.0-12.5)	10.8% (10.8-10.9)	+13%	ns	ns
Late (3rd) or No Prenatal Care	5941	7.4% (7.2-7.6)	3.4% (3.4-3.5)	+115%	Decreasing	Decreasing
Maternal Smoking	10852	17.2% (16.9-17.5)	10.7% (10.7-10.7)	+61%	Decreasing	Decreasing
Maternal Alcohol Use	263	0.3% (0.3-0.4)	0.3% (0.3-0.3)	ns	ns	ns
Albuquerque NM						
Low Birth Weight (< 2500g)	255	6.4% (5.6-7.2)	7.9% (7.7-8.1)	-19%	Increasing	ns
Very Low Birth Weight (< 1500g)	33	0.8% (0.6-1.2)	1.2% (1.1-1.3)	ns	Increasing	ns
Mother's Age < 18	277	6.9% (6.1-7.7)	6.0% (5.8-6.2)	ns	ns	ns
Mother Unmarried	2678	66.5% (64.0-69.1)	38.5% (38.1-38.9)	+73%	ns	ns
Premature (calculated gestation)	427	11.8% (10.7-13.0)	10.3% (10.0-10.5)	+15%	Increasing	ns
Late (3rd) or No Prenatal Care	329	8.7% (7.8-9.7)	6.6% (6.5-6.8)	+32%	ns	Increasing
Maternal Smoking	288	7.2% (6.4-8.1)	11.6% (11.4-11.9)	-38%	ns	ns
Maternal Alcohol Use	16	0.4% (0.2-0.6)	0.4% (0.3-0.4)	ns	ns	ns

*Risk factors with less than 10 occurrences in an area are not reported.
ns = Not statistically significant.
Source: U.S. Centers for Health Statistics.

Appendix C-2. Risk factors for poor infant health among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties, 1991-2000.

Health Organization Service Area	AI/AN Alone		All Races		Trends over Time	
Risk Factor	Total Count	Percent of live births (95% confidence interval)	Percent of live births (95% confidence interval)	AI/AN compared to All Races	AI/AN 10-year trend (1991-2000)	AI/AN 6-year trend (1995-2000)
Bakersfield CA						
Low Birth Weight (< 2500g)	68	8.0% (6.2-10.1)	6.5% (6.3-6.6)	ns	ns	ns
Very Low Birth Weight (< 1500g)	15	1.8% (1.0-2.9)	1.3% (1.2-1.3)	ns	ns	ns
Mother's Age < 18	71	8.3% (6.5-10.5)	7.1% (7.0-7.3)	ns	ns	Decreasing
Mother Unmarried	424	49.7% (45.0-54.6)	41.1% (40.8-41.5)	+21%	ns	ns
Premature (calculated gestation)	93	12.0% (9.7-14.7)	11.6% (11.4-11.9)	ns	ns	ns
Late (3rd) or No Prenatal Care	56	6.9% (5.2-8.9)	4.6% (4.5-4.7)	+49%	Decreasing	ns
Maternal Alcohol Use	< 10	* *	0.3% (0.3-0.3)	ns	ns	ns
Billings MT						
Low Birth Weight (< 2500g)	183	6.5% (5.6-7.5)	6.5% (6.1-6.8)	ns	ns	ns
Very Low Birth Weight (< 1500g)	32	1.1% (0.8-1.6)	1.1% (0.9-1.2)	ns	Increasing	ns
Mother's Age < 18	266	9.4% (8.3-10.6)	4.3% (4.0-4.6)	+118%	ns	ns
Mother Unmarried	1815	64.3% (61.3-67.3)	31.5% (30.7-32.3)	+104%	Increasing	ns
Premature (calculated gestation)	276	10.1% (9.0-11.4)	9.5% (9.0-9.9)	ns	Increasing	ns
Late (3rd) or No Prenatal Care	292	10.4% (9.2-11.7)	4.4% (4.1-4.7)	+139%	Decreasing	ns
Maternal Smoking	621	22.1% (20.4-23.9)	16.6% (16.0-17.2)	+33%	ns	ns
Maternal Alcohol Use	13	0.5% (0.3-0.8)	0.3% (0.2-0.3)	ns	ns	Decreasing
Butte MT						
Low Birth Weight (< 2500g)	13	10.3% (5.5-17.6)	8.3% (7.5-9.3)	ns	ns	ns
Very Low Birth Weight (< 1500g)	< 10	* *	1.3% (1.0-1.7)	ns	ns	ns
Mother's Age < 18	18	14.3% (8.5-22.6)	4.4% (3.8-5.1)	+223%	ns	ns
Mother Unmarried	84	66.7% (53.2-82.5)	32.0% (30.3-33.7)	+109%	ns	ns
Premature (calculated gestation)	14	12.6% (6.9-21.1)	10.7% (9.7-11.8)	ns	Increasing	ns
Late (3rd) or No Prenatal Care	11	8.8% (4.4-15.7)	3.2% (2.6-3.7)	+179%	ns	Increasing
Maternal Smoking	55	44.0% (33.2-57.2)	22.7% (21.3-24.2)	+94%	Decreasing	ns
Maternal Alcohol Use	< 10	* *	0.4% (0.3-0.7)	ns	ns	ns

*Risk factors with less than 10 occurrences in an area are not reported.
ns = Not statistically significant.
Source: U.S. Centers for Health Statistics.

Appendix C-2. Risk factors for poor infant health among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties, 1991-2000.

Health Organization Service Area	AI/AN Alone		All Races		Trends over Time	
Risk Factor	Total Count	Percent of live births (95% confidence interval)	Percent of live births (95% confidence interval)	AI/AN compared to All Races	AI/AN 10-year trend (1991-2000)	AI/AN 6-year trend (1995-2000)
Chicago IL						
Low Birth Weight (< 2500g)	88	7.9% (6.3-9.7)	9.2% (9.2-9.3)	ns	Increasing	ns
Very Low Birth Weight (< 1500g)	20	1.8% (1.1-2.8)	1.9% (1.8-1.9)	ns	ns	Decreasing
Mother's Age < 18	65	5.8% (4.5-7.4)	6.0% (5.9-6.0)	ns	ns	ns
Mother Unmarried	569	50.7% (46.6-55.0)	42.2% (42.1-42.3)	+20%	ns	Increasing
Premature (calculated gestation)	139	13.1% (11.0-15.4)	13.1% (13.0-13.2)	ns	ns	ns
Late (3rd) or No Prenatal Care	60	5.5% (4.2-7.1)	3.0% (3.0-3.1)	+81%	ns	ns
Maternal Smoking	183	16.7% (14.4-19.3)	9.8% (9.8-9.9)	+70%	ns	ns
Maternal Alcohol Use	< 10	* *	0.3% (0.3-0.3)	ns	ns	ns
Dallas TX						
Low Birth Weight (< 2500g)	152	6.3% (5.3-7.3)	7.3% (7.3-7.4)	ns	ns	ns
Very Low Birth Weight (< 1500g)	33	1.4% (0.9-1.9)	1.3% (1.3-1.3)	ns	ns	ns
Mother's Age < 18	177	7.3% (6.2-8.4)	5.4% (5.4-5.5)	+35%	Decreasing	ns
Mother Unmarried	842	34.6% (32.3-37.0)	26.4% (26.3-26.5)	+31%	Increasing	ns
Premature (calculated gestation)	253	11.7% (10.3-13.3)	11.6% (11.5-11.6)	ns	ns	ns
Late (3rd) or No Prenatal Care	140	5.9% (5.0-7.0)	3.6% (3.6-3.7)	+63%	ns	ns
Maternal Smoking	317	13.3% (11.9-14.8)	7.4% (7.3-7.4)	+80%	ns	ns
Maternal Alcohol Use	< 10	* *	0.3% (0.3-0.3)	ns	ns	ns
Denver CO						
Low Birth Weight (< 2500g)	285	9.8% (8.7-11.1)	8.6% (8.5-8.7)	ns	ns	ns
Very Low Birth Weight (< 1500g)	34	1.2% (0.8-1.6)	1.3% (1.2-1.3)	ns	ns	ns
Mother's Age < 18	251	8.7% (7.6-9.8)	4.3% (4.2-4.3)	+104%	ns	ns
Mother Unmarried	1516	52.3% (49.7-55.0)	24.6% (24.5-24.8)	+112%	Decreasing	ns
Premature (calculated gestation)	353	12.8% (11.5-14.3)	10.9% (10.8-11.0)	+18%	ns	ns
Late (3rd) or No Prenatal Care	227	7.9% (6.9-9.1)	3.5% (3.5-3.6)	+124%	Decreasing	ns
Maternal Smoking	624	21.9% (20.2-23.6)	12.1% (12.0-12.2)	+81%	Decreasing	ns
Maternal Alcohol Use	< 10	* *	0.4% (0.4-0.4)	ns	ns	ns

*Risk factors with less than 10 occurrences in an area are not reported.
ns = Not statistically significant.
Source: U.S. Centers for Health Statistics.

Appendix C-2. Risk factors for poor infant health among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties, 1991-2000.

Health Organization Service Area	AI/AN Alone		All Races		Trends over Time	
Risk Factor	Total Count	Percent of live births (95% confidence interval)	Percent of live births (95% confidence interval)	AI/AN compared to All Races	AI/AN 10-year trend (1991-2000)	AI/AN 6-year trend (1995-2000)
Detroit MI						
Low Birth Weight (< 2500g)	122	8.7% (7.3-10.4)	9.5% (9.5-9.6)	ns	ns	ns
Very Low Birth Weight (< 1500g)	25	1.8% (1.2-2.6)	2.0% (2.0-2.0)	ns	ns	ns
Mother's Age < 18	102	7.3% (5.9-8.8)	5.7% (5.7-5.8)	+27%	ns	ns
Mother Unmarried	684	48.8% (45.2-52.6)	43.3% (43.2-43.5)	+13%	ns	Decreasing
Premature (calculated gestation)	173	13.1% (11.3-15.3)	13.0% (12.9-13.1)	ns	ns	ns
Late (3rd) or No Prenatal Care	51	3.8% (2.8-5.0)	2.6% (2.6-2.7)	+45%	ns	ns
Maternal Smoking	408	29.6% (26.8-32.7)	17.2% (17.1-17.4)	+72%	Decreasing	ns
Maternal Alcohol Use	< 10	* *	0.3% (0.3-0.3)	ns	ns	ns
Flagstaff AZ						
Low Birth Weight (< 2500g)	438	5.6% (5.1-6.1)	7.2% (6.8-7.6)	-23%	ns	ns
Very Low Birth Weight (< 1500g)	72	0.9% (0.7-1.2)	1.1% (0.9-1.2)	ns	ns	ns
Mother's Age < 18	543	6.9% (6.3-7.5)	5.2% (4.8-5.5)	+33%	ns	ns
Mother Unmarried	5140	65.1% (63.4-66.9)	43.3% (42.4-44.3)	+50%	Increasing	ns
Premature (calculated gestation)	933	13.1% (12.2-13.9)	12.1% (11.6-12.7)	ns	ns	Decreasing
Late (3rd) or No Prenatal Care	779	10.0% (9.3-10.7)	6.6% (6.2-7.0)	+52%	Decreasing	Decreasing
Maternal Smoking	110	1.4% (1.2-1.7)	4.3% (4.0-4.7)	-68%	ns	ns
Maternal Alcohol Use	23	0.3% (0.2-0.4)	0.2% (0.2-0.3)	ns	ns	ns
Fresno CA						
Low Birth Weight (< 2500g)	133	6.5% (5.4-7.7)	6.2% (6.1-6.3)	ns	ns	ns
Very Low Birth Weight (< 1500g)	21	1.0% (0.6-1.6)	1.1% (1.1-1.2)	ns	ns	ns
Mother's Age < 18	193	9.4% (8.2-10.9)	7.6% (7.5-7.8)	+23%	ns	ns
Mother Unmarried	1269	62.0% (58.6-65.5)	39.5% (39.3-39.8)	+57%	ns	ns
Premature (calculated gestation)	230	12.0% (10.5-13.7)	10.5% (10.3-10.6)	ns	ns	ns
Late (3rd) or No Prenatal Care	98	4.8% (3.9-5.9)	3.5% (3.4-3.6)	+38%	ns	ns
Maternal Alcohol Use	< 10	* *	0.3% (0.2-0.3)	ns	ns	ns

*Risk factors with less than 10 occurrences in an area are not reported.
ns = Not statistically significant.
Source: U.S. Centers for Health Statistics.

Appendix C-2. Risk factors for poor infant health among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties, 1991-2000.

Health Organization Service Area	AI/AN Alone		All Races		Trends over Time	
Risk Factor	Total Count	Percent of live births (95% confidence interval)	Percent of live births (95% confidence interval)	AI/AN compared to All Races	AI/AN 10-year trend (1991-2000)	AI/AN 6-year trend (1995-2000)
Great Falls MT						
Low Birth Weight (< 2500g)	59	7.3% (5.6-9.4)	6.3% (5.9-6.8)	ns	ns	ns
Very Low Birth Weight (< 1500g)	< 10	* *	0.7% (0.6-0.9)	ns	ns	ns
Mother's Age < 18	102	12.6% (10.3-15.3)	4.0% (3.6-4.3)	+220%	ns	Decreasing
Mother Unmarried	568	70.4% (64.7-76.4)	25.2% (24.3-26.1)	+180%	ns	ns
Premature (calculated gestation)	107	13.7% (11.2-16.5)	9.8% (9.3-10.4)	+39%	ns	ns
Late (3rd) or No Prenatal Care	49	6.2% (4.6-8.2)	1.9% (1.7-2.2)	+225%	Decreasing	ns
Maternal Smoking	343	43.7% (39.2-48.6)	18.2% (17.5-19.0)	+140%	ns	ns
Maternal Alcohol Use	< 10	* *	0.4% (0.3-0.6)	ns	ns	ns
Green Bay WI						
Low Birth Weight (< 2500g)	68	5.6% (4.4-7.1)	5.7% (5.4-6.0)	ns	ns	ns
Very Low Birth Weight (< 1500g)	14	1.2% (0.6-1.9)	1.0% (0.9-1.1)	ns	ns	ns
Mother's Age < 18	123	10.2% (8.5-12.1)	3.0% (2.9-3.2)	+235%	ns	Increasing
Mother Unmarried	872	72.1% (67.4-77.0)	23.6% (23.1-24.1)	+205%	ns	ns
Premature (calculated gestation)	110	9.7% (7.9-11.6)	9.0% (8.7-9.4)	ns	ns	ns
Late (3rd) or No Prenatal Care	68	5.6% (4.4-7.1)	2.1% (1.9-2.2)	+175%	ns	ns
Maternal Smoking	526	43.6% (40.0-47.5)	18.5% (18.0-19.0)	+136%	Decreasing	ns
Maternal Alcohol Use	< 10	* *	0.4% (0.3-0.4)	ns	ns	ns
Helena MT						
Low Birth Weight (< 2500g)	26	9.0% (5.9-13.2)	6.2% (5.7-6.8)	ns	ns	Decreasing
Very Low Birth Weight (< 1500g)	< 10	* *	0.7% (0.5-0.9)	ns	ns	ns
Mother's Age < 18	38	13.2% (9.3-18.1)	3.9% (3.4-4.3)	+242%	ns	ns
Mother Unmarried	164	56.8% (48.4-66.1)	23.8% (22.7-24.9)	+138%	Increasing	ns
Premature (calculated gestation)	36	13.2% (9.3-18.3)	9.0% (8.3-9.7)	ns	ns	ns
Late (3rd) or No Prenatal Care	< 10	* *	1.4% (1.2-1.7)	ns	ns	ns
Maternal Smoking	118	41.0% (33.9-49.1)	20.1% (19.1-21.1)	+104%	ns	ns
Maternal Alcohol Use	< 10	* *	0.4% (0.3-0.6)	ns	ns	ns

*Risk factors with less than 10 occurrences in an area are not reported.
ns = Not statistically significant.
Source: U.S. Centers for Health Statistics.

Appendix C-2. Risk factors for poor infant health among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties, 1991-2000.

Health Organization Service Area	AI/AN Alone		All Races		Trends over Time	
Risk Factor	Total Count	Percent of live births (95% confidence interval)	(95% Percent of confidence live births interval)	AI/AN compared to All Races	AI/AN 10-year trend (1991-2000)	AI/AN 6-year trend (1995-2000)
Jamaica Plains MA						
Low Birth Weight (< 2500g)	< 10	* *	8.6% (8.4-8.8)	ns	ns	Increasing
Very Low Birth Weight (< 1500g)	< 10	* *	1.8% (1.7-1.9)	ns	ns	ns
Mother's Age < 18	< 10	* *	4.3% (4.2-4.5)	ns	ns	ns
Mother Unmarried	127	67.2% (56.0-79.9)	45.7% (45.3-46.1)	+47%	ns	ns
Premature (calculated gestation)	14	7.5% (4.1-12.6)	11.1% (10.9-11.3)	ns	Increasing	ns
Late (3rd) or No Prenatal Care	< 10	* *	2.8% (2.7-2.9)	ns	ns	Decreasing
Maternal Smoking	43	23.0% (16.7-31.0)	11.2% (11.0-11.4)	+105%	Decreasing	ns
Maternal Alcohol Use	< 10	* *	0.4% (0.4-0.5)	ns	ns	ns
Lincoln NE						
Low Birth Weight (< 2500g)	132	7.5% (6.3-8.9)	6.7% (6.5-6.8)	ns	ns	ns
Very Low Birth Weight (< 1500g)	27	1.5% (1.0-2.2)	1.2% (1.2-1.3)	ns	ns	ns
Mother's Age < 18	196	11.2% (9.7-12.8)	3.7% (3.6-3.8)	+202%	ns	ns
Mother Unmarried	1205	68.6% (64.8-72.6)	27.0% (26.7-27.3)	+154%	ns	ns
Premature (calculated gestation)	220	13.4% (11.7-15.3)	10.6% (10.5-10.8)	+26%	ns	ns
Late (3rd) or No Prenatal Care	130	7.5% (6.3-8.9)	2.1% (2.1-2.2)	+252%	ns	ns
Maternal Smoking	648	37.1% (34.3-40.1)	17.2% (17.0-17.5)	+115%	ns	Decreasing
Maternal Alcohol Use	< 10	* *	0.3% (0.3-0.3)	ns	ns	ns
Los Angeles CA						
Low Birth Weight (< 2500g)	296	7.1% (6.3-8.0)	6.3% (6.3-6.4)	ns	ns	ns
Very Low Birth Weight (< 1500g)	57	1.4% (1.0-1.8)	1.2% (1.1-1.2)	ns	ns	ns
Mother's Age < 18	263	6.3% (5.6-7.1)	4.7% (4.7-4.7)	+35%	ns	ns
Mother Unmarried	2095	50.3% (48.2-52.5)	39.7% (39.6-39.8)	+27%	Increasing	ns
Premature (calculated gestation)	487	12.5% (11.4-13.6)	10.5% (10.5-10.6)	+18%	ns	ns
Late (3rd) or No Prenatal Care	143	3.5% (2.9-4.1)	2.9% (2.8-2.9)	+21%	Decreasing	ns
Maternal Alcohol Use	14	0.3% (0.2-0.6)	0.3% (0.3-0.3)	ns	ns	ns

*Risk factors with less than 10 occurrences in an area are not reported.
ns = Not statistically significant.
Source: U.S. Centers for Health Statistics.

Appendix C-2. Risk factors for poor infant health among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties, 1991-2000.

Health Organization Service Area	AI/AN Alone		All Races		Trends over Time	
Risk Factor	Total Count	Percent of live births (95% confidence interval)	Percent of live births (95% confidence interval)	AI/AN compared to All Races	AI/AN 10-year trend (1991-2000)	AI/AN 6-year trend (1995-2000)
Milwaukee WI						
Low Birth Weight (< 2500g)	99	6.6% (5.4-8.1)	8.0% (7.9-8.2)	ns	ns	ns
Very Low Birth Weight (< 1500g)	16	1.1% (0.6-1.7)	1.6% (1.5-1.7)	ns	ns	ns
Mother's Age < 18	158	10.6% (9.0-12.4)	5.9% (5.8-6.0)	+79%	ns	ns
Mother Unmarried	1000	66.9% (62.9-71.2)	40.2% (39.9-40.4)	+67%	ns	Increasing
Premature (calculated gestation)	181	12.8% (11.0-14.8)	11.8% (11.6-11.9)	ns	ns	ns
Late (3rd) or No Prenatal Care	84	5.6% (4.5-7.0)	3.1% (3.0-3.2)	+81%	ns	ns
Maternal Smoking	549	36.8% (33.7-40.0)	18.1% (17.9-18.3)	+103%	Decreasing	ns
Maternal Alcohol Use	< 10	* *	0.4% (0.4-0.4)	ns	ns	ns
Minneapolis MN						
Low Birth Weight (< 2500g)	370	8.5% (7.6-9.4)	6.4% (6.3-6.5)	+32%	ns	ns
Very Low Birth Weight (< 1500g)	70	1.6% (1.3-2.0)	1.2% (1.2-1.3)	ns	ns	ns
Mother's Age < 18	584	13.4% (12.3-14.5)	3.8% (3.7-3.8)	+256%	ns	ns
Mother Unmarried	3591	82.1% (79.4-84.8)	28.7% (28.5-28.9)	+186%	Decreasing	ns
Premature (calculated gestation)	474	13.3% (12.2-14.6)	9.4% (9.2-9.5)	+43%	ns	ns
Late (3rd) or No Prenatal Care	479	12.2% (11.2-13.4)	3.7% (3.6-3.7)	+234%	Decreasing	ns
Maternal Smoking	1748	44.5% (42.4-46.6)	11.5% (11.3-11.6)	+288%	Decreasing	ns
Maternal Alcohol Use	18	0.5% (0.3-0.7)	0.3% (0.3-0.3)	ns	ns	ns
Missoula MT						
Low Birth Weight (< 2500g)	28	8.2% (5.4-11.8)	6.3% (5.9-6.8)	ns	ns	Increasing
Very Low Birth Weight (< 1500g)	< 10	* *	1.2% (1.0-1.4)	ns	ns	ns
Mother's Age < 18	22	6.4% (4.0-9.7)	2.7% (2.4-3.0)	+137%	ns	ns
Mother Unmarried	176	51.3% (44.0-59.5)	23.9% (23.0-24.8)	+115%	ns	ns
Premature (calculated gestation)	38	12.1% (8.6-16.7)	10.5% (9.8-11.1)	ns	ns	Increasing
Late (3rd) or No Prenatal Care	19	5.6% (3.4-8.7)	1.5% (1.2-1.7)	+284%	ns	ns
Maternal Smoking	111	32.7% (27.0-39.4)	16.8% (16.1-17.6)	+95%	ns	ns
Maternal Alcohol Use	< 10	* *	0.2% (0.2-0.3)	ns	Decreasing	ns

*Risk factors with less than 10 occurrences in an area are not reported.
ns = Not statistically significant.
Source: U.S. Centers for Health Statistics.

Appendix C-2. Risk factors for poor infant health among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties, 1991-2000.

Health Organization Service Area	AI/AN Alone		All Races		Trends over Time	
Risk Factor	Total Count	Percent of live births (95% confidence interval)	Percent of live births (95% confidence interval)	AI/AN compared to All Races	AI/AN 10-year trend (1991-2000)	AI/AN 6-year trend (1995-2000)
Low Birth Weight (< 2500g)	244	10.7% (9.4-12.2)	8.5% (8.5-8.6)	+26%	ns	Increasing
Very Low Birth Weight (< 1500g)	39	1.7% (1.2-2.4)	1.7% (1.7-1.7)	ns	ns	ns
Mother Unmarried	777	34.1% (31.8-36.6)	42.5% (42.4-42.6)	-20%	Increasing	ns
Premature (calculated gestation)	300	13.9% (12.3-15.5)	11.5% (11.4-11.6)	+21%	ns	Increasing
Late (3rd) or No Prenatal Care	107	5.2% (4.2-6.3)	4.9% (4.8-4.9)	ns	ns	ns
Maternal Smoking	52	7.6% (5.7-10.0)	4.6% (4.6-4.7)	+65%	ns	ns
Maternal Alcohol Use	< 10	* *	0.5% (0.5-0.5)	ns	Increasing	ns
Oakland CA						
Low Birth Weight (< 2500g)	134	5.9% (4.9-7.0)	6.5% (6.4-6.6)	ns	ns	ns
Very Low Birth Weight (< 1500g)	28	1.2% (0.8-1.8)	1.1% (1.1-1.1)	ns	ns	ns
Mother's Age < 18	123	5.4% (4.5-6.5)	3.1% (3.0-3.1)	+76%	ns	ns
Mother Unmarried	1094	48.1% (45.3-51.1)	26.6% (26.4-26.7)	+81%	ns	ns
Late (3rd) or No Prenatal Care	93	4.2% (3.4-5.1)	2.3% (2.3-2.4)	+79%	Decreasing	ns
Phoenix AZ						
Low Birth Weight (< 2500g)	811	6.2% (5.8-6.7)	6.6% (6.6-6.7)	ns	ns	ns
Very Low Birth Weight (< 1500g)	153	1.2% (1.0-1.4)	1.1% (1.1-1.2)	ns	ns	ns
Mother's Age < 18	1124	8.6% (8.1-9.1)	5.6% (5.5-5.6)	+54%	ns	Decreasing
Mother Unmarried	8837	67.6% (66.1-69.0)	36.3% (36.2-36.5)	+86%	ns	ns
Premature (calculated gestation)	1388	12.2% (11.5-12.8)	10.5% (10.4-10.6)	+16%	ns	Increasing
Late (3rd) or No Prenatal Care	1112	8.8% (8.3-9.3)	4.3% (4.3-4.4)	+102%	Decreasing	Decreasing
Maternal Smoking	994	7.7% (7.2-8.1)	10.2% (10.1-10.3)	-25%	Decreasing	Decreasing
Maternal Alcohol Use	24	0.2% (0.1-0.3)	0.3% (0.3-0.3)	ns	ns	ns

*Risk factors with less than 10 occurrences in an area are not reported.
ns = Not statistically significant.
Source: U.S. Centers for Health Statistics.

Appendix C-2. Risk factors for poor infant health among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties, 1991-2000.

Health Organization Service Area	AI/AN Alone		All Races		Trends over Time	
Risk Factor	Total Count	Percent of live births (95% confidence interval)	Percent of live births (95% confidence interval)	AI/AN compared to All Races	AI/AN 10-year trend (1991-2000)	AI/AN 6-year trend (1995-2000)
Pierre SD						
Low Birth Weight (< 2500g)	64	5.2% (4.0-6.7)	5.6% (5.4-5.9)	ns	ns	ns
Mother's Age < 18	110	9.0% (7.4-10.8)	2.7% (2.5-2.9)	+231%	ns	ns
Mother Unmarried	849	69.4% (64.8-74.3)	24.8% (24.2-25.4)	+180%	Increasing	ns
Premature (calculated gestation)	124	10.5% (8.8-12.6)	9.5% (9.1-9.8)	ns	ns	ns
Late (3rd) or No Prenatal Care	102	8.4% (6.9-10.2)	1.8% (1.6-1.9)	+376%	ns	ns
Maternal Smoking	38	26.2% (18.6-36.0)	16.9% (15.5-18.4)	+55%	ns	ns
Maternal Alcohol Use	< 10	* *	0.2% (0.2-0.3)	ns	ns	ns
Portland OR						
Low Birth Weight (< 2500g)	129	5.6% (4.7-6.6)	5.5% (5.4-5.5)	ns	ns	ns
Very Low Birth Weight (< 1500g)	28	1.2% (0.8-1.8)	.9% (0.9-1.0)	ns	ns	ns
Mother's Age < 18	196	8.5% (7.3-9.7)	3.7% (3.6-3.7)	+131%	ns	Decreasing
Mother Unmarried	1225	52.9% (50.0-55.9)	26.3% (26.1-26.5)	+101%	Increasing	ns
Premature (calculated gestation)	223	10.2% (8.9-11.6)	8.9% (8.8-9.0)	ns	ns	ns
Late (3rd) or No Prenatal Care	115	5.0% (4.1-6.0)	2.7% (2.6-2.7)	+88%	ns	ns
Maternal Smoking	724	31.5% (29.3-33.9)	16.3% (16.1-16.4)	+94%	ns	ns
Maternal Alcohol Use	14	.6% (0.3-1.0)	0.5% (0.5-0.5)	ns	ns	ns
Reno NV						
Low Birth Weight (< 2500g)	93	6.0% (4.9-7.4)	7.1% (6.9-7.3)	ns	ns	ns
Very Low Birth Weight (< 1500g)	16	1.0% (0.6-1.7)	1.1% (1.0-1.2)	ns	ns	ns
Mother's Age < 18	121	7.8% (6.5-9.4)	4.2% (4.1-4.4)	+86%	ns	ns
Mother Unmarried	913	59.1% (55.3-63.1)	32.0% (31.6-32.5)	+85%	ns	Decreasing
Premature (calculated gestation)	147	10.4% (8.8-12.3)	10.7% (10.4-11.0)	ns	ns	ns
Late (3rd) or No Prenatal Care	88	5.8% (4.6-7.1)	2.4% (2.2-2.5)	+144%	ns	ns
Maternal Smoking	235	15.4% (13.5-17.5)	15.3% (15.0-15.6)	ns	ns	ns
Maternal Alcohol Use	< 10	* *	0.3% (0.3-0.4)	ns	ns	ns

*Risk factors with less than 10 occurrences in an area are not reported.
ns = Not statistically significant.
Source: U.S. Centers for Health Statistics.

Appendix C-2. Risk factors for poor infant health among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties, 1991-2000.

Health Organization Service Area	AI/AN Alone		All Races		Trends over Time	
Risk Factor	Total Count	Percent of live births (95% confidence interval)	Percent of live births (95% confidence interval)	AI/AN compared to All Races	AI/AN 10-year trend (1991-2000)	AI/AN 6-year trend (1995-2000)
Sacramento CA						
Low Birth Weight (< 2500g)	123	6.6% (5.5-7.9)	6.5% (6.4-6.6)	ns	ns	ns
Very Low Birth Weight (< 1500g)	15	0.8% (0.5-1.3)	1.2% (1.1-1.2)	ns	ns	ns
Mother's Age < 18	124	6.7% (5.6-8.0)	4.9% (4.8-5.0)	+38%	ns	Decreasing
Mother Unmarried	1038	55.9% (52.5-59.4)	34.0% (33.7-34.3)	+64%	Increasing	Increasing
Premature (calculated gestation)	215	12.2% (10.6-13.9)	9.8% (9.6-9.9)	+25%	ns	ns
Late (3rd) or No Prenatal Care	127	6.9% (5.8-8.2)	4.0% (3.9-4.1)	+72%	ns	Decreasing
Maternal Alcohol Use	14	0.8% (0.4-1.3)	0.4% (0.4-0.4)	ns	ns	ns
Salt Lake City UT						
Low Birth Weight (< 2500g)	227	7.3% (6.4-8.3)	6.4% (6.3-6.5)	ns	Increasing	ns
Very Low Birth Weight (< 1500g)	54	1.7% (1.3-2.3)	1.0% (1.0-1.0)	+76%	ns	ns
Mother's Age < 18	229	7.4% (6.5-8.4)	3.4% (3.4-3.5)	+115%	ns	ns
Mother Unmarried	1651	53.1% (50.6-55.8)	16.5% (16.3-16.6)	+223%	ns	Decreasing
Premature (calculated gestation)	337	12.4% (11.1-13.8)	9.3% (9.2-9.4)	+33%	ns	ns
Late (3rd) or No Prenatal Care	309	10.3% (9.2-11.5)	3.0% (2.9-3.1)	+244%	ns	ns
Maternal Smoking	394	12.7% (11.5-14.0)	9.1% (9.0-9.2)	+40%	ns	ns
Maternal Alcohol Use	< 10	* *	0.4% (0.4-0.4)	ns	ns	ns
San Diego CA						
Low Birth Weight (< 2500g)	176	6.0% (5.1-6.9)	5.8% (5.8-5.9)	ns	Decreasing	ns
Very Low Birth Weight (< 1500g)	33	1.1% (0.8-1.6)	1.0% (1.0-1.1)	ns	ns	ns
Mother's Age < 18	171	5.8% (5.0-6.8)	3.8% (3.8-3.9)	+52%	ns	ns
Mother Unmarried	1309	44.6% (42.2-47.0)	29.1% (28.9-29.2)	+53%	Increasing	ns
Premature (calculated gestation)	307	11.5% (10.2-12.8)	9.8% (9.7-9.9)	+17%	ns	ns
Late (3rd) or No Prenatal Care	124	4.3% (3.6-5.1)	4.1% (4.1-4.2)	ns	ns	ns
Maternal Alcohol Use	11	0.4% (0.2-0.7)	0.2% (0.2-0.3)	ns	ns	Decreasing

*Risk factors with less than 10 occurrences in an area are not reported.
ns = Not statistically significant.
Source: U.S. Centers for Health Statistics.

Appendix C-2. Risk factors for poor infant health among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties, 1991-2000.

Health Organization Service Area	AI/AN Alone		All Races		Trends over Time	
Risk Factor	Total Count	Percent of live births (95% confidence interval)	Percent of live births (95% confidence interval)	AI/AN compared to All Races	AI/AN 10-year trend (1991-2000)	AI/AN 6-year trend (1995-2000)
San Jose CA						
Low Birth Weight (< 2500g)	86	7.9% (6.3-9.8)	5.8% (5.7-5.9)	+36%	ns	ns
Very Low Birth Weight (< 1500g)	16	1.5% (0.8-2.4)	1.0% (0.9-1.0)	ns	Increasing	ns
Mother's Age < 18	86	7.9% (6.3-9.8)	3.2% (3.1-3.3)	+146%	ns	ns
Mother Unmarried	522	47.9% (43.9-52.2)	24.3% (24.1-24.5)	+97%	ns	ns
Premature (calculated gestation)	133	13.2% (11.1-15.7)	8.6% (8.5-8.7)	+54%	ns	ns
Late (3rd) or No Prenatal Care	53	4.9% (3.7-6.5)	3.1% (3.0-3.1)	+61%	ns	ns
Maternal Alcohol Use	< 10	* *	0.3% (0.3-0.4)	ns	ns	ns
Santa Barbara CA						
Low Birth Weight (< 2500g)	52	4.8% (3.6-6.2)	5.5% (5.4-5.6)	ns	ns	ns
Very Low Birth Weight (< 1500g)	< 10	* *	0.9% (0.9-1.0)	ns	ns	ns
Mother's Age < 18	73	6.7% (5.2-8.4)	4.1% (4.0-4.2)	+63%	ns	ns
Mother Unmarried	473	43.2% (39.4-47.2)	23.9% (23.7-24.1)	+81%	ns	Increasing
Premature (calculated gestation)	122	12.0% (10.0-14.3)	9.5% (9.3-9.6)	+26%	ns	ns
Late (3rd) or No Prenatal Care	34	3.1% (2.2-4.3)	3.0% (2.9-3.0)	ns	Decreasing	ns
Maternal Alcohol Use	< 10	* *	0.3% (0.3-0.4)	ns	ns	ns
Seattle WA						
Low Birth Weight (< 2500g)	222	6.9% (6.1-7.9)	5.7% (5.6-5.8)	+22%	ns	ns
Very Low Birth Weight (< 1500g)	33	1.0% (0.7-1.5)	.9% (0.9-1.0)	ns	ns	ns
Mother's Age < 18	267	8.3% (7.3-9.4)	2.5% (2.4-2.5)	+237%	ns	Decreasing
Mother Unmarried	1818	56.5% (53.9-59.1)	22.7% (22.5-22.9)	+149%	ns	ns
Premature (calculated gestation)	296	12.8% (11.4-14.3)	8.8% (8.7-9.0)	+45%	Decreasing	ns
Late (3rd) or No Prenatal Care	162	6.1% (5.2-7.1)	2.5% (2.4-2.5)	+145%	Decreasing	ns
Maternal Smoking	750	25.8% (24.0-27.7)	11.7% (11.6-11.9)	+120%	Decreasing	ns
Maternal Alcohol Use	< 10	* *	0.3% (0.3-0.3)	ns	ns	ns

*Risk factors with less than 10 occurrences in an area are not reported.
ns = Not statistically significant.
Source: U.S. Centers for Health Statistics.

Appendix C-2. Risk factors for poor infant health among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties, 1991-2000.

Health Organization Service Area	AI/AN Alone		All Races		Trends over Time	
Risk Factor	Total Count	Percent of live births (95% confidence interval)	Percent of live births (95% confidence interval)	AI/AN compared to All Races	AI/AN 10-year trend (1991-2000)	AI/AN 6-year trend (1995-2000)
Spokane WA						
Low Birth Weight (< 2500g)	82	6.8% (5.4-8.4)	5.7% (5.5-5.9)	ns	ns	ns
Very Low Birth Weight (< 1500g)	12	1.0% (0.5-1.7)	.9% (0.9-1.0)	ns	ns	ns
Mother's Age < 18	112	9.2% (7.6-11.1)	3.9% (3.7-4.0)	+139%	ns	ns
Mother Unmarried	761	62.6% (58.3-67.3)	28.5% (28.1-29.0)	+120%	ns	Decreasing
Premature (calculated gestation)	110	11.4% (9.3-13.7)	8.4% (8.1-8.6)	+35%	ns	ns
Late (3rd) or No Prenatal Care	42	3.7% (2.7-5.0)	1.6% (1.5-1.7)	+134%	ns	ns
Maternal Smoking	451	38.1% (34.6-41.7)	21.4% (21.0-21.8)	+78%	ns	ns
Maternal Alcohol Use	< 10	* *	0.2% (0.2-0.2)	+244%	Decreasing	ns
Tucson AZ						
Low Birth Weight (< 2500g)	329	6.7% (6.0-7.5)	7.2% (7.0-7.3)	ns	ns	ns
Very Low Birth Weight (< 1500g)	46	0.9% (0.7-1.3)	1.1% (1.1-1.2)	ns	ns	ns
Mother's Age < 18	528	10.8% (9.9-11.7)	5.7% (5.6-5.8)	+89%	ns	ns
Mother Unmarried	3687	75.1% (72.7-77.6)	38.5% (38.2-38.9)	+95%	ns	ns
Premature (calculated gestation)	580	13.7% (12.6-14.8)	11.3% (11.1-11.5)	+21%	ns	ns
Late (3rd) or No Prenatal Care	399	8.2% (7.4-9.0)	6.6% (6.4-6.7)	+24%	ns	ns
Maternal Smoking	325	6.6% (5.9-7.4)	10.0% (9.8-10.2)	-34%	Decreasing	ns
Maternal Alcohol Use	< 10	* *	0.2% (0.2-0.3)	ns	ns	ns
Wichita KS						
Low Birth Weight (< 2500g)	65	7.6% (5.9-9.7)	7.2% (7.0-7.3)	ns	ns	ns
Very Low Birth Weight (< 1500g)	14	1.6% (0.9-2.8)	1.4% (1.3-1.5)	ns	ns	ns
Mother's Age < 18	62	7.3% (5.6-9.3)	4.7% (4.6-4.9)	+54%	ns	ns
Mother Unmarried	427	50.1% (45.5-55.1)	29.3% (28.9-29.6)	+71%	Decreasing	ns
Premature (calculated gestation)	105	13.1% (10.7-15.9)	10.3% (10.1-10.6)	+27%	ns	ns
Late (3rd) or No Prenatal Care	42	5.0% (3.6-6.7)	1.9% (1.8-2.0)	+166%	ns	ns
Maternal Smoking	190	22.4% (19.3-25.8)	14.3% (14.1-14.6)	+57%	ns	ns
Maternal Alcohol Use	< 10	* *	0.4% (0.3-0.4)	ns	ns	ns

*Risk factors with less than 10 occurrences in an area are not reported.
ns = Not statistically significant.
Source: U.S. Centers for Health Statistics.

Appendix C-3. Leading causes of infant deaths among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties with populations greater than 250,000, 1995-2000. (See end of table for applicable notes)**

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	AI/AN 6-year trend (1995-2000)
Risk Factor	Rank	Total Deaths	Rate per (95% 1,000 live confidence births interval)	Rank	Rate per (95% 1,000 live confidence births interval)		
US TOTAL							
All Causes		2,093	8.9 (8.5-9.3)		7.1 (7.0-7.1)	+26%	ns
Sudden infant death syndrome	1	387	1.6 (1.5-1.8)	3	0.8 (.7-.8)	+119%	Decreasing
Congenital malformations, deformations and chromosomal abnormalities	2	357	1.5 (1.4-1.7)	1	1.4 (1.4-1.4)	ns	ns
Disorders related to short gestation and low birth weight, not elsewhere classified	3	220	0.9 (.8-1.1)	2	1.1 (1.1-1.1)	-14%	ns
Accidents	4	96	0.4 (.3-.5)	6	0.2 (.2-.2)	+122%	ns
Newborn affected by complications of placenta, cord and membranes	5	69	0.3 (.2-.4)	5	0.3 (.2-.3)	ns	ns
Newborn affected by maternal complications of pregnancy	6	61	0.3 (.2-.3)	4	0.3 (.3-.3)	ns	ns
Diseases of the circulatory system	7	43	0.2 (.1-.2)	8	0.2 (.2-.2)	ns	ns
Intrauterine hypoxia and birth asphyxia	8	41	0.2 (.1-.2)	9	0.2 (.2-.2)	ns	ns
Bacterial sepsis of newborn	9	40	0.2 (.1-.2)	7	0.2 (.2-.2)	ns	ns
Necrotizing enterocolitis of newborn	10	34	0.1 (.1-.2)	12	0.1 (.1-.1)	ns	ns
UIHO Total (Partial)							
All Causes		340	8.8 (7.9-9.8)		6.6 (6.5-6.7)	+33%	ns
Sudden infant death syndrome	1	68	1.8 (1.4-2.2)	2	0.7 (.7-.7)	+157%	ns
Disorders related to short gestation and low birth weight, not elsewhere classified	2	46	1.2 (.9-1.6)	1	1.0 (1.0-1.0)	ns	Increasing
Accidents	3	12	0.3 (.2-.6)	3	0.1 (.1-.2)	+121%	ns
Albuquerque NM							
All Causes		21	8.7 (5.4-13.2)		5.8 (5.1-6.5)	ns	ns
Bakersfield CA							
All Causes		< 10	* *		8.0 (7.4-8.7)	ns	ns

Appendix C-3. Leading causes of infant deaths among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties with populations greater than 250,000, 1995-2000. (See end of table for applicable notes)**

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	AI/AN 6-year trend (1995-2000)
Risk Factor	Rank	Total Deaths	Rate per 1,000 live births (95% confidence interval)	Rank	Rate per 1,000 live births (95% confidence interval)		
Chicago IL							
All Causes		14	21.5 (11.8-36.1		10.0 (9.8-10.3)	+115%	ns
Dallas TX (Partial)							
All Causes		< 10	* *		5.9 (5.7-6.1)	ns	ns
Denver CO (Partial)							
All Causes		14	8.5 (4.6-14.2)		6.7 (6.3-7.1)	ns	Increasing
Detroit MI							
All Causes		< 10	* *		10.1 (9.7-10.4)	ns	ns
Fresno CA (Partial)							
All Causes		14	12.5 (6.9-20.9)		6.7 (6.3-7.2)	ns	ns
Jamaica Plains MA							
All Causes		< 10	* *		6.2 (5.5-6.9)	ns	ns
Lincoln NE (Partial)							
All Causes		< 10	* *		7.9 (7.0-8.7)	ns	ns
Los Angeles CA							
All Causes		18	7.2 (4.3-11.3)		5.3 (5.2-5.5)	ns	ns
Milwaukee WI							
All Causes		13	14.4 (7.7-24.5)		9.0 (8.4-9.5)	ns	ns
Minneapolis MN							
All Causes		37	15.8 (11.2-21.8		7.1 (6.7-7.6)	+122%	Decreasing
New York NY (Partial)							
All Causes		< 10	* *		6.6 (6.5-6.8)	**	ns
Oakland CA (Partial)							
All Causes		10	7.6 (3.7-14.0)		5.0 (4.7-5.2)	ns	ns

Appendix C-3. Leading causes of infant deaths among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties with populations greater than 250,000, 1995-2000. (See end of table for applicable notes)**

Health Organization Service Area / Risk Factor	AI/AN Alone			All Races		AI/AN compared to All Races	AI/AN 6-year trend (1995-2000)
	Rank	Total Deaths	Rate per 1,000 live births (95% confidence interval)	Rank	Rate per 1,000 live births (95% confidence interval)		
Phoenix AZ							
All Causes		71	8.5 (6.7-10.8)		7.1 (6.8-7.4)	ns	ns
Congenital malformations, deformations and chromosomal abnormalities	1	16	2.0 (1.1-3.2)	1	1.6 (1.5-1.8)	ns	ns
Portland OR							
All Causes		< 10	* *		5.0 (4.6-5.4)	ns	ns
Reno NV (Partial)							
All Causes		< 10	* *		6.3 (5.4-7.3)	ns	ns
Sacramento CA							
All Causes		< 10	* *		6.3 (5.9-6.8)	ns	ns
Salt Lake City UT (Partial)							
All Causes		< 10	* *		5.4 (5.0-5.7)	ns	ns
San Diego CA							
All Causes		16	8.9 (5.1-14.4)		5.2 (4.9-5.4)	ns	ns
San Jose CA							
All Causes		< 10	* *		4.9 (4.5-5.2)	ns	ns
Santa Barbara CA (Partial)							
All Causes		< 10	* *		5.3 (4.9-5.8)	ns	ns
Seattle WA							
All Causes		19	10.0 (6.0-15.6)		5.0 (4.7-5.4)	+99%	ns
Spokane WA							
All Causes		< 10	* *		5.5 (4.8-6.4)	ns	ns
Tucson AZ							
All Causes		25	8.3 (5.4-12.3)		6.3 (5.7-6.9)	ns	ns

Appendix C-3. Leading causes of infant deaths among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties with populations greater than 250,000, 1995-2000. (See end of table for applicable notes)**

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	AI/AN 6-year trend (1995-2000)
Risk Factor	Rank	Total Deaths	Rate per (95% 1,000 live births confidence interval)	Rank	Rate per (95% 1,000 live births confidence interval)		
Witchita KS (Partial)							
All Causes		< 10	* *		(7.2-8.9)	ns	ns

Notes:

AI/AN infant mortality rates may in some or all locations be significantly underreported and should be interpreted with caution.

***Rates of infant mortality are limited to areas with totals of 10 or more deaths from 1995 to 2000.**

****Significantly less than rate for area total, but percentage suppressed due to the number of deaths being less than 10.**

"Partial" refers to service areas that only include counties with populations greater than 250,000 based on the 1990 U.S. Census.

Source of mortality and birth vital statistics data: U.S. Centers for Health Statistics.

Appendix C-4. Risk Factors* associated with infant deaths among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties with populations greater than 250,000, 1995-2000. (See end of table for applicable notes).**

Health Organization Service Area Risk Factor	AI/AN Alone Total Count	AI/AN Alone (95% Percent of confidence deaths interval)	All Races (95% Percent of confidence deaths interval)	AI/AN compared to All Races	AI/AN 6-year trend (1995-2000)
US TOTAL					
Low Birth Weight (< 2500g)	1022	49.7% (46.7-52.8)	65.2% (64.8-65.6)	-24%	Increasing
Very Low Birth Weight (< 1500g)	721	35.1% (32.5-37.7)	50.8% (50.5-51.2)	-31%	Increasing
Mother's Age < 18	213	10.2% (8.9-11.6)	7.6% (7.4-7.7)	35%	ns
Mother Unmarried	1372	65.6% (62.1-69.1)	47.2% (46.9-47.5)	39%	ns
Premature (calculated gestation)	873	50.1% (46.9-53.6)	64.5% (64.1-64.9)	-22%	ns
Late (3rd) or No Prenatal Care	136	7.1% (5.9-8.4)	2.7% (2.6-2.7)	167%	ns
Maternal Smoking	503	29.8% (27.3-32.5)	19.5% (19.3-19.7)	53%	ns
Maternal Alcohol Use	126	7.4% (6.2-8.9)	2.3% (2.2-2.4)	225%	ns
UIHO Total (Partial)**					
Low Birth Weight (< 2500g)	182	54.2% (46.6-62.6)	65.5% (64.7-66.3)	-17%	ns
Very Low Birth Weight (< 1500g)	130	38.7% (32.3-45.9)	51.2% (50.5-51.9)	-24%	Increasing
Mother's Age < 18	38	11.2% (7.9-15.4)	7.0% (6.8-7.3)	59%	ns
Mother Unmarried	238	70.0% (61.4-79.5)	49.5% (48.8-50.2)	41%	ns
Premature (calculated gestation)	154	53.7% (45.5-62.8)	64.5% (63.7-65.4)	-17%	ns
Late (3rd) or No Prenatal Care	23	7.4% (4.7-11.1)	3.0% (2.8-3.2)	146%	ns
Maternal Smoking	63	25.2% (19.4-32.2)	15.5% (15.0-16.0)	62%	ns
Maternal Alcohol Use	22	9.2% (5.8-13.9)	2.2% (2.0-2.4)	319%	ns
Albuquerque NM					
Low Birth Weight (< 2500g)	13	61.9% (33.0-105.6)	61.9% (52.9-72.0)	ns	ns
Mother Unmarried	16	76.2% (43.6-123.5)	47.9% (40.2-56.7)	ns	ns
Premature (calculated gestation)	11	57.9% (28.9-103.2)	65.0% (55.5-75.6)	ns	ns
Denver CO (Partial)**					
Mother Unmarried	12	85.7% (44.4-149.2)	40.4% (36.7-44.3)	112%	ns
Los Angeles CA					
Low Birth Weight (< 2500g)	12	66.7% (34.5-116.1)	64.2% (62.1-66.4)	ns	ns

Appendix C-4. Risk Factors* associated with infant deaths among American Indians and Alaska Natives living in Urban Indian Health Organization (UIHO) service area counties with populations greater than 250,000, 1995-2000. (See end of table for applicable notes).**

Health Organization Service Area Risk Factor	AI/AN Alone Total Count	AI/AN Alone (95% Percent of confidence deaths interval)	All Races (95% Percent of confidence deaths interval)	AI/AN compared to All Races	AI/AN 6-year trend (1995-2000)
Milwaukee WI					
Mother Unmarried	12	92.3% (47.8-160.7)	63.3% (58.6-68.4)	ns	ns
Minneapolis MN					
Low Birth Weight (< 2500g)	19	52.8% (31.8-82.3)	60.2% (55.4-65.3)	ns	ns
Very Low Birth Weight (< 1500g)	13	36.1% (19.3-61.6)	46.9% (42.7-51.4)	ns	ns
Mother Unmarried	32	86.5% (59.2-122.1)	47.3% (43.1-51.8)	83%	ns
Premature (calculated gestation)	16	47.1% (26.9-76.3)	59.5% (54.6-64.8)	ns	ns
Maternal Smoking	16	50.0% (28.6-81.1)	17.5% (14.8-20.5)	186%	ns
Phoenix AZ					
Low Birth Weight (< 2500g)	36	50.7% (35.6-70.2)	61.5% (58.1-65.0)	ns	ns
Very Low Birth Weight (< 1500g)	27	38.0% (25.1-55.3)	45.1% (42.2-48.1)	ns	ns
Mother's Age < 18	11	15.5% (7.8-27.6)	9.0% (7.7-10.3)	ns	ns
Mother Unmarried	57	80.3% (60.9-103.9)	47.9% (44.9-50.9)	68%	ns
Phoenix AZ					
Premature (calculated gestation)	30	55.6% (37.5-79.3)	62.2% (58.4-66.1)	ns	ns
Seattle WA					
Mother Unmarried	13	68.4% (36.5-116.7)	40.0% (35.3-45.1)	ns	ns
Tucson AZ					
Mother Unmarried	20	80.0% (48.9-123.5)	48.1% (41.8-55.0)	ns	ns

Notes: AI/AN infant mortality rates may in some or all locations be significantly underreported and should be interpreted with caution.
***Risk factors are limited to factors associated with 10 or more deaths from 1995 to 2000.**
****"Partial" refers to service areas that only include counties with populations greater than 250,000 based on the 1990 U.S. Census. All UIHO service areas with counties less than 250,000 are excluded to protect patient confidentiality.**
Source of mortality and birth vital statistics data: U.S. Centers for Health Statistics.

Appendix D-1. Leading causes of death* among American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per 100,000 confidence interval)	Rank	Rate** (95% per 100,000 confidence interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
US TOTAL								
All Causes		97,926	769.0 (763.7-774.4)		902.1 (901.7-902.4)	-15%	Increasing	Increasing
Diseases of the heart	1	21,712	206.0 (203.0-208.9)	1	289.0 (288.8-289.2)	-29%	Decreasing	Decreasing
Malignant neoplasms	2	16,147	137.3 (135.0-139.6)	2	210.0 (209.9-210.2)	-35%	ns	ns
Lung Cancer		4,240	36.1 (34.9-37.2)		57.3 (57.2-57.4)	-37%	Increasing	ns
Accidents	3	12,693	60.4 (59.2-61.6)	5	35.5 (35.4-35.5)	+70%	Decreasing	Decreasing
Diabetes mellitus	4	5,193	44.7 (43.4-46.0)	7	22.9 (22.8-22.9)	+96%	Increasing	Increasing
Cerebrovascular diseases	5	4,809	48.8 (47.4-50.3)	3	65.4 (65.3-65.5)	-25%	ns	Decreasing
Chronic liver disease and cirrhosis	6	4,334	25.5 (24.7-26.3)	12	10.4 (10.3-10.4)	+146%	ns	ns
Chronic lower respiratory diseases	7	3,061	30.0 (28.9-31.1)	4	42.1 (42.0-42.2)	-29%	Increasing	Increasing
Intentional self-harm (suicide)	8	2,703	10.9 (10.5-11.4)	9	11.6 (11.6-11.7)	-6%	ns	ns
Influenza and pneumonia	9	2,473	25.1 (24.0-26.2)	6	23.8 (23.7-23.8)	+6%	ns	ns
Assault (homicide)	10	2,367	9.5 (9.1-9.9)	14	8.2 (8.2-8.2)	+16%	Decreasing	ns
Alcohol-related deaths		4,883	26.6 (25.8-27.4)		7.3 (7.3-7.4)	+262%	Decreasing	Decreasing
Injury by firearms		2,624	10.5 (10.1-10.9)		12.9 (12.9-13.0)	-19%	Decreasing	Decreasing
Drug-related deaths		1,348	6.0 (5.7-6.3)		6.2 (6.2-6.2)	ns	Increasing	ns
UIHO Total								
All Causes		18,141	573.9 (564.4-583.7)		883.2 (882.4-884.0)	-35%	Decreasing	Decreasing
Diseases of the heart	1	3,555	145.0 (139.8-150.3)	1	290.0 (289.6-290.5)	-50%	Decreasing	ns
Malignant neoplasms	2	2,711	98.0 (94.0-102.2)	2	201.8 (201.5-202.2)	-51%	ns	ns
Lung Cancer		663	24.9 (22.9-27.0)		51.2 (51.0-51.4)	-51%	Increasing	ns
Accidents	3	2,313	42.7 (40.7-44.9)	5	30.9 (30.8-31.1)	+38%	ns	ns
Chronic liver disease and cirrhosis	4	1,192	27.5 (25.9-29.3)	11	12.2 (12.1-12.3)	+126%	ns	ns
Diabetes mellitus	5	894	32.0 (29.7-34.4)	8	20.8 (20.7-20.9)	+54%	Increasing	ns
Cerebrovascular diseases	6	806	34.5 (32.0-37.2)	3	61.2 (61.0-61.5)	-44%	ns	ns
Assault (homicide)	7	622	9.0 (8.3-9.9)	9	11.4 (11.3-11.5)	-21%	Decreasing	ns
Intentional self-harm (suicide)	8	519	8.1 (7.3-8.9)	10	11.2 (11.1-11.3)	-28%	ns	Decreasing
Chronic lower respiratory diseases	9	515	21.8 (19.9-24.0)	4	39.8 (39.7-40.0)	-45%	ns	ns
Influenza and pneumonia	10	493	20.6 (18.6-22.8)	6	26.5 (26.3-26.6)	-22%	ns	ns
Alcohol-related deaths		1,278	28.1 (26.5-29.9)		10.1 (10.0-10.2)	+178%	Decreasing	Decreasing
Drug-related deaths		540	9.0 (8.2-9.9)		9.4 (9.4-9.5)	ns	Increasing	ns
Injury by firearms		539	8.0 (7.2-8.8)		14.0 (13.9-14.1)	-43%	Decreasing	ns

Appendix D-1. Leading causes of death* among American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per 100,000 confidence interval)	Rank	Rate** (95% per 100,000 confidence interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
Albuquerque NM								
All Causes		711	683.9 (627.3-745.0)		832.6 (824.1-841.2)	-18%	Increasing	ns
Malignant neoplasms	1	103	117.0 (94.0-144.6)	2	183.8 (179.9-187.8)	-36%	ns	ns
Accidents	1	103	54.4 (42.3-70.3)	3	49.0 (47.1-51.0)	ns	ns	ns
Lung Cancer		16	17.2 (9.5-29.8)		40.8 (38.9-42.7)	-58%	ns	ns
Diseases of the heart	3	94	126.8 (101.3-157.3)	1	211.5 (207.1-216.0)	-40%	ns	ns
Chronic liver disease and cirrhosis	4	52	38.6 (28.0-53.3)	8	14.8 (13.7-16.0)	+160%	ns	ns
Diabetes mellitus	5	39	43.4 (30.1-61.4)	5	23.6 (22.2-25.1)	+84%	ns	Decreasing
Cerebrovascular diseases	6	35	50.2 (34.2-71.6)	4	58.4 (56.1-60.8)	ns	ns	ns
Intentional self-harm (suicide)	7	33	15.6 (10.5-24.8)	6	18.5 (17.3-19.7)	ns	ns	ns
Assault (homicide)	8	28	13.3 (8.4-22.3)	9	10.7 (9.9-11.7)	ns	ns	ns
Influenza and pneumonia	9	25	31.0 (19.0-48.4)	7	21.5 (20.1-23.0)	ns	ns	ns
Congenital malformations, deformations a	10	14	4.3 (2.2-11.4)	10	4.6 (4.0-5.2)	ns	ns	ns
Alcohol-related deaths		63	43.2 (32.3-58.2)		14.1 (13.1-15.2)	+207%	ns	ns
Injury by firearms		33	16.6 (11.0-26.4)		17.1 (16.0-18.2)	ns	ns	ns
Drug-related deaths		12	6.1 (3.0-13.8)		19.3 (18.2-20.6)	-69%	ns	ns
Bakersfield CA								
All Causes		147	242.8 (200.9-292.5)		972.1 (962.8-981.5)	-75%	ns	ns
Diseases of the heart	1	39	75.9 (51.9-108.6)	1	337.5 (331.8-343.2)	-78%	ns	ns
Malignant neoplasms	2	23	39.3 (24.3-62.6)	2	205.0 (200.8-209.2)	-81%	ns	Increasing
Accidents	3	20	23.0 (13.0-41.1)	3	47.5 (45.6-49.4)	-52%	ns	ns
Alcohol-related deaths		10	9.7 (4.5-23.4)		13.6 (12.6-14.7)	ns	ns	Decreasing

Appendix D-1. Leading causes of death* among American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per 100,000 confidence interval)	Rank	Rate** (95% per 100,000 confidence interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
Billings MT								
All Causes		616	1332.8 (1208.8-1469.0)		852.7 (836.8-868.9)	+56%	ns	ns
Accidents	1	121	138.7 (110.0-178.5)	5	42.1 (38.7-45.8)	+229%	ns	ns
Malignant neoplasms	2	119	295.2 (239.2-363.8)	1	205.3 (197.6-213.3)	+44%	ns	ns
Lung Cancer		39	102.2 (70.5-147.2)		52.8 (48.9-56.9)	+94%	Increasing	ns
Diseases of the heart	3	92	257.2 (201.7-326.2)	2	203.3 (195.5-211.3)	ns	ns	ns
Diabetes mellitus	4	36	105.0 (71.2-152.7)	7	19.2 (16.9-21.8)	+447%	ns	ns
Cerebrovascular diseases	5	28	79.0 (48.9-123.7)	3	76.0 (71.2-80.9)	ns	ns	ns
Chronic liver disease and cirrhosis	6	27	37.9 (24.3-64.2)	9	10.6 (8.9-12.5)	+258%	ns	ns
Chronic lower respiratory diseases	7	19	60.4 (33.9-102.3)	4	63.2 (59.0-67.7)	ns	Increasing	ns
Intentional self-harm (suicide)	8	17	18.7 (9.0-42.9)	6	20.3 (17.9-22.9)	ns	ns	ns
Influenza and pneumonia	9	16	46.4 (23.4-85.0)	8	17.1 (14.9-19.5)	+172%	ns	Decreasing
Assault (homicide)	10	13	9.9 (5.3-30.3)	11	5.6 (4.5-7.1)	ns	ns	ns
Alcohol-related deaths		37	48.8 (33.7-76.1)		9.1 (7.5-10.9)	+438%	ns	ns
Injury by firearms		19	18.1 (8.9-41.7)		15.7 (13.7-18.0)	ns	ns	ns
Butte MT								
All Causes		28	704.7 (444.8-1115.8)		995.0 (964.8-1026.0)	ns	ns	ns
Chicago IL								
All Causes		351	379.6 (335.8-428.7)		988.2 (985.4-991.0)	-62%	Decreasing	ns
Diseases of the heart	1	93	119.6 (94.6-150.3)	1	325.8 (324.2-327.5)	-63%	ns	ns
Malignant neoplasms	2	45	53.5 (38.1-74.3)	2	229.3 (227.9-230.6)	-77%	ns	ns
Lung Cancer		14	17.6 (9.1-32.1)		58.4 (57.7-59.1)	-70%	ns	ns
Chronic liver disease and cirrhosis	3	26	21.0 (13.5-33.7)	10	14.4 (14.1-14.8)	ns	Decreasing	ns
Accidents	4	24	15.8 (9.6-27.3)	4	31.9 (31.4-32.4)	-51%	Decreasing	ns
Assault (homicide)	5	15	7.9 (4.3-17.3)	6	17.7 (17.4-18.1)	-55%	Decreasing	ns
Septicemia	6	13	19.4 (9.7-35.7)	9	17.8 (17.4-18.2)	ns	ns	ns
Cerebrovascular diseases	6	13	15.3 (7.2-29.8)	3	64.8 (64.1-65.6)	-76%	ns	ns
Diabetes mellitus	8	12	16.2 (7.8-30.9)	5	25.8 (25.3-26.3)	ns	ns	ns
Human immunodeficiency virus (HIV)	9	11	7.3 (3.5-17.0)	8	16.6 (16.2-16.9)	ns	ns	ns
Nephritis, nephrotic syndrome and nephro	10	10	15.2 (6.5-30.8)	7	18.2 (17.8-18.6)	ns	ns	ns
Alcohol-related deaths		24	19.8 (12.5-32.3)		9.3 (9.0-9.5)	+114%	ns	ns

Appendix D-1. Leading causes of death* among American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per 100,000 confidence interval)	Rank	Rate** (95% per 100,000 confidence interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
Dallas TX								
All Causes		272	186.7 (160.5-217.1)		920.2 (916.7-923.7)	-80%	ns	ns
Diseases of the heart	1	55	45.7 (32.6-63.3)	1	292.6 (290.6-294.6)	-84%	ns	ns
Malignant neoplasms	2	48	38.4 (26.7-54.6)	2	211.9 (210.2-213.5)	-82%	ns	ns
Lung Cancer		13	11.1 (5.5-21.6)		62.0 (61.1-62.9)	-82%	ns	ns
Accidents	3	39	15.2 (10.4-24.0)	3	33.7 (33.1-34.3)	-55%	ns	ns
Diabetes mellitus	4	21	17.3 (9.9-29.5)	4	26.1 (25.5-26.7)	ns	ns	ns
Chronic liver disease and cirrhosis	5	15	7.5 (3.7-16.0)	7	10.0 (9.7-10.3)	ns	ns	ns
Assault (homicide)	6	14	4.4 (2.4-11.2)	6	11.4 (11.1-11.7)	ns	ns	Increasing
Human immunodeficiency virus (HIV)	7	11	3.6 (1.8-10.4)	5	13.5 (13.2-13.9)	-74%	ns	ns
Alcohol-related deaths		13	5.0 (2.6-12.2)		6.0 (5.8-6.3)	ns	ns	ns
Injury by firearms		12	3.6 (1.8-10.3)		16.9 (16.5-17.3)	-79%	ns	ns
Denver CO								
All Causes		509	511.9 (457.4-572.4)		828.2 (823.6-832.8)	-38%	ns	ns
Diseases of the heart	1	88	129.6 (100.5-165.7)	1	219.7 (217.3-222.1)	-41%	ns	ns
Malignant neoplasms	2	75	97.8 (73.9-128.3)	2	183.6 (181.5-185.8)	-47%	ns	ns
Lung Cancer		20	27.0 (15.5-45.6)		42.8 (41.8-43.8)	ns	ns	ns
Accidents	3	59	32.2 (23.2-46.9)	5	34.6 (33.7-35.4)	ns	ns	ns
Chronic liver disease and cirrhosis	4	37	25.7 (16.7-41.0)	9	10.0 (9.6-10.5)	+157%	ns	Decreasing
Intentional self-harm (suicide)	5	20	8.4 (5.1-18.8)	7	16.0 (15.5-16.6)	ns	ns	ns
Assault (homicide)	5	20	8.0 (4.8-18.3)	10	5.6 (5.3-5.9)	ns	ns	ns
Cerebrovascular diseases	7	18	31.2 (17.5-52.5)	4	57.4 (56.2-58.7)	-46%	ns	ns
Human immunodeficiency virus (HIV)	8	16	7.5 (4.2-18.0)	8	11.1 (10.6-11.5)	ns	ns	ns
Influenza and pneumonia	8	16	19.7 (9.4-37.8)	6	23.5 (22.7-24.3)	ns	ns	ns
Chronic lower respiratory diseases	10	10	13.1 (5.6-28.2)	3	56.4 (55.2-57.7)	-77%	ns	ns
Certain conditions originating in the perina	10	10	3.5 (1.7-13.5)	11	4.5 (4.2-4.8)	ns	ns	ns
Alcohol-related deaths		63	38.4 (28.4-54.2)		10.8 (10.3-11.3)	+255%	ns	Decreasing
Injury by firearms		18	7.0 (4.1-17.1)		12.2 (11.7-12.7)	ns	ns	ns
Drug-related deaths		15	7.0 (3.8-17.3)		7.8 (7.4-8.2)	ns	ns	ns

Appendix D-1. Leading causes of death* among American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per 100,000 confidence interval)	Rank	Rate** (95% per 100,000 confidence interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
Detroit MI								
All Causes		941	1011.9 (940.7-1088.1)		1016.1 (1012.5-1019.7	ns	Decreasing	ns
Diseases of the heart	1	267	331.4 (289.4-378.6)	1	350.9 (348.7-353.1)	ns	ns	ns
Malignant neoplasms	2	196	210.0 (179.2-245.6)	2	226.2 (224.5-227.9)	ns	ns	ns
Lung Cancer		73	72.8 (56.1-94.6)		62.1 (61.2-63.0)	ns	ns	ns
Chronic lower respiratory diseases	3	58	73.4 (54.7-97.5)	4	39.4 (38.7-40.2)	+86%	ns	ns
Accidents	4	57	36.4 (26.5-51.0)	5	31.8 (31.2-32.4)	ns	ns	ns
Cerebrovascular diseases	5	42	54.8 (38.4-77.0)	3	66.7 (65.7-67.6)	ns	ns	ns
Chronic liver disease and cirrhosis	6	38	30.1 (20.6-44.5)	9	15.1 (14.7-15.6)	+99%	ns	ns
Diabetes mellitus	7	29	29.4 (18.9-45.3)	6	27.5 (26.9-28.1)	ns	ns	ns
Intentional self-harm (suicide)	8	24	13.3 (8.3-23.5)	11	10.6 (10.2-10.9)	ns	ns	ns
Assault (homicide)	8	24	12.6 (7.9-22.5)	8	19.9 (19.4-20.4)	ns	Decreasing	ns
Influenza and pneumonia	10	22	29.9 (17.8-48.0)	7	25.2 (24.6-25.7)	ns	ns	ns
Alcohol-related deaths		40	27.6 (19.5-40.6)		10.1 (9.7-10.4)	+174%	ns	ns
Injury by firearms		25	13.5 (8.4-23.7)		20.5 (20.0-21.0)	ns	ns	ns
Drug-related deaths		20	11.4 (6.9-21.1)		9.4 (9.0-9.7)	ns	ns	ns
Flagstaff AZ								
All Causes		1,424	781.4 (737.1-828.0)		763.7 (740.2-787.9)	ns	ns	ns
Accidents	1	365	139.7 (123.9-157.7)	3	64.0 (58.7-69.8)	+118%	ns	ns
Diseases of the heart	2	216	151.1 (130.8-174.0)	1	186.1 (174.1-198.7)	-19%	ns	ns
Malignant neoplasms	3	169	110.5 (93.7-129.9)	2	164.3 (153.6-175.6)	-33%	ns	ns
Female breast cancer		12	13.5 (6.7-25.1)		26.3 (21.0-32.7)	ns	ns	ns
Influenza and pneumonia	4	66	46.5 (35.4-60.3)	7	30.5 (25.5-36.3)	ns	ns	ns
Cerebrovascular diseases	5	50	38.4 (28.3-51.3)	4	62.5 (55.3-70.4)	-38%	ns	ns
Chronic liver disease and cirrhosis	6	49	22.9 (16.6-31.6)	9	11.7 (9.4-14.5)	+97%	ns	ns
Intentional self-harm (suicide)	7	46	15.0 (10.6-21.6)	5	19.3 (16.5-22.5)	ns	ns	ns
Diabetes mellitus	8	43	28.6 (20.5-39.4)	8	19.2 (15.7-23.4)	ns	ns	ns
Assault (homicide)	9	40	12.9 (9.0-19.0)	10	6.5 (5.0-8.5)	+99%	ns	ns
Septicemia	10	33	22.2 (14.9-32.3)	12	10.2 (7.6-13.4)	+118%	ns	ns
Alcohol-related deaths		74	32.0 (24.8-41.4)		12.5 (10.2-15.3)	+156%	ns	ns
Injury by firearms		31	9.5 (6.2-15.2)		15.4 (12.9-18.4)	ns	ns	ns
Drug-related deaths		12	3.2 (1.6-7.4)		5.7 (4.2-7.7)	ns	ns	ns

Appendix D-1. Leading causes of death* among American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per 100,000 confidence interval)	Rank	Rate** (95% per 100,000 confidence interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
Fresno CA								
All Causes		343	305.5 (270.9-344.1)		898.4 (892.3-904.5)	-66%	ns	ns
Diseases of the heart	1	93	97.1 (77.4-121.0)	1	280.3 (276.9-283.8)	-65%	ns	ns
Malignant neoplasms	2	53	52.6 (38.7-70.6)	2	188.2 (185.5-191.0)	-72%	ns	ns
Lung Cancer		14	13.6 (7.2-24.4)		50.1 (48.7-51.6)	-73%	Increasing	ns
Accidents	3	36	17.4 (11.6-26.7)	4	49.5 (48.2-50.8)	-65%	ns	ns
Cerebrovascular diseases	4	18	20.3 (11.6-33.5)	3	69.2 (67.5-71.0)	-71%	Increasing	ns
Chronic liver disease and cirrhosis	4	18	11.5 (6.7-20.1)	6	15.4 (14.6-16.2)	ns	ns	ns
Diabetes mellitus	6	16	13.9 (7.7-24.3)	5	25.6 (24.6-26.7)	-46%	ns	ns
Assault (homicide)	7	14	6.2 (3.3-13.1)	7	11.3 (10.7-11.9)	ns	Decreasing	Decreasing
Alcohol-related deaths		18	10.8 (6.3-19.3)		12.3 (11.6-13.0)	ns	ns	ns
Injury by firearms		12	4.7 (2.4-11.1)		14.8 (14.1-15.6)	-69%	ns	ns
Great Falls MT								
All Causes		174	1035.9 (847.9-1268.6)		872.1 (851.7-892.8)	ns	ns	ns
Malignant neoplasms	1	30	191.1 (116.2-316.8)	2	208.9 (199.0-219.1)	ns	ns	ns
Lung Cancer		13	103.2 (48.7-213.4)		57.3 (52.2-62.8)	ns	ns	ns
Diseases of the heart	2	28	188.1 (113.1-314.2)	1	226.9 (216.5-237.6)	ns	ns	ns
Accidents	3	13	41.9 (21.7-120.2)	3	40.2 (35.9-44.9)	ns	ns	ns
Alcohol-related deaths		10	40.2 (18.8-120.0)		9.3 (7.3-11.7)	+333%	ns	ns
Green Bay WI								
All Causes		257	1125.6 (973.8-1298.2)		812.2 (800.3-824.2)	+39%	ns	ns
Diseases of the heart	1	71	385.4 (295.1-498.1)	1	259.6 (252.9-266.5)	+48%	ns	ns
Malignant neoplasms	2	46	221.7 (157.6-308.0)	2	190.5 (184.7-196.4)	ns	ns	ns
Lung Cancer		15	74.6 (40.5-132.0)		43.3 (40.6-46.2)	ns	ns	ns
Accidents	3	32	63.2 (38.4-108.7)	4	29.8 (27.7-32.2)	+112%	ns	Increasing
Cerebrovascular diseases	4	19	96.6 (55.7-160.9)	3	75.5 (71.9-79.3)	ns	ns	ns
Diabetes mellitus	5	13	63.0 (32.0-117.9)	5	16.6 (14.9-18.4)	+280%	ns	Increasing
Intentional self-harm (suicide)	5	13	22.9 (11.9-57.2)	6	12.9 (11.5-14.4)	ns	ns	ns
Chronic liver disease and cirrhosis	7	12	68.5 (33.7-128.4)	7	7.0 (5.9-8.2)	+886%	ns	ns
Alcohol-related deaths		11	50.7 (22.3-104.2)		5.4 (4.5-6.5)	+837%	ns	ns

Appendix D-1. Leading causes of death* among American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per 100,000 confidence interval)	Rank	Rate** (95% per 100,000 confidence interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
Helena MT								
All Causes		82	1387.6 (1074.2-1775.3)		880.4 (855.4-905.9)	+58%	ns	ns
Malignant neoplasms	1	25	517.0 (321.0-796.4)	2	205.6 (193.8-218.0)	+151%	ns	ns
Diseases of the heart	2	13	197.5 (99.4-373.5)	1	221.5 (209.0-234.6)	ns	ns	ns
Jamaica Plains MA								
All Causes		43	240.9 (170.7-334.4)		972.3 (964.4-980.2)	-75%	ns	ns
Lincoln NE								
All Causes		329	1130.4 (978.7-1305.9)		860.8 (854.2-867.4)	+31%	Increasing	ns
Diseases of the heart	1	59	279.9 (203.1-383.5)	1	267.8 (264.1-271.5)	ns	ns	ns
Malignant neoplasms	2	43	188.4 (128.2-275.5)	2	204.8 (201.6-208.0)	ns	ns	ns
Lung Cancer		12	57.1 (25.0-120.2)		57.2 (55.6-59.0)	ns	ns	ns
Accidents	3	40	70.4 (43.5-123.7)	5	27.5 (26.4-28.7)	+156%	ns	ns
Chronic liver disease and cirrhosis	4	28	66.3 (41.5-117.4)	7	7.8 (7.1-8.4)	+755%	ns	ns
Assault (homicide)	5	19	23.3 (13.5-64.1)	8	4.3 (3.9-4.8)	+441%	ns	ns
Diabetes mellitus	6	16	73.6 (37.5-139.5)	6	18.8 (17.9-19.8)	+291%	Increasing	ns
Cerebrovascular diseases	7	15	73.3 (38.0-138.0)	3	62.9 (61.2-64.8)	ns	ns	ns
Chronic lower respiratory diseases	8	10	53.6 (21.4-118.3)	4	49.3 (47.7-50.9)	ns	ns	ns
Alcohol-related deaths		34	71.3 (47.3-120.9)		5.8 (5.2-6.3)	+1,129%	ns	ns
Los Angeles CA								
All Causes		1,067	278.3 (260.1-297.6)		866.1 (863.9-868.3)	-68%	ns	Decreasing
Diseases of the heart	1	294	97.9 (86.4-110.5)	1	302.8 (301.5-304.1)	-68%	ns	ns
Malignant neoplasms	2	195	53.4 (45.7-62.2)	2	192.8 (191.7-193.8)	-72%	ns	ns
Lung Cancer		50	15.4 (11.3-20.8)		46.8 (46.3-47.3)	-67%	ns	ns
Accidents	3	86	12.2 (9.4-15.8)	5	27.6 (27.2-28.0)	-56%	ns	ns
Chronic liver disease and cirrhosis	4	75	12.9 (10.0-16.8)	10	15.0 (14.7-15.3)	ns	ns	ns
Cerebrovascular diseases	5	65	18.7 (14.2-24.5)	3	65.9 (65.3-66.5)	-72%	ns	ns
Diabetes mellitus	6	50	13.4 (9.7-18.1)	9	20.5 (20.2-20.9)	-35%	ns	ns
Human immunodeficiency virus (HIV)	7	40	4.9 (3.5-7.4)	7	21.1 (20.8-21.4)	-77%	Decreasing	Decreasing
Chronic lower respiratory diseases	8	33	10.3 (6.9-14.9)	4	40.4 (39.9-40.8)	-75%	ns	ns
Assault (homicide)	9	32	3.8 (2.5-6.1)	8	16.0 (15.8-16.3)	-76%	ns	ns
Influenza and pneumonia	10	26	9.9 (6.3-14.7)	6	31.2 (30.8-31.7)	-68%	ns	ns
Alcohol-related deaths		76	12.5 (9.7-16.3)		13.4 (13.2-13.7)	ns	ns	ns
Drug-related deaths		61	7.5 (5.7-10.3)		10.1 (9.9-10.3)	ns	ns	ns
Injury by firearms		30	3.2 (2.1-5.3)		18.1 (17.8-18.4)	-82%	ns	ns

Appendix D-1. Leading causes of death* among American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per 100,000 confidence interval)	Rank	Rate** (95% per 100,000 confidence interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
Milwaukee WI								
All Causes		283	780.5 (669.2-911.4)		892.2 (887.0-897.4)	ns	ns	ns
Diseases of the heart	1	67	244.0 (179.3-330.7)	1	279.1 (276.2-282.0)	ns	ns	Decreasing
Malignant neoplasms	2	48	149.2 (102.7-217.5)	2	216.5 (213.9-219.1)	ns	ns	ns
Lung Cancer		13	35.4 (17.9-76.8)		53.0 (51.8-54.3)	ns	ns	ns
Accidents	3	22	34.6 (18.3-74.4)	4	30.5 (29.5-31.5)	ns	ns	ns
Chronic liver disease and cirrhosis	4	18	31.7 (16.9-70.1)	6	9.0 (8.5-9.6)	+250%	ns	ns
Cerebrovascular diseases	5	16	53.5 (28.7-101.6)	3	71.2 (69.8-72.7)	ns	ns	ns
Assault (homicide)	6	10	9.2 (4.3-42.7)	5	11.2 (10.6-11.8)	ns	ns	ns
Alcohol-related deaths		19	27.6 (16.4-62.9)		9.1 (8.6-9.7)	+203%	ns	Increasing
Drug-related deaths		12	21.5 (8.7-59.7)		6.5 (6.0-6.9)	+233%	ns	ns
Minneapolis MN								
All Causes		1,035	1246.1 (1146.5-1354.2)		821.0 (816.3-825.6)	+52%	ns	Decreasing
Diseases of the heart	1	167	278.7 (229.0-338.0)	1	196.8 (194.5-199.0)	+42%	ns	ns
Malignant neoplasms	2	140	201.0 (162.9-248.0)	2	201.1 (198.7-203.4)	ns	ns	ns
Lung Cancer		45	67.5 (47.0-97.1)		50.4 (49.2-51.6)	ns	ns	ns
Accidents	3	113	81.7 (62.8-108.7)	5	32.1 (31.2-33.0)	+155%	ns	ns
Assault (homicide)	4	71	34.0 (26.1-50.6)	12	5.7 (5.3-6.1)	+496%	Decreasing	ns
Chronic liver disease and cirrhosis	5	67	59.2 (42.6-84.5)	11	8.9 (8.4-9.4)	+567%	ns	ns
Diabetes mellitus	6	44	69.1 (46.6-101.3)	7	21.5 (20.7-22.2)	+222%	ns	ns
Intentional self-harm (suicide)	7	35	15.8 (10.9-30.6)	8	11.0 (10.5-11.5)	ns	Decreasing	ns
Cerebrovascular diseases	8	32	61.1 (37.7-95.3)	3	65.0 (63.7-66.3)	ns	ns	ns
Chronic lower respiratory diseases	9	30	56.3 (35.2-87.7)	4	41.9 (40.9-43.0)	ns	ns	ns
Certain conditions originating in the perinatal period	10	27	7.9 (5.2-22.0)	14	5.0 (4.7-5.4)	ns	ns	ns
Alcohol-related deaths		93	70.1 (54.9-93.2)		8.8 (8.3-9.3)	+697%	ns	Decreasing
Injury by firearms		42	18.2 (13.0-33.2)		7.9 (7.5-8.4)	+129%	ns	Decreasing
Drug-related deaths		20	11.9 (7.1-27.0)		4.4 (4.1-4.8)	+169%	ns	ns
Missoula MT								
All Causes		80	929.6 (704.3-1213.4)		813.3 (792.5-834.5)	ns	ns	ns
Malignant neoplasms	1	18	258.9 (145.4-436.1)	2	193.8 (183.7-204.3)	ns	ns	ns
Diseases of the heart	1	18	271.5 (150.8-458.0)	1	202.7 (192.3-213.6)	ns	ns	ns

Appendix D-1. Leading causes of death* among American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per confidence 100,000 interval)	Rank	Rate** (95% per confidence 100,000 interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
New York NY								
All Causes		357	120.1 (107.0-134.7)		916.0 (914.1-917.9)	-87%	Decreasing	ns
Diseases of the heart	1	135	54.7 (45.5-65.4)	1	368.3 (367.0-369.5)	-85%	Decreasing	ns
Malignant neoplasms	2	54	20.0 (14.8-26.7)	2	201.2 (200.3-202.1)	-90%	ns	ns
Accidents	3	27	5.6 (3.5-8.9)	5	26.0 (25.7-26.3)	-79%	ns	ns
Human immunodeficiency virus (HIV) disease	4	13	2.3 (1.2-4.8)	3	54.5 (54.0-55.0)	-96%	ns	ns
Cerebrovascular diseases	4	13	5.1 (2.6-9.3)	4	37.4 (37.0-37.8)	-86%	ns	ns
Assault (homicide)	6	12	2.3 (1.2-4.9)	7	14.5 (14.3-14.8)	-84%	Decreasing	ns
Diabetes mellitus	7	11	3.7 (1.8-7.1)	6	19.2 (18.9-19.5)	-81%	ns	ns
Chronic liver disease and cirrhosis	7	11	2.9 (1.4-5.8)	8	11.3 (11.1-11.5)	-75%	ns	ns
Alcohol-related deaths		13	3.1 (1.6-6.1)		11.5 (11.3-11.7)	-73%	ns	ns
Injury by firearms		12	2.5 (1.2-5.1)		12.2 (12.0-12.4)	-80%	Decreasing	ns
Oakland CA								
All Causes		648	413.3 (377.2-452.5)		842.8 (839.8-845.8)	-51%	ns	Decreasing
Diseases of the heart	1	142	114.5 (94.6-137.8)	1	243.6 (242.0-245.3)	-53%	Increasing	ns
Malignant neoplasms	2	113	76.1 (61.4-93.9)	2	198.3 (196.9-199.8)	-62%	ns	ns
Lung Cancer		38	25.3 (17.3-36.7)		50.3 (49.6-51.1)	-50%	ns	ns
Accidents	3	59	25.0 (18.1-34.9)	6	28.5 (28.0-29.1)	ns	ns	ns
Human immunodeficiency virus (HIV) disease	4	51	15.6 (11.5-22.5)	4	34.5 (34.0-35.1)	-55%	Decreasing	Decreasing
Chronic liver disease and cirrhosis	5	43	19.1 (13.2-28.2)	9	13.2 (12.8-13.5)	ns	Decreasing	ns
Cerebrovascular diseases	6	39	33.3 (22.7-47.7)	3	74.3 (73.4-75.2)	-55%	ns	ns
Diabetes mellitus	7	21	16.0 (9.4-26.2)	8	16.0 (15.6-16.4)	ns	ns	ns
Intentional self-harm (suicide)	7	21	6.7 (4.1-12.6)	10	11.7 (11.4-12.1)	ns	ns	Decreasing
Assault (homicide)	7	21	6.6 (4.0-12.5)	11	9.3 (9.0-9.6)	ns	ns	ns
Chronic lower respiratory diseases	10	20	18.6 (11.0-30.1)	5	38.5 (37.8-39.1)	-52%	ns	ns
Alcohol-related deaths		40	17.3 (11.8-25.7)		10.1 (9.8-10.4)	+71%	ns	ns
Drug-related deaths		29	10.7 (6.8-17.8)		12.2 (11.9-12.6)	ns	ns	ns
Injury by firearms		19	6.0 (3.6-11.9)		11.8 (11.4-12.1)	ns	ns	ns

Appendix D-1. Leading causes of death* among American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per confidence 100,000 interval)	Rank	Rate** (95% per confidence 100,000 interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
Phoenix AZ								
All Causes		2,323	994.9 (945.5-1046.7)		816.4 (812.7-820.1)	+22%	Decreasing	ns
Accidents	1	366	84.5 (73.7-97.5)	5	38.2 (37.4-39.0)	+121%	ns	ns
Diseases of the heart	2	332	197.4 (174.1-223.3)	1	239.1 (237.1-241.1)	-17%	ns	ns
Malignant neoplasms	3	221	123.8 (106.1-144.1)	2	188.6 (186.8-190.3)	-34%	Decreasing	ns
Lung Cancer		35	22.5 (15.1-32.8)		51.2 (50.3-52.1)	-56%	ns	ns
Chronic liver disease and cirrhosis	4	212	70.1 (60.1-82.4)	10	11.8 (11.3-12.2)	+496%	ns	ns
Diabetes mellitus	5	182	105.3 (89.3-123.9)	7	18.4 (17.9-19.0)	+471%	ns	ns
Assault (homicide)	6	105	18.3 (14.3-24.5)	11	9.5 (9.2-9.9)	+92%	ns	ns
Cerebrovascular diseases	7	81	50.6 (38.9-65.1)	3	57.4 (56.4-58.4)	ns	ns	ns
Influenza and pneumonia	8	66	35.3 (25.8-47.8)	6	21.8 (21.2-22.4)	+62%	ns	ns
Intentional self-harm (suicide)	9	64	11.6 (8.6-17.0)	8	15.5 (15.0-16.0)	ns	Decreasing	ns
Chronic lower respiratory diseases	10	47	33.7 (24.1-46.3)	4	49.3 (48.4-50.2)	-32%	ns	ns
Alcohol-related deaths		200	62.3 (53.2-73.5)		8.4 (8.0-8.8)	+643%	ns	ns
Injury by firearms		96	17.2 (13.5-23.1)		18.0 (17.4-18.5)	ns	ns	ns
Drug-related deaths		71	13.6 (10.3-19.2)		9.6 (9.2-10.0)	+41%	ns	ns
Pierre SD								
All Causes		169	1031.3 (840.0-1268.0)		797.1 (784.2-810.1)	+29%	ns	ns
Diseases of the heart	1	30	245.0 (157.7-382.3)	1	248.9 (241.8-256.3)	ns	ns	ns
Malignant neoplasms	2	23	210.7 (125.8-348.3)	2	202.6 (196.0-209.3)	ns	ns	ns
Accidents	3	17	40.3 (21.9-117.3)	4	29.2 (26.8-31.8)	ns	ns	ns
Cerebrovascular diseases	4	12	129.8 (56.7-264.2)	3	63.9 (60.3-67.6)	ns	ns	ns

Appendix D-1. Leading causes of death* among American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per 100,000 confidence interval)	Rank	Rate** (95% per 100,000 confidence interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
Portland OR								
All Causes		549	686.7 (618.9-761.8)		870.6 (865.8-875.5)	-21%	ns	ns
Malignant neoplasms	1	104	147.0 (116.1-185.7)	2	208.5 (206.1-210.9)	-30%	ns	ns
Lung Cancer		35	53.3 (35.1-79.8)		59.4 (58.1-60.7)	ns	ns	ns
Diseases of the heart	2	76	127.5 (96.7-166.6)	1	233.0 (230.5-235.6)	-45%	ns	Decreasing
Accidents	3	68	44.4 (32.4-63.5)	5	35.4 (34.5-36.4)	ns	ns	ns
Chronic liver disease and cirrhosis	4	35	31.8 (20.9-50.5)	9	9.5 (9.0-10.0)	+236%	ns	ns
Cerebrovascular diseases	5	33	60.3 (39.6-89.7)	3	76.1 (74.6-77.5)	ns	ns	ns
Diabetes mellitus	6	26	35.8 (21.8-58.3)	6	21.9 (21.1-22.7)	ns	Increasing	ns
Chronic lower respiratory diseases	7	22	39.9 (23.9-64.9)	4	47.3 (46.2-48.5)	ns	ns	ns
Intentional self-harm (suicide)	8	17	11.2 (5.6-25.6)	7	14.0 (13.4-14.6)	ns	ns	ns
Assault (homicide)	9	13	6.0 (3.2-18.4)	10	4.5 (4.2-4.9)	ns	Decreasing	ns
Human immunodeficiency virus (HIV)	10	11	6.7 (3.2-19.5)	8	9.4 (8.9-9.9)	ns	ns	ns
Alcohol-related deaths		52	46.8 (33.8-67.1)		10.3 (9.8-10.8)	+354%	ns	ns
Drug-related deaths		49	27.0 (19.8-41.6)		10.6 (10.2-11.2)	+153%	ns	ns
Injury by firearms		12	7.9 (3.1-22.0)		10.9 (10.4-11.4)	ns	ns	ns
Reno NV								
All Causes		444	899.6 (806.4-1002.6)		937.9 (927.3-948.5)	ns	ns	ns
Diseases of the heart	1	118	283.7 (229.8-348.3)	1	299.3 (293.2-305.5)	ns	ns	ns
Malignant neoplasms	2	76	176.5 (135.2-228.5)	2	212.5 (207.7-217.4)	ns	ns	ns
Lung Cancer		18	45.6 (25.6-77.4)		62.7 (60.1-65.3)	ns	ns	ns
Accidents	3	45	50.0 (36.0-73.2)	5	36.7 (34.8-38.7)	ns	ns	ns
Chronic liver disease and cirrhosis	4	28	38.0 (24.8-61.1)	7	16.7 (15.5-18.1)	+127%	ns	ns
Intentional self-harm (suicide)	5	19	19.5 (10.9-38.9)	6	23.5 (22.0-25.1)	ns	ns	ns
Diabetes mellitus	6	17	31.1 (17.3-55.9)	8	15.0 (13.8-16.4)	+107%	ns	ns
Cerebrovascular diseases	6	17	35.6 (19.7-62.6)	4	61.1 (58.3-64.0)	ns	ns	ns
Chronic lower respiratory diseases	8	13	33.7 (17.6-61.5)	3	68.6 (65.7-71.5)	-51%	ns	ns
Nephritis, nephrotic syndrome and nephro	9	11	24.7 (11.3-50.2)	9	11.8 (10.6-13.1)	ns	ns	ns
Assault (homicide)	10	10	8.4 (4.0-24.8)	10	6.2 (5.4-7.0)	ns	ns	ns
Alcohol-related deaths		35	47.0 (32.3-71.2)		18.5 (17.2-19.9)	+154%	ns	ns
Injury by firearms		16	16.4 (8.4-35.3)		18.8 (17.5-20.3)	ns	ns	ns
Drug-related deaths		12	13.7 (6.9-31.8)		10.5 (9.6-11.6)	ns	ns	ns

Appendix D-1. Leading causes of death* among American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per confidence 100,000 interval)	Rank	Rate** (95% per confidence 100,000 interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
Sacramento CA								
All Causes		355	444.2 (392.1-502.8)		878.6 (872.6-884.7)	-49%	ns	ns
Diseases of the heart	1	80	124.6 (96.1-160.1)	1	262.9 (259.5-266.3)	-53%	ns	ns
Malignant neoplasms	2	61	85.2 (63.2-114.0)	2	203.9 (201.0-206.8)	-58%	ns	ns
Lung Cancer		12	20.1 (9.7-38.3)		57.9 (56.4-59.5)	-65%	ns	ns
Accidents	3	29	21.2 (13.1-35.9)	5	31.1 (30.0-32.2)	ns	ns	ns
Chronic lower respiratory diseases	4	22	37.1 (22.2-59.8)	4	52.1 (50.7-53.6)	ns	ns	ns
Chronic liver disease and cirrhosis	4	22	18.0 (11.0-31.6)	8	12.2 (11.5-12.9)	ns	ns	ns
Cerebrovascular diseases	6	17	26.3 (14.0-46.3)	3	69.4 (67.7-71.2)	-62%	ns	ns
Human immunodeficiency virus (HIV)	7	14	7.6 (4.1-18.5)	7	13.2 (12.6-13.9)	ns	ns	ns
Diabetes mellitus	8	11	15.5 (7.0-31.6)	6	18.2 (17.4-19.1)	ns	ns	ns
Assault (homicide)	9	10	5.3 (2.5-15.9)	9	8.8 (8.3-9.4)	ns	ns	ns
Alcohol-related deaths		24	21.6 (13.4-36.5)		12.0 (11.3-12.7)	+81%	ns	ns
Drug-related deaths		19	11.1 (6.6-22.6)		9.1 (8.5-9.7)	ns	ns	ns
Injury by firearms		10	5.5 (2.6-16.2)		13.9 (13.2-14.6)	ns	ns	ns
Salt Lake City UT								
All Causes		319	819.6 (659.8-1018.5)		794.4 (788.8-800.0)	ns	ns	ns
Accidents	1	55	55.2 (35.2-121.2)	4	33.1 (32.1-34.2)	+66%	ns	ns
Diseases of the heart	2	39	174.1 (100.6-293.7)	1	219.3 (216.3-222.4)	ns	ns	ns
Malignant neoplasms	3	36	131.6 (75.2-232.1)	2	156.0 (153.6-158.5)	ns	ns	ns
Chronic liver disease and cirrhosis	4	25	31.4 (18.5-95.0)	8	7.7 (7.2-8.2)	+308%	ns	ns
Diabetes mellitus	5	19	51.0 (24.8-124.0)	5	30.3 (29.2-31.4)	ns	ns	ns
Intentional self-harm (suicide)	6	15	7.7 (4.2-72.2)	7	15.4 (14.7-16.1)	ns	ns	ns
Cerebrovascular diseases	7	14	87.1 (32.9-194.9)	3	65.3 (63.7-67.0)	ns	ns	ns
Assault (homicide)	8	13	9.4 (4.4-73.8)	9	3.1 (2.9-3.4)	+199%	ns	ns
Influenza and pneumonia	9	11	76.4 (23.0-188.0)	6	26.2 (25.1-27.2)	ns	ns	ns
Alcohol-related deaths		36	61.1 (28.2-140.9)		7.0 (6.5-7.5)	+773%	ns	ns
Injury by firearms		13	7.2 (3.7-71.9)		10.7 (10.1-11.3)	ns	ns	ns
Drug-related deaths		10	6.4 (3.0-71.4)		9.5 (9.0-10.1)	ns	Increasing	ns

Appendix D-1. Leading causes of death* among American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per 100,000 confidence interval)	Rank	Rate** (95% per 100,000 confidence interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
San Diego CA								
All Causes		695	507.4 (466.5-551.4)		823.3 (819.5-827.1)	-38%	ns	ns
Diseases of the heart	1	191	167.0 (142.7-194.6)	1	250.4 (248.3-252.6)	-33%	ns	ns
Malignant neoplasms	2	110	84.6 (68.6-103.9)	2	197.6 (195.7-199.5)	-57%	ns	ns
Lung Cancer		30	22.3 (14.6-33.3)		51.0 (50.1-52.0)	-56%	ns	ns
Accidents	3	66	22.0 (16.8-29.8)	5	27.4 (26.7-28.0)	ns	ns	ns
Diabetes mellitus	4	38	30.9 (21.5-43.7)	9	14.4 (13.9-14.9)	+115%	Increasing	ns
Chronic liver disease and cirrhosis	5	37	21.4 (14.7-31.1)	10	11.6 (11.2-12.1)	+84%	ns	ns
Chronic lower respiratory diseases	6	28	25.4 (16.5-37.7)	4	46.1 (45.2-47.0)	-45%	ns	ns
Cerebrovascular diseases	7	23	20.4 (12.5-31.9)	3	66.5 (65.4-67.6)	-69%	ns	ns
Human immunodeficiency virus (HIV)	8	21	8.6 (5.2-15.0)	7	17.2 (16.7-17.8)	-50%	ns	ns
Influenza and pneumonia	9	17	16.5 (9.3-27.3)	6	27.4 (26.7-28.1)	ns	ns	ns
Assault (homicide)	10	15	4.7 (2.6-10.1)	11	6.6 (6.3-6.9)	ns	ns	ns
Alcohol-related deaths		38	18.9 (13.2-27.5)		9.9 (9.5-10.3)	+91%	ns	ns
Drug-related deaths		26	10.0 (6.4-16.5)		10.9 (10.5-11.3)	ns	ns	ns
Injury by firearms		12	4.8 (2.1-10.8)		10.7 (10.3-11.1)	ns	ns	ns
San Jose CA								
All Causes		188	333.3 (280.6-394.7)		752.1 (747.1-757.3)	-56%	ns	ns
Malignant neoplasms	1	44	75.5 (52.9-107.0)	2	177.2 (174.8-179.6)	-57%	ns	ns
Lung Cancer		10	19.6 (8.7-40.8)		42.6 (41.4-43.8)	-54%	ns	ns
Diseases of the heart	2	42	86.3 (59.7-122.5)	1	234.0 (231.1-237.0)	-63%	ns	ns
Accidents	3	15	15.4 (7.7-32.6)	4	21.8 (21.0-22.6)	ns	ns	ns
Diabetes mellitus	4	10	19.7 (8.4-41.6)	5	17.7 (16.9-18.5)	ns	ns	ns
Cerebrovascular diseases	4	10	24.9 (10.9-49.9)	3	65.4 (63.9-67.0)	-62%	ns	ns
Alcohol-related deaths		13	17.4 (8.4-36.1)		7.3 (6.9-7.8)	+137%	ns	ns

Appendix D-1. Leading causes of death* among American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per confidence 100,000 interval)	Rank	Rate** (95% per confidence 100,000 interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
Santa Barbara CA								
All Causes		188	240.1 (203.7-281.9)		767.2 (762.2-772.3)	-69%	Increasing	ns
Diseases of the heart	1	45	64.7 (46.1-89.3)	1	232.8 (230.0-235.6)	-72%	ns	ns
Malignant neoplasms	2	40	51.5 (35.7-72.9)	2	183.9 (181.4-186.4)	-72%	ns	ns
Lung Cancer		14	17.1 (9.0-31.3)		48.1 (46.9-49.4)	-64%	ns	ns
Cerebrovascular diseases	3	17	27.0 (15.1-45.4)	3	66.1 (64.6-67.6)	-59%	ns	ns
Accidents	4	15	10.8 (5.8-21.4)	4	31.4 (30.5-32.4)	-66%	ns	ns
Alcohol-related deaths		11	9.9 (4.6-21.2)		10.1 (9.6-10.7)	ns	ns	ns
Seattle WA								
All Causes		905	927.9 (854.6-1007.6)		803.0 (798.3-807.7)	+16%	ns	ns
Diseases of the heart	1	181	249.0 (208.4-296.8)	1	218.6 (216.1-221.1)	ns	ns	ns
Malignant neoplasms	2	164	183.4 (152.5-220.9)	2	197.9 (195.6-200.3)	ns	ns	ns
Lung Cancer		47	55.8 (39.2-79.5)		52.8 (51.6-54.0)	ns	ns	ns
Accidents	3	86	48.8 (37.3-66.5)	5	29.1 (28.2-30.0)	+68%	ns	ns
Chronic liver disease and cirrhosis	4	58	38.1 (28.0-54.8)	10	8.8 (8.4-9.3)	+332%	ns	ns
Cerebrovascular diseases	5	42	67.5 (46.4-96.5)	3	68.6 (67.2-70.0)	ns	ns	ns
Human immunodeficiency virus (HIV)	6	33	14.9 (10.1-27.1)	8	14.8 (14.2-15.4)	ns	ns	Decreasing
Assault (homicide)	7	29	12.9 (8.5-24.7)	12	5.0 (4.7-5.4)	+156%	ns	ns
Diabetes mellitus	8	28	33.1 (20.8-52.9)	7	19.7 (19.0-20.5)	+68%	ns	ns
Chronic lower respiratory diseases	9	26	34.8 (21.2-56.2)	4	41.4 (40.4-42.5)	ns	ns	ns
Intentional self-harm (suicide)	10	25	12.4 (7.9-24.4)	9	12.2 (11.7-12.8)	ns	ns	ns
Alcohol-related deaths		60	38.1 (28.6-54.0)		7.1 (6.7-7.6)	+435%	ns	ns
Drug-related deaths		52	25.6 (18.9-39.0)		10.3 (9.9-10.8)	+148%	Increasing	ns
Injury by firearms		21	9.6 (5.9-21.3)		9.2 (8.7-9.7)	ns	ns	ns

Appendix D-1. Leading causes of death* among American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per 100,000 confidence interval)	Rank	Rate** (95% per 100,000 confidence interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
Spokane WA								
All Causes		256	891.5 (761.0-1044.2)		861.2 (852.0-870.5)	ns	ns	ns
Malignant neoplasms	1	50	202.6 (144.0-284.9)	2	205.6 (201.1-210.2)	ns	ns	ns
Lung Cancer		13	51.7 (25.3-104.7)		58.6 (56.2-61.1)	ns	ns	ns
Diseases of the heart	2	44	203.6 (139.1-293.7)	1	244.3 (239.4-249.3)	ns	ns	ns
Chronic liver disease and cirrhosis	3	26	63.1 (39.4-110.9)	5	12.9 (11.8-14.1)	+389%	ns	ns
Accidents	3	26	42.3 (26.7-83.0)	4	32.7 (30.9-34.5)	ns	ns	ns
Cerebrovascular diseases	5	20	86.8 (48.5-151.4)	3	69.7 (67.1-72.4)	ns	ns	ns
Assault (homicide)	6	10	14.0 (6.6-51.4)	6	4.6 (4.0-5.3)	+205%	Decreasing	ns
Alcohol-related deaths		25	62.2 (38.6-109.9)		10.6 (9.6-11.7)	+487%	ns	ns
Drug-related deaths		10	16.5 (7.9-54.3)		5.8 (5.0-6.6)	+186%	ns	ns
Tucson AZ								
All Causes		1773	1196.6 (1135.0-1261.1)		859.5 (852.9-866.2)	+39%	ns	ns
Diseases of the heart	1	276	244.8 (215.1-278.0)	1	250.1 (246.5-253.7)	ns	ns	ns
Accidents	2	269	123.7 (107.7-142.3)	5	42.8 (41.3-44.3)	+189%	ns	ns
Malignant neoplasms	3	172	135.6 (114.7-159.7)	2	192.0 (188.9-195.2)	-29%	ns	ns
Lung Cancer		18	14.8 (8.5-24.7)		51.0 (49.4-52.6)	-71%	Increasing	ns
Chronic liver disease and cirrhosis	4	163	82.3 (69.8-97.4)	10	14.8 (14.0-15.8)	+455%	ns	ns
Diabetes mellitus	5	138	100.5 (83.6-120.6)	8	17.3 (16.4-18.3)	+480%	ns	ns
Cerebrovascular diseases	6	68	61.4 (46.9-79.4)	3	57.8 (56.0-59.5)	ns	ns	ns
Intentional self-harm (suicide)	7	61	20.7 (15.6-28.4)	7	17.9 (17.0-18.9)	ns	ns	ns
Influenza and pneumonia	8	59	49.3 (36.5-65.7)	6	24.5 (23.4-25.7)	+101%	ns	ns
Assault (homicide)	9	54	18.4 (13.6-26.0)	12	8.3 (7.7-9.0)	+121%	ns	ns
Nephritis, nephrotic syndrome and nephro	10	46	36.9 (26.5-50.8)	11	11.7 (10.9-12.5)	+216%	Increasing	ns
Alcohol-related deaths		119	61.6 (50.5-75.4)		9.3 (8.6-10.0)	+564%	ns	ns
Injury by firearms		52	17.1 (12.6-24.4)		17.5 (16.5-18.4)	ns	ns	ns
Drug-related deaths		49	21.2 (15.3-29.9)		13.3 (12.5-14.2)	+59%	Increasing	ns

Appendix D-1. Leading causes of death* among American Indians and Alaska Natives (AI/AN) living in Urban Indian Health Organization service area counties (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per confidence 100,000 interval)	Rank	Rate** (95% per confidence 100,000 interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
Wichita KS								
All Causes		280	970.6 (843.2-1115.5)		872.4 (864.6-880.3)	ns	ns	ns
Diseases of the heart	1	68	273.9 (206.6-359.9)	1	263.0 (258.7-267.3)	ns	ns	ns
Malignant neoplasms	2	52	158.9 (114.2-221.1)	2	201.4 (197.6-205.2)	ns	ns	ns
Lung Cancer		17	54.4 (30.6-97.2)		57.8 (55.8-59.8)	ns	ns	ns
Chronic lower respiratory diseases	3	20	72.9 (41.6-124.1)	4	46.9 (45.1-48.7)	ns	ns	ns
Accidents	3	20	37.0 (19.3-73.9)	5	37.5 (35.9-39.1)	ns	ns	ns
Cerebrovascular diseases	5	17	67.9 (36.4-120.1)	3	66.7 (64.5-68.9)	ns	ns	ns
Diabetes mellitus	6	15	55.7 (27.4-105.1)	6	22.8 (21.5-24.1)	+144%	ns	ns
Chronic liver disease and cirrhosis	7	10	28.2 (12.8-63.8)	7	7.8 (7.1-8.6)	+262%	ns	ns

Notes:

AI/AN mortality rates may in some or all locations be significantly underreported and should be interpreted with caution.

***Causes of death are limited to causes with totals of 10 or more deaths from 1990 to 1999 and are based on ICD-10 disease classifications.**

****Rates are age-adjusted to the 2000 stadard U.S. population. AI/AN and All Race total populations are based on July 1st intercensal estimates produced by U.S. National Center for Health Statistics (http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm). Source of data: U.S. Centers for Health Statistics.**

"ns"=not statistically significant.

Appendix D-2. Age-specific causes of death* among American Indians and Alaska Natives (AI/AN) living in the United States and in all Urban Indian Health Organization service area counties combined (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per confidence 100,000 interval)	Rank	Rate** (95% per confidence 100,000 interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
US TOTAL								
Age 1 to 14								
All Causes		2241	32.7 (31.3-34.0)		27.1 (27.0-27.3)	+20%	Decreasing	Decreasing
Accidents	1	1156	16.8 (15.9-17.8)	1	10.9 (10.8-11.0)	+55%	Decreasing	Decreasing
Assault (homicide)	2	164	2.4 (2.0-2.8)	4	1.8 (1.7-1.8)	+36%	ns	ns
Malignant neoplasms	3	125	1.8 (1.5-2.2)	2	2.9 (2.8-2.9)	-36%	ns	ns
Congenital malformations, deformations and chromosomal abnormalities	4	110	1.6 (1.3-1.9)	3	1.9 (1.8-1.9)	ns	Decreasing	ns
Intentional self-harm (suicide)	5	64	0.90 (0.7-1.2)	6	0.6 (0.5-0.6)	+66%	ns	ns
Diseases of the heart	6	63	0.9 (0.7-1.2)	5	1.0 (1.0-1.1)	ns	ns	ns
Influenza and pneumonia	7	40	0.6 (0.4-0.8)	9	0.4 (0.4-0.4)	ns	ns	ns
Septicemia	8	23	0.3 (0.2-0.5)	11	0.3 (0.3-0.3)	ns	ns	ns
Certain conditions originating in the perinatal period	9	19	0.3 (0.2-0.4)	12	0.3 (0.2-0.3)	ns	ns	ns
Chronic lower respiratory diseases	10	18	0.3 (0.2-0.4)	10	0.4 (0.3-0.4)	ns	ns	ns
Injury by firearms		125	1.8 (1.5-2.2)		1.4 (1.3-1.4)	+34%	ns	Decreasing
Drug-related deaths		15	0.2 (0.1-0.4)		0.1 (0.1-0.2)	ns	ns	ns
US TOTAL								
Age 15 to 24								
All Causes		4981	118.1 (114.9-121.4)		90.3 (90.0-90.6)	+31%	Decreasing	Decreasing
Accidents	1	2650	62.8 (60.5-65.3)	1	38.6 (38.4-38.8)	+63%	Decreasing	Decreasing
Intentional self-harm (suicide)	2	915	21.7 (20.3-23.2)	3	12.1 (12.0-12.2)	+79%	Decreasing	ns
Assault (homicide)	3	620	14.7 (13.6-15.9)	2	18.6 (18.5-18.8)	-21%	Decreasing	Decreasing
Malignant neoplasms	4	133	3.2 (2.6-3.7)	4	4.6 (4.6-4.7)	-32%	ns	ns
Diseases of the heart	5	87	2.1 (1.7-2.5)	5	2.7 (2.6-2.7)	-23%	ns	ns
Congenital malformations, deformations and chromosomal abnormalities	6	37	0.9 (0.6-1.2)	7	1.0 (1.0-1.1)	ns	ns	ns
Cerebrovascular diseases	7	24	0.6 (0.4-0.9)	9	0.5 (0.5-0.6)	ns	ns	ns
Influenza and pneumonia	8	23	0.6 (0.4-0.8)	10	0.4 (0.4-0.5)	ns	ns	Increasing
Legal intervention	9	21	0.5 (0.3-0.8)	13	0.2 (0.2-0.2)	+138%	ns	ns
Chronic liver disease and cirrhosis	10	18	0.4 (0.3-0.7)	14	0.1 (0.1-0.1)	+425%	ns	ns
Injury by firearms		936	22.2 (20.8-23.7)		24.4 (24.3-24.6)	-9%	Decreasing	ns
Drug-related deaths		120	2.8 (2.4-3.4)		2.9 (2.8-2.9)	ns	ns	ns
Alcohol-related deaths		98	2.3 (1.9-2.8)		0.3 (0.2-0.3)	+796%	Decreasing	ns

Appendix D-2. Age-specific causes of death* among American Indians and Alaska Natives (AI/AN) living in the United States and in all Urban Indian Health Organization service area counties combined (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per 100,000 confidence interval)	Rank	Rate** (95% per 100,000 confidence interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
US TOTAL								
Age 25 to 44								
All Causes		15984	209.6 (206.4-212.9)		173.6 (173.3-173.9)	+21%	Decreasing	Decreasing
Accidents	1	5127	67.2 (65.4-69.1)	1	32.8 (32.7-32.9)	+105%	Decreasing	Decreasing
Chronic liver disease and cirrhosis	2	1535	20.1 (19.1-21.2)	7	5.2 (5.2-5.3)	+286%	ns	Decreasing
Intentional self-harm (suicide)	3	1322	17.3 (16.4-18.3)	5	14.6 (14.6-14.7)	+18%	ns	ns
Diseases of the heart	4	1230	16.1 (15.3-17.1)	4	19.3 (19.2-19.4)	-16%	ns	ns
Assault (homicide)	5	1153	15.1 (14.3-16.0)	6	12.1 (12.0-12.1)	+25%	Decreasing	ns
Malignant neoplasms	6	1133	14.9 (14.0-15.8)	3	26.0 (25.9-26.1)	-43%	ns	ns
Female breast cancer		149	3.9 (3.3-4.6)		8.9 (8.8-8.9)	-56%	ns	ns
Human immunodeficiency virus (HIV)	7	736	9.7 (9.0-10.4)	2	27.6 (27.5-27.7)	-65%	Decreasing	Decreasing
Cerebrovascular diseases	8	294	3.9 (3.4-4.3)	8	4.2 (4.2-4.3)	ns	ns	ns
Diabetes mellitus	9	279	3.7 (3.2-4.1)	9	2.9 (2.8-2.9)	+28%	Increasing	ns
Influenza and pneumonia	10	222	2.9 (2.5-3.3)	10	1.7 (1.7-1.8)	+68%	ns	ns
Alcohol-related deaths		2058	27.0 (25.8-28.2)		5.5 (5.4-5.5)	+392%	Decreasing	Decreasing
Injury by firearms		1184	15.5 (14.7-16.4)		16.5 (16.4-16.6)	ns	Decreasing	Decreasing
Drug-related deaths		902	11.8 (11.1-12.6)		12.0 (11.9-12.1)	ns	Increasing	ns
US TOTAL								
Age 45 to 64								
All Causes		25265	668.6 (660.4-676.9)		716.2 (715.5-716.9)	-7%	Decreasing	Decreasing
Diseases of the heart	1	6036	159.7 (155.7-163.8)	2	193.7 (193.4-194.1)	-18%	Decreasing	Decreasing
Malignant neoplasms	2	5491	145.3 (141.5-149.2)	1	255.2 (254.7-255.6)	-43%	Decreasing	Decreasing
Female breast cancer		497	25.4 (23.2-27.7)		52.4 (52.2-52.7)	-52%	ns	ns
Accidents	3	2237	59.2 (56.8-61.7)	3	30.2 (30.0-30.3)	+96%	Decreasing	ns
Chronic liver disease and cirrhosis	4	2085	55.2 (52.8-57.6)	7	21.2 (21.1-21.3)	+160%	ns	ns
Diabetes mellitus	5	1877	49.7 (47.5-52.0)	6	22.5 (22.3-22.6)	+121%	ns	ns
Cerebrovascular diseases	6	976	25.8 (24.2-27.5)	4	30.1 (29.9-30.2)	-14%	ns	Decreasing
Chronic lower respiratory diseases	7	657	17.4 (16.1-18.8)	5	25.8 (25.6-25.9)	-33%	ns	ns
Influenza and pneumonia	8	393	10.4 (9.4-11.5)	10	7.6 (7.5-7.6)	+38%	ns	ns
Nephritis, nephrotic syndrome and nephrosis	9	381	10.1 (9.1-11.1)	12	6.2 (6.1-6.3)	+62%	ns	ns
Septicemia	10	341	9.0 (8.1-10.0)	11	6.4 (6.3-6.4)	+41%	ns	ns
Alcohol-related deaths		2203	58.3 (55.9-60.8)		17.6 (17.5-17.7)	+231%	Decreasing	Decreasing
Injury by firearms		290	7.7 (6.8-8.6)		11.8 (11.7-11.8)	-35%	ns	ns
Drug-related deaths		269	7.1 (6.3-8.0)		7.4 (7.3-7.4)	ns	Increasing	ns

Appendix D-2. Age-specific causes of death* among American Indians and Alaska Natives (AI/AN) living in the United States and in all Urban Indian Health Organization service area counties combined (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per confidence 100,000 interval)	Rank	Rate** (95% per confidence 100,000 interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
US TOTAL								
Age 65 and older								
All Causes		45849	3594.5 (3561.6-3627.5)		5005.0 (5002.6-5007.4	-28%	Increasing	Increasing
Diseases of the heart	1	14208	1113.9 (1095.6-1132.3)	1	1796.0 (1794.6-1797.5	-38%	ns	ns
Malignant neoplasms	2	9255	725.6 (710.9-740.5)	2	1126.1 (1124.9-1127.2	-36%	Increasing	ns
Colorectal cancer		940	73.7 (69.0-78.5)		130.5 (130.2-130.9)	-44%	Increasing	ns
Cerebrovascular diseases	3	3487	273.3 (264.3-282.6)	3	424.9 (424.2-425.6)	-36%	ns	ns
Diabetes mellitus	4	3028	237.4 (229.0-246.0)	6	130.3 (130.0-130.7)	+82%	Increasing	Increasing
Chronic lower respiratory diseases	5	2282	178.9 (171.6-186.4)	4	275.4 (274.8-275.9)	-35%	Increasing	Increasing
Influenza and pneumonia	6	1700	133.3 (127.0-139.8)	5	156.1 (155.7-156.5)	-15%	ns	ns
Accidents	7	1349	105.8 (100.2-111.6)	8	84.3 (84.0-84.6)	+26%	ns	Increasing
Nephritis, nephrotic syndrome and nephrosis	8	1057	82.8 (77.9-88.0)	9	75.1 (74.8-75.4)	+10%	ns	ns
Septicemia	9	700	54.9 (50.9-59.1)	10	61.8 (61.5-62.0)	-11%	ns	ns
Chronic liver disease and cirrhosis	10	695	54.5 (50.5-58.7)	14	32.0 (31.8-32.2)	+70%	ns	ns
Alcohol-related deaths		522	40.9 (37.5-44.6)		13.7 (13.6-13.8)	+199%	ns	ns
Injury by firearms		88	6.9 (5.5-8.5)		14.0 (13.9-14.1)	-51%	ns	ns
Drug-related deaths		40	3.1 (2.3-4.3)		3.5 (3.5-3.6)	ns	ns	ns
UIHO Total								
Age 1 to 14								
All Causes		426	24.8 (22.5-27.2)		25.7 (25.5-26.0)	ns	ns	ns
Accidents	1	180	10.5 (9.0-12.1)	1	8.5 (8.4-8.7)	+23%	ns	ns
Assault (homicide)	2	53	3.1 (2.3-4.0)	3	2.4 (2.3-2.5)	ns	ns	ns
Malignant neoplasms	3	29	1.7 (1.1-2.4)	2	3.0 (2.9-3.1)	-43%	ns	ns
Congenital malformations, deformations and chromosomal abnormalities	4	22	1.3 (0.8-2.0)	4	2.0 (1.9-2.1)	ns	ns	ns
Intentional self-harm (suicide)	5	15	0.9 (0.5-1.4)	6	0.5 (0.4-0.5)	ns	ns	ns
Diseases of the heart	6	14	0.8 (0.4-1.4)	5	0.9 (0.9-1.0)	ns	ns	ns
Injury by firearms		30	1.7 (1.2-2.5)		1.5 (1.4-1.5)	ns	ns	ns

Appendix D-2. Age-specific causes of death* among American Indians and Alaska Natives (AI/AN) living in the United States and in all Urban Indian Health Organization service area counties combined (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per 100,000 confidence interval)	Rank	Rate** (95% per 100,000 confidence interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
UIHO Total								
Age 15 to 24								
All Causes		924	83.2 (77.9-88.8)		91.1 (90.5-91.8)	-9%	Decreasing	Decreasing
Accidents	1	424	38.2 (34.7-42.0)	2	28.3 (28.0-28.7)	+35%	ns	ns
Assault (homicide)	2	180	16.2 (13.9-18.7)	1	30.1 (29.7-30.4)	-46%	Decreasing	Decreasing
Intentional self-harm (suicide)	3	158	14.2 (12.1-16.6)	3	11.2 (11.0-11.4)	+27%	Decreasing	Decreasing
Malignant neoplasms	4	21	1.9 (1.2-2.9)	4	4.8 (4.6-4.9)	-60%	ns	ns
Diseases of the heart	5	12	1.1 (0.6-1.9)	5	2.6 (2.5-2.7)	-58%	ns	ns
Injury by firearms		199	17.9 (15.5-20.6)		33.2 (32.9-33.6)	-46%	ns	Decreasing
Drug-related deaths		35	3.2 (2.2-4.4)		3.8 (3.7-3.9)	ns	ns	ns
Alcohol-related deaths		16	1.4 (0.8-2.3)		0.3 (0.3-0.3)	+383%	ns	ns
UIHO Total								
Age 25 to 44								
All Causes		3760	178.7 (173.0-184.5)		188.1 (187.5-188.7)	-5%	Decreasing	Decreasing
Accidents	1	1049	49.9 (46.9-53.0)	2	30.4 (30.2-30.7)	+64%	Decreasing	Decreasing
Chronic liver disease and cirrhosis	2	484	23.0 (21.0-25.1)	7	6.7 (6.6-6.8)	+244%	ns	ns
Assault (homicide)	3	294	14.0 (12.4-15.6)	5	16.1 (15.9-16.2)	-13%	Decreasing	ns
Human immunodeficiency virus (HIV)	4	278	13.2 (11.7-14.9)	1	43.9 (43.7-44.2)	-70%	Decreasing	Decreasing
Intentional self-harm (suicide)	5	268	12.7 (11.3-14.4)	6	13.7 (13.6-13.9)	ns	ns	ns
Diseases of the heart	6	248	11.8 (10.4-13.3)	4	17.2 (17.0-17.4)	-31%	ns	ns
Malignant neoplasms	7	228	10.8 (9.5-12.3)	3	24.4 (24.2-24.6)	-56%	ns	ns
Female breast cancer		28	2.7 (1.8-3.8)		8.2 (8.0-8.4)	-68%	ns	ns
Diabetes mellitus	8	69	3.3 (2.5-4.1)	9	2.7 (2.6-2.7)	ns	ns	ns
Cerebrovascular diseases	9	67	3.2 (2.5-4.1)	8	4.1 (4.0-4.2)	ns	ns	ns
Influenza and pneumonia	10	61	2.9 (2.2-3.7)	10	2.0 (2.0-2.1)	+43%	ns	ns
Alcohol-related deaths		570	27.1 (24.9-29.4)		7.4 (7.3-7.5)	+267%	Decreasing	Decreasing
Drug-related deaths		383	18.2 (16.4-20.1)		17.6 (17.5-17.8)	ns	Increasing	ns
Injury by firearms		247	11.8 (10.3-13.3)		17.7 (17.5-17.9)	-34%	ns	ns

Appendix D-2. Age-specific causes of death* among American Indians and Alaska Natives (AI/AN) living in the United States and in all Urban Indian Health Organization service area counties combined (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per confidence 100,000 interval)	Rank	Rate** (95% per confidence 100,000 interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
UIHO Total								
Age 45 to 64								
All Causes		5160	561.0 (545.8-576.6)		698.7 (697.2-700.2)	-20%	Decreasing	Decreasing
Diseases of the heart	1	1092	118.7 (111.8-126.0)	2	181.0 (180.2-181.7)	-34%	Decreasing	Decreasing
Malignant neoplasms	2	1028	111.8 (105.1-118.8)	1	238.8 (237.9-239.6)	-53%	Decreasing	ns
Female breast cancer		93	19.2 (15.5-23.5)		52.8 (52.2-53.4)	-64%	ns	ns
Chronic liver disease and cirrhosis	3	559	60.8 (55.9-66.0)	6	25.9 (25.6-26.2)	+135%	ns	ns
Accidents	4	427	46.4 (42.1-51.0)	5	29.1 (28.8-29.4)	+60%	ns	ns
Diabetes mellitus	5	368	40.0 (36.0-44.3)	8	20.7 (20.5-21.0)	+93%	ns	ns
Cerebrovascular diseases	6	196	21.3 (18.4-24.5)	4	29.3 (29.0-29.6)	-27%	ns	ns
Chronic lower respiratory diseases	7	124	13.5 (11.2-16.1)	7	22.9 (22.6-23.1)	-41%	ns	ns
Influenza and pneumonia	8	100	10.9 (8.9-13.3)	10	8.5 (8.3-8.6)	+29%	ns	ns
Nephritis, nephrotic syndrome and nephrosis	9	89	9.6 (7.7-11.8)	12	5.7 (5.6-5.9)	+68%	ns	Increasing
Septicemia	10	84	9.1 (7.3-11.3)	13	5.2 (5.0-5.3)	+77%	ns	ns
Alcohol-related deaths		567	61.7 (56.7-67.0)		24.2 (23.9-24.5)	+155%	ns	ns
Drug-related deaths		104	11.3 (9.3-13.7)		12.7 (12.5-12.9)	ns	Increasing	ns
Injury by firearms		52	5.6 (4.2-7.4)		10.9 (10.7-11.1)	-48%	ns	ns

Appendix D-2. Age-specific causes of death* among American Indians and Alaska Natives (AI/AN) living in the United States and in all Urban Indian Health Organization service area counties combined (UIHO), 1990-1999. (See end of table for applicable notes).

Health Organization Service Area	AI/AN Alone			All Races		AI/AN compared to All Races	Trends over Time	
Cause of death	Rank	Total Deaths	Rate** (95% per confidence 100,000 interval)	Rank	Rate** (95% per confidence 100,000 interval)		AI/AN 10-year trend (1990-99)	AI/AN 5-year trend (1995-99)
UIHO Total								
Age 65 and older								
All Causes		7120	2541.7 (2483.0-2601.4)		4839.2 (4833.9-4844.4	-47%	ns	ns
Diseases of the heart	1	2173	775.8 (743.6-809.1)	1	1823.3 (1820.1-1826.5	-57%	ns	ns
Malignant neoplasms	2	1403	500.9 (475.1-527.9)	2	1086.3 (1083.8-1088.8	-54%	ns	ns
Colorectal cancer		138	49.3 (41.4-58.2)		126.8 (126.0-127.7)	-61%	ns	Decreasing
Cerebrovascular diseases	3	533	190.2 (174.4-207.1)	3	395.2 (393.7-396.7)	-52%	Increasing	ns
Diabetes mellitus	4	455	162.5 (147.9-178.1)	6	117.5 (116.7-118.3)	+38%	Increasing	ns
Chronic lower respiratory diseases	5	364	130.1 (117.1-144.1)	4	260.4 (259.2-261.6)	-50%	ns	ns
Influenza and pneumonia	6	291	103.9 (92.3-116.5)	5	173.9 (172.9-174.9)	-40%	ns	ns
Accidents	7	195	69.6 (60.2-80.1)	8	71 (70.4-71.7)	ns	ns	ns
Nephritis, nephrotic syndrome and nephrosis	8	146	52.0 (43.9-61.2)	9	59.2 (58.6-59.8)	ns	ns	ns
Chronic liver disease and cirrhosis	9	145	51.6 (43.5-60.7)	14	33.6 (33.2-34.0)	+53%	ns	ns
Septicemia	10	125	44.7 (37.3-53.3)	11	44 (43.5-44.5)	ns	ns	ns
Alcohol-related deaths		125	44.8 (37.3-53.3)		18.6 (18.2-18.9)	+141%	ns	ns
Drug-related deaths		12	4.3 (2.2-7.5)		4.4 (4.2-4.5)	ns	ns	ns
Injury by firearms		11	3.9 (2.0-7.0)		11.7 (11.4-11.9)	-66%	ns	ns

Notes:

AI/AN mortality rates may in some or all locations be significantly underreported and should be interpreted with caution.

***Causes of death are limited to causes with totals of 25 or more deaths from 1995 to 1999 and are based on ICD-10 disease classifications.**

****Rates are age-adjusted to the 2000 stadard U.S. population. AI/AN and All Race total populations are based on July 1st intercensal estimates produced by U.S. National Center for Health Statistics (http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm). Source of data: U.S. Centers for Health Statistics.**

"ns"=not statistically significant.