

1998

Assessment of the health care needs of the urban Indian population in the State of Arizona.

Indian Health Service, Rockville, MD

Indian Health Service, Staff Office of Planning, Evaluation and Research, Division of Program Statistics

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Regional *Differences* ***in* Indian Health**



1997



U.S. Department of Health & Human Services
Indian Health Service
Office of Public Health
Division of Community and Environmental Health
Program Statistics Team



97-00357



Regional *Differences*

***in* Indian Health**

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Preface

Since 1955, the Indian Health Service (IHS) has had the responsibility for providing comprehensive health services to American Indian and Alaska Native people in order to elevate their health status to the highest possible level. The mission of the IHS is to provide a comprehensive health services delivery system for American Indians and Alaska Natives with opportunity for maximum Tribal involvement in developing and managing programs to meet their health needs.

This publication presents tables and charts that describe the IHS program, and the health status of American Indians and Alaska Natives. Information pertaining to the IHS structure, and American Indian and Alaska Native demography and patient care are included. Current regional differences are presented, and comparisons to the general population are made, when appropriate.



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Overview of the Indian Health Service Program

The Indian Health Service (IHS), an agency within the Department of Health and Human Services (DHHS), is responsible for providing federal health services to American Indians and Alaska Natives. The provision of health services to federally recognized Indians grew out of a special relationship between the federal government and Indian tribes. This government-to-government relationship is based on Article I, Section 8, of the United States Constitution, and has been given form and substance by numerous treaties, laws, Supreme Court decisions, and Executive Orders.

The Indian Health program became a primary responsibility of the DHHS under P.L. 83-568, the Transfer Act, on August 5, 1954. This Act provides "that all functions, responsibilities, authorities, and duties ... relating to the maintenance and operation of hospital and health facilities for Indians, and the conservation of Indian health ... shall be administered by the Surgeon General of the United States Public Health Service."

The IHS is the principle federal health care provider and health advocate for Indian people, and its goal is to raise their health status to the highest possible level. The mission is to provide a comprehensive health services delivery system for American Indians and Alaska Natives with opportunity for maximum Tribal involvement in developing and managing programs to meet their health needs. It is also the responsibility of the IHS to work with the people involved in the health delivery programs so that they can be cognizant of entitlements of Indian people, as American citizens, to all federal, State, and local health programs, in addition to IHS and Tribal services. The IHS also acts as the principal federal health advocate for American Indian and Alaska Native people in the building of health coalitions, networks, and partnerships with Tribal nations and other government agencies as well as with non-federal organizations, e.g., academic medical centers and private foundations.

The IHS has carried out its responsibilities through developing and operating a health services delivery system designed to provide a broad-spectrum program of preventive, curative, rehabilitative and environmental services. This system integrates health services delivered directly through IHS facilities, purchased by IHS through contractual arrangements with providers in the private sector, and delivered through Tribally operated programs and urban Indian health programs.

The 1975 Indian Self-Determination Act, P.L. 93-638 as amended, builds upon IHS policy by giving Tribes the option of manning and managing IHS programs in their communities, and provides for funding for improvement of Tribal capability to contract under the Act. The 1976 Indian Health Care Improvement Act, P. L. 94-437 as amended, was intended to elevate the health status of American Indians and Alaska Natives to a level equal to that of the general population through a program of authorized higher resource levels in the IHS budget. Appropriated resources were used to expand health services, build and renovate medical facilities, and step up the construction of safe drinking water and sanitary disposal facilities. It also established programs designed to increase the number of Indian health professionals for Indian needs and to improve health care access for Indian people living in urban areas.

The operation of the IHS health services delivery system is managed through local administrative units called service units. A service unit is the basic health organization for a geographic area served by the IHS program, just as a county or city health department is the basic health organization in a State health department.

A few service units cover a number of small reservations; some large reservations are divided into a number of service units. The service units are grouped into larger cultural-demographic-geographic management jurisdictions which are administered by Area Offices.



Purpose and Description of Regional Differences in Indian Health

The IHS *Regional Differences in Indian Health* attempts to fulfill the basic statistical information requirements of parties that are interested in the IHS, and its relationship with the American Indian and Alaska Native people. The tables and charts contained in the IHS *Regional Differences in Indian Health* describe the IHS program, and the health status of American Indians and Alaska Natives residing in the IHS service area. The IHS service area consists of counties on and near federal Indian reservations. The Indians residing in the service area comprise about 60 percent of all Indians residing in the U.S. Information pertaining to the IHS structure, and American Indian and Alaska Native demography and patient care are included. Current regional differences are depicted, and comparisons to the general population are made, when appropriate. Historical trend information can be found in the IHS companion publication called *Trends in Indian Health*.

The tables and charts are grouped into five major categories: 1) IHS Structure, 2) Population Statistics, 3) Natality and Infant/Maternal Mortality Statistics, 4) General Mortality Statistics, and 5) Patient Care Statistics. The tables provide detailed data, while the charts show significant relationships. A table and its corresponding chart appear next to each other. However, some charts that are self-explanatory do not have a corresponding table. Also, a table may have more than one chart associated with it.



Summary of Data Shown

Indian Health Service Structure

The IHS is comprised of 12 regional administrative units called Area Offices. They are listed below.

Aberdeen	Nashville
Alaska	Navajo
Albuquerque	Oklahoma City
Bemidji	Phoenix
Billings	Portland
California	Tucson

As of October 1, 1996, the Area Offices consisted of 150 basic administrative units called service units. Of the 150 service units, 84 were operated by Tribes. The number of service units ranged from 2 in Tucson to 26 in California.

The IHS operated 37 hospitals, 61 health centers, 4 school health centers, and 48 health stations. Tribes have two different vehicles for exercising their self determination—they can choose to take over the operation of an IHS facility through a P.L. 93-638 self-determination contract (Title I) or a P.L. 93-638 self-governance compact (Title III). A distinction is made in this publication regarding these two Tribal modes of operation, i.e., Title I and Title III. Tribes operated 12 hospitals (Title I, 3 hospitals and Title III, 9 hospitals), 134 health centers (Title I, 90 and Title III, 44), 4 school health centers (Title I, 2 and Title III, 2), 73 health stations (Title I, 60 and Title III, 13), and 168 Alaska village clinics (Title I, 16 and Title III, 152). Both California and Portland had no hospitals while Aberdeen and Phoenix had 8 hospitals each. Tucson had the fewest health centers with 3, and Oklahoma the most with 35.

Population Statistics

In fiscal year (FY) 1995, the IHS user population (count of those American Indians and Alaska Natives who used IHS services at least once during the last 3-year period) was approaching 1.3 million. Tucson (21,930) and Nashville (41,644) had the smallest user populations while Oklahoma (269,401) and Navajo (233,094) had the largest user populations.

The Indian population is younger, less educated and poorer than the U.S. All Races population. For the IHS user population in FY 1995, 11.3 percent of the persons were under age 5 compared to 7.7 percent for the U.S. All Races population (calendar (CY) 1995). There was considerable variation by Area with Nashville at 9.4 percent and Alaska at 12.5 percent. According to the 1990 Census, 65.3 percent of Indians (age 25 and older) residing in the current Reservation States are high school graduates or higher compared to 75.2 percent for the U.S. All Races population. For 3 IHS Areas (Tucson, Navajo, and Phoenix), the percentage was less than 60.0 (based on State-level Indian data). The 1990 Census also indicated that the median household income in 1989 for Indians residing in the current Reservation States was \$19,897, while for the U.S. All Races it was \$30,056. Aberdeen had the lowest median household income at \$12,310, and California the highest at \$28,029 (based on State-level Indian data).

Natality and Infant/Maternal Mortality Statistics

The birth rate for American Indians and Alaska Natives residing in the IHS service area was 25.7 (rate per 1,000 population) in 1992-1994. It is 1.7 times the 1993 birth rate of 15.5 for the U.S. All Races population. For the period 1992-1994, there were 4 maternal deaths in the IHS service area population. No IHS Area had more than 1 maternal death.

The infant mortality rate for American Indians and Alaska Natives residing in the IHS service area was 10.9 (rate per 1,000 live births) in 1992-1994 compared to 8.4 for the U.S. All Races population in 1993. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 30 percent higher than the U.S. rate. The infant mortality rate varied considerably among the IHS Areas, ranging from 8.0 in Oklahoma to 15.6 in Aberdeen.

General Mortality Statistics

In 1992-1994, the age-adjusted death rate (all causes) for American Indians and Alaska Natives residing in the IHS service area was 690.4 (rate per 100,000 population) compared to 513.3 for the U.S. All Races population in 1993. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 35 percent greater than the U.S. rate. The rates for the Aberdeen and Bemidji Areas both exceed 1,000.0.

The 2 leading causes of death for the IHS service area population in 1992-1994 were diseases of the heart and malignant neoplasms, the same as the

U.S. All Races in 1993. However, 5 IHS Areas (Alaska, Albuquerque, Navajo, Phoenix, and Tucson) had different top two leading causes. The leading causes of death were determined without any adjustment for age which is the customary method. However, it should be noted that the age composition of a population does influence its mortality pattern.

For most of the specific causes of death identified in this publication, the 1992-1994 Indian age-adjusted death rate (the rate adjusted for miscoding of Indian race on death certificates) was greater than the 1993 U.S. All Races rate. There was also considerable variation in the rates among the IHS Areas. However, some of the Area rates need to be interpreted with caution because of the small number of deaths involved. Following is a comparison of the Indian rate (the rate adjusted for miscoding of Indian race on death certificates) to the U.S. rate where there are significant differences.

- 1) alcoholism-579 percent greater
- 2) tuberculosis-475 percent greater
- 3) diabetes mellitus-231 percent greater
- 4) accidents-212 percent greater
- 5) suicide-70 percent greater
- 6) homicide-41 percent greater
- 7) malignant neoplasms-15 percent less
- 8) human immunodeficiency virus (HIV) infection-72 percent less

Patient Care Statistics

In FY 1995, there were about 89,000 admissions to IHS and Tribal direct and contract general hospitals. The number of admissions ranged from 401 in California to 20,276 in Navajo. The leading cause of hospitalization in IHS and Tribal direct and contract general hospitals was obstetric deliveries and complications of pregnancy. However, there were 9 IHS Areas with a different leading cause; Aberdeen, Billings, and Phoenix (respiratory system diseases), Albuquerque and California (FY 1994) (digestive system diseases), Bemidji and Portland (circulatory system diseases), Nashville (mental disorders), and Tucson (diseases of the skin and subcutaneous tissue).

The total number of ambulatory medical visits (IHS and Tribal direct and contract facilities) was over 6.5 million in FY 1995. Tucson had the fewest ambulatory medical visits with 85,573 and Oklahoma had the most with 1,121,262. The leading cause of ambulatory medical visits in IHS and Tribal direct and contract facilities was supplementary classifications. All IHS Areas had this same leading cause except for Aberdeen and Tucson;

respiratory system diseases was their leading cause. The supplementary classifications category includes such clinical impressions as other preventive health services, well child care, physical examination, tests only (lab, x-ray, screening), and hospital, medical, or surgical follow-up.

In FY 1996, there were over 2.3 million dental services provided at IHS and Tribal direct and contract facilities. Two IHS Areas provided over 28 percent of the dental services, Navajo (334,812) and Oklahoma (328,922).



Sources and Limitations of Data

Population Statistics

IHS user population estimates are based on data from the IHS Patient Registration System. Patients who receive direct or contract health services from IHS or Tribally-operated programs are registered in the Patient Registration System. Those registered Indian patients that had at least one direct or contract inpatient stay, outpatient visit, or dental visit during the last 3 years are defined as users. The Patient Registration System was first implemented in 1984, and by now is considered to be fairly complete and accurate. It is possible for patients to register at more than one site, but the IHS central computer is programmed to unduplicate registration records within an Area. Those cases that are not clear are sent to the IHS Area Offices as possible duplicates for resolution.

The IHS user population estimates, which are shown in this publication, need to be contrasted with the IHS service population (eligible population) estimates, which are shown in the *Trends in Indian Health* publication. The service population estimates are based on official U.S. Census Bureau county data. These are self-identified Indians who may or may not use IHS services. IHS service populations between Census years (e.g., 1980 and 1990) are estimated by a smoothing technique in order to show a gradual transition between Census years. This normally results in upward revisions to service population figures projected prior to a Census, since each Census tends to do a better job in enumerating American Indians and Alaska Natives. IHS service populations beyond the latest Census year (1990) are projected through linear regression techniques, using the most current 10 years of Indian birth and death data provided by the National Center for Health Statistics.

IHS user population figures are used for calculating IHS patient care rates. However, since State birth and death certificates do not provide information on use of IHS services, IHS service population figures are used in calculating Indian vital event rates for the IHS service area.

The social and economic data contained in this publication are from the 1990 Census. They reflect the characteristics of persons that self-identified as Indian during the Census.

Vital Event Statistics

American Indian and Alaska Native vital event statistics are derived from data furnished annually to the IHS by the National Center for Health Statistics (NCHS). Vital event statistics for the U.S. population were derived from data in various NCHS publications, as well as from some unpublished data from NCHS. NCHS obtains birth and death records for all U.S. residents from the State departments of health, based on information reported on official State birth and death certificates. The records NCHS provides IHS contain the same basic demographic items as the vital event records maintained by NCHS for all U.S. residents, but with names, addresses, and record identification numbers deleted. It should be noted that Tribal identity is not recorded on these records.

The data are subject to the degree of accuracy of reporting by the States to NCHS. NCHS does perform numerous edit checks, and imputes values for non-responses.

It is known that there is miscoding of Indian race on State death certificates, especially in areas distant from traditional Indian reservations. In order to determine the degree and scope of the miscoding, IHS conducted a study utilizing the National Death Index (NDI) maintained by the NCHS. The study involved matching IHS patient records of those patients who could have died during 1986 through 1988 with all death records of U.S. residents for 1986 through 1988 as contained on the NDI. The results were published in a document entitled, *Adjusting for Miscoding of Indian Race on State Death Certificates*, November 1996. The study revealed that on 10.9 percent of the matched IHS-NDI records, the race reported for the decedent was other than American Indian or Alaska Native. The percentage of records with inconsistent classification of race ranged from 1.2 percent in the Navajo Area to 28.0 and 30.4 percents in the Oklahoma and California Areas, respectively.

The results of the NDI study provide sufficient numbers to calculate adjustments for each IHS Area, IHS overall, and selected age groups. In addition to these adjustments based on the study findings, IHS assumed the following: a) the results from 1986-88 apply to years beyond 1988, b) IHS age-group adjustments applied also to each Area, and c) the Area adjustments applied to the causes of death used in this publication (i.e., if an Area's total deaths needed to be increased by 10 percent, then the deaths for each cause of death would also increase by this same rate). These assumptions cannot be statistically supported by the results of the study. However, IHS felt that it was necessary to adjust all of the death rates in

this publication to provide a meaningful and comprehensive look at health status. IHS also believes that they are reasonable adjustments.

These NDI adjustments are used for the first time in this edition. Both unadjusted and adjusted information is shown, as applicable. The adjustments were applied to the results obtained from using an unadjusted death file. In the meantime, an approach that would add records to the unadjusted death file based on the study findings is being investigated.

IHS has more specific adjustment factors for the age group under 1 year. These are derived from the linked birth/infant death data sets produced by the NCHS. IHS now has copies of this data set for data years 1983-91. Starting with this edition, unadjusted and adjusted infant mortality rates will be shown. IHS is assuming that data years 1992-94 can be adjusted based on the results from prior years of the linked data sets, which is not statistically sound but reasonable. These adjustments for 1992-94 take precedent over the NDI adjustments for the under 1 year age group, described above.

Nativity statistics are based on the total file of birth records occurring in the U.S. each year. Mortality statistics are based on the total file of registered deaths occurring in the U.S. each year. Tabulations of vital events for IHS Areas are by place of residence.

The Indian vital event statistics in this publication pertain only to American Indians and Alaska Natives residing in the counties that make up the IHS service area. This contrasts with earlier editions of the *Trends in Indian Health* publication which showed vital event statistics for all American Indians and Alaska Natives residing in the Reservation States. Calculations done on a Reservation State basis include all counties within the State, even those outside the IHS service area. Reservation State vital event rates tend to be lower in value (i.e., lower birth rates, lower death rates) than IHS service area rates. Since prior to 1972, only total Reservation State data are available, Reservation State data need to be used to show trends going back to 1955, the inception of the IHS. However, now that there are sufficient vital event data available for the IHS service area to show meaningful trends, the *Trends in Indian Health* publication, beginning with the 1992 edition, shows vital event statistics for the IHS service population. The reason for this is that IHS service area data are more indicative of the health status of the Indians that IHS serves.

The Indian population is considerably younger than the U.S. All Races population. Therefore, the death rates presented in this publication have

been age-adjusted, where applicable, so that appropriate comparisons can be made between these population groups. One exception is the information presented for leading causes of death. In order to determine the leading causes of death for a population group, it is necessary to rank causes of death without any adjustment for age. However, it should be kept in mind that the ranking of causes of death for a population group is affected by its age composition.

The age-adjusted death rates presented in this publication were computed by the direct method, that is, by applying the age-specific death rate for a given cause of death to the standard population distributed by age. The total population as enumerated in 1940 was selected as the standard to be consistent with NCHS. The rates for the total population and for each race-sex group were adjusted separately, by using the same standard population. The age-adjusted rates were based on 10-year age groups. An age-adjusted rate that was calculated based upon a small number of deaths should be interpreted with caution since the observed rate may be very different from the true underlying rate. This occasionally occurred when an Area rate was calculated for a specific cause of death, e.g., tuberculosis.

Prior to the 1993 edition of this publication, alcoholism deaths were defined through the use of three ICD-9 cause of death code groups: 291—alcoholic psychoses; 303—alcohol dependence syndrome and; 571.0-571.3—alcoholic liver disease. Various IHS Area statisticians and epidemiologists believed this definition to be incomplete and suggested that it be expanded to include five additional ICD-9 code categories. These "new" categories were used for the first time in the 1993 edition. They include: 305.0—alcohol overdose; 425.5—alcoholic cardiomyopathy; 535.3—alcoholic gastritis; 790.3—elevated blood-alcohol level; and E860.0, E860.1—accidental poisoning by alcohol, not elsewhere classified. This expanded definition results in about a 25 percent increase in the number of alcoholism deaths identified in comparison to the previous 3-group definition. NCHS is now publishing alcoholism deaths with a definition that includes codes that IHS had not used, i.e., 357.5—alcoholic polyneuropathy and all of E860 (not just E860.0 and E860.1)—accidental poisoning by alcohol. To be consistent with NCHS, these additional codes are now used by IHS starting with the 1996 edition. The NCHS definition includes all of the code groups previously used by IHS plus these new codes. This NCHS definition of alcoholism deaths is now used in all IHS publications, including *Trends in Indian Health*.

NCHS is also now publishing drug-related deaths with a definition that includes codes that IHS had not used, i.e., 292—drug psychoses and E962.0—assaults from poisoning by drugs and medicaments. To be consistent with NCHS, this additional code is now used by IHS starting with the 1996 edition. The NCHS definition includes all of the code groups previously used by IHS plus these two codes. This NCHS definition of drug-related deaths is now used in all IHS publications, including *Trends in Indian Health*.

Patient Care Statistics

Patient care statistics are derived from IHS reporting systems. There are four main patient care reporting systems. The Monthly Inpatient Services Report is a patient census report which is prepared by each IHS hospital. It indicates the number of discharges and days by type of service (e.g., adult, pediatric, obstetric, newborn), and is used for the direct inpatient workload statistics. The Inpatient Care System is the source of IHS hospital inpatient data pertaining to various patient characteristics (age, sex, principal diagnoses, other diagnoses, community of residence, etc.). The data are collected daily, one record per discharge. The Contract Care System is the source of similar contract hospital inpatient data.

The Ambulatory Patient Care System is the source of data pertaining to the number of ambulatory medical visits at IHS facilities by various patient characteristics (age, sex, clinical impression, community of residence, etc.). The data are collected daily, one record per ambulatory medical visit. The Contract Care System is the source of similar contract ambulatory medical visit data.

The data from the automated systems are subject to recording, inputting, and transmitting errors. However, the IHS Program Statistics Team monitors the reporting systems, and each one has a computer edit. In these ways, errors are kept to an acceptable level.

The Dental Data System is the source for dental services data. The system is monitored by IHS Headquarters Dental personnel. The tuberculosis data are based on cases reported to the Centers for Disease Control and Prevention.

Glossary

Age-Adjustment	The application of the age-specific rates in a population of interest to a standardized age distribution in order to eliminate the differences in observed rates that result from age differences in population composition. This adjustment is usually done when comparing two or more populations at one point in time or one population at two or more points in time.
Area	A defined geographic region for Indian Health Service (IHS) administrative purposes. Each Area Office administers several service units.
Average Daily Patient Load	The average number of patients occupying beds in a hospital on a daily basis. It is calculated by dividing total inpatient days for the year by 365.
Birthweight	Weight of fetus or infant at time of delivery (recorded in pounds and ounces, or grams).
Cause of Death	For the purpose of national death statistics, every death is attributed to one underlying condition, based on information reported on the death certificate and utilizing the international rules for selecting the underlying cause of death from the reported conditions.
Contract Care	Services not available directly from IHS or Tribes that are purchased under contract from community hospitals and practitioners.
Health Center	A facility, physically separated from a hospital, with a full range of ambulatory services including at least primary care physicians, nursing, pharmacy, laboratory, and x-ray, which are available at least 40 hours a week for ambulatory care.
Health Station	A facility, physically separated from a hospital or health center where primary care physician services are available on a regularly scheduled basis but for less than 40 hours a week.
High Birthweight	Birthweight of 4,000 grams or more.
Infant Mortality	Death of live-born children who have not reached their first birthday expressed as a rate (i.e., the number of infant deaths during a year per 1,000 live births reported in the year).
Life Expectancy	The average number of years remaining to a person at a particular age and is based on a given set of age-specific death rates, generally the mortality conditions existing in the period mentioned.



Live Birth A live birth is the complete expulsion or extraction from its mother of a product of conception irrespective of the duration of pregnancy, which after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

Low Birthweight Birthweight of less than five pounds, eight ounces or 2,500 grams.

Maternal Death The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.

Neonatal Mortality Rate The number of deaths under 28 days of age per 1,000 live births.

Occurrence Place where the event occurred.

Postneonatal Mortality Rate The number of deaths that occur from 28 days to 365 days after birth per 1,000 live births.

Race On death certificates, race is usually recorded by the funeral director who may or not query the family members of the decedent. The race of a newborn does not appear on the birth certificate. In this report if either the mother, or the father, or both parents were recorded as American Indian or Alaska Native on the birth certificate, the birth is considered as an American Indian or Alaska Native birth.

Reservation State A State in which IHS has responsibilities for providing health care to American Indians or Alaska Natives.

Residence Usual place of residence of person to whom event occurred. For births and deaths, residence is defined as the mother's place of residence.

Service Area The geographic areas in which IHS has responsibilities -- "on or near" reservations, i.e., contract health service delivery areas.

Service Population American Indians and Alaska Natives identified to be eligible for IHS services.

Service Unit The local administrative unit of IHS.

User Population American Indians and Alaska Natives who have used IHS services at least once during the last 3-year period.

Years of Potential Life Lost (YPLL) A mortality indicator which measures the burden of premature deaths. It is calculated by subtracting the age at death from age 65 and summing the result over all deaths.



Sources of Additional Information

Additional Indian health status information can be obtained from the IHS Program Statistics Team. Specific responsibilities are as follows:

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This publication, other IHS publications, and additional information about the IHS are available on the IHS Homepage on the World Wide Web. The address is: <http://www.ihs.gov/>



Part 1 — Indian Health Service Structure

The Indian Health Service is comprised of 12 regional administrative units called Area Offices. IHS responsibilities extend to all or parts of 35 States known as Reservation States.

Chart 1.1

Indian Health Service Area Offices

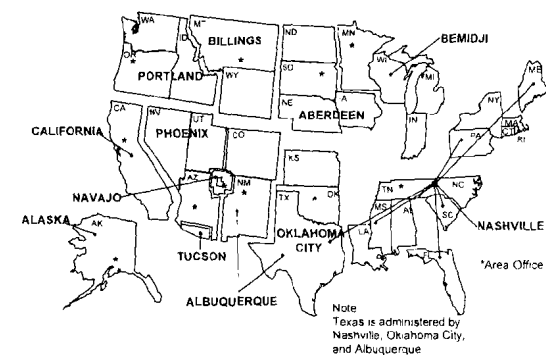


Chart 1.2

Number of Service Units and Facilities

Operated by IHS and Tribes, October 1, 1996

Type of facility	Total	IHS	Tribal		
			Total	I	III
Service Units	150	66	84		
Hospitals	49	37	12	3	9
Ambulatory Facilities	492	113	379	168	211
Health Centers	195	61	134	90	44
School Health Centers	8	4	4	2	2
Health Stations	121	48	73	60	13
Alaska Village Clinics	168	—	168	16	152

I - operated under Title I, P.L. 93-638 Self-Determination Contracts
 III - operated under Title III, P.L. 93-638 Self-Governance Compacts

In the Aberdeen Area, Indian Health Service operated 8 hospitals, 8 health centers, 1 school health center, and 12 health stations as of October 1, 1996. Tribes operated 3 health centers, 2 school health centers, and 2 health stations, all under Title I.

Chart 1.3
Number of Service Units and Facilities

Operated by Aberdeen Area and Tribes, October 1, 1996

Type of facility	Total	IHS	Tribal		
			Total	I	III
Service Units	18	13	5		
Hospitals	8	8	—	—	—
Ambulatory Facilities	28	21	7	7	—
Health Centers	11	8	3	3	—
School Health Centers	3	1	2	2	—
Health Stations	14	12	2	2	—

I - operated under Title I, P.L. 93-638 Self-Determination Contracts

III - operated under Title III, P.L. 93-638 Self-Governance Compacts

In the Albuquerque Area, Indian Health Service operated 5 hospitals, 9 health centers, 1 school health center, and 7 health stations as of October 1, 1996. Tribes operated 3 health centers, all under Title I.

Chart 1.5
Number of Service Units and Facilities

Operated by Albuquerque Area and Tribes, October 1, 1996

Type of facility	Total	IHS	Tribal		
			Total	I	III
Service Units	7	6	1		
Hospitals	5	5	—	—	—
Ambulatory Facilities	20	17	3	3	—
Health Centers	12	9	3	3	—
School Health Centers	1	1	—	—	—
Health Stations	7	7	—	—	—

I - operated under Title I, P.L. 93-638 Self-Determination Contracts

III - operated under Title III, P.L. 93-638 Self-Governance Compacts

In the Alaska Area, Indian Health Service operated 1 hospital as of October 1, 1996. Tribes operated 6 hospitals (Title I, 1 and Title III, 5), 15 health centers (Title I, 2 and Title III, 13), and 168 village clinics (Title I, 16 and Title III, 152).

Chart 1.4
Number of Service Units and Facilities

Operated by Alaska Area and Tribes, October 1, 1996

Type of facility	Total	IHS	Tribal		
			Total	I	III
Service Units	9	1	8		
Hospitals	7	1	6	1	5
Ambulatory Facilities	183	—	183	18	165
Health Centers	15	—	15	2	13
School Health Centers	—	—	—	—	—
Health Stations	—	—	—	—	—
Village Clinics	168	—	168	16	152

I - operated under Title I, P.L. 93-638 Self-Determination Contracts

III - operated under Title III, P.L. 93-638 Self-Governance Compacts

In the Bemidji Area, Indian Health Service operated 2 hospitals, 2 health centers, and 2 health stations as of October 1, 1996. Tribes operated 21 health centers (Title I, 15 and Title III, 6) and 13 health stations (Title I, 10 and Title III, 3).

Chart 1.6
Number of Service Units and Facilities

Operated by Bemidji Area and Tribes, October 1, 1996

Type of facility	Total	IHS	Tribal		
			Total	I	III
Service Units	13	3	10		
Hospitals	2	2	—	—	—
Ambulatory Facilities	38	4	34	25	9
Health Centers	23	2	21	15	6
School Health Centers	—	—	—	—	—
Health Stations	15	2	13	10	3

I - operated under Title I, P.L. 93-638 Self-Determination Contracts

III - operated under Title III, P.L. 93-638 Self-Governance Compacts

In the Billings Area, Indian Health Service operated 3 hospitals, 6 health centers, and 4 health stations as of October 1, 1996. Tribes operated 3 health centers and 3 health stations, all under Title III.

Chart 1.7
Number of Service Units and Facilities

Operated by Billings Area and Tribes, October 1, 1996

Type of facility	Total	IHS	Tribal		
			Total	I	III
Service Units	8	6	2		
Hospitals	3	3	—	—	—
Ambulatory Facilities	16	10	6	—	6
Health Centers	9	6	3	—	3
School Health Centers	—	—	—	—	—
Health Stations	7	4	3	—	3

I - operated under Title I, P.L. 93-638 Self-Determination Contracts
III - operated under Title III, P.L. 93-638 Self-Governance Compacts

In the California Area, Indian Health Service did not operate any facilities as of October 1, 1996. Tribes operated 34 health centers (Title I, 33 and Title III, 1) and 23 health stations (all Title I).

Chart 1.8
Number of Service Units and Facilities

Operated by California Area and Tribes, October 1, 1996

Type of facility	Total	IHS	Tribal		
			Total	I	III
Service Units	26	—	26		
Hospitals	—	—	—	—	—
Ambulatory Facilities	57	—	57	56	1
Health Centers	34	—	34	33	1
School Health Centers	—	—	—	—	—
Health Stations	23	—	23	23	—

I - operated under Title I, P.L. 93-638 Self-Determination Contracts
III - operated under Title III, P.L. 93-638 Self-Governance Compacts

In the Nashville Area, Indian Health Service operated 1 hospital and 1 health station as of October 1, 1996. Tribes operated 1 hospital (Title III), 14 health centers (Title I, 13 and Title III, 1), 1 school health center (Title III), and 5 health stations (Title I, 2 and Title III, 3).

Chart 1.9
Number of Service Units and Facilities

Operated by Nashville Area and Tribes, October 1, 1996

Type of facility	Total	IHS	Tribal		
			Total	I	III
Service Units	21	1	20		
Hospitals	2	1	1	—	1
Ambulatory Facilities	21	1	20	15	5
Health Centers	14	—	14	13	1
School Health Centers	1	—	1	—	1
Health Stations	6	1	5	2	3

I - operated under Title I, P.L. 93-638 Self-Determination Contracts
III - operated under Title III, P.L. 93-638 Self-Governance Compacts

In the Navajo Area, Indian Health Service operated 6 hospitals, 7 health centers, 1 school health center, and 13 health stations as of October 1, 1996. There were no Tribally-operated facilities as of October 1, 1996.

Chart 1.10
Number of Service Units and Facilities

Operated by Navajo Area and Tribes, October 1, 1996

Type of facility	Total	IHS	Tribal		
			Total	I	III
Service Units	8	8	—		
Hospitals	6	6	—	—	—
Ambulatory Facilities	21	21	—	—	—
Health Centers	7	7	—	—	—
School Health Centers	1	1	—	—	—
Health Stations	13	13	—	—	—

I - operated under Title I, P.L. 93-638 Self-Determination Contracts
III - operated under Title III, P.L. 93-638 Self-Governance Compacts

In the Oklahoma Area, Indian Health Service operated 4 hospitals and 12 health centers as of October 1, 1996. Tribes operated 3 hospitals (Title I, 1 and Title III, 2), 23 health centers (Title I, 8 and Title III, 15), and 1 school health center (Title III).

Chart 1.11
Number of Service Units and Facilities

Operated by Oklahoma Area and Tribes, October 1, 1996

Type of facility	Total	IHS	Tribal		
			Total	I	III
Service Units	12	9	3		
Hospitals	7	4	3	1	2
Ambulatory Facilities	36	12	24	8	16
Health Centers	35	12	23	8	15
School Health Centers	1	—	1	—	1
Health Stations	—	—	—	—	—

I - operated under Title I, P.L. 93-638 Self-Determination Contracts
III - operated under Title III, P.L. 93-638 Self-Governance Compacts

In the Phoenix Area, Indian Health Service operated 6 hospitals, 6 health centers, 1 school health center, and 6 health stations as of October 1, 1996. Tribes operated 2 hospitals (Title I, 1 and Title III, 1), 6 health centers (Title I, 4 and Title III, 1), and 5 health stations (Title I, 4 and Title III, 1).

Chart 1.12
Number of Service Units and Facilities

Operated by Phoenix Area and Tribes, October 1, 1996

Type of facility	Total	IHS	Tribal		
			Total	I	III
Service Units	10	8	2		
Hospitals	8	6	2	1	1
Ambulatory Facilities	24	13	11	10	1
Health Centers	12	6	6	6	—
School Health Centers	1	1	—	—	—
Health Stations	11	6	5	4	1

I - operated under Title I, P.L. 93-638 Self-Determination Contracts
III - operated under Title III, P.L. 93-638 Self-Governance Compacts

In the Portland Area, Indian Health Service operated 8 health centers and 1 health station as of October 1, 1996. Tribes operated 12 health centers (Title I, 7 and Title III, 5) and 22 health stations (Title I, 19 and Title III, 3).

Chart 1.13
Number of Service Units and Facilities

Operated by Portland Area and Tribes, October 1, 1996

Type of facility	Total	IHS	Tribal		
			Total	I	III
Service Units	16	9	7		
Hospitals	—	—	—	—	—
Ambulatory Facilities	43	9	34	26	8
Health Centers	20	8	12	7	5
School Health Centers	—	—	—	—	—
Health Stations	23	1	22	19	3

I - operated under Title I, P.L. 93-638 Self-Determination Contracts
III - operated under Title III, P.L. 93-638 Self-Governance Compacts

In the Tucson Area, Indian Health Service operated 1 hospital, 3 health centers, and 2 health stations as of October 1, 1996. There were no Tribally-operated facilities as of October 1, 1996.

Chart 1.14
Number of Service Units and Facilities

Operated by Tucson Area and Tribes, October 1, 1996

Type of facility	Total	IHS	Tribal		
			Total	I	III
Service Units	2	2	—		
Hospitals	1	1	—	—	—
Ambulatory Facilities	5	5	—	—	—
Health Centers	3	3	—	—	—
School Health Centers	—	—	—	—	—
Health Stations	2	2	—	—	—

I - operated under Title I, P.L. 93-638 Self-Determination Contracts
III - operated under Title III, P.L. 93-638 Self-Governance Compacts



Part 2 — Population Statistics

In FY 1995, the Indian Health Service user population was approaching 1.3 million. Approximately 40 percent of the user population was concentrated in 2 IHS Areas, Oklahoma and Navajo.

There was a slightly higher percentage of females in FY 1995 in the IHS user population than the U.S. All Races population (CY 1995). Oklahoma and Tucson each had the highest percentage of females at 53.4.

Chart 2.1

IHS User Population, FY 1995

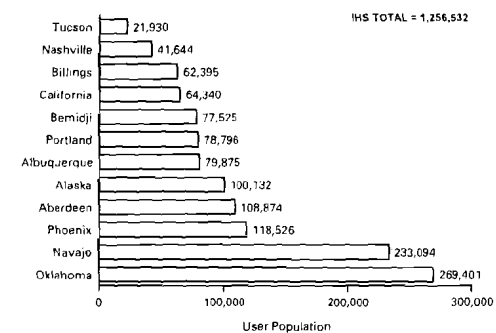
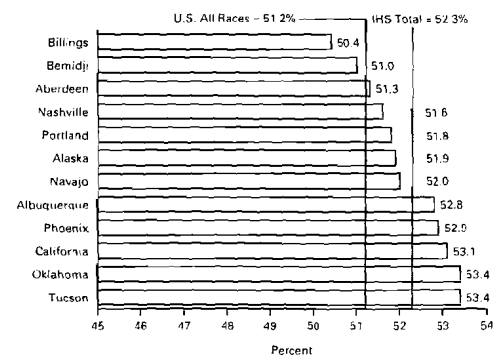


Chart 2.2

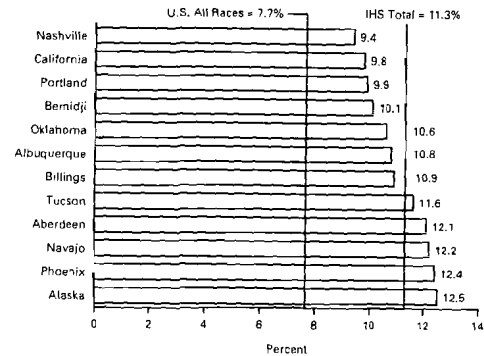
Percent of Females in User Population, FY 1995



The IHS user population in FY 1995 was considerably younger than the U.S. All Races population (CY 1995). The Nashville Area, which had the lowest percentage of population under age 5 (9.4), still had a percentage that was over 1.2 times the U.S. All Races percentage (7.7).

Chart 2.3

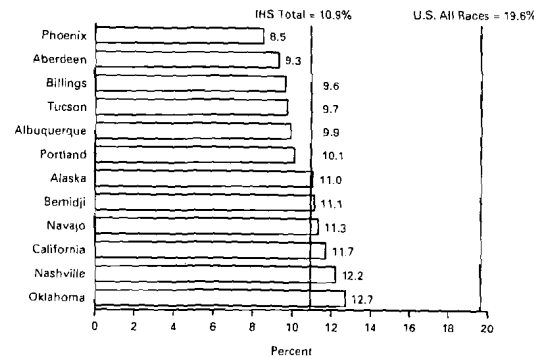
Percent of User Population Under Age 5, FY 1995



In CY 1995, 19.6 percent of the U.S. All Races population was over age 54 compared to 10.9 for the IHS user population (FY 1995). Oklahoma and Nashville had the highest percentages for this age group.

Chart 2.4

Percent of User Population Over Age 54, FY 1995

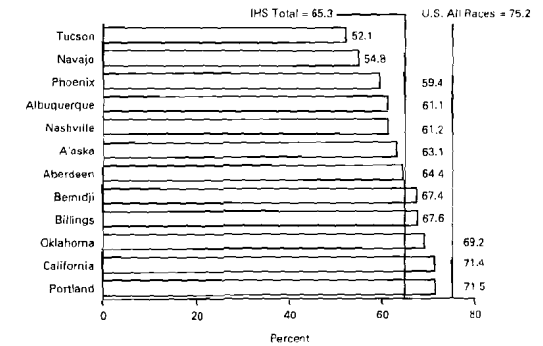


According to the 1990 Census, 65.3 percent of Indians, age 25 and older, residing in the current Reservation States are high school graduates or higher compared to 75.2 percent for the U.S. All Races population. Tucson, Navajo, and Phoenix had percentages less than 60.0.

Chart 2.5

Percent High School Graduate or Higher, Age 25 and Older

1990 Census State-Level Indian Data



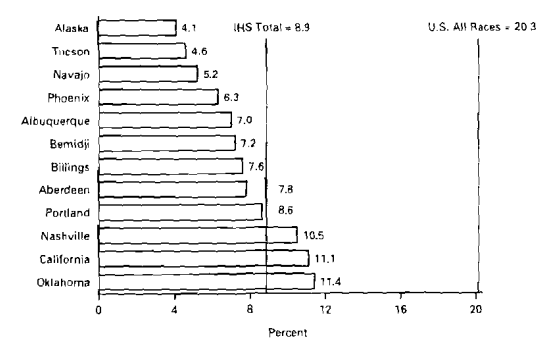
NOTE: Includes data for 35 Reservation States (South Carolina and Indiana were added as Reservation States in 1994 and 1995, respectively).

The 1990 Census indicated that 8.9 percent of Indians, age 25 and older, residing in the current Reservation States have a bachelor's degree or higher. This is well below the percentage for the U.S. All Races population of 20.3. The Area percentages ranged from 4.1 in Alaska to 11.4 in Oklahoma.

Chart 2.6

Percent Bachelor's Degree or Higher, Age 25 and Older

1990 Census State-Level Indian Data



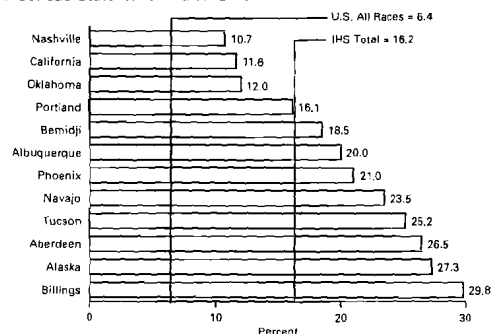
NOTE: Includes data for 35 Reservation States (South Carolina and Indiana were added as Reservation States in 1994 and 1995, respectively).

In 1990, 16.2 percent of Indian males, age 16 and older, residing in the current Reservation States were unemployed compared to 6.4 percent for the U.S. All Races male population. Billings, Alaska, Aberdeen, and Tucson had unemployment rates greater than 25.0 percent.

Chart 2.7

Percent of Males Unemployed, Age 16 and Older

1990 Census State-Level Indian Data



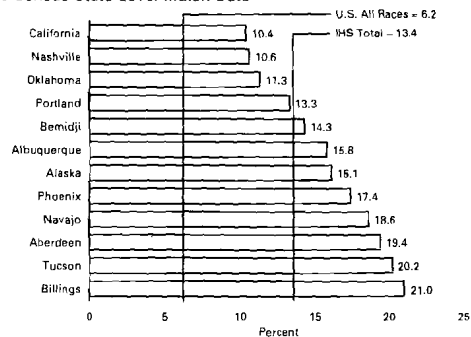
NOTE: Includes data for 35 Reservation States (South Carolina and Indiana were added as Reservation States in 1994 and 1995, respectively).

In 1990, 13.4 percent of Indian females, age 16 and older, residing in the current Reservation States were unemployed compared to 6.2 percent for the U.S. All Races female population. The Area unemployment rates ranged from 10.4 in California to 21.0 in Billings.

Chart 2.8

Percent of Females Unemployed, Age 16 and Older

1990 Census State-Level Indian Data



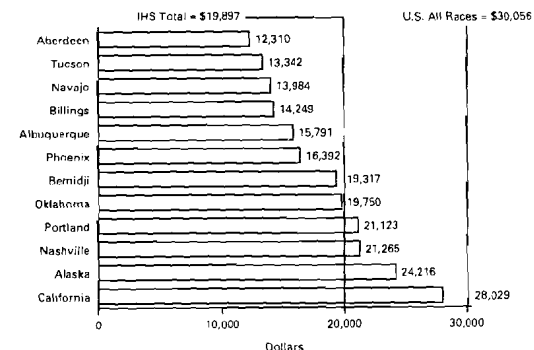
NOTE: Includes data for 35 Reservation States (South Carolina and Indiana were added as Reservation States in 1994 and 1995, respectively).

According to the 1990 Census, the median household income in 1989 for Indians residing in the current Reservation States was \$19,897. This is two-thirds of the U.S. All Races figure for 1989 of \$30,056. Aberdeen, Tucson, Navajo, and Billings had median household incomes that were less than half the U.S. figure.

Chart 2.9

Median Household Income in 1989

1990 Census State-Level Indian Data



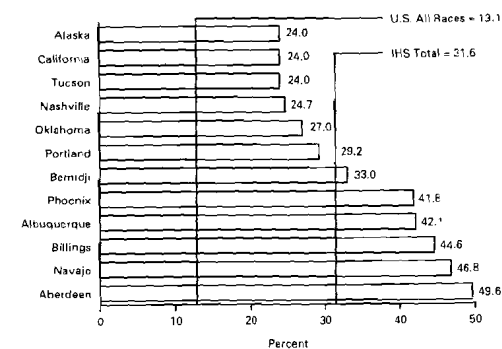
NOTE: Includes data for 35 Reservation States (South Carolina and Indiana were added as Reservation States in 1994 and 1995, respectively).

The 1990 Census indicated that 31.6 percent of Indians residing in the current Reservation States were below the poverty level. This is 2.4 times the comparable U.S. All Races figure of 13.1. Aberdeen, Navajo, Billings, Albuquerque, and Phoenix had percentages exceeding 40.0.

Chart 2.10

Percent of Population Below Poverty Level

1990 Census State-Level Indian Data



NOTE: Includes data for 35 Reservation States (South Carolina and Indiana were added as Reservation States in 1994 and 1995, respectively).

Part 3—Natality and Infant/Maternal Mortality Statistics

The birth rate for the IHS service area population in 1992-1994 was 1.7 times the rate for the U.S. All Races population in 1993, i.e., 25.7 compared to 15.5. Even the IHS Area with the lowest birth rate (Nashville, 21.0) had a rate considerably greater than the U.S. rate (35 percent greater)

Chart 3.1

Birth Rates

Calendar Years 1992-1994

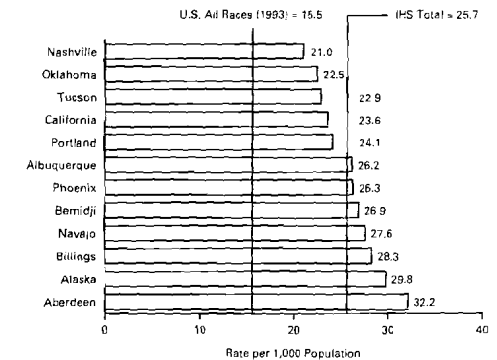


Table 3.1

Number and Rate of Live Births

Calendar Years 1992-1994

	Number	Rate ¹
U.S. All Races (1993)	4,000,240	15.5
All IHS Areas	100,199	25.7
Aberdeen	8,252	32.2
Alaska	8,321	29.8
Albuquerque	5,670	26.2
Bernidji	5,286	26.9
Billings	4,292	28.3
California	8,007	23.6
Nashville	3,778	21.0
Navajo	16,103	27.6
Oklahoma	18,737	22.5
Phoenix	10,145	26.3
Portland	9,834	24.1
Tucson	1,774	22.9

¹ Rate per 1,000 population.

For 1992-1994, 5.9 percent of all Indian births in the IHS service area were low weight (less than 2,500 grams) births. This was better than the figure for the U.S. All Races population, i.e., 7.2 percent in 1993. All IHS Areas had relatively fewer low weight births than occurred in the general population.

Chart 3.2

Low Weight Births

Calendar Years 1992-1994

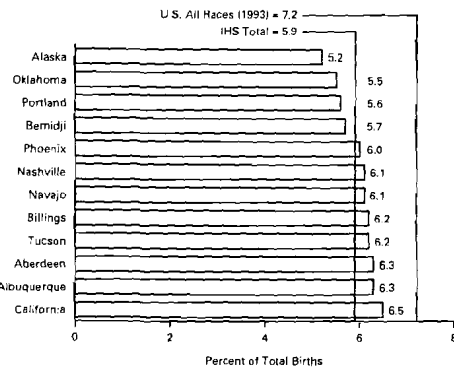


Table 3.2

Births of Low Weight as a Percent of Total Live Births

Calendar Years 1992-1994

	Total Live Births ¹	Number Low Weight ²	Percent Low Weight ³
U.S. All Races (1993)	4,000,240	288,482	7.2
All IHS Areas	100,199	5,919	5.9
Aberdeen	8,252	520	6.3
Alaska	8,321	435	5.2
Albuquerque	5,670	360	6.3
Bemidji	5,286	303	5.7
Billings	4,292	264	6.2
California	8,007	524	6.5
Nashville	3,778	229	6.1
Navajo	16,103	979	6.1
Oklahoma	18,737	1,034	5.5
Phoenix	10,145	610	6.0
Portland	9,834	561	5.6
Tucson	1,774	110	6.2

¹ Includes 4,792 U.S. All Races live births and 183 American Indian/Alaska Native live births with birthweight not stated.

² Births of less than 2,500 grams.

³ Percent low weight based on live births with a birthweight reported.

The Indian population has a greater problem with high weight rather than low weight births. High birthweights are a complication of diabetic pregnancies and should be of concern. In 1992-1994, 12.5 percent of all births in the IHS service area were high weight (4,000 grams or more) births. In contrast, the U.S. All Races percentage was 2 points lower at 10.5 in 1993. The percentages varied considerably by Area ranging from 7.4 in Albuquerque to 18.4 in Alaska.

Chart 3.3

High Weight Births

Calendar Years 1992-1994

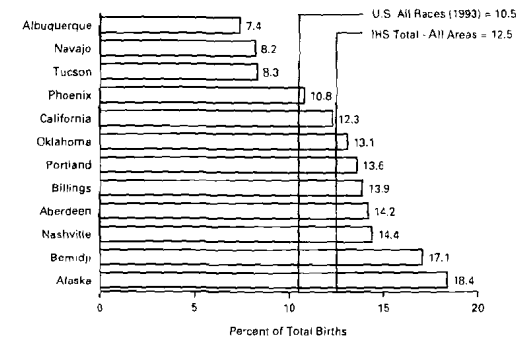


Table 3.3

Births of High Weight as a Percent of Total Live Births

Calendar Years 1992-1994

	Total Live Births ¹	Number High Weight ²	Percent High Weight ³
U.S. All Races (1993)	4,000,240	418,487	10.5
All IHS Areas	100,199	12,484	12.5
Aberdeen	8,252	1,168	14.2
Alaska	8,321	1,524	18.4
Albuquerque	5,670	420	7.4
Bemidji	5,286	905	17.1
Billings	4,292	598	13.9
California	8,007	984	12.3
Nashville	3,778	543	14.4
Navajo	16,103	1,318	8.2
Oklahoma	18,737	2,441	13.1
Phoenix	10,145	1,098	10.8
Portland	9,834	1,338	13.6
Tucson	1,774	147	8.3

¹ Includes 4,792 U.S. All Races live births and 183 American Indian/Alaska Native live births with birthweight not stated.

² Births of 4,000 grams or more (8lb, 14oz or more).

³ Percent high weight based on live births with a birthweight reported.



In 1992-1994, prenatal care began in the first trimester for 63.6 percent of Indian live births for the IHS service area population. This compared to 78.9 percent for the U.S. All Races population in 1993. The percentages varied widely among IHS Areas, ranging from 48.6 for Navajo to 77.6 for Alaska.

Chart 3.4
Live Births With Prenatal Care Beginning in First Trimester

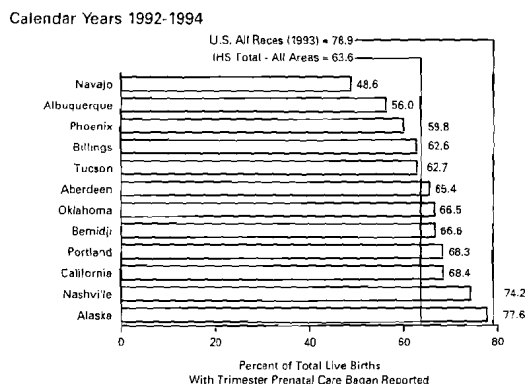


Table 3.4
Live Births With Prenatal Care Beginning in First Trimester

Calendar Years 1992-1994	Total live births ¹	Live births with trimester prenatal care begun reported	Live births with prenatal care beginning in the first trimester ²	
			Number	Percent
U.S. All Races (1993)	4,000,240	3,911,209	3,035,850	78.9
All IHS Areas	100,199	97,891	62,247	63.6
Aberdeen	8,252	8,158	5,337	55.4
Alaska	8,321	8,218	6,376	77.6
Albuquerque	5,670	5,433	3,043	56.0
Bemidji	5,286	5,195	3,459	66.6
Billings	4,292	4,266	2,672	62.6
California	8,007	7,923	5,422	68.4
Nashville	3,778	3,717	2,755	74.2
Navajo	16,103	15,822	7,650	48.6
Oklahoma	18,737	18,039	12,002	66.5
Phoenix	10,145	9,859	5,895	59.8
Portland	9,834	9,500	6,488	68.3
Tucson	1,774	1,767	1,108	62.7

¹ Includes 89,031 U.S. All Races live births and 2,308 American Indian/Alaska Native live births for which trimester of pregnancy that prenatal care began was not reported on the State birth certificate.

² Percent based on live births with this information reported.

During 1992-1994, 5.9 percent of Indian mothers drank during pregnancy (as reported on the birth certificate), nearly three times the percentage for mothers in the general population, i.e., 2.1 in 1993. The Alaska Area percentage of 18.0 was over three times the All IHS Area percentage. The Indian percentage increased with age, except mothers in the under 18 age group drank more than mothers in the 18 to 19 age group.

Chart 3.5
Mothers Who Drank during Pregnancy

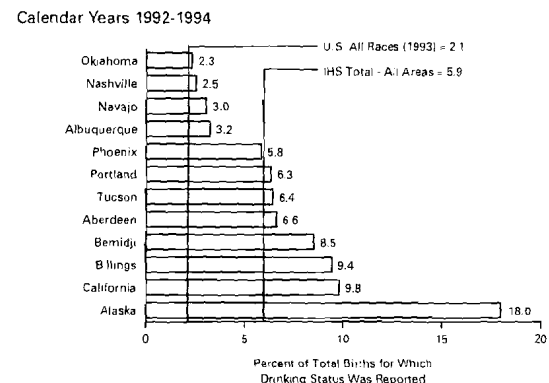


Table 3.5
Percent of Mothers Who Drank during Pregnancy¹ by Age of Mother

Calendar Years 1992-1994
(Mothers who drank during pregnancy includes those who drank even less than one drink per week during pregnancy.)

	All Ages	Under 18 Years	18-19 Years	20-24 Years	25-29 Years	30-34 Years	35-49 Years
U.S. All Races (1993)	2.1	0.6	1.2	1.7	2.1	2.7	5.5
All IHS Areas	5.9	4.8	4.3	5.6	6.6	6.9	7.1
Aberdeen	6.6	6.1	4.4	6.4	8.1	7.1	6.4
Alaska	18.0	16.6	15.0	16.0	19.3	15.7	21.6
Albuquerque	3.2	2.5	2.2	3.0	3.8	4.3	2.6
Bemidji	8.5	4.7	7.1	8.5	10.4	9.2	7.0
Billings	9.4	7.9	4.9	8.9	11.1	12.3	11.6
California	9.8	33.3 *	—	14.3 *	12.5 *	—	—
Nashville	2.5	1.6	2.6	1.5	3.0	2.6	4.3
Navajo	3.0	3.0	2.5	3.1	2.8	3.3	2.8
Oklahoma	2.3	1.4	1.4	2.3	2.3	3.0	4.1
Phoenix	5.8	4.9	4.7	5.5	5.8	7.4	6.3
Portland	6.3	5.3	4.2	6.3	7.1	6.0	9.4
Tucson	6.4	5.3	3.4	6.3	8.0	7.5	6.6

* Percent based on less than 20 births in the age group specified

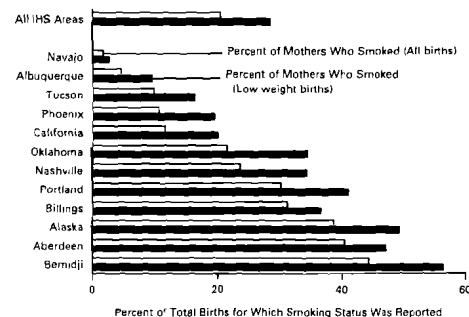
¹ Based on the number of live births with drinking status of the mother reported
NOTE: The States of California, New York and South Dakota, do not include a question on drinking history of the mother during pregnancy on State birth certificates. Persons usually residing in one of these 3 States responding to this question reported their drinking history on a form from another State, since the delivery was performed out of their usual State of residence



In the Indian population, 20.5 percent of women reported that they smoked during pregnancy, 1992-1994. Women in the U.S. All Races population smoked at a lower rate during pregnancy, i.e., 15.8 percent in 1993. There appears to be a relationship between smoking and low birthweight births. Of all Indian low weight births, 28.4 percent were to women who reported smoking during pregnancy. There were considerable variations among the IHS Areas and age groups in terms of these two rates.

Chart 3.6
Mothers Who Smoked during Pregnancy

Calendar Years 1992-1994



Indian women giving birth were more likely to be diabetic during 1992-1994 than their counterparts in the U.S. All Races population in 1993. For the Indian population, there were 53.8 births with a diabetic mother per 1,000 live births. This is more than double than the All Races rate of 26.0. The Area rates ranged from 25.7 in California to 86.3 in Tucson.

Chart 3.7
Birth Rates with Diabetic Mother

Calendar Years 1992-1994

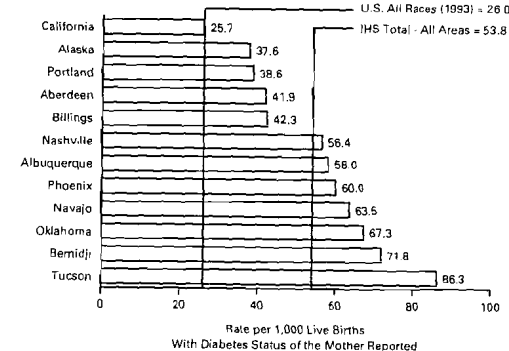


Table 3.6

Percent of Mothers Who Smoked during Pregnancy for All Births and Low Weight Births by Age of Mother

Calendar Years 1992-1994

(Low birthweight is defined as weight less than 2,500 grams (5lb, 8oz))

	Percent of Live Births ¹ for Which the Mother Reported Smoking					Percent of Low Weight Births ¹ for Which the Mother Reported Smoking				
	All Ages	Under 15 Years	15-19 Years	20-34 Years	35-49 Years	All Ages	Under 15 Years	15-19 Years	20-34 Years	35-49 Years
U.S. All Races (1993)	15.8	7.0	17.5	15.9	12.6	25.2	7.4	19.8	26.7	25.2
All IHS Areas	20.5	12.7	21.3	20.6	18.1	28.4	16.7	24.9	29.7	36.4
Aberdeen	40.4	27.8 *	37.9	41.4	39.8	47.1	100.0 *	40.0	47.9	55.0
Alaska	36.7	24.1	43.4	38.0	37.3	49.2	— *	39.1	52.1	46.8
Albuquerque	4.6	— *	4.1	4.8	4.0	9.5	— *	5.5	10.3	11.6
Bemidji	44.3	42.9	46.1	44.0	42.5	56.4	100.0 *	46.6	58.2	64.3
Billings	31.2	13.0	26.8	32.4	34.5	36.6	— *	33.3	12.0	38.1
California	11.7	100.0 *	15.4 *	11.1	— *	20.0 *	— *	— *	20.0 *	— *
Nashville	23.6	— *	19.7	24.9	25.3	34.3	— *	14.3	41.5	18.2
Navajo	1.8	—	2.2	1.8	1.0	2.7	— *	2.1	3.0	1.6
Oklahoma	21.6	10.8	19.0	22.2	25.5	34.4	— *	32.6	35.0	35.3
Phoenix	10.7	5.3	10.6	10.8	10.6	19.5	— *	18.4	17.5	24.2
Portland	30.1	16.3	34.2	29.1	28.4	41.1	66.7 *	37.6	41.0	47.0
Tucson	9.8	7.7 *	9.7	10.0	7.9	16.4	— *	5.0	20.3	15.4 *

* Percent based on less than 20 births in the age group specified.

¹ Based on the number of live births with smoking status of the mother reported.

NOTE: The States of California, Indiana, New York and South Dakota, do not include a question on smoking history of the mother during pregnancy. Persons usually residing in one of these 4 States responding to this question reported their smoking history on a form from another State since the delivery was performed out of their usual State of residence.

Table 3.7

Rate¹ of Live Births with Diabetic Mother by Age of Mother

Calendar Years 1992-1994

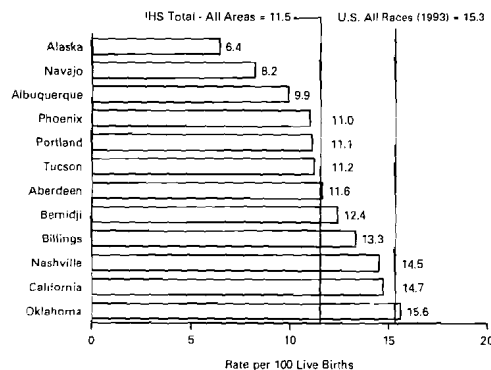
	All Ages	Under 20 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-49 Years
U.S. All Races (1993)	26.0	8.5	16.5	25.8	34.8	49.6	69.6
All IHS Areas	53.8	13.5	26.6	177.8	77.2	114.8	164.8
Aberdeen	41.9	13.2	16.2	199.1	67.6	98.2	150.5
Alaska	37.6	8.8	21.0	88.7	54.1	66.6	88.0
Albuquerque	58.0	9.6	24.8	134.3	92.7	142.5	126.4
Bemidji	71.8	13.7	44.0	290.5	95.0	189.2	170.7
Billings	42.3	8.9	18.3	161.5	79.0	80.2	219.5
California	25.7	9.1	11.8	100.5	30.3	53.8	81.6
Nashville	56.4	11.2	32.3	273.1	75.0	81.9	235.3
Navajo	63.5	13.0	22.1	139.0	92.0	128.9	207.8
Oklahoma	67.3	21.7	38.3	297.5	96.1	160.4	227.6
Phoenix	60.0	14.2	29.0	193.6	87.0	131.7	174.3
Portland	38.6	11.1	22.8	146.9	53.5	70.9	73.8
Tucson	86.3	27.2	44.7	115.4	149.4	209.3	260.9

¹ Number of live births with a diabetic mother per 1,000 live births with diabetes status reported in age group specified.

Indian women on average have a lower rate of cesarian deliveries than women in the U.S. All Races population. The Indian rate of primary cesarian deliveries, 11.5 per 100 live births in 1992-1994, was 25 percent less than the 1993 All Races rate, 15.3. Only one IHS Area exceeded the All Races rate, Oklahoma (15.6). The lowest rate occurred in Alaska (6.4).

Chart 3.8
First Cesarian Delivery

Calendar Years 1992-1994



Indian women who had a cesarian delivery were 48 percent more likely to have a subsequent vaginal delivery (1992-1994) than women in the U.S. All Races population (1993). The Indian rate is 35.9 vaginal births per 100 live births to women with a prior cesarian delivery compared to an All Races rate of 24.3. The rate ranged among IHS Areas from 22.2 in Aberdeen to 56.1 in Alaska.

Chart 3.9
Vaginal Births after Previous Cesarian Delivery

Calendar Years 1992-1994

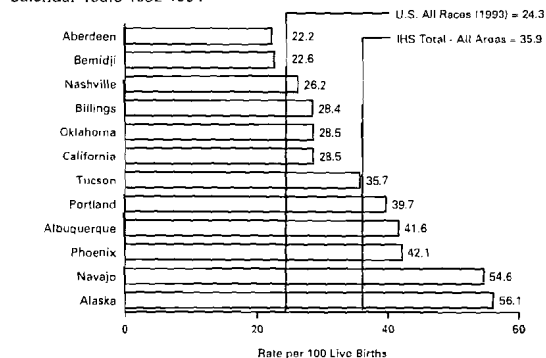


Table 3.8

Rates of First Cesarian Delivery and Vaginal Birth After Previous Cesarian Delivery by Age of Mother

Calendar Years 1992-1994

(Rates per 100 live births)

	Rate of First Cesarian Delivery				Rate of Vaginal Births After Previous Cesarian Delivery			
	All Ages	Under 25 Years	25-34 Years	35-49 Years	All Ages	Under 25 Years	25-34 Years	35-49 Years
U.S. All Races (1993)	15.3	14.0	15.5	19.1	24.3	26.4	24.4	21.1
All IHS Areas	11.5	11.5	11.0	14.4	35.9	31.7	31.5	28.8
Aberdeen	11.6	11.4	11.9	13.0	22.2	17.4	16.4	10.4
Alaska	6.4	6.3	6.3	7.5	56.1	57.9	58.9	59.7
Albuquerque	9.9	9.2	11.3	12.4	41.6	39.5	35.7	23.4
Bemidji	12.4	11.9	12.5	17.8	22.6	25.7	24.8	22.0
Billings	13.3	12.4	13.9	18.2	28.4	25.7	23.4	26.2
California	14.7	14.2	15.2	16.4	28.5	19.5	21.1	20.0
Nashville	14.5	14.6	13.7	18.9	26.2	24.2	19.9	12.5
Navajo	8.2	8.5	7.1	11.0	54.6	55.1	54.7	46.4
Oklahoma	15.6	15.0	15.9	20.4	28.5	24.2	23.6	20.9
Phoenix	11.0	11.2	9.8	16.6	42.1	40.7	35.1	21.4
Portland	11.1	10.7	10.5	17.1	39.7	42.2	31.8	77.4
Tucson	11.2	10.8	9.9	19.0	35.7	29.1	24.7	19.2

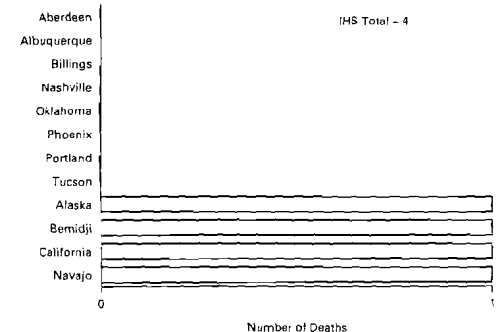
NOTE: Rate of first cesarian delivery is computed by dividing the total number of such deliveries by the number of all women who have never had a cesarian delivery. The denominator for this rate includes all births less those with method of delivery classified as repeat cesarean, vaginal birth after previous cesarean, or method not stated.

Rate of vaginal births after previous cesarian delivery is computed by dividing the total number of such deliveries by the sum of these deliveries plus repeat cesarean deliveries, that is, to women with a previous cesarian section.

There were 4 maternal deaths in the IHS service area population in 1992-1994. No IHS Area had more than 1 maternal death.

Chart 3.10
Maternal Deaths

Calendar Years 1992-1994



NOTE: IHS actual numbers and numbers adjusted for race miscoding are the same. There were 2 deaths in 1992, 2 deaths in 1993, and no deaths in 1994.

The infant mortality rate for the IHS service area population in 1992-1994 was 10.9. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 30 percent higher than the U.S. All Races rate of 8.4 for 1993. Three IHS Areas (Aberdeen, Bemidji, and Tucson) had a rate exceeding 14.0.

Chart 3.11
Infant Mortality Rates

Calendar Years 1992-1994

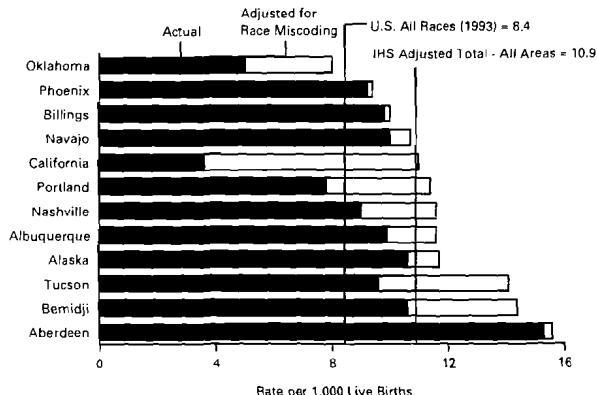


Table 3.11
Infant Mortality Rates (Under 1 Year)

Calendar Years 1992-1994

	Live Births	Infant Deaths		Rate ¹	
		Actual	Adj ²	Actual	Adj ²
U.S. All Races (1993)	4,000,240	33,466		8.4	
All IHS Areas	100,199	872	1,096	8.7	10.9
Aberdeen	8,252	126	129	15.3	15.6
Alaska	8,321	88	97	10.6	11.7
Albuquerque	5,670	56	66	9.9	11.6
Bemidji	5,286	56	76	10.6	14.4
Billings	4,292	42	43	9.8	10.0
California	8,007	29	88	3.6	11.0
Nashville	3,778	34	44	9.0	11.6
Navajo	16,103	161	172	10.0	10.7
Oklahoma	18,737	93	149	5.0	8.0
Phoenix	10,145	93	95	9.2	9.4
Portland	9,834	77	112	7.8	11.4
Tucson	1,774	17	25	9.6	14.1

¹ Rate per 1,000 live births.

² Adjusted to compensate for miscoding of Indian race on death certificates.

The neonatal mortality rate for the IHS service area population in 1992-1994 was 5.2. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is slightly less than the U.S. All Races rate of 5.3 for 1993. Four IHS Areas (Aberdeen, California, Alaska, and Navajo) had a rate that exceeded the U.S. All Races rate.

Chart 3.12
Neonatal Mortality Rates

Calendar Years 1992-1994

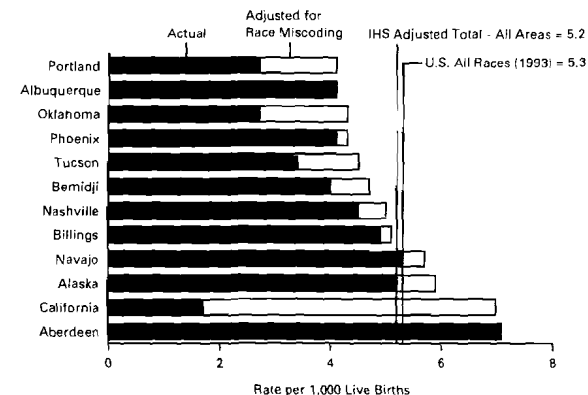


Table 3.12
Neonatal Mortality Rates (Under 28 Days)

Calendar Years 1992-1994

	Live Births	Infant Deaths		Rate ¹	
		Actual	Adj ²	Actual	Adj ²
U.S. All Races (1993)	4,000,240	21,174		5.3	
All IHS Areas	100,199	409	517	4.1	5.2
Aberdeen	8,252	59	59	7.1	7.1
Alaska	8,321	43	49	5.2	5.9
Albuquerque	5,670	23	23	4.1	4.1
Bemidji	5,286	21	25	4.0	4.7
Billings	4,292	21	22	4.9	5.1
California	8,007	14	56	1.7	7.0
Nashville	3,778	17	19	4.5	5.0
Navajo	16,103	86	91	5.3	5.7
Oklahoma	18,737	50	81	2.7	4.3
Phoenix	10,145	42	44	4.1	4.3
Portland	9,834	27	40	2.7	4.1
Tucson	1,774	6	8	3.4	4.5

¹ Rate per 1,000 live births.

² Adjusted to compensate for miscoding of Indian race on death certificates.

The postneonatal mortality rate for the IHS service area population in 1992-1994 was 5.8. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 1.9 times the U.S. All Races rate of 3.1 for 1993. The Tucson and Bemidji Areas each had the highest rate (9.6) among the IHS Areas followed by Aberdeen with 8.5.

Chart 3.13

Postneonatal Mortality Rates

Calendar Years 1992-1994

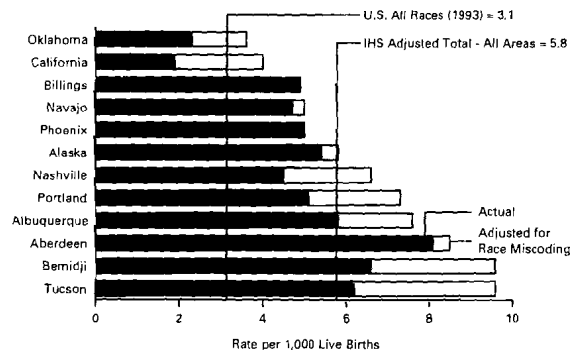


Table 3.13

Postneonatal Mortality Rates (28 Days to Under 1 Year)

Calendar Years 1992-1994

	Live Births	Infant Deaths		Rate ¹	
		Actual	Adj ²	Actual	Adj ²
U.S. All Races (1993)	4,000,240	12,292		3.1	
All IHS Areas	100,199	463	579	4.6	5.8
Aberdeen	8,252	67	70	8.1	8.5
Alaska	8,321	45	48	5.4	5.8
Albuquerque	5,670	33	43	5.8	7.6
Bemidji	5,286	35	51	6.6	9.6
Billings	4,292	21	21	4.9	4.9
California	8,007	15	32	1.9	4.0
Nashville	3,778	17	25	4.5	6.6
Navajo	16,103	75	81	4.7	5.0
Oklahoma	18,737	43	68	2.3	3.6
Phoenix	10,145	51	51	5.0	5.0
Portland	9,834	50	72	5.1	7.3
Tucson	1,774	11	17	6.2	9.6

¹ Rate per 1,000 live births.

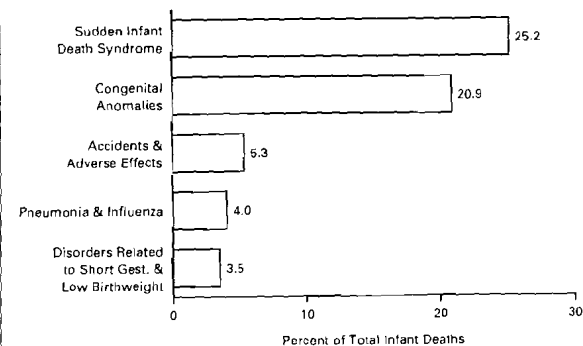
² Adjusted to compensate for miscoding of Indian race on death certificates.

In 1992-1994, 25.2 percent of all infant deaths in the IHS service area were caused by sudden infant death syndrome. This was followed by congenital anomalies at 20.9 percent.

Chart 3.14

Leading Causes of Infant Deaths

All IHS Areas, Calendar Years 1992-1994

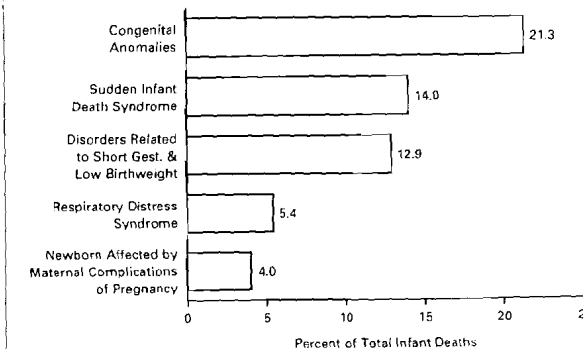


In 1993, 21.3 percent of all infant deaths in the U.S. were caused by congenital anomalies. This was followed by sudden infant death syndrome at 14.0 percent.

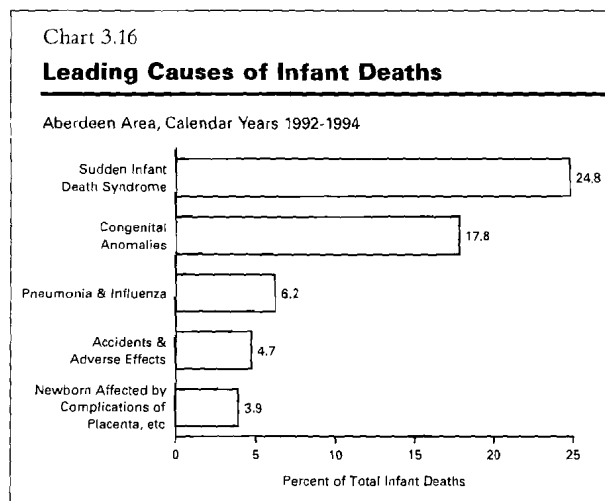
Chart 3.15

Leading Causes of Infant Deaths

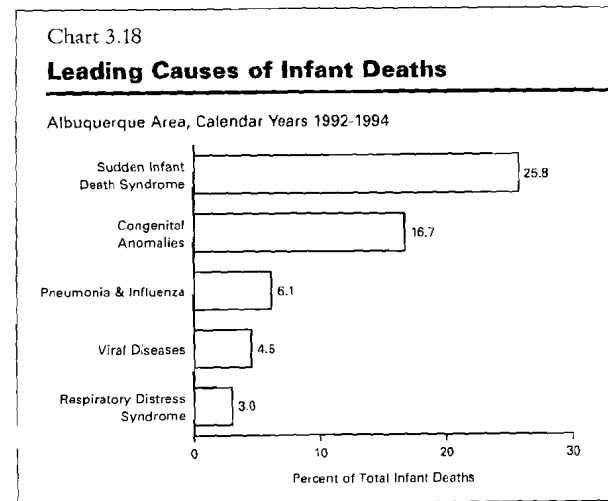
U.S. All Races, 1993



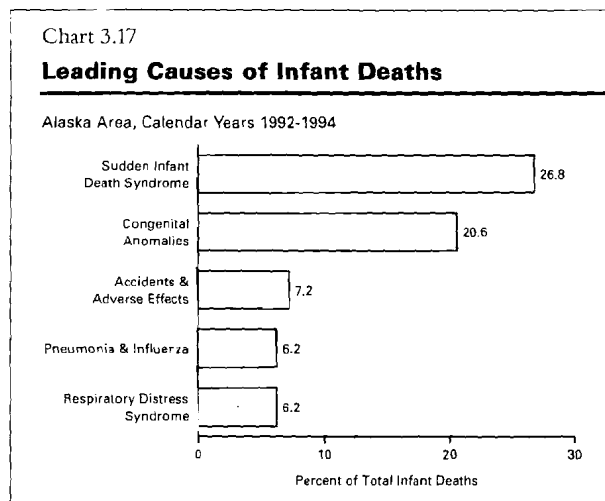
In 1992-1994, 24.8 percent of all infant deaths in the Aberdeen Area were caused by sudden infant death syndrome. This was followed by congenital anomalies at 17.8 percent.



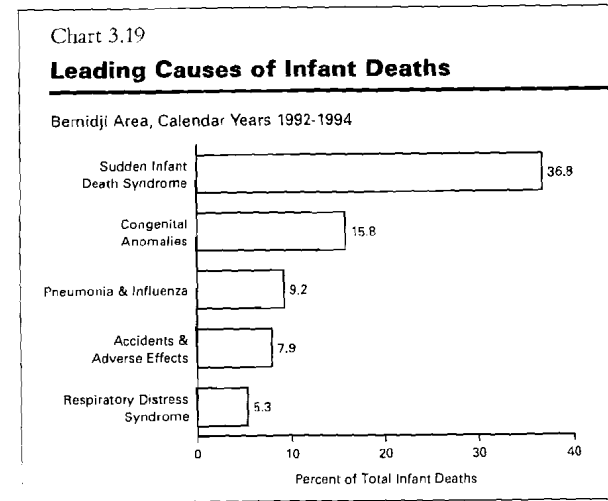
In 1992-1994, 25.8 percent of all infant deaths in the Albuquerque Area were caused by sudden infant death syndrome. This was followed by congenital anomalies at 16.7 percent.



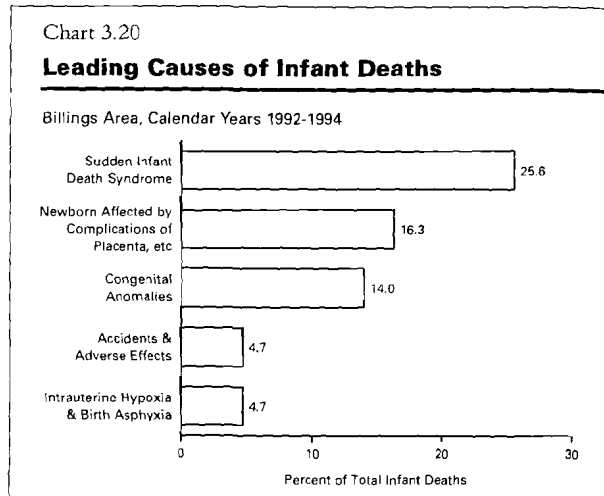
In 1992-1994, 26.8 percent of all infant deaths in the Alaska Area were caused by sudden infant death syndrome. This was followed by congenital anomalies at 20.6 percent.



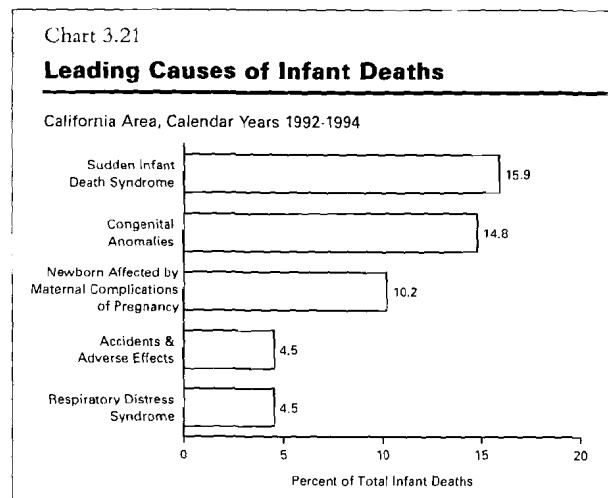
In 1992-1994, 36.8 percent of all infant deaths in the Bemidji Area were caused by sudden infant death syndrome. This was followed by congenital anomalies at 15.8 percent.



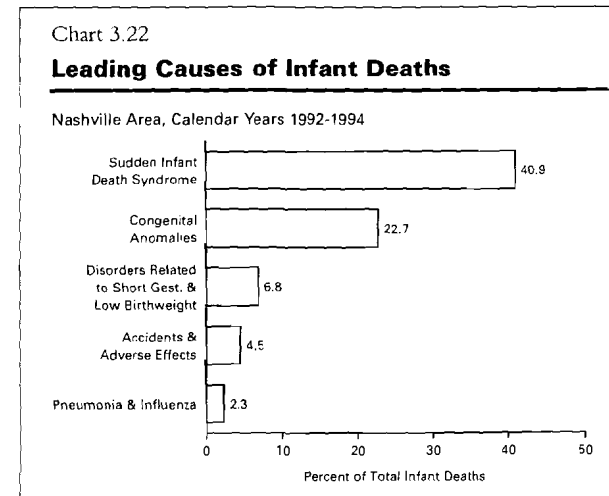
In 1992-1994, 25.6 percent of all infant deaths in the Billings Area were caused by sudden infant death syndrome. This was followed by newborn affected by complications of placenta, etc. at 16.3 percent.



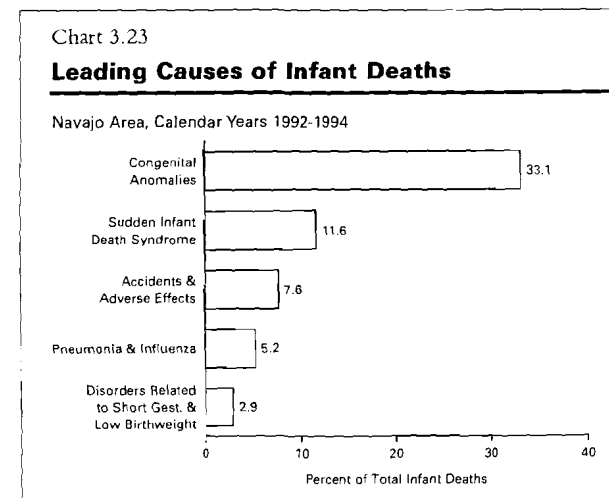
In 1992-1994, 15.9 percent of all infant deaths in the California Area were caused by sudden infant death syndrome. This was followed by congenital anomalies at 14.8 percent.



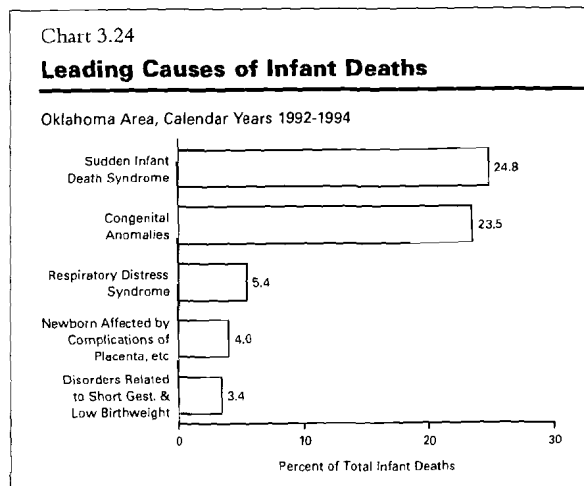
In 1992-1994, 40.9 percent of all infant deaths in the Nashville Area were caused by sudden infant death syndrome. This was followed by congenital anomalies at 22.7 percent.



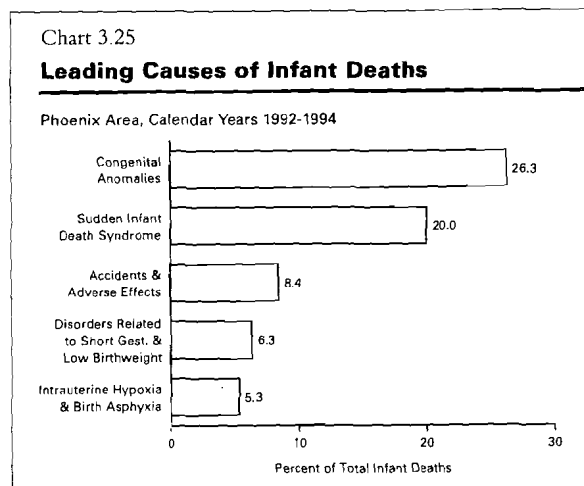
In 1992-1994, 33.1 percent of all infant deaths in the Navajo Area were caused by congenital anomalies. This was followed by sudden infant death syndrome at 11.6 percent.



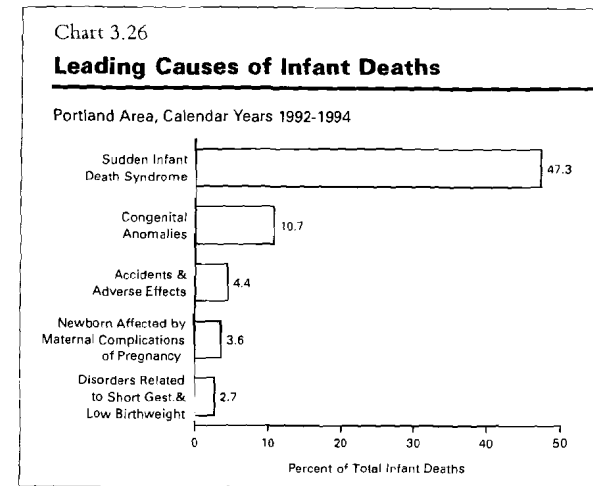
In 1992-1994, 24.8 percent of all infant deaths in the Oklahoma Area were caused by sudden infant death syndrome. This was followed by congenital anomalies at 23.5 percent.



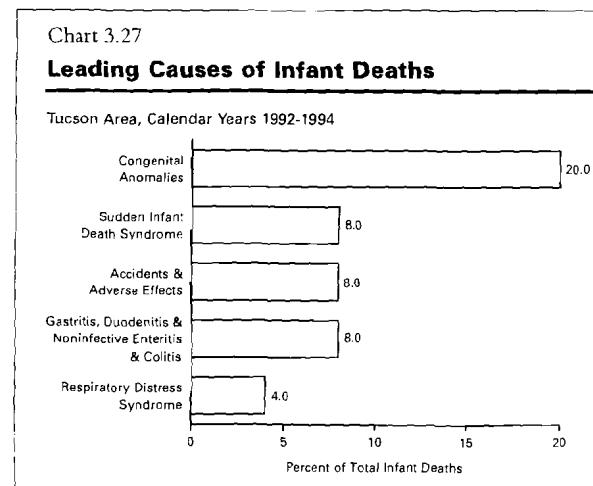
In 1992-1994, 26.3 percent of all infant deaths in the Phoenix Area were caused by congenital anomalies. This was followed by sudden infant death syndrome at 20.0 percent.



In 1992-1994, 47.3 percent of all infant deaths in the Portland Area were caused by sudden infant death syndrome. This was followed by congenital anomalies at 10.7 percent.



In 1992-1994, 20.0 percent of all infant deaths in the Tucson Area were caused by congenital anomalies. This was followed by sudden infant death syndrome at 8.0 percent.



In 1992-1994, the mortality rate for sudden infant death syndrome (SIDS) for the IHS service area population was 2.4 times the rate for the U.S. All Races population in 1993, 276.5 compared to 116.7. The Indian rate is adjusted for miscoding of Indian race on death certificates. In the Portland Area, 47.3 percent of infant deaths were because of SIDS.

Chart 3.28
Sudden Infant Death Syndrome Rates

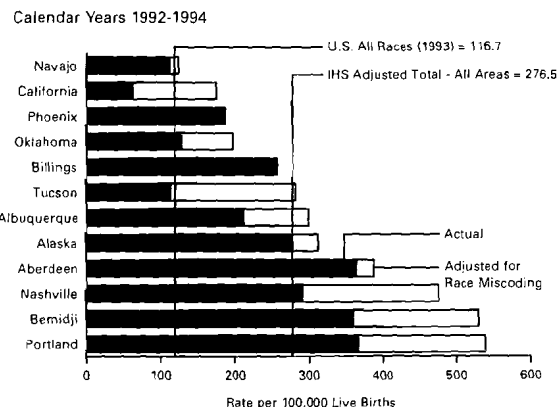


Table 3.28
Sudden Infant Death Syndrome Rates

Calendar Years 1992-1994

	Live Births	Infant Deaths		Rate ¹	
		Actual	Adj ²	Actual	Adj ²
U.S. All Races (1993)	4,000,240	4,669		116.7	
All IHS Areas	100,199	210	277	209.6	276.5
Aberdeen	8,252	30	32	363.8	387.8
Alaska	8,321	23	26	276.4	312.5
Albuquerque	5,670	12	17	211.6	299.8
Bemidji	5,286	19	28	359.4	529.7
Billings	4,292	11	11	256.3	256.3
California	8,007	5	14	62.4	174.8
Nashville	3,778	11	18	291.2	476.4
Navajo	16,103	18	20	111.8	124.2
Oklahoma	18,737	24	37	128.1	197.5
Phoenix	10,145	19	19	187.3	187.3
Portland	9,834	36	53	366.1	538.9
Tucson	1,774	2	2	112.7	281.8

¹ Rate per 100,000 live births.

² Adjusted to compensate for miscoding of Indian race on death certificates.

Part 4—General Mortality Statistics

In 1992-1994, the age-adjusted death rate (all causes) for the IHS service area population was 690.4. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 35 percent higher than the U.S. All Races rate of 513.3 for 1993. The Aberdeen (1,084.4) and Bemidji (1,014.4) rates are about double the U.S. rate.

Chart 4.1
Age-Adjusted Death Rates

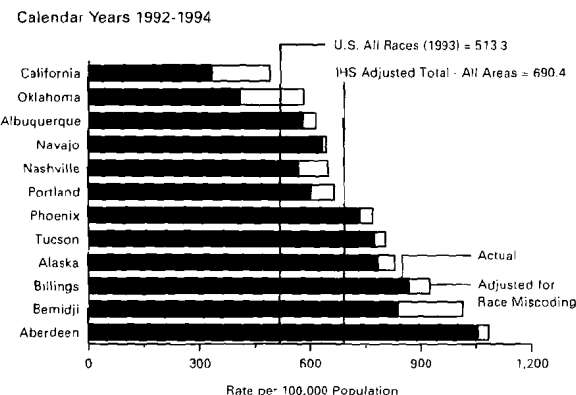


Table 4.1
Age-Adjusted Death Rates (All Causes)

Calendar Years 1992-1994

	Deaths ¹		Rate ²	
	Actual	Adj ³	Actual	Adj ³
U.S. All Races (1993)	2,268,553		513.3	
All IHS Areas	20,893	23,917	601.3	690.4
Aberdeen	2,049	2,104	1,055.4	1,084.4
Alaska	1,815	1,916	781.9	827.5
Albuquerque	1,114	1,179	577.7	612.8
Bemidji	1,369	1,662	836.5	1,014.4
Billings	1,011	1,073	867.0	923.8
California	1,017	1,505	330.7	487.5
Nashville	956	1,091	566.4	646.2
Navajo	3,219	3,267	630.9	640.6
Oklahoma	3,683	5,122	406.0	579.7
Phoenix	2,194	2,289	733.1	767.5
Portland	1,959	2,180	598.7	662.7
Tucson	507	529	772.6	802.0

¹ Includes deaths with age not reported (18 deaths IHS-wide, Albuquerque-2 deaths, Nashville-2 deaths, Navajo-5 deaths, Oklahoma-7 deaths and Phoenix-2 deaths).

² Rate per 100,000 population.

³ Adjusted to compensate for miscoding of Indian race on death certificates.

In 1992-1994, the years of potential life lost rate (all causes) for the IHS service area population was 94.6. This is the rate adjusted for miscoding of Indian race on death certificates. This is 73 percent greater than the U.S. All Races rate of 54.8 for 1993. Each IHS Area has a rate greater than U.S. All Races rate. The lowest Area rate (California, 67.5) is 23 percent greater than the U.S. rate, while the highest Area rate (Aberdeen, 131.4) is 2.4 times the U.S. rate.

Chart 4.2

Years of Potential Life Lost (YPLL) Rates

Calendar Years 1992-1994

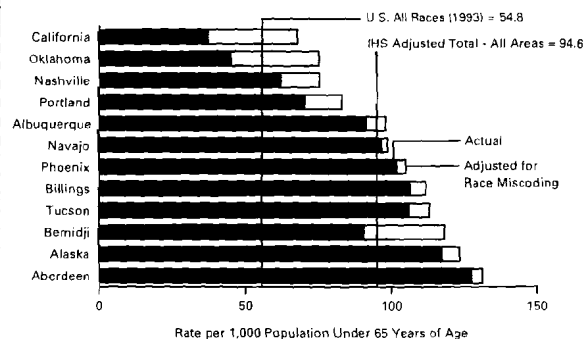


Table 4.2

Years of Potential Life Lost (YPLL) Rates (All Causes)

Calendar Years 1992-1994

	Number of YPLL ¹		Rate ²	
	Actual	Adj. ³	Actual	Adj. ³
U.S. All Races (1993)	12,646,092		54.8	
All IHS Areas	295,614	348,325	80.3	94.6
Aberdeen	31,053	31,989	127.5	131.4
Alaska	31,190	32,888	117.2	123.6
Albuquerque	18,633	20,030	91.1	97.9
Bemidji	16,789	21,956	90.4	118.2
Billings	15,349	16,151	106.2	111.7
California	11,892	21,606	37.2	67.5
Nashville	10,469	12,725	61.9	75.2
Navajo	53,339	54,516	96.4	98.5
Oklahoma	34,400	57,291	45.0	75.0
Phoenix	37,433	38,692	101.5	104.9
Portland	27,284	32,181	70.2	82.8
Tucson	7,774	8,300	105.9	113.0

¹ Years of Potential Life Lost (YPLL) is a mortality indicator which measures the burden of premature deaths. It is calculated by subtracting the age at death from age 65 and summing the result over all deaths. This calculation was performed through the use of age groups Under 1, 1 to 4 and 5 year age groups through 60 to 64. The age at death was calculated based upon the mid point of each of these age groups.

² Rate per 1,000 population under 65 years of age.

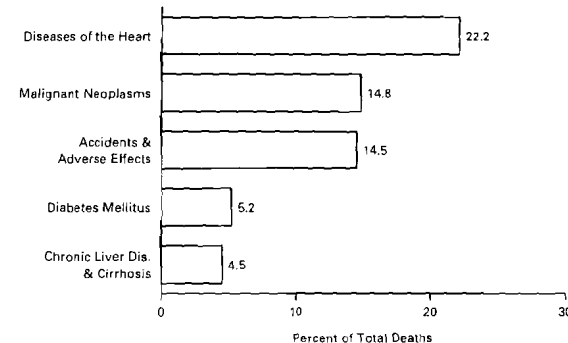
³ Adjusted to compensate for miscoding of Indian race on death certificates.

In 1992-1994, 22.2 percent of all deaths in the IHS service area were caused by diseases of the heart. This was followed by malignant neoplasms at 14.8 percent.

Chart 4.3

Leading Causes of Death

All IHS Areas, Calendar Years 1992-1994

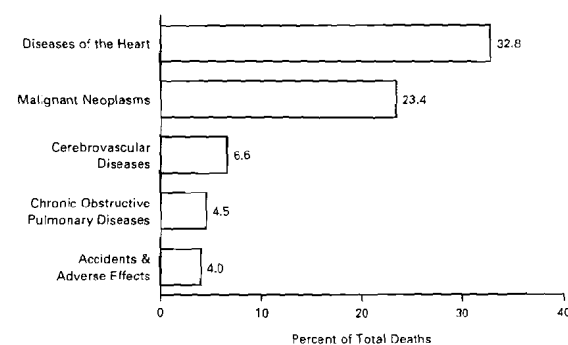


In 1993, 32.8 percent of all deaths in the U.S. were caused by diseases of the heart. This was followed by malignant neoplasms at 23.4 percent.

Chart 4.4

Leading Causes of Death

U.S. All Races, Calendar Years 1993

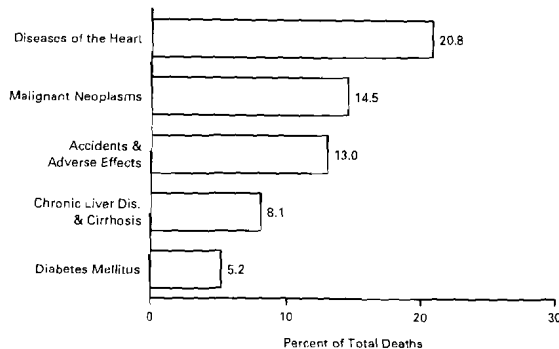


In 1992-1994, 20.8 percent of all deaths in the Aberdeen Area were caused by diseases of the heart. This was followed by malignant neoplasms at 14.5 percent.

Chart 4.5

Leading Causes of Death

Aberdeen Area, Calendar Years 1992-1994

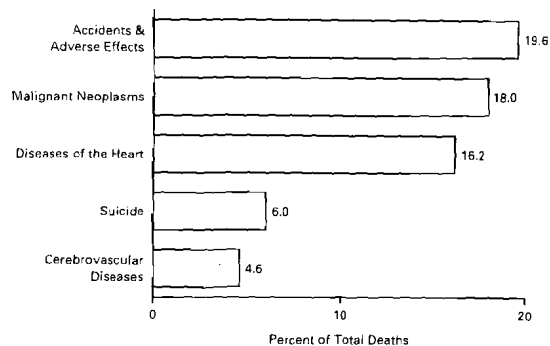


In 1992-1994, 19.6 percent of all deaths in the Alaska Area were caused by accidents and adverse effects. This was followed by malignant neoplasms at 18.0 percent.

Chart 4.6

Leading Causes of Death

Alaska Area, Calendar Years 1992-1994

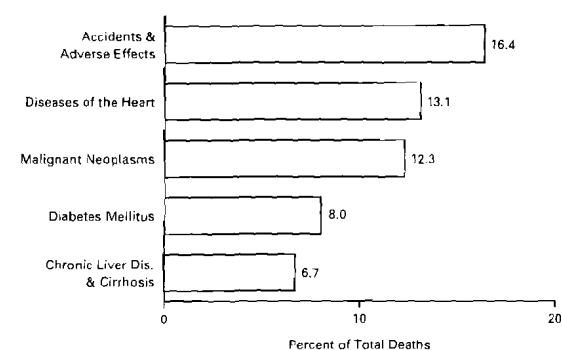


In 1992-1994, 16.4 percent of all deaths in the Albuquerque Area were caused by accidents and adverse effects. This was followed by diseases of the heart at 13.1 percent.

Chart 4.7

Leading Causes of Death

Albuquerque Area, Calendar Years 1992-1994

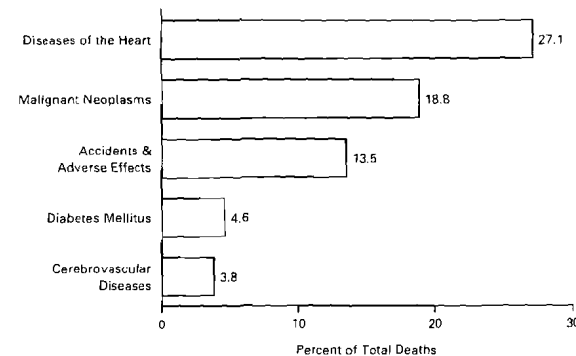


In 1992-1994, 27.1 percent of all deaths in the Bemidji Area were caused by diseases of the heart. This was followed by malignant neoplasms at 18.8 percent.

Chart 4.8

Leading Causes of Death

Bemidji Area, Calendar Years 1992-1994

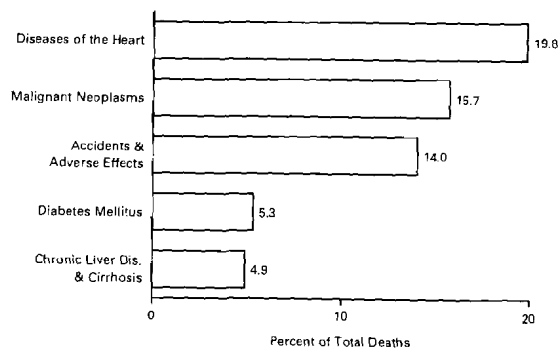


In 1992-1994, 19.8 percent of all deaths in the Billings Area were caused by diseases of the heart. This was followed by malignant neoplasms at 15.7 percent.

Chart 4.9

Leading Causes of Death

Billings Area, Calendar Years 1992-1994

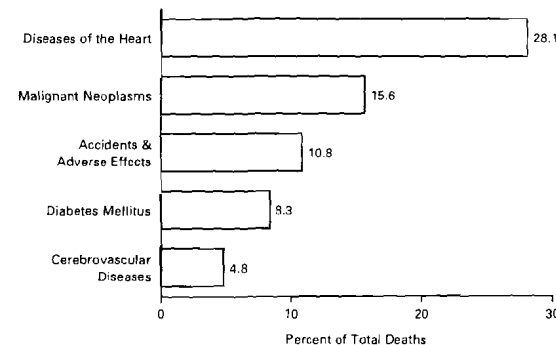


In 1992-1994, 28.1 percent of all deaths in the Nashville Area were caused by diseases of the heart. This was followed by malignant neoplasms at 15.6 percent.

Chart 4.11

Leading Causes of Death

Nashville Area, Calendar Years 1992-1994

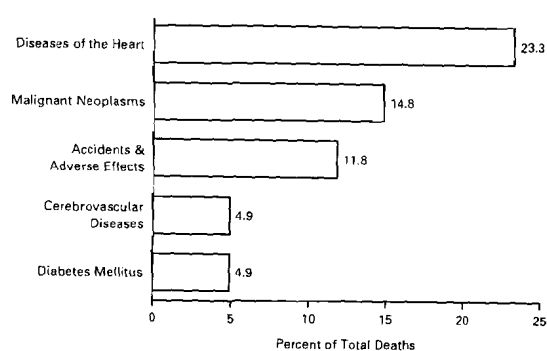


In 1992-1994, 23.3 percent of all deaths in the California Area were caused by diseases of the heart. This was followed by malignant neoplasms at 14.8 percent.

Chart 4.10

Leading Causes of Death

California Area, Calendar Years 1992-1994

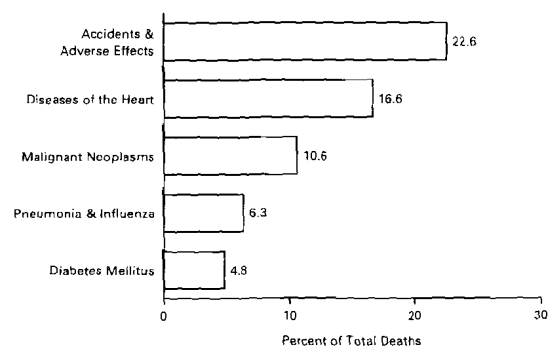


In 1992-1994, 22.6 percent of all deaths in the Navajo Area were caused by accidents and adverse effects. This was followed by diseases of the heart at 16.6 percent.

Chart 4.12

Leading Causes of Death

Navajo Area, Calendar Years 1992-1994

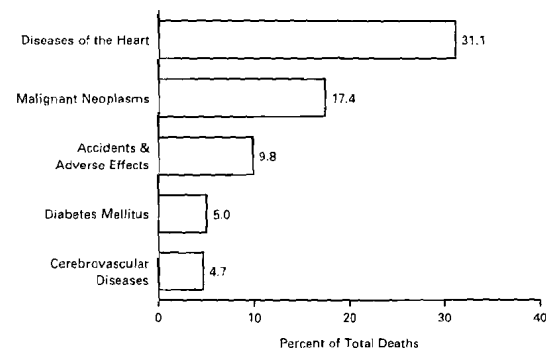


In 1992-1994, 31.1 percent of all deaths in the Oklahoma Area were caused by diseases of the heart. This was followed by malignant neoplasms at 17.4 percent.

Chart 4.13

Leading Causes of Death

Oklahoma Area, Calendar Years 1992-1994

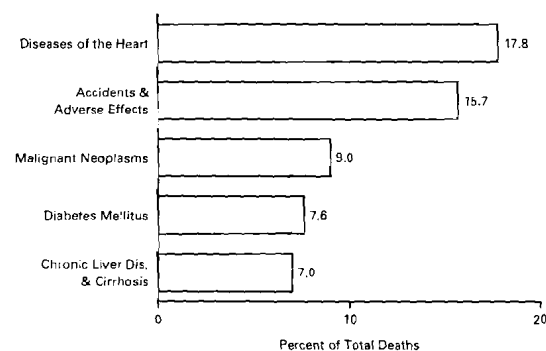


In 1992-1994, 17.8 percent of all deaths in the Phoenix Area were caused by diseases of the heart. This was followed by accidents and adverse effects at 15.7 percent.

Chart 4.14

Leading Causes of Death

Phoenix Area, Calendar Years 1992-1994

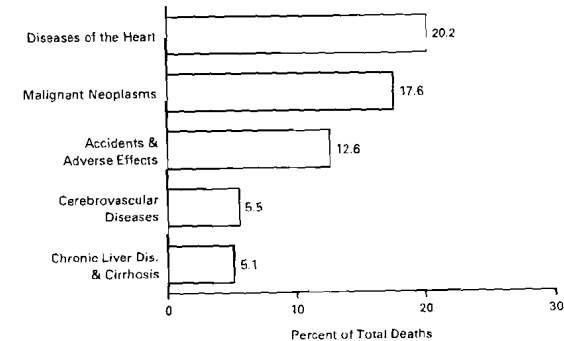


In 1992-1994, 20.2 percent of all deaths in the Portland Area were caused by diseases of the heart. This was followed by malignant neoplasms at 17.6 percent.

Chart 4.15

Leading Causes of Death

Portland Area, Calendar Years 1992-1994

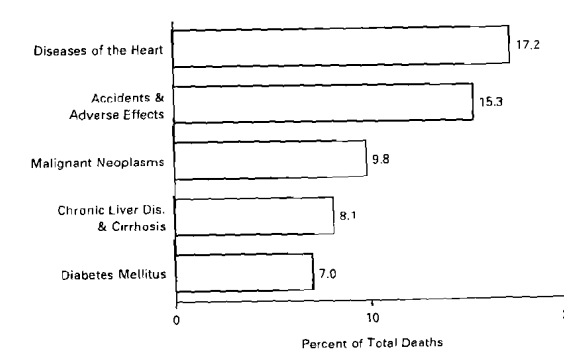


In 1992-1994, 17.2 percent of all deaths in the Tucson Area were caused by diseases of the heart. This was followed by accidents and adverse effects at 15.3 percent.

Chart 4.16

Leading Causes of Death

Tucson Area, Calendar Years 1992-1994



In 1992-1994, the age-adjusted injury and poisoning death rate for the IHS service area population was 131.1. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 2.4 times the U.S. All Races rate of 53.8 for 1993. Three Areas (Alaska, Aberdeen, and Navajo) had rates exceeding 180.0.

Chart 4.17

Age-Adjusted Injury and Poisoning Death Rates

Calendar Years 1992-1994

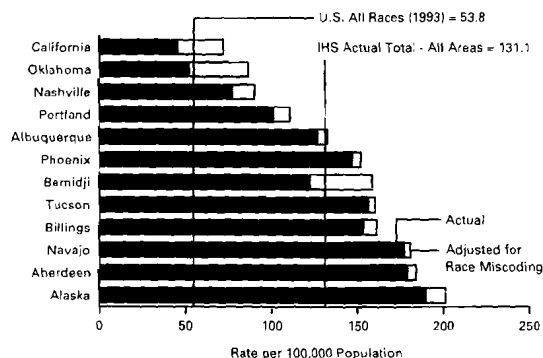


Table 4.17

Age-Adjusted Injury and Poisoning¹ Death Rates

Calendar Years 1992-1994

	Deaths ²		Rate ³	
	Actual	Adj ⁴	Actual	Adj ⁴
U.S. All Races (1993)	151,755		53.8	
All IHS Areas	4,236	4,838	115.3	131.1
Aberdeen	391	403	179.0	184.1
Alaska	502	530	189.9	201.2
Albuquerque	259	272	126.2	132.2
Bemidji	224	292	122.0	158.0
Billings	213	225	153.0	161.1
California	153	245	45.0	71.6
Nashville	136	160	76.7	89.5
Navajo	912	930	177.0	180.6
Oklahoma	415	686	51.8	85.9
Phoenix	525	544	146.6	151.6
Portland	395	437	100.4	110.3
Tucson	111	114	155.9	160.1

¹ Includes the following ICD-9 cause of death groups combined: Motor vehicle accidents-E810-E825. Other accidents-E800-E807, E826-E949. Suicide-E950-E959. Homicide-E960-E978. Injury undetermined whether accidentally or purposely inflicted-E980-E989. Injury resulting from operations of war-E990-E995.

² Includes deaths with age not reported. For IHS, includes Navajo-3 deaths, Oklahoma-3 deaths, and Phoenix-2 deaths.

³ Age-adjusted rate per 100,000 population.

⁴ Adjusted to compensate for miscoding of Indian race on death certificates.

In 1992-1994, the age-adjusted accident death rate for the IHS service area population was 94.5. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 212 percent higher than the U.S. All Races rate of 30.3 for 1993. The California Area has the lowest rate among the IHS Areas (51.9), but it is still 71 percent greater than the U.S. rate. The highest Area rate (Navajo, 145.5) is nearly 5 times the U.S. rate.

Chart 4.18

Age-Adjusted Accident Death Rates

Calendar Years 1992-1994

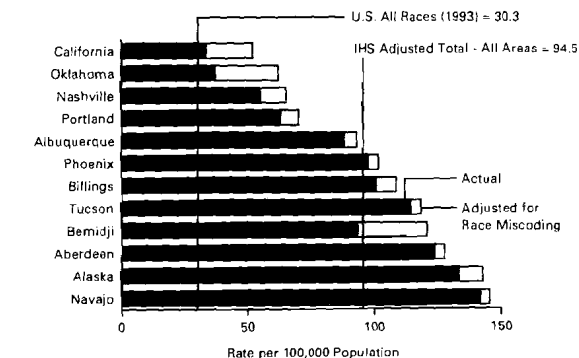


Table 4.18

Age-Adjusted Accident Death Rates

Calendar Years 1992-1994

	All Accidents				Motor Vehicle Accidents				Other Accidents	
	Deaths		Rate ²		Totals		Percent of Motor Vehicle Accident Deaths Pedestrian-related ¹		Rate ²	
	Actual	Adj ³	Actual	Adj ³	Actual	Adj ³			Actual	Adj ³
U.S. All Races (1993)	90,523		30.3		16.0		15.3%		14.4	
All IHS Areas	3,006	3,467	82.3	94.5	45.5	53.3	23.7%		36.8	41.2
Aberdeen	265	274	124.2	128.1	72.2	75.5	21.5%		52.0	52.6
Alaska	354	376	133.8	142.8	28.4	29.1	32.1%		105.4	113.7
Albuquerque	182	193	88.2	93.3	59.0	64.1	29.7%		29.2	29.2
Bemidji	172	225	93.6	121.3	59.3	80.4	17.3%		34.3	40.8
Billings	138	150	101.0	109.1	63.6	71.1	14.4%		15.2	22.5
California	113	178	33.2	51.9	18.0	29.5	12.0%		20.7	22.9
Nashville	99	118	55.0	65.2	34.3	42.4	17.1%		57.6	59.0
Navajo	720	738	141.9	145.5	84.4	86.6	31.7%		14.8	24.0
Oklahoma	298	501	37.0	62.2	22.2	38.2	20.5%		40.9	42.5
Phoenix	343	359	97.7	101.9	56.8	59.4	24.9%		29.5	31.5
Portland	244	274	63.1	70.1	33.5	38.7	18.4%		51.4	55.5
Tucson	78	81	114.8	119.0	63.4	63.4	31.1%			

¹ Includes Motor vehicle accidents having ICD-9 codes E810-E825 with a fourth digit code .7. The fourth digit code .7 indicates a pedestrian was the subject decedent as a result of the motor vehicle accident. Percents are based upon adjusted numbers of deaths.

² Age-adjusted rate per 100,000 population.

³ Adjusted to compensate for miscoding of Indian race on death certificates.

In 1992-1994, the age-adjusted suicide death rate for the IHS service area population was 19.2. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 70 percent higher than the U.S. All Races rate of 11.3 for 1993. The Alaska rate (43.6) is nearly four times the U.S. rate and four Area rates (Aberdeen, Albuquerque, Phoenix, and Portland) are at least double the U.S. rate.

Chart 4.19
Age-Adjusted Suicide Death Rates

Calendar Years 1992-1994

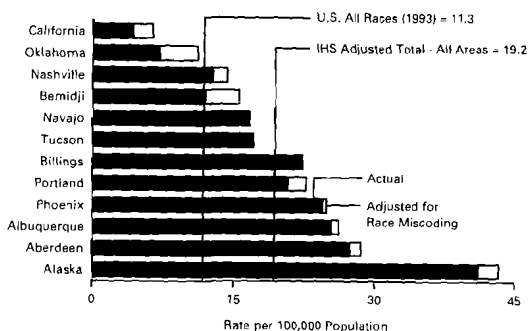


Table 4.19
Age-Adjusted Suicide Death Rates

Calendar Years 1992-1994

	Deaths		Rate ¹	
	Actual	Adj ²	Actual	Adj ²
U.S. All Races (1993)	31,102		11.3	
All IHS Areas	639	708	17.3	19.2
Aberdeen	63	66	27.3	28.5
Alaska	108	114	41.4	43.6
Albuquerque	52	54	25.3	26.1
Bemidji	23	30	11.9	15.5
Billings	31	31	22.2	22.2
California	14	21	4.2	6.3
Nashville	22	25	12.7	14.2
Navajo	90	90	16.6	16.5
Oklahoma	55	86	7.1	11.1
Phoenix	87	89	24.4	24.8
Portland	81	89	20.7	22.6
Tucson	13	13	17.0	17.0

¹ Age-adjusted rate per 100,000 population. Rates based on a small number of deaths should be interpreted with caution.
² Adjusted to compensate for miscoding of Indian race on death certificates.

In 1992-1994, the age-adjusted homicide death rate for the IHS service area population was 15.1. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 41 percent higher than the U.S. All Races rate of 10.7 for 1993. The Aberdeen (23.4) and Billings (22.6) rates are more than double the U.S. rate, while the Phoenix (21.3) and Tucson (20.6) rates are nearly double the U.S. rate.

Chart 4.20
Age-Adjusted Homicide Death Rates

Calendar Years 1992-1994

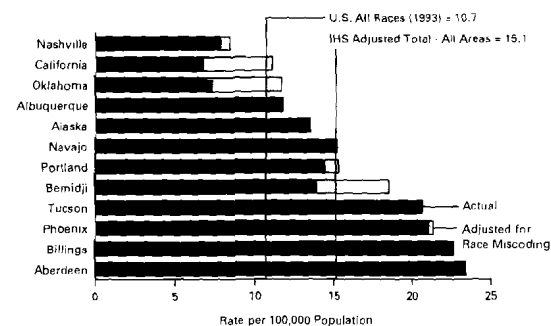
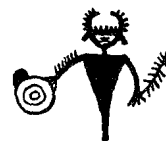


Table 4.20
Age-Adjusted Homicide Death Rates

Calendar Years 1992-1994

	Deaths		Rate ¹	
	Actual	Adj ²	Actual	Adj ²
U.S. All Races (1993)	26,009		10.7	
All IHS Areas	512	576	13.4	15.1
Aberdeen	55	55	23.4	23.4
Alaska	37	37	13.5	13.5
Albuquerque	23	23	11.8	11.8
Bemidji	25	33	13.9	18.5
Billings	35	35	22.6	22.6
California	23	38	6.7	11.1
Nashville	13	14	7.8	8.4
Navajo	83	83	15.2	15.2
Oklahoma	57	92	7.3	11.7
Phoenix	83	84	21.0	21.3
Portland	61	65	14.4	15.3
Tucson	17	17	20.5	20.6

¹ Age-adjusted rate per 100,000 population. Rates based on a small number of deaths should be interpreted with caution.
² Adjusted to compensate for miscoding of Indian race on death certificates.
 NOTE: Includes deaths due to homicide and legal intervention.



In 1992-1994, for the IHS service area population, the age-adjusted death rate for injury and poisoning deaths due to other causes was 2.4. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 1.8 times the U.S. All Races rate of 1.3 for 1993. The Area rates should be interpreted with caution because of the small number of deaths involved.

Chart 4.21

Age-Adjusted Death Rates for Injury and Poisoning Deaths Due to Other Causes

Calendar Years 1992-1994

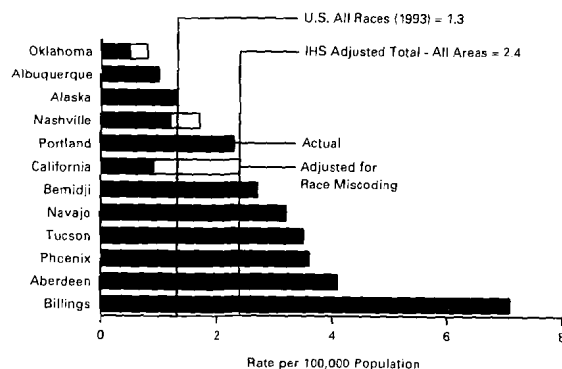


Table 4.21

Age-Adjusted Death Rates for Injury and Poisoning Deaths Due to Other Causes ¹

Calendar Years 1992-1994

	Deaths		Rate ²	
	Actual	Adj ³	Actual	Adj ³
U.S. All Races (1993)	3,450		1.3	
All IHS Areas	79	87	2.2	2.4
Aberdeen	8	8	4.1	4.1
Alaska	3	3	1.3	1.3
Albuquerque	2	2	1.0	1.0
Bemidji	4	4	2.7	2.7
Billings	9	9	7.1	7.1
California	3	8	0.9	2.4
Nashville	2	3	1.2	1.7
Navajo	19	19	3.2	3.2
Oklahoma	5	7	0.5	0.8
Phoenix	12	12	3.6	3.6
Portland	9	9	2.3	2.3
Tucson	3	3	3.5	3.5

¹ Includes the following ICD-9 cause of death groups combined: Injury undetermined whether accidentally or purposely inflicted-E880-E889, Injury resulting from operations of war-E990-E999. (There were 8 deaths due to this cause for the U.S. All Races during 1993 and 0 deaths for the American Indian and Alaska Native population in the IHS service area, 1992-1994).

² Age-adjusted rate per 100,000 population. Rates based on a small number of deaths should be interpreted with caution.

³ Adjusted to compensate for miscoding of Indian race on death certificates.

In 1992-1994, the age-adjusted alcoholism death rate for the IHS service area population was 45.5. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is nearly 7 times the U.S. All Races rate of 6.7 for 1993. The Aberdeen Area rate of 112.7 is about 17 times the U.S. rate and 1.5 times the second highest Area rate, Billings at 75.8.

Chart 4.22

Age-Adjusted Alcoholism Death Rates

Calendar Years 1992-1994

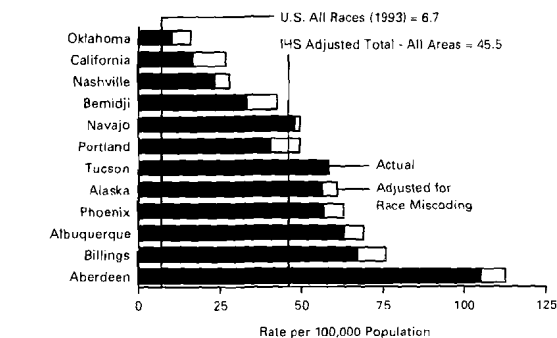


Table 4.22

Age-Adjusted Alcoholism Death Rates

Calendar Years 1992-1994

	Deaths		Rate ¹	
	Actual	Adj ²	Actual	Adj ²
U.S. All Races (1993)	19,557		6.7	
All IHS Areas	1,224	1,410	39.4	45.5
Aberdeen	177	190	105.2	112.7
Alaska	125	134	56.2	60.8
Albuquerque	107	117	63.0	68.9
Bemidji	47	60	32.9	42.3
Billings	77	87	67.0	75.8
California	47	76	16.4	26.4
Nashville	35	42	23.1	27.5
Navajo	208	214	47.8	49.4
Oklahoma	71	114	10.0	15.9
Phoenix	161	178	56.7	62.9
Portland	132	161	40.3	49.4
Tucson	37	37	58.2	58.2

¹ Age-adjusted rate per 100,000 population. The rate computation excludes 0 IHS All Areas and 10 U.S. All Races deaths with age not reported.

² Adjusted to compensate for miscoding of Indian race on death certificates.

In 1992-1994, the age-adjusted diabetes death rate for the IHS service area population was 41.1. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 3.3 times the U.S. All Races rate of 12.4 for 1993. The IHS Area rates vary widely, ranging from 16.0 in Alaska (1.3 times the U.S. rate) to 70.3 in Phoenix (5.7 times the U.S. rate).

Chart 4.23

Age-Adjusted Diabetes Mellitus Death Rates

Calendar Years 1992-1994

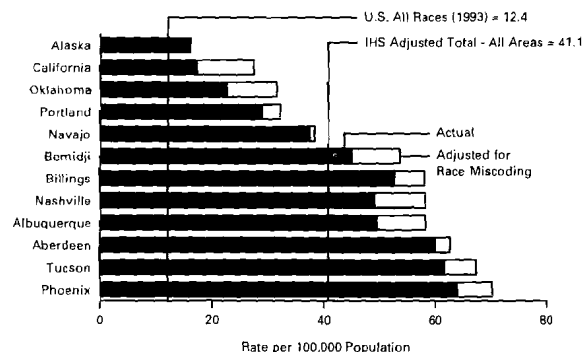


Table 4.23

Age-Adjusted Diabetes Mellitus Death Rates

Calendar Years 1992-1994

	Deaths		Rate ¹	
	Actual	Adj. ²	Actual	Adj. ²
U.S. All Races (1993)	53,894		12.4	
All IHS Areas	1,077	1,252	35.1	41.1
Aberdeen	105	109	60.0	62.6
Alaska	32	32	16.0	16.0
Albuquerque	81	84	49.4	58.2
Bernidji	65	77	44.9	53.6
Billings	52	57	52.6	58.0
California	47	74	17.3	27.4
Nashville	77	91	49.0	58.1
Navajo	154	158	37.3	38.3
Oklahoma	189	258	22.6	31.5
Phoenix	158	173	64.0	70.3
Portland	83	92	28.8	32.1
Tucson	34	37	61.6	67.3

¹ Age-adjusted rate per 100,000 population.

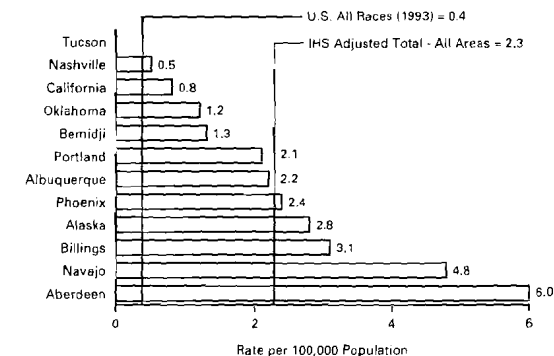
² Adjusted to compensate for miscoding of Indian race on death certificates.

In 1992-1994, the age-adjusted tuberculosis death rate for the IHS service area population was 2.3. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is nearly 6 times the U.S. All Races rate of 0.4 for 1993. The Area rates should be interpreted with caution because of the small number of deaths involved. The Navajo (23 deaths), Aberdeen (10), and Oklahoma (10) Areas had the most deaths over the 3-year period.

Chart 4.24

Age-Adjusted Tuberculosis Death Rates

Calendar Years 1992-1994



NOTE: IHS actual rates and rates adjusted for race miscoding are the same.

Table 4.24

Age-Adjusted Tuberculosis Death Rates

Calendar Years 1992-1994

	Deaths		Rate ¹	
	Actual	Adj. ²	Actual	Adj. ²
U.S. All Races (1993)	1,631		0.4	
All IHS Areas	73	73	2.3	2.3
Aberdeen	10	10	6.0	6.0
Alaska	6	6	2.8	2.8
Albuquerque	3	3	2.2	2.2
Bernidji	2	2	1.3	1.3
Billings	3	3	3.1	3.1
California	2	2	0.8	0.8
Nashville	1	1	0.5	0.5
Navajo	23	23	4.8	4.8
Oklahoma	10	10	3.1	3.1
Phoenix	7	7	2.4	2.4
Portland	6	6	2.1	2.1
Tucson	—	—	—	—

— Represents zero.

¹ Rate per 100,000 population. Rates based on a small number of deaths should be interpreted with caution.

² Adjusted to compensate for miscoding of Indian race on death certificates.



In 1992-1994, the age-adjusted gastrointestinal diseases death rate for the IHS service area population was 1.6. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 23 percent greater than the U.S. All Races rate for 1993 (1.3). The Area rates should be interpreted with caution because of the small number of deaths involved. The most deaths over the 3-year period for any one Area was 8.

Chart 4.25

Age-Adjusted Gastrointestinal Diseases Death Rates

Calendar Years 1992-1994

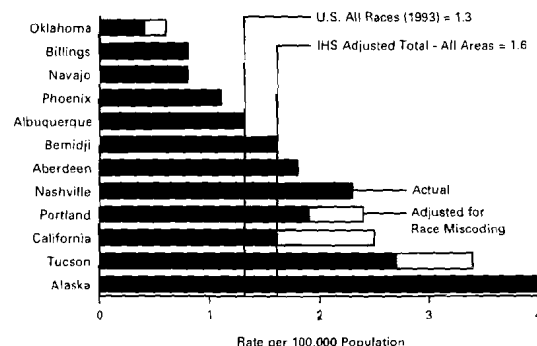


Table 4.25

Age-Adjusted Gastrointestinal Diseases Death Rates

Calendar Years 1992-1994

	Deaths		Rate ¹	
	Actual	Adj ²	Actual	Adj ²
U.S. All Races (1993)	6,482		1.3	
All IHS Areas	49	56	1.4	1.6
Aberdeen	4	4	1.8	1.8
Alaska	8	8	4.0	4.0
Albuquerque	3	3	1.3	1.3
Bemidji	2	2	1.6	1.6
Billings	1	1	0.8	0.8
California	5	8	1.6	2.5
Nashville	4	4	2.3	2.3
Navajo	6	6	0.8	0.8
Oklahoma	5	6	0.4	0.6
Phoenix	3	3	1.1	1.1
Portland	6	8	1.9	2.4
Tucson	2	3	2.7	3.4

¹ Rate per 100,000 population. Rates based on a small number of deaths should be interpreted with caution.

² Adjusted to compensate for miscoding of Indian race on death certificates.

In 1992-1994, the age-adjusted diseases of the heart death rate for the IHS service area population was 157.6. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 8 percent higher than the U.S. All Races rate of 145.3 in 1993. The Albuquerque (84.7), Navajo (112.0), and California (119.5) Area rates are well below the U.S. rate.

Chart 4.26

Age-Adjusted Diseases of the Heart Death Rates

Calendar Years 1992-1994

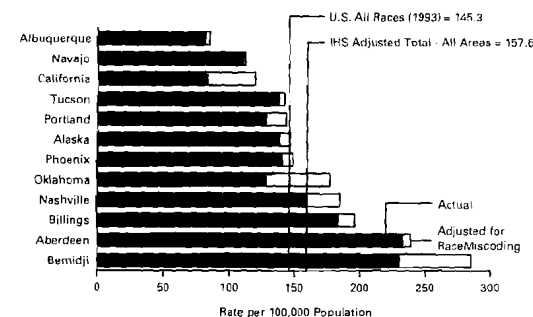


Table 4.26

Age-Adjusted Diseases of the Heart Death Rates

Calendar Years 1992-1994

	Deaths		Rate ¹	
	Actual	Adj ²	Actual	Adj ²
U.S. All Races (1993)	743,460		145.3	
All IHS Areas	4,523	5,297	133.4	157.6
Aberdeen	427	438	232.8	239.2
Alaska	294	311	138.3	146.5
Albuquerque	148	154	81.2	84.7
Bemidji	364	450	230.2	285.4
Billings	199	212	182.9	196.1
California	247	351	83.0	119.5
Nashville	264	307	158.6	184.8
Navajo	534	542	110.0	112.0
Oklahoma	1,179	1,594	124.7	173.9
Phoenix	386	407	140.4	148.9
Portland	393	440	127.7	143.4
Tucson	88	91	137.8	142.1

¹ Rate per 100,000 population. Rates based on a small number of deaths should be interpreted with caution.

² Adjusted to compensate for miscoding of Indian race on death certificates.



In 1992-1994, the age-adjusted cerebrovascular diseases death rate for the IHS service area population was 27.8. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 5 percent higher than the U.S. All Races rate of 26.5 for 1993. The IHS Area rates differ considerably; the Alaska rate of 40.4 is more than double the Albuquerque rate of 19.7.

Chart 4.27

Age-Adjusted Cerebrovascular Diseases Death Rates

Calendar Years 1992-1994

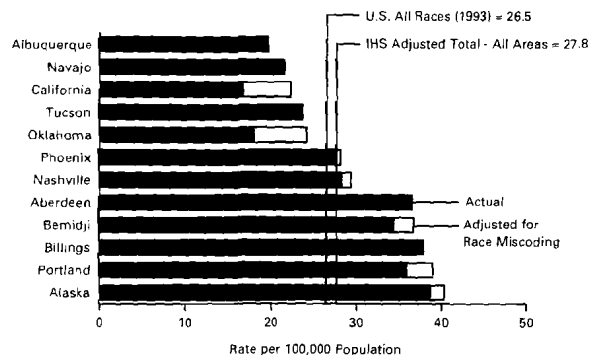


Table 4.27

Age-Adjusted Cerebrovascular Diseases Death Rates

Calendar Years 1992-1994

	Deaths		Rate ¹	
	Actual	Adj ²	Actual	Adj ²
U.S. All Races (1993)	150,108		26.5	
All IHS Areas	898	992	25.1	27.8
Aberdeen	70	70	36.5	36.6
Alaska	85	88	38.9	40.4
Albuquerque	43	43	19.7	19.7
Bemidji	59	63	34.4	36.6
Billings	43	43	37.9	37.9
California	56	73	16.7	22.4
Nashville	50	52	28.3	29.4
Navajo	107	107	21.6	21.6
Oklahoma	183	240	18.0	24.2
Phoenix	76	78	27.6	28.2
Portland	110	119	36.0	39.1
Tucson	16	16	23.7	23.7

¹ Rate per 100,000 population.

² Adjusted to compensate for miscoding of Indian race on death certificates.

In 1992-1994, the age-adjusted malignant neoplasm death rate for the IHS service area population was 112.2. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 15 percent less than the U.S. All Races rate of 132.6 for 1993. Four IHS Areas have a rate greater the U.S. rate; Bemidji (211.5), Alaska (173.3), Aberdeen (172.0), and Billings (165.4). The Portland Area rate (132.3) is essentially the same as the U.S. rate.

Chart 4.28

Age-Adjusted Malignant Neoplasm Death Rates

Calendar Years 1992-1994

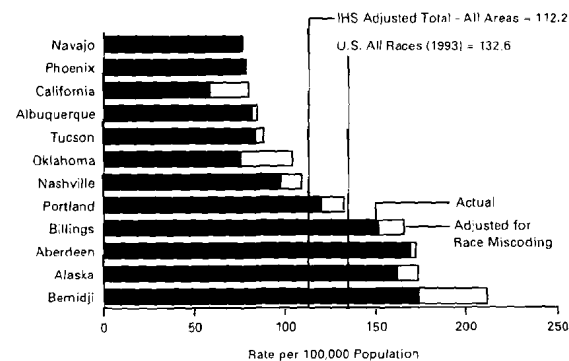


Table 4.28

Age-Adjusted Malignant Neoplasm Death Rates

Calendar Years 1992-1994

	Deaths		Rate ¹	
	Actual	Adj ²	Actual	Adj ²
U.S. All Races (1993)	529,904		132.6	
All IHS Areas	3,097	3,544	97.5	112.2
Aberdeen	299	304	169.1	172.0
Alaska	323	344	181.8	173.3
Albuquerque	140	145	81.1	84.2
Bemidji	258	313	173.6	211.5
Billings	154	169	151.2	165.4
California	164	222	57.9	79.1
Nashville	152	170	97.3	108.8
Navajo	347	347	75.8	75.8
Oklahoma	659	891	74.9	103.6
Phoenix	204	205	77.2	77.6
Portland	348	393	119.7	132.3
Tucson	49	52	83.1	87.7

¹ Rate per 100,000 population.

² Adjusted to compensate for miscoding of Indian race on death certificates.



In 1992-1994, the age-adjusted lung cancer death rate for the IHS service area population was 30.1. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 22 percent less than the U.S. All Races rate of 38.6 in 1993. Five IHS Areas (Bemidji, Alaska, Billings, Aberdeen, and Portland) have rates exceeding the U.S. rate.

Chart 4.29

Age-Adjusted Lung Cancer Death Rates

Calendar Years 1992-1994

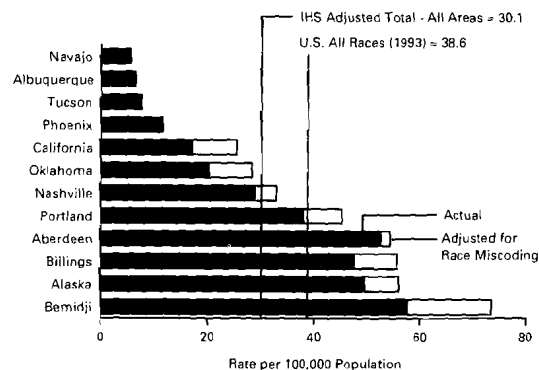


Table 4.29

Age-Adjusted Lung Cancer Death Rates

Calendar Years 1992-1994

	Deaths		Rate ¹	
	Actual ¹	Adj ²	Actual	Adj ²
U.S. All Races (1993)	148,935		38.6	
All IHS Areas	755	913	24.7	30.1
Aberdeen	91	94	52.6	54.4
Alaska	97	109	49.5	56.0
Albuquerque	11	11	6.5	6.5
Bemidji	82	104	57.6	73.6
Billings	47	55	47.6	55.7
California	47	70	17.1	25.5
Nashville	44	50	28.9	33.0
Navajo	24	24	5.5	5.5
Oklahoma	173	237	70.3	28.4
Phoenix	28	28	11.4	11.5
Portland	107	127	38.0	45.3
Tucson	4	4	7.6	7.6

¹ Age-adjusted rate per 100,000 population. Rates based on a small number of deaths should be interpreted with caution.

² Adjusted to compensate for miscoding of Indian race on death certificates.

In 1992-1994, the age-adjusted breast cancer death rate for females in the IHS service area population was 14.9. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 31 percent less than the U.S. All Races rate of 21.5 for 1993. The Bemidji Area has the highest rate (21.3) among the IHS Areas, but the rate is still slightly below the U.S. rate.

Chart 4.30

Age-Adjusted Breast Cancer Death Rates For Females

Calendar Years 1992-1994

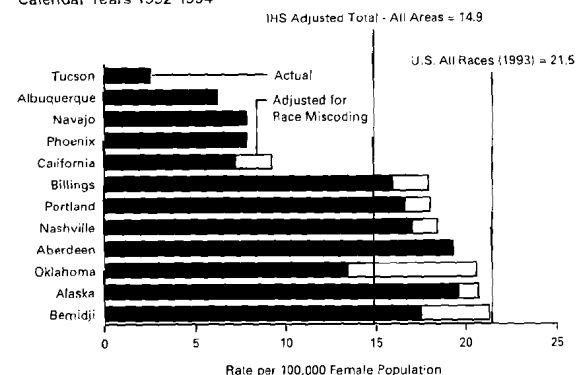


Table 4.30

Age-Adjusted Breast Cancer Death Rates For Females

Calendar Years 1992-1994

	Deaths		Rate ¹	
	Actual	Adj ²	Actual	Adj ²
U.S. All Races (1993)	43,555		21.5	
All IHS Areas	204	243	12.4	14.9
Aberdeen	19	19	19.3	19.3
Alaska	20	21	19.6	20.7
Albuquerque	6	6	6.2	6.2
Bemidji	13	16	17.5	21.3
Billings	9	10	15.9	17.9
California	11	14	7.2	9.2
Nashville	14	15	17.0	18.4
Navajo	17	17	7.8	7.8
Oklahoma	57	85	13.4	20.6
Phoenix	11	11	7.8	7.8
Portland	26	28	16.6	18.0
Tucson	1	1	2.5	2.5

¹ Age-adjusted rate per 100,000 female population. Rates based on a small number of deaths should be interpreted with caution.

² Adjusted to compensate for miscoding of Indian race on death certificates.



In 1992-1994, the age-adjusted cervical cancer death rate for females in the IHS service area population was 4.1. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 64 percent greater than the U.S. All Races rate of 2.5 for 1993. The Area rates should be interpreted with caution because of the small number of deaths involved. Only three Areas (Oklahoma, Navajo, and Aberdeen) had over 10 deaths during the 3-year period.

Chart 4.31

Age-Adjusted Cervical Cancer Death Rates For Females

Calendar Years 1992-1994

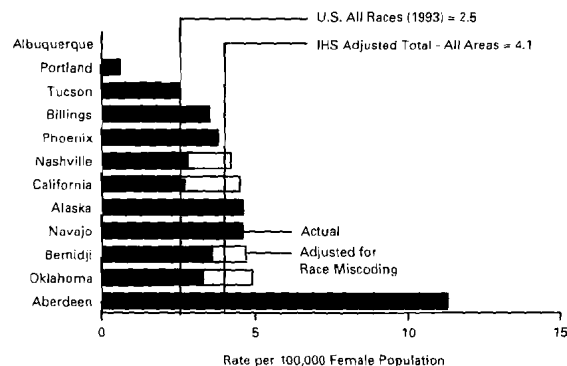


Table 4.31

Age-Adjusted Cervical Cancer Death Rates For Females

Calendar Years 1992-1994

	Deaths		Rate ¹	
	Actual	Adj ²	Actual	Adj ²
U.S. All Races (1993)	4,588		2.5	
All IHS Areas	60	71	3.5	4.1
Aberdeen	11	11	11.3	11.3
Alaska	5	5	4.5	4.6
Albuquerque	—	—	—	—
Bernidji	3	4	3.6	4.7
Billings	2	2	3.5	3.5
California	4	7	2.7	4.5
Nashville	2	3	2.8	4.2
Navajo	12	12	4.6	4.6
Oklahoma	13	19	3.3	4.9
Phoenix	6	6	3.8	3.8
Portland	1	1	0.6	0.6
Tucson	1	1	2.5	2.5

¹ Age-adjusted rate per 100,000 female population. Rates based on a small number of deaths should be interpreted with caution.

² Adjusted to compensate for miscoding of Indian race on death certificates.

In 1992-1994, the age-adjusted colon-rectal cancer death rate for the IHS service area population was 10.4. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 19 percent less than the U.S. All Races rate of 12.9 in 1993. Five IHS Areas (Alaska, Bernidji, Billings, Aberdeen, and Portland) have rates exceeding the U.S. rate.

Chart 4.32

Age-Adjusted Colon-Rectal Cancer Death Rates

Calendar Years 1992-1994

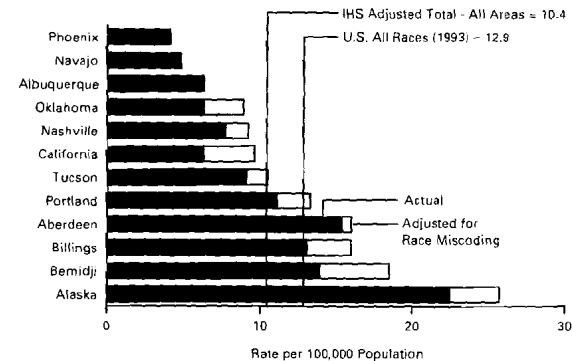


Table 4.32

Age-Adjusted Colon-Rectal Cancer Death Rates

Calendar Years 1992-1994

	Deaths		Rate ¹	
	Actual	Adj ²	Actual	Adj ²
U.S. All Races (1993)	56,988		12.9	
All IHS Areas	268	323	8.5	10.4
Aberdeen	27	28	15.4	16.0
Alaska	46	52	22.5	25.8
Albuquerque	10	10	6.3	6.3
Bernidji	20	26	13.9	18.5
Billings	13	16	13.1	16.0
California	18	27	6.3	9.6
Nashville	12	14	7.7	9.7
Navajo	19	19	4.8	4.8
Oklahoma	56	77	6.3	8.9
Phoenix	10	10	4.1	4.1
Portland	32	38	11.1	13.3
Tucson	5	6	9.1	10.5

¹ Age-adjusted rate per 100,000 population. Rates based on a small number of deaths should be interpreted with caution.

² Adjusted to compensate for miscoding of Indian race on death certificates.

In 1992-1994, the age-adjusted prostate cancer death rate for males in the IHS service area population was 13.4. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 18 percent less than the U.S. All Races rate of 16.4 in 1993. Half of the IHS Areas have a rate that exceeds the U.S. rate. The highest Area rate (Billings, 28.2) is 72 percent greater than the U.S. rate.

Chart 4.33

Age-Adjusted Prostate Cancer Death Rates For Males

Calendar Years 1992-1994

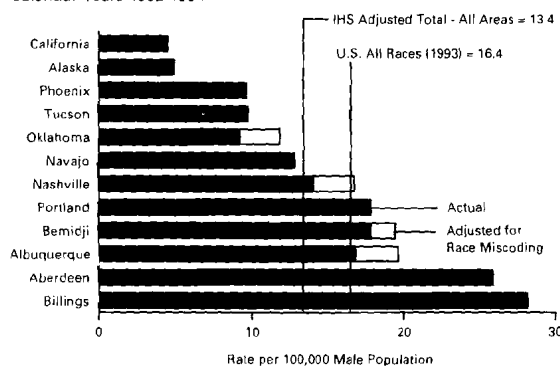


Table 4.33

Age-Adjusted Prostate Cancer Death Rates For Males

Calendar Years 1992-1994

	Deaths		Rate ¹	
	Actual	Adj ²	Actual	Adj ²
U.S. All Races (1993)	34,883		16.4	
All IHS Areas	188	204	12.4	13.4
Aberdeen	20	20	25.9	25.9
Alaska	5	5	4.9	4.9
Albuquerque	12	14	16.8	19.6
Bemidji	13	14	17.8	19.4
Billings	14	14	28.2	28.2
California	6	6	4.5	4.5
Nashville	10	12	14.0	16.7
Navajo	30	30	12.8	12.8
Oklahoma	41	52	9.2	11.8
Phoenix	12	12	9.6	9.6
Portland	22	22	17.8	17.8
Tucson	3	3	9.7	9.7

¹ Age-adjusted rate per 100,000 male population. Rates based on a small number of deaths should be interpreted with caution.

² Adjusted to compensate for miscoding of Indian race on death certificates.

In 1992-1994, the age-adjusted human immunodeficiency virus (HIV) infection death rate for the IHS service area population was 3.9. This is the rate adjusted for miscoding of Indian race on death certificates. The Indian rate is 72 percent less than the 1993 U.S. rate of 13.8. Some of the Area rates should be interpreted with caution because of the small number of deaths involved. The highest Area rate (Portland, 7.3 based on 29 deaths) is only about half the U.S. rate.

Chart 4.34

Age-Adjusted Human Immunodeficiency Virus (HIV) Infection Death Rates

Calendar Years 1992-1994

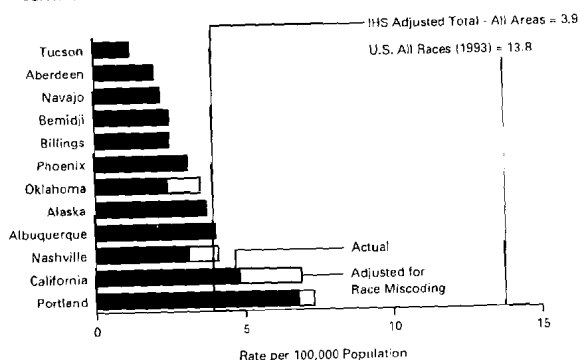


Table 4.34

Age-Adjusted Human Immunodeficiency Virus (HIV) Infection Death Rates

Calendar Years 1992-1994

	Deaths		Rate ¹	
	Actual	Adj ²	Actual	Adj ²
U.S. All Races (1993)	37,267		13.8	
All IHS Areas	121	141	3.3	3.9
Aberdeen	4	4	2.0	2.0
Alaska	10	10	3.7	3.7
Albuquerque	8	8	4.0	4.0
Bemidji	4	4	2.5	2.5
Billings	4	4	2.5	2.5
California	16	23	4.8	6.9
Nashville	6	8	3.1	4.1
Navajo	12	12	2.2	2.2
Oklahoma	18	27	2.4	3.5
Phoenix	11	11	3.1	3.1
Portland	27	29	6.8	7.3
Tucson	1	1	1.2	1.2

¹ Age-adjusted rate per 100,000 population. Rates based on a small number of deaths should be interpreted with caution.

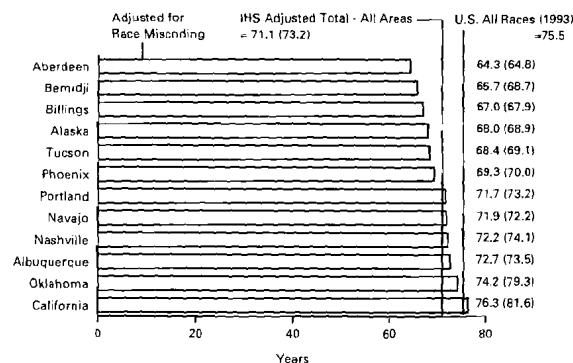
² Adjusted to compensate for miscoding of Indian race on death certificates.

In 1992-1994, the life expectancy at birth (both sexes) for the IHS service area population was 71.1 years. This is the life expectancy adjusted for miscoding of Indian race on death certificates. This is 4.4 years less than the 1993 figure of 75.5 for the U.S. All Races population. One IHS Area has a life expectancy greater than the U.S. figure (California, 76.3). At the other extreme, the Aberdeen Area life expectancy (64.3) is 11.2 years less than that for the U.S.

Chart 4.35

Life Expectancy at Birth, Both Sexes

Calendar Years 1992-1994



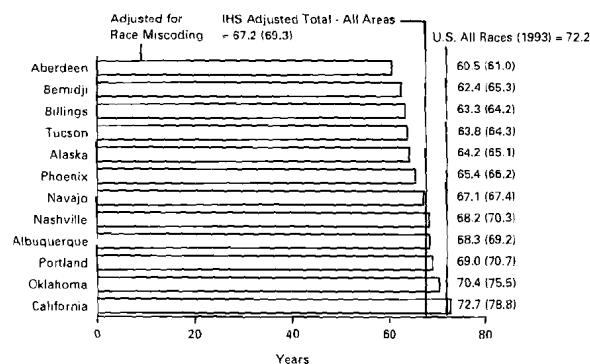
NOTE: Actual life expectancies (i.e., not adjusted for miscoding of Indian race) are shown in parentheses.

In 1992-1994, the life expectancy at birth for males in the IHS service area population was 67.2 years. This is the life expectancy adjusted for miscoding of Indian race on death certificates. This is 5.0 years less than the 1993 figure of 72.2 years for the U.S. All Races male population. Indian males in the California Area have a life expectancy (72.7) exceeding that for U.S. males. On the other hand, Indian males in the Aberdeen Area (60.5) can expect to live from birth 11.7 years less than U.S. males.

Chart 4.36

Life Expectancy at Birth, Males

Calendar Years 1992-1994



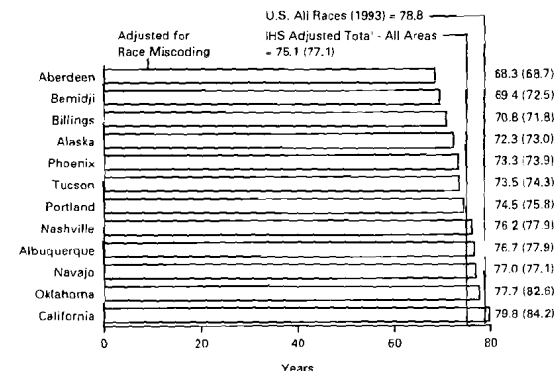
NOTE: Actual life expectancies (i.e., not adjusted for miscoding of Indian race) are shown in parentheses.

In 1992-1994, the life expectancy at birth for females in the IHS service area population was 75.1 years. This is the life expectancy adjusted for miscoding of Indian race on death certificates. This is 3.7 years less than the 1993 figure of 78.8 years for the U.S. All Races female population. Indian females in the California Area (79.8) can expect to live from birth 1.0 year longer than their counterparts in the U.S. All Races population. In contrast, females in the Aberdeen Area have a life expectancy (68.3) that is 10.5 years less than that of U.S. females.

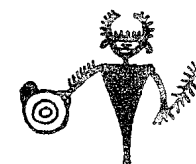
Chart 4.37

Life Expectancy at Birth, Females

Calendar Years 1992-1994



NOTE: Actual life expectancies (i.e., not adjusted for miscoding of Indian race) are shown in parentheses.

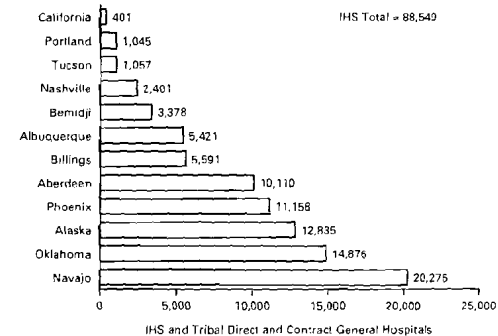




Part 5 — Patient Care Statistics

In FY 1995, there were about 89,000 admissions to IHS and Tribal direct and contract general hospitals. Approximately 40 percent of these admissions were in 2 IHS Areas, Navajo (20,276) and Oklahoma (14,876).

Chart 5.1
Number of Admissions, FY 1995



The IHS admission rate of 704.7 admissions per 10,000 user population in FY 1995 was 40 percent lower than the U.S. rate of 1,175.0 in CY 1995. The IHS Area rates ranged from 62.3 in California, where the IHS provides little inpatient care, to 1,281.8 in Alaska.

Chart 5.2
Hospital Admission Rates, FY 1995

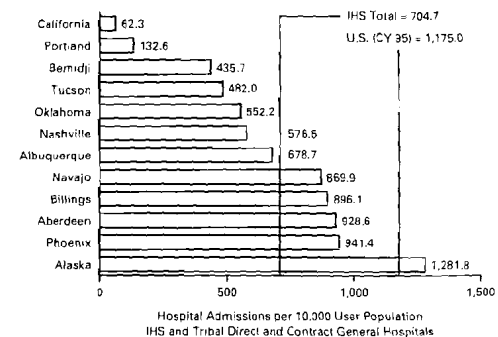


Table 5.1

Number and Rate of Admissions

Indian Health Service and Tribal Direct and
Contract General Hospitals, FY 1995
U.S. Short-Stay Community Hospitals, CY 1995

	Total admission rate ¹	Total admissions	IHS admissions		Tribal admissions	
			Direct	Contract	Direct	Contract
U.S. All Races	1,175.0	30,722 ²				
All IHS Areas	704.7	88,549	56,796	15,102	11,034	5,617
Aberdeen	928.6	10,110	6,729	3,381	0	0
Alaska	1,281.8	12,835	5,715	207	5,632	1,281
Albuquerque	678.7	5,421	4,087	1,334	0	0
Bemidji	435.7	3,378	1,149	434	0	1,795
Billings	896.1	5,591	2,949	1,916	0	726
California	62.3	401	0	0	0	401
Nashville	576.6	2,401	859	256	737	549
Navajo	869.9	20,276	18,264	2,012	0	0
Oklahoma	552.2	14,876	6,974	2,720	4,665	517
Phoenix	941.4	11,158	9,312	1,756	0	50
Portland	132.6	1,045	0	787	0	258
Tucson	482.0	1,057	758	299	0	0

¹ Number of admissions per 10,000 populations.

² Number of admissions in thousands.

Sources: IHS Direct: Monthly Report of Inpatient Services

IHS Contract: Contract Statistical System (Report 3)

Tribal Direct: Monthly Report of Inpatient Services

Tribal Contract: IHS Area submissions

U.S.: Unpublished Data, NCHS Hospital Discharge Survey Branch

The number of inpatient days in IHS and Tribal direct and contract general hospitals was nearly 389,000 in FY 1995. The number varied considerably among the IHS Areas, ranging from 1,612 in California to 78,366 in Navajo.

Chart 5.3

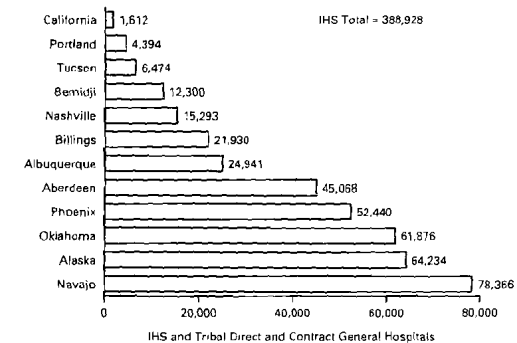
Number of Hospital Days, FY 1995

Table 5.3

Number of Hospital Days

Indian Health Service and Tribal Direct and
Contract General Hospitals, FY 1995

	Total Days	IHS Days		Tribal Days	
		Direct	Contract	Direct	Contract
All IHS Areas	388,928	245,448	73,581	46,182	23,717
Aberdeen	45,068	29,374	15,694	0	0
Alaska	64,234	35,589	1,378	23,518	3,749
Albuquerque	24,941	19,722	5,219	0	0
Bemidji	12,300	3,730	1,698	0	6,872
Billings	21,930	9,356	9,482	0	3,092
California	1,612	0	0	0	1,612
Nashville	15,293	5,335	1,411	4,979	3,569
Navajo	78,366	68,059	10,307	0	0
Oklahoma	61,876	25,279	15,352	17,686	3,559
Phoenix	52,440	43,875	8,272	0	293
Portland	4,394	0	3,423	0	971
Tucson	6,474	5,129	1,345	0	0

Sources: IHS Direct: Monthly Report of Inpatient Services

IHS Contract: Contract Statistical System (Report 3)

Tribal Direct: Monthly Report of Inpatient Services

Tribal Contract: IHS Area submissions

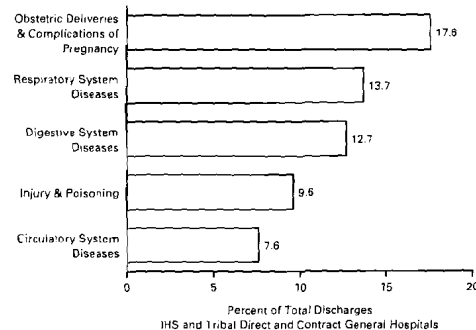


In FY 1995, 17.6 percent of all discharges from IHS and Tribal direct and contract general hospitals pertained to obstetric deliveries & complications of pregnancy. This was followed by respiratory system diseases at 13.7 percent.

Chart 5.4

Leading Causes of Hospitalization

All IHS Areas, FY 1995

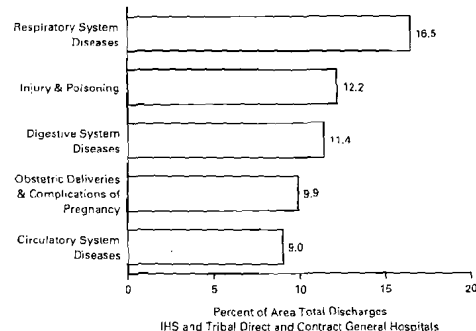


For the Aberdeen Area in FY 1995, 16.5 percent of all discharges from IHS and Tribal direct and contract general hospitals pertained to respiratory system diseases. This was followed by injury and poisoning at 12.2 percent.

Chart 5.5

Leading Causes of Hospitalization

Aberdeen Area, FY 1995

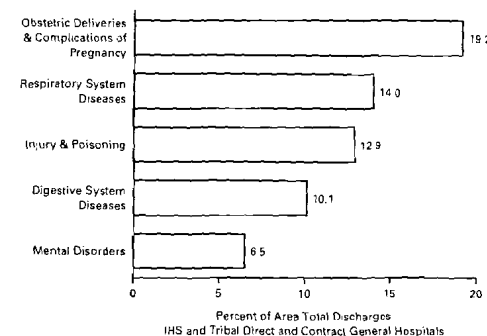


For the Alaska Area in FY 1995, 19.2 percent of all discharges from IHS and Tribal direct and contract general hospitals pertained to obstetric deliveries and complications of pregnancy. This was followed by respiratory system diseases at 14.0 percent.

Chart 5.6

Leading Causes of Hospitalization

Alaska Area, FY 1995

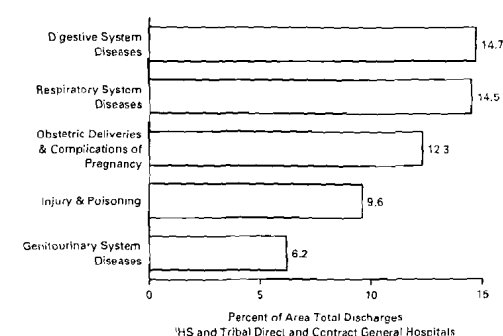


For the Albuquerque Area in FY 1995, 14.7 percent of all discharges from IHS and Tribal direct and contract general hospitals pertained to digestive system diseases. This was closely followed by respiratory system diseases at 14.5 percent.

Chart 5.7

Leading Causes of Hospitalization

Albuquerque Area, FY 1995

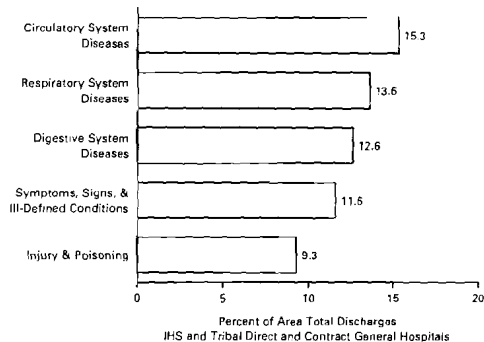


For the Bemidji Area in FY 1995, 15.3 percent of all discharges from IHS and Tribal direct and contract general hospitals pertained to circulatory system diseases. This was followed by respiratory system diseases at 13.6 percent.

Chart 5.8

Leading Causes of Hospitalization

Bemidji Area, FY 1995

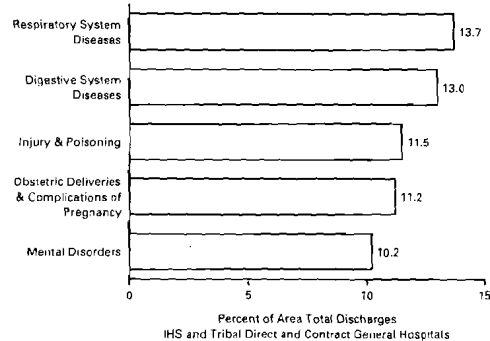


For the Billings Area in FY 1995, 13.7 percent of all discharges from IHS and Tribal direct and contract general hospitals pertained to respiratory system diseases. This was followed by digestive system diseases at 13.0 percent.

Chart 5.9

Leading Causes of Hospitalization

Billings Area, FY 1995

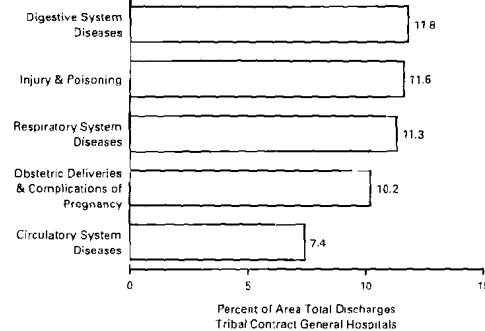


For the California Area in FY 1994, 11.8 percent of all discharges from Tribal contract health service hospitals pertained to digestive system diseases. This was followed by injury and poisoning at 11.6 percent.

Chart 5.10

Leading Causes of Hospitalization

California Area, FY 1994

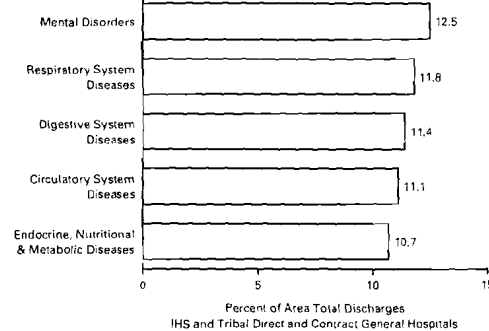


For the Nashville Area in FY 1995, 12.5 percent of all discharges from IHS and Tribal direct and contract general hospitals pertained to mental disorders. This was followed by respiratory system diseases at 11.8 percent.

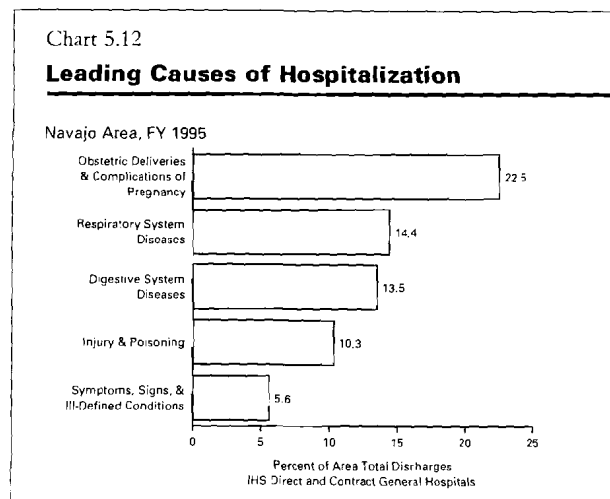
Chart 5.11

Leading Causes of Hospitalization

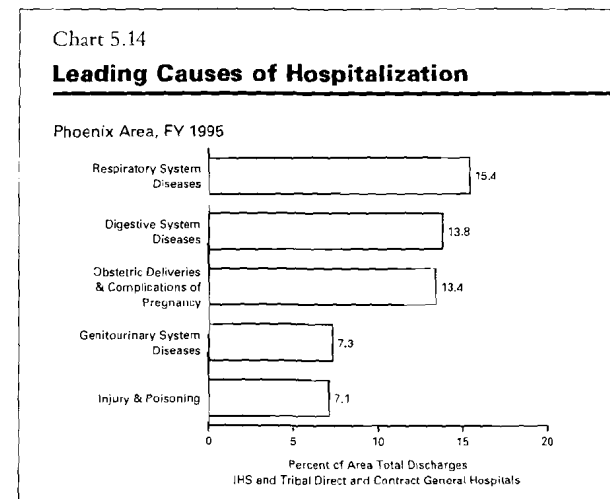
Nashville Area, FY 1995



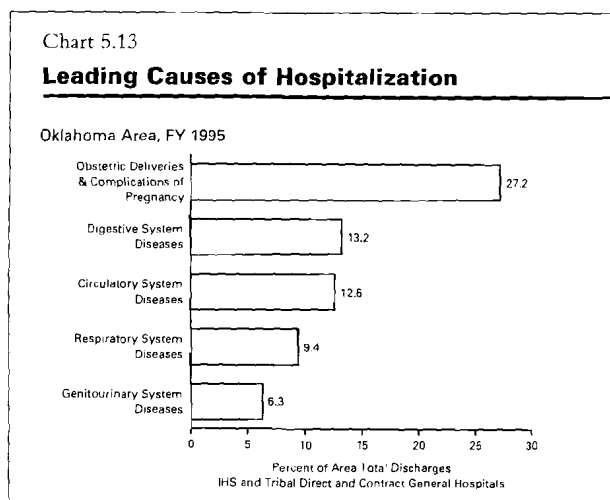
For the Navajo Area in FY 1995, 22.5 percent of all discharges from IHS direct and contract general hospitals pertained to obstetric deliveries and complications of pregnancy. This was followed by respiratory system diseases at 14.4 percent.



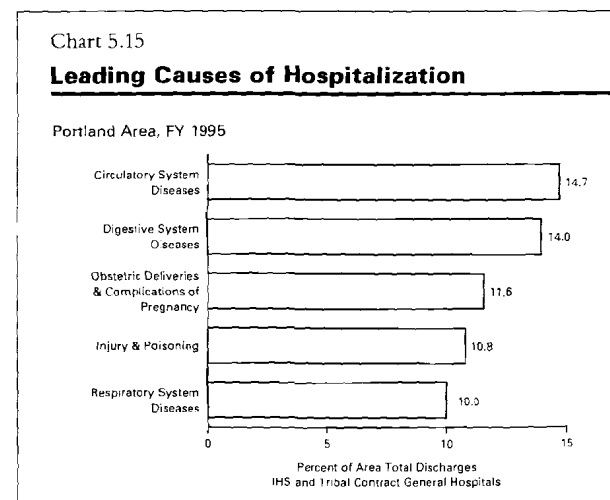
For the Phoenix Area in FY 1995, 15.4 percent of all discharges from IHS and Tribal direct and contract general hospitals pertained to respiratory system diseases. This was followed by digestive system diseases at 13.8 percent.



For the Oklahoma Area in FY 1995, 27.2 percent of all discharges from IHS and Tribal direct and contract general hospitals pertained to obstetric deliveries and complications of pregnancy. This was followed by digestive system diseases at 13.2 percent.

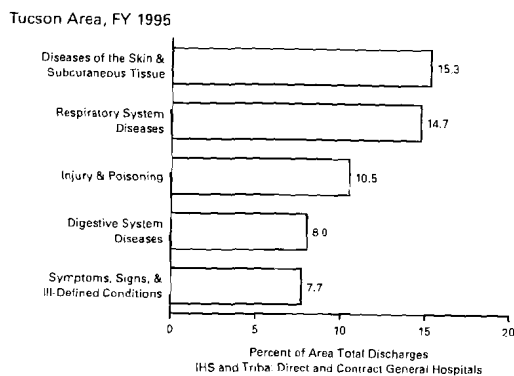


For the Portland Area in FY 1995, 14.7 percent of all discharges from IHS and Tribal contract general hospitals pertained to circulatory system diseases. This was followed by digestive system diseases at 14.0 percent.



For the Tucson Area in FY 1995, 15.3 percent of all discharges from IHS and Tribal direct and contract general hospitals pertained to diseases of the skin and subcutaneous tissue. This was followed by respiratory system diseases at 14.7 percent.

Chart 5.16
Leading Causes of Hospitalization



In FY 1995, there were over 6.5 million ambulatory medical visits to IHS and Tribal direct and contract facilities. Two IHS Areas had 31 percent of the visits. Oklahoma (1,121,262) and Navajo (917,333).

Chart 5.17
Number of Ambulatory Medical Visits, FY 1995

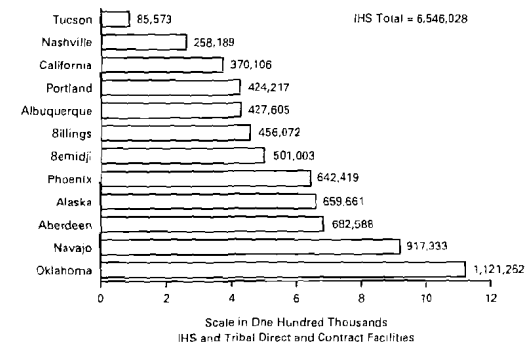


Table 5.17
Number of Ambulatory Medical Visits

Indian Health Service and Tribal Direct and Contract Facilities, FY 1995

	Total	Indian Health Service		Tribal	
		Direct	Contract	Direct	Contract
All IHS Areas	6,546,028	4,156,146	149,963	1,975,136	264,783
Aberdeen	682,588	600,708	17,674	64,206	0
Alaska	659,661	201,198	1,729	405,895	50,849
Albuquerque	427,605	392,650	9,526	25,429	0
Bemidji	501,003	145,082	5,398	316,088	34,435
Billings	456,072	356,167	11,459	59,973	28,473
California	370,106	0	0	278,959	90,147
Nashville	258,189	56,252	2,014	170,647	19,276
Navajo	917,333	872,182	45,151	0	0
Oklahoma	1,121,262	647,947	18,408	444,206	10,701
Phoenix	642,419	554,022	17,354	65,181	5,862
Portland	424,217	245,149	19,274	134,754	25,040
Tucson	85,573	74,789	1,976	8,808	0

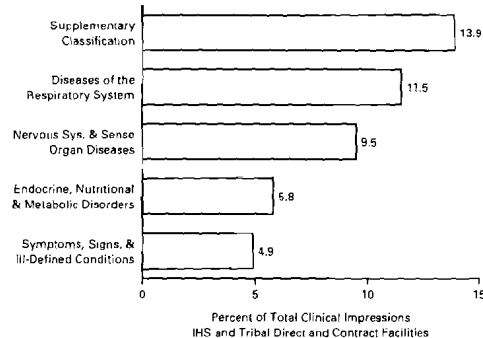
Sources: IHS Direct: APC Data System (Report 1A)
IHS Contract: Contract Statistical System (Report 3C)
Tribal Direct and Contract: Area Submissions

In FY 1995, 13.9 percent of all clinical impressions in IHS and Tribal direct and contract facilities pertained to supplementary classifications. This was followed by diseases of the respiratory system at 11.5 percent.

Chart 5.18

Leading Causes of Ambulatory Medical Visits

All IHS Areas, FY 1995

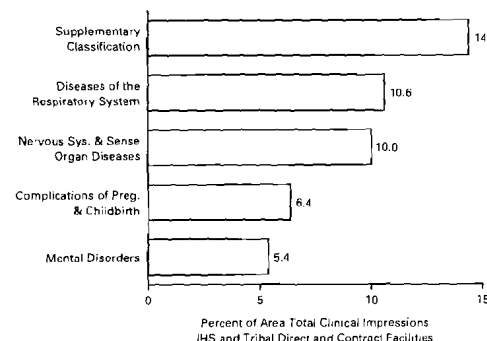


For the Alaska Area in FY 1995, 14.4 percent of all clinical impressions in IHS and Tribal direct and contract facilities pertained to supplementary classifications. This was followed by diseases of the respiratory system at 10.6 percent.

Chart 5.20

Leading Causes of Ambulatory Medical Visits

Alaska Area, FY 1995

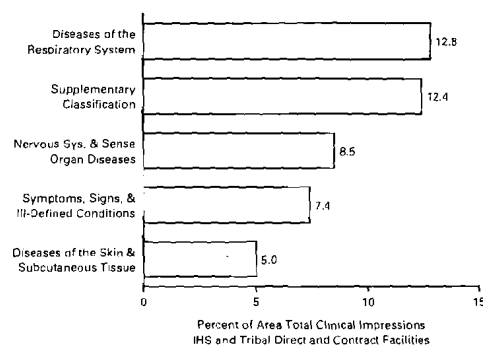


For the Aberdeen Area in FY 1995, 12.8 percent of all clinical impressions in IHS and Tribal direct and contract facilities pertained to diseases of the respiratory system. This was followed by supplementary classifications at 12.4 percent.

Chart 5.19

Leading Causes of Ambulatory Medical Visits

Aberdeen Area, FY 1995

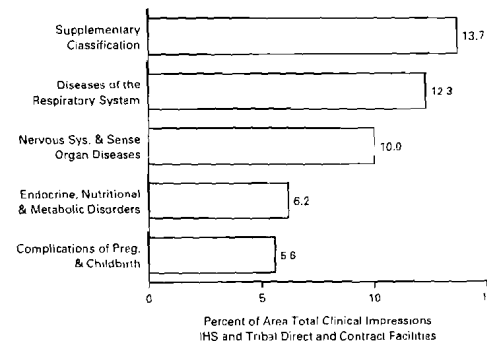


For the Albuquerque Area in FY 1995, 13.7 percent of all clinical impressions in IHS and Tribal direct and contract facilities pertained to supplementary classifications. This was followed by diseases of the respiratory system at 12.3 percent.

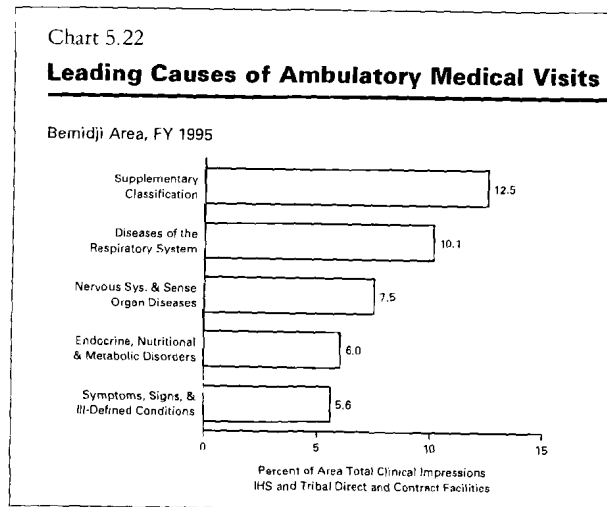
Chart 5.21

Leading Causes of Ambulatory Medical Visits

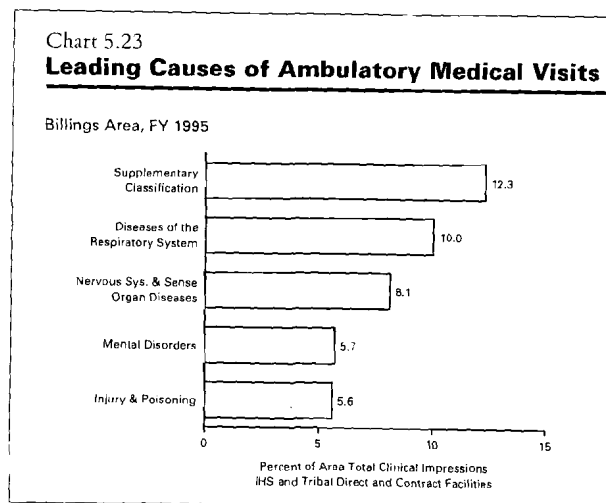
Albuquerque Area, FY 1995



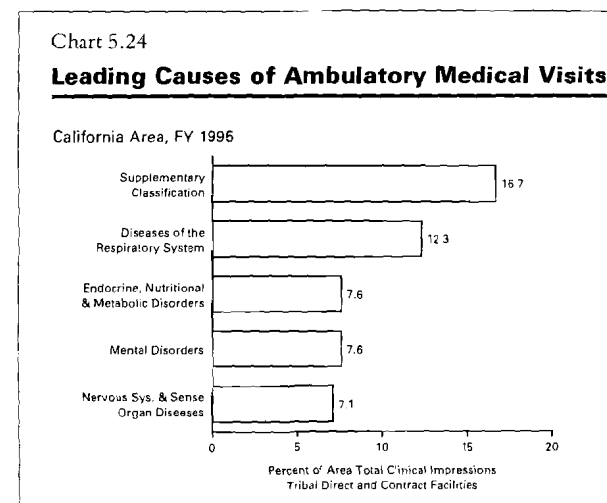
For the Bemidji Area in FY 1995, 12.5 percent of all clinical impressions in IHS and Tribal direct and contract facilities pertained to supplementary classifications. This was followed by diseases of the respiratory system at 10.1 percent.



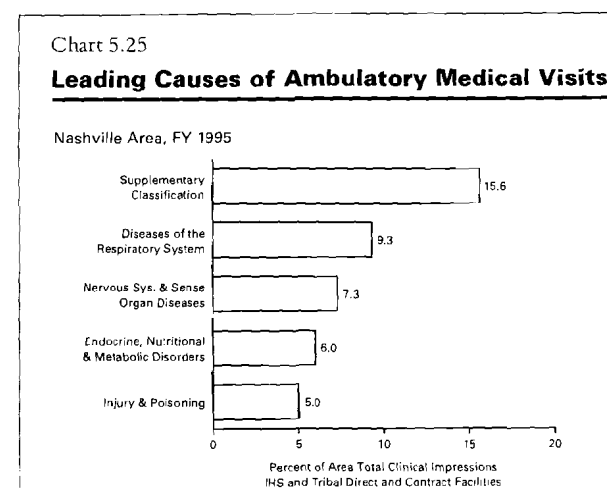
For the Billings Area in FY 1995, 12.3 percent of all clinical impressions in IHS and Tribal direct and contract facilities pertained to supplementary classifications. This was followed by diseases of the respiratory system at 10.0 percent.



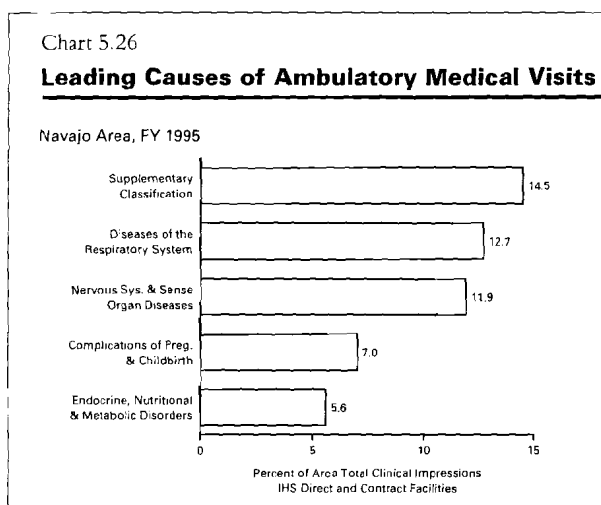
For the California Area in FY 1995, 16.7 percent of all clinical impressions in Tribal direct and contract facilities pertained to supplementary classifications. This was followed by diseases of the respiratory system at 12.3 percent.



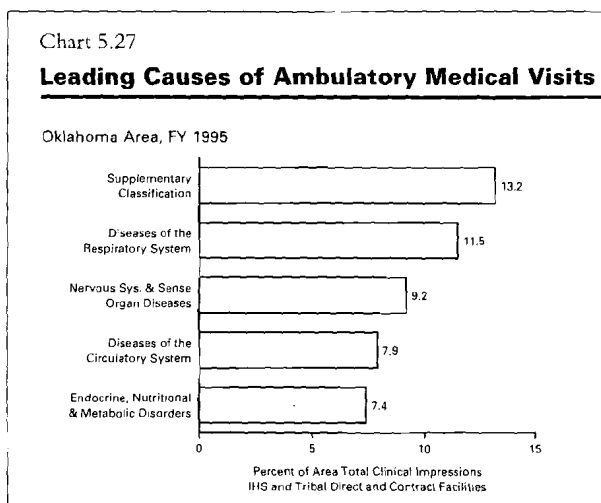
For the Nashville Area in FY 1995, 15.6 percent of all clinical impressions in IHS and Tribal direct and contract facilities pertained to supplementary classifications. This was followed by diseases of the respiratory system at 9.3 percent.



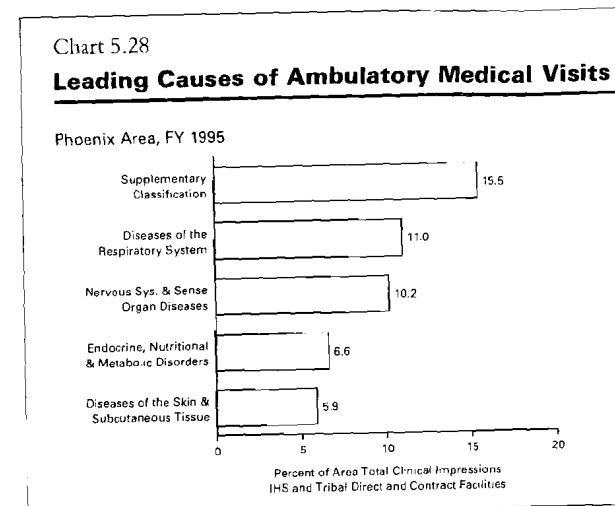
For the Navajo Area in FY 1995, 14.5 percent of all clinical impressions in IHS direct and contract facilities pertained to supplementary classifications. This was followed by diseases of the respiratory system at 12.7 percent.



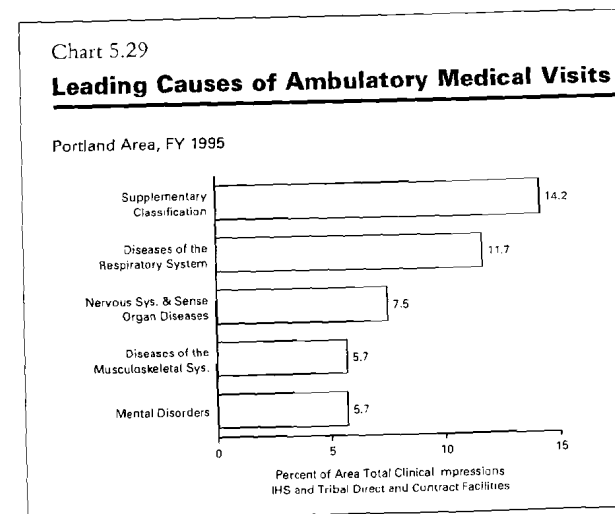
For the Oklahoma Area in FY 1995, 13.2 percent of all clinical impressions in IHS and Tribal direct and contract facilities pertained to supplementary classifications. This was followed by diseases of the respiratory system at 11.5 percent.



For the Phoenix Area in FY 1995, 15.5 percent of all clinical impressions in IHS and Tribal direct and contract facilities pertained to supplementary classifications. This was followed by diseases of the respiratory system at 11.0 percent.



For the Portland Area in FY 1995, 14.2 percent of all clinical impressions in IHS and Tribal direct and contract facilities pertained to supplementary classifications. This was followed by diseases of the respiratory system at 11.7 percent.

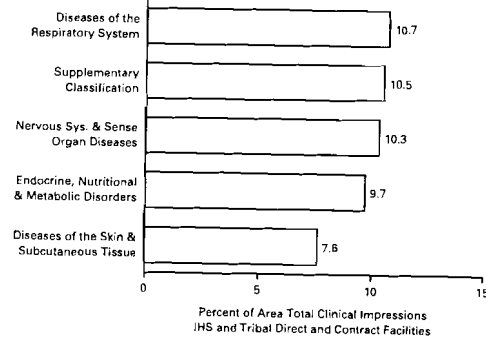


For the Tucson Area in FY 1995, 10.7 percent of all clinical impressions in IHS and Tribal direct and contract facilities pertained to diseases of the respiratory system. This was followed by supplementary classifications at 10.5 percent.

Chart 5.30

Leading Causes of Ambulatory Medical Visits

Tucson Area, FY 1995



In FY 1996, there were over 2.3 million dental services provided at IHS and Tribal direct and contract facilities. Two IHS Areas provided over 28 percent of the dental services, Navajo (334,812) and Oklahoma (328,922).

Chart 5.31

Number of Dental Services Provided, FY 1996

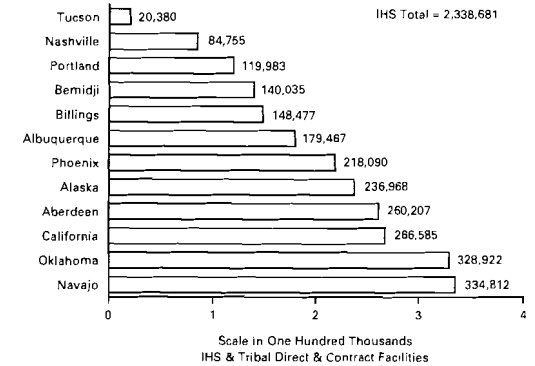


Table 5.31

Number of Dental Services Provided

Indian Health Service and Tribal Direct and Contract Facilities, FY 1996

	Total		IHS Direct		IHS Contract		Tribal Direct		Tribal Contract	
	Patients	Services	Patients	Services	Patients	Services	Patients	Services	Patients	Services
All IHS Areas	331,774	2,338,681	203,469	1,383,854	980	36,166	126,625	898,570	700	20,091
Aberdeen	37,575	260,207	31,487	216,132	0	4,920	6,076	36,478	12	2,677
Alaska	28,728	236,968	5,780	47,113	214	2,397	22,734	187,458	0	0
Albuquerque	27,902	179,467	24,045	152,983	690	3,830	2,962	21,079	205	1,575
Bemidji	21,095	140,035	6,402	35,168	0	137	14,682	101,319	11	3,411
Billings	21,094	148,477	18,730	131,827	0	252	2,364	16,398	0	0
California	37,414	266,585	0	0	0	0	37,414	265,703	0	882
Nashville	12,474	84,755	2,438	13,745	4	28	9,560	66,743	472	4,239
Navajo	47,792	334,812	47,720	328,466	72	6,346	0	0	0	0
Oklahoma	46,854	328,922	29,045	200,982	0	14,444	17,809	111,492	0	2,004
Phoenix	31,521	218,090	26,185	178,974	0	263	5,336	38,853	0	0
Portland	16,042	119,983	8,354	58,365	0	3,268	7,688	53,047	0	5,303
Tucson	3,283	20,380	3,283	20,099	0	281	0	0	0	0

Source: IHS Dental Workload Data Reporting System, 1996



The rate of new tuberculosis cases for the IHS in CY 1996 was 2.1 times the rate for the U.S., 16.9 new cases per 100,000 population compared to 8.0. The Alaska Area rate (72.1) was 9.0 times the U.S. rate.

Chart 5.32

Rate of New Tuberculosis Cases, CY 1996

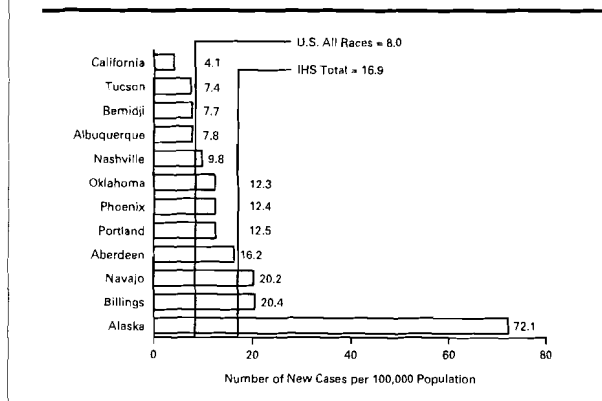


Table 5.32

Number and Rate of New Tuberculosis Cases, CY 1996

	Case Rate ¹	Number of Cases ¹
U.S. All Races	8.0	21,327
All IHS Areas	16.9	237
Aberdeen	16.2	15
Alaska	72.1	72
Albuquerque	7.8	6
Bemidji	7.7	6
Billings	20.4	11
California	4.1	5
Nashville	9.8	7
Navajo	20.2	42
Oklahoma	12.3	36
Phoenix	12.4	17
Portland	12.5	18
Tucson	7.4	2

¹ Number of new cases per 100,000 service population. Rates are based on a small number of new cases and should be interpreted with caution.

Source: Centers for Disease Control and Prevention (data by State and County)



Glossary of ICD-9 Codes

LIST OF 72 SELECTED CAUSES OF DEATH (1979-PRESENT)

Cause of death

ICD-9 Codes

Shigellosis and amebiasis	004, 006
Certain other intestinal infections	007-009
Tuberculosis	010-018
Tuberculosis of respiratory system	010-012
Other tuberculosis	013-018
Whooping cough	033
Streptococcal sore throat, scarlatina, and erysipelas	034-035
Meningococcal infection	036
Septicemia	038
Acute poliomyelitis	045
Measles	055
Viral hepatitis	070
Syphilis	090-097
All other infectious and parasitic diseases	001-003, 005, 020-032, 037, 039-041, 042-044, 046-054, 056-066, 071-088, 098-139
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	140-208
Malignant neoplasms of lip, oral cavity, and pharynx	140-149
Malignant neoplasms of digestive organs and peritoneum	150-159
Malignant neoplasms of respiratory and intrathoracic organs	160-165
Malignant neoplasm of breast	174-175
Malignant neoplasms of genital organs	179-187
Malignant neoplasms of urinary organs	188-189
Malignant neoplasms of all other and unspecified sites	170-173, 190-199
Leukemia	204-208
Other malignant neoplasms of lymphatic and hematopoietic tissues	200-203
Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature	210-239
Diabetes mellitus	250
Nutritional deficiencies	260-269
Anemias	280-285
Meningitis	320-322
Major cardiovascular diseases	390-448
Diseases of heart	390-398, 402, 404-429
Rheumatic fever and rheumatic heart disease	390-398
Hypertensive heart disease	402
Hypertensive heart and renal disease	404
Ischemic heart disease	410-414
Acute myocardial infarction	410
Other acute and subacute forms of ischemic heart disease	411
Angina pectoris	413
Old myocardial infarction and other forms of chronic ischemic heart disease	412, 414

LIST OF 72 SELECTED CAUSES OF DEATH (1979-PRESENT)

Cause of death	ICD-9 Codes
Other diseases of endocardium	424
All other forms of heart disease	415-423, 425-429
Hypertension with or without renal disease	401, 403
Cerebrovascular diseases	430-438
Intracerebral and other intracranial hemorrhage	431-432
Cerebral thrombosis and unspecified occlusion of cerebral arteries	434.0, 434.9
Cerebral embolism	434.1
All other and late effects of cerebrovascular diseases	430, 433, 435-438
Atherosclerosis	440
Other diseases of arteries, arterioles, and capillaries	441-448
Acute bronchitis and bronchiolitis	466
Pneumonia and influenza	480-487
Pneumonia	480-486
Influenza	487
Chronic obstructive pulmonary diseases and allied conditions	490-496
Bronchitis, chronic and unspecified	490-491
Emphysema	492
Asthma	493
Other chronic obstructive pulmonary diseases and allied conditions	494-496
Ulcer of stomach and duodenum	531-533
Appendicitis	540-543
Hernia of abdominal cavity and intestinal obstruction without mention of hernia	550-553, 560
Chronic liver disease and cirrhosis	571
Cholelithiasis and other disorders of gallbladder	574-575
Nephritis, nephrotic syndrome, and nephrosis	580-589
Acute glomerulonephritis and nephrotic syndrome	580-581
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified	582-583, 587
Renal failure, disorders resulting from impaired renal function, and small kidney of unknown cause	584-586, 588-589
Infections of kidney	590
Hyperplasia of prostate	600
Complications of pregnancy, childbirth, and the puerperium	630-676
Pregnancy with abortive outcome	630-638
Other complications of pregnancy, childbirth, and the puerperium	640-676
Congenital anomalies	740-759
Certain conditions originating in the perinatal period	760-779
Birth trauma, intrauterine hypoxia, birth asphyxia, and respiratory distress syndrome	767-769
Other conditions originating in the perinatal period	760-766, 770-779
Symptoms, signs, and ill-defined conditions	780-799
All other diseases	Residual
Accidents and adverse effects	E800-E949
Motor vehicle accidents	E810-E825
All other accidents and adverse effects	E800-E807, E826-E949

LIST OF 72 SELECTED CAUSES OF DEATH (1979-PRESENT)

Cause of death	ICD-9 Codes
Suicide	E950-E959
Homicide and legal intervention	E960-E978
All other external causes	E980-E999
Certain intestinal infections	008-009
Whooping cough	033
Meningococcal infection	036
Septicemia	038
Viral diseases	045-079
Congenital syphilis	090
Remainder of infectious and parasitic diseases	001-007, 010-032, 034-035, 037, 039-041, 042-044, 080-088, 091-139
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	140-208
Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature	210-239
Diseases of thymus gland	254
Cystic fibrosis	277.0
Diseases of blood and blood-forming organs	280-289
Meningitis	320-322
Other diseases of nervous system and sense organs	323-389
Acute upper respiratory infections	460-465
Bronchitis and bronchiolitis	466, 490-491
Pneumonia and influenza	480-487
Pneumonia	480-486
Influenza	487
Remainder of diseases of respiratory system	470-478, 492-519
Hernia of abdominal cavity and intestinal obstruction without mention of hernia	550-553, 560
Gastritis, duodenitis, and noninfective enteritis and colitis	535, 555-558
Remainder of diseases of digestive system	520-534, 536-543, 562-579
Congenital anomalies	740-759
Anencephalus and similar anomalies	740
Spina bifida	741
Congenital hydrocephalus	742.3
Other congenital anomalies of central nervous system and eye	742.0-742.2, 742.4-742.9, 743
Congenital anomalies of heart	745-746
Other congenital anomalies of circulatory system	747
Congenital anomalies of respiratory system	748
Congenital anomalies of digestive system	749-751
Congenital anomalies of genitourinary system	752-753
Congenital anomalies of musculoskeletal system	754-756
Down's syndrome	758.0
Other chromosomal anomalies	758.1-758.9
All other and unspecified congenital anomalies	744, 757, 759
Certain conditions originating in the perinatal period	760-779
Newborn affected by maternal conditions which may be unrelated to present pregnancy	760



LIST OF 61 SELECTED CAUSES OF INFANT DEATH (1979-PRESENT)

Cause of death	ICD-9 Codes
Newborn affected by maternal complications of pregnancy	761
Newborn affected by complications of placenta, cord, and membranes	762
Newborn affected by other complications of labor and delivery	763
Slow fetal growth and fetal malnutrition	764
Disorders relating to short gestation and unspecified low birthweight	765
Disorders relating to long gestation and high birthweight	766
Birth trauma	767
Intrauterine hypoxia and birth asphyxia	768
Fetal distress in liveborn infant	768.2-768.4
Birth asphyxia	768.5-768.9
Respiratory distress syndrome	769
Other respiratory conditions of newborn	770
Infections specific to the perinatal period	771
Neonatal hemorrhage	772
Hemolytic disease of newborn, due to isoimmunization, and other perinatal jaundice	773-774
Syndrome of "infant of a diabetic mother" and neonatal diabetes mellitus	775.0-775.1
Hemorrhagic disease of newborn	776.0
All other and ill-defined conditions originating in the perinatal period	775.2-775.9, 776.1-779
Symptoms, signs, and ill-defined conditions	780-799
Sudden infant death syndrome	798.0
Symptoms, signs, and all other ill-defined conditions	780-797, 798.1-799
Accidents and adverse effects	E800-E949
Inhalation and ingestion of food or other object causing obstruction of respiratory tract or suffocation	E911-E912
Accidental mechanical suffocation	E913
Other accidental causes and adverse effects	E800-E910, E914-E949
Homicide	E960-E969
Child battering and other maltreatment	E967
Other homicide	E960-E966, E968-E969
All other causes	Residual



ADDITIONAL CAUSES OF DEATH AND THEIR CORRESPONDING ICD-9 CODES WHICH MAY BE FOUND IN THIS PUBLICATION

(These categories are not included as part of the 72 cause of death or 61 cause of infant death lists. They are independent of these two lists but are valid cause of death codes to use for the causes indicated)

Cause of death	ICD-9 Codes
Alcoholism deaths	291, 303, 305.0, 357.5, 425.5, 535.3, 571.0-571.3, 790.3, E860
Breast cancer (females)	174
Cervical cancer	180
Colon-rectal cancer	153.0-154.3, 154.8, 159.0
Drug related deaths	292, 304, 305.2-305.9, E850-E858, E950-E950.5, E962.0, E980.0-E980.5
Gastroenteric deaths	004, 006-009, 535, 555-556, 558, 562
Human immunodeficiency virus (HIV) infection	042-044
Injury by firearms	E922, E955.0-E955.4, E965.0-E965.4, E970, E985.0-E985.4
Injury and poisoning	E800-E807, E810-E825, E826-E949, E950-E959, E960-E978, E980-E989, E990-E999
Other injuries	E980-E989, E990-E999
Lung cancer	162.2-162.9
Maternal deaths	630-676
Prostate cancer	185

LIST OF ICD-9-CM CODES USED IN PATIENT CARE CHARTS AND TABLES

Cause of death	ICD-9 Codes
Infectious and parasitic diseases	001-139
Neoplasms	140-239
Endocrine, nutritional, and metabolic diseases and immunity disorders	240-279
Diseases of the blood and blood-forming organs	280-289
Mental disorders	290-319
Diseases of the nervous system and sense organs	320-389
Diseases of the circulatory system	390-459
Diseases of the respiratory system	460-519
Diseases of the digestive system	520-579
Diseases of the genitourinary system	580-629
Complications of pregnancy, childbirth, and the puerperium	630-676
Diseases of the skin and subcutaneous tissue	680-709
Diseases of the musculoskeletal system and connective tissue	710-739
Congenital anomalies	740-759
Certain conditions originating in the perinatal period	760-779
Symptoms, signs, and ill-defined conditions	780-799
Injury and poisoning	800-999
Supplementary classification (classification of factors influencing health status and contact with health service)	E01-E99



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Cancer, cervical	4.31	4.31	Malignant neoplasms, cervical	4.31	4.31
Cancer, colon-rectal	4.32	4.32	Malignant neoplasms, colon-rectal	4.32	4.32
Cancer, lung	4.29	4.29	Malignant neoplasms, lung	4.29	4.29
Cancer, prostate	4.33	4.33	Malignant neoplasms, prostate	4.33	4.33
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