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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, American Indian and Alaska Native demography, patient care, and community health are included. Current and trend information are presented, and comparisons with other population groups 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 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 Trends in Indian Health

The IHS *Trends in Indian Health* attempts to fulfill the basic statistical information requirements of parties interested in the IHS and its relationship with the American Indian and Alaska Native people. The tables and charts contained in the IHS *Trends 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 United States.

Information pertaining to the IHS structure, American Indian and Alaska Native demography, patient care, and community health are included. Historical trends are depicted, and comparisons to other population groups are made, when appropriate. Current regional differences information can be found in the IHS companion publication called *Regional Differences in Indian Health*.

The tables and charts are grouped into six major categories: (1) IHS Structure, (2) Population Statistics, (3) Natality and Infant/Maternal Mortality Statistics, (4) General Mortality Statistics, (5) Patient Care Statistics, and (6) Community Health 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 few tables have more than one chart associated with them.



Summary of Data Shown

Indian Health Service Structure

The IHS is comprised of 12 regional administrative units called Area Offices. 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 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).

There were 34 Urban Projects ranging from information referral and community health services to comprehensive primary health care services.

As of January 1, 1997, all IHS and Tribally-operated hospitals and eligible IHS-operated health centers were accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Since 1990, 6 of 9 (67%) of the Regional Youth Treatment Centers have become accredited by JCAHO or the Commission on Accreditation of Rehabilitation Facilities. The remaining 3 are preparing for accreditation.

IHS proficiency testing rating exceeded the requirements of the Clinical Laboratory Improvement Amendments of 1988 (CLIA '88) for all private and public sector laboratories. Overall proficiency rating for IHS laboratories is 98 percent. CLIA '88 requires 80 percent proficiency on all regulated analytes.

In FY 1995, there were nearly 97 million pharmacy workload units in IHS and Tribal direct facilities. Over 61 percent of these were associated with outpatient care.



Population Statistics

In Fiscal Year 1998 (FY 1998), the IHS service population (count of those American Indians and Alaska Natives who are eligible for IHS services) will be approximately 1.46 million. The IHS service population is increasing at a rate of about 2.0% per year, excluding the impact of new Tribes.

The Indian population residing in the IHS service area is younger than the U.S. All Races population, based on the 1990 Census. For Indians, 33% of the population was younger than 15 years, and 6% was older than 64 years. For the U.S. All Races population, the corresponding values were 22% and 13% respectively. The Indian median age was 24.2 years compared with 32.9 years for U.S. All Races. The service area for Urban Indian Projects overlaps with the traditional IHS service area. According to the 1990 Census, there were over 360,000 Indians residing in the Urban Projects service area. Of these, 37% also were within the IHS service area.

According to the 1990 Census, Indians have lower incomes than the general population. In 1989, Indians residing in the current Reservation States had a median household income of \$19,897 compared with \$30,056 for the U.S. All Races population. During this time period, 31.6 percent of Indians lived below the poverty level in contrast to 13.1 percent for the U.S. All Races population.

Natality and Infant/Maternal Mortality Statistics

The birth rate for American Indians and Alaska Natives residing in the IHS service area was 25.6 (rate per 1,000 population) in 1992-1994. It is 65 percent greater than the 1993 birth rate of 15.5 for the U.S. All Races population.

The maternal mortality rate for American Indians and Alaska Natives residing in the IHS service area dropped from 27.7 (rate per 100,000 live births) in 1972-1974 to 4.0 in 1992-1994, a decrease of 86 percent. The 1992-1994 rate remains at 4.0 even after adjustment for miscoding of Indian race on death certificates because there were only four maternal deaths, actual and adjusted. If all the past Indian rates were similarly adjusted for miscoding, the actual/unadjusted trend line might rise in value, but the rate of change would probably remain the same.



The infant mortality rate for American Indians and Alaska Natives residing in the IHS service area dropped from 22.2 (rate per 1,000 live births) in 1972-1974 to 8.7 in 1992-1994, a decrease of 61 percent. When the 1992-1994 rate is adjusted for miscoding of Indian race on death certificates, it increases to 10.9. This is 30 percent higher than the U.S. All Races rate of 8.4 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/unadjusted trend line would rise in value, but the rate of change would probably remain the same.

General Mortality Statistics

The leading cause of death for American Indians and Alaska Natives residing in the IHS service area (1992-1994) was diseases of the heart followed by malignant neoplasms (the same as for the total U.S. All Races population in 1993). However, the cause of death rankings differ by sex. For Indian males, the top two causes were diseases of the heart and accidents. For Indian females, the top two causes were diseases of the heart and malignant neoplasms.

In 1992-1994, the Indian (IHS service area) age-adjusted death rates for the following causes were considerably higher than those for the U.S. All Races population in 1993. These Indian rates have been adjusted for miscoding of Indian race on death certificates.

- 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) pneumonia and influenza - 61 percent greater, and
- 7) homicide - 41 percent greater.

Patient Care Statistics

In FY 1995, there were about 89,000 admissions to IHS and Tribal direct and contract general hospitals. The leading cause of hospitalization was obstetric deliveries and complications of pregnancy and puerperium.

The total number of ambulatory medical visits (IHS and Tribal direct and contract facilities) was over 6.5 million in FY 1995, an increase of over 1,300 percent since FY 1955. The leading cause of ambulatory medical visits in IHS



and Tribal direct and contract facilities was supplementary classification conditions. The supplementary classification 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.

The number of direct and contract dental services provided (IHS, Tribal, and Urban) increased over 1,200% (from under 0.2 million in FY 1955 to about 2.4 million in FY 1996).

Community Health Statistics

For people accepted for treatment into the IHS substance abuse treatment program, most initial contacts are for alcohol addiction only. However, the number of initial contacts involving other drugs has been increasing. Also, the age-adjusted drug-related death rate for Indians residing in the IHS service area increased from 3.4 deaths per 100,000 population in 1979-1981 to 5.3 in 1992-1994. When the 1992-1994 rate is adjusted for miscoding of Indian race on death certificates, it increases to 6.0. This is 18 percent higher than the U.S. All Races rate of 5.1 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/ unadjusted trend line would rise in value, but the rate of change would probably remain the same.

The IHS Injury Prevention (IP) program has a wide variety of projects in place in all IHS Areas to address this major health problem. Exemplary projects are: child passenger protection, roadway/roadside hazard identification, safety belt use promotion, deterring drinking and driving, drowning prevention, smoke detector usage, helmet use, and injury prevention campaign. The IHS IP program has contributed to a 29% decline in IHS and Tribal direct and contract hospitalizations for injuries and poisonings since FY 1987.

The nutrition and dietetics program reported over 237,000 patient/client contacts during FY 1996. About two-fifths of the contacts were in the hospital setting (38 %) followed by the contacts for ambulatory clinic (35%) and community (27%). Over two-thirds (68%) of the contacts were for clinical nutrition counseling and nearly one-quarter (23%) were for health promotion. Of the clinical nutrition counseling contacts, the majority were for general nutrition (52%) and diabetes (26%). Due to a change to the IHS Generic Activities Reporting System software in FY 1994, analysis by encounter type is not possible.

The number of patient/client contacts reported by the nutrition and dietetics program decreased 22% since FY 1994. During this time period, program resources remained essentially the same, but there was a decrease in the number of staff using the reporting system due to Self-Governance.



There were nearly 693,000 public health nursing visits recorded in the Headquarters reports for FY 1996. The most frequent program areas dealt with during these visits were health promotion/disease prevention (32% of the visits), morbidity (23%), and child health (9%). The visits were concentrated in two age groups, children under 5 years of age (22%) and adults over the age of 64 (18%). Female visits outnumbered male visits by nearly 61%.

The community health representative (CHR) program reported nearly 3.9 million client contacts in FY 1996. Most of these contacts took place in the community (43%). The two leading detailed activities for CHR contacts in FY 1996 were health education (24%) and case management (19%). The reduction of reported CHR services in FY 1996 (from 4.1 million in FY 1993) reflects the transfer of resources to Tribes as part of the Self-Governance activity. A large number of Self-Governance Tribes elected not to use the national CHR program reporting system.

Since 1960, nearly 209,000 Indian homes were funded by IHS for the provision of sanitation facilities. These services included water and sewerage facilities, solid waste disposal systems, and technical assistance to establish and equip operation and maintenance organizations for new, rehabilitated, and existing homes. Contributions to IHS sanitation facilities projects are received from numerous sources. In FY 1996, the largest source of funds (45% of the total) was attributable to local governments. Tribes contributed 32% and the Department of Housing and Urban Development (HUD) infrastructure 20% of the funds for these cooperative projects.

The FY 1997 sanitation facilities deficiencies to serve existing American Indian and Alaska Native homes and communities totals \$716 million. This amount is to provide first service sanitation facilities, to upgrade existing facilities, to provide solid waste facilities, and to provide assistance to operation and maintenance organizations.

Health education providers spent the majority of their time in the office (50% of total provider hours) followed by hospital/clinic (14%) and Tribal worksite (12%). Thirty percent of health education clients were served at a school location and 23% at a Tribal worksite. Health education providers devoted 24% of their time to support services and 22% to design education objectives/materials. Over 80% of health education clients received services in one of two functional areas — implementing/teaching (69%) or design education objectives/materials (13%). These health education percentages are based on reporting from only some of the IHS Areas. See the “Sources and Limitations of Data” section that follows for a more complete discussion of the data qualifications.



Sources and Limitations of Data

Population Statistics

The IHS service population consists of American Indians and Alaska Natives identified to be eligible for IHS services. IHS service population estimates are based on official U.S. Census Bureau county data. The Census Bureau enumerates those individuals who identify themselves as being American Indian, Eskimo, or Aleut. The IHS service population is estimated by counting those American Indians, Eskimos, and Aleuts (as identified during the Census) who reside in the geographic areas in which IHS has responsibilities (“on or near” reservations, i.e., contract health service delivery areas (CHSDAs)). The IHS service population comprises approximately 60% of all Indians residing in the U.S. These people may or may not use IHS services.

The IHS service population estimates, which are shown in this publication, need to be contrasted to the IHS user population estimates that are shown in the *Regional Differences in Indian Health* publication. 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, ambulatory medical visit, or dental visit during the last 3 years are defined as users. IHS user population figures are used for calculating IHS patient care rates. In contrast, IHS service population figures are used in calculating Indian vital event rates since State birth and death certificates do not provide information on use of 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. For example, the American Indian and Alaska Native service population enumerated in 1990 was approximately 8% higher than that estimated by IHS for 1989. Therefore, after release of the 1990 enumeration figures, IHS smoothed the service population estimates for 1981-1989. That set of smoothed populations was used in the 1992 edition of this series. Subsequently, the Census Bureau issued revised 1990 Census American Indian and Alaska Native population



counts by age and sex for all U.S. counties. They resulted in a 3.9% increase for the 1990 IHS service population using these “new” 1990 Census counts compared to the “old” 1990 Census counts. In order to adjust for this 1990 increase, IHS again smoothed the service populations for 1981-1989. This second set of smoothed populations was used in the 1993 edition of the series. The Census Bureau then issued revised 1980 Census American Indian and Alaska Native population counts by age and sex for all U.S. counties, as was done for 1990. They resulted in a 2.8% increase for the 1980 IHS service population using these “new” 1980 Census counts compared with the “old” 1980 Census counts. In order to adjust for this 1980 increase, IHS for a third time smoothed the service populations for 1981-1989. This third set of smoothed populations was used for the first time in the 1994 edition of the series.

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. The natural change (estimated number of births minus estimated number of deaths) is applied to the latest Census enumeration.

The IHS does not currently forecast changes in the service population distribution by age and sex. Rather, appropriate Indian age and sex distributions from Census years are applied to population estimates for non-Census years.

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 appearing 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. Tabulations of vital events for this publication are by place of residence.

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 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% 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% in the Navajo Area to 28.0% and 30.4% 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 1986-1988 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%, 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. For this edition, only the latest 3 years of death data are being



adjusted based on the study findings. In the next edition, the adjustments will extend back to 1986, the beginning data year of the study.

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 NCHS. IHS now has sufficient years of this data set (1983-1991) to calculate adjusted infant mortality rates. Starting with this edition, unadjusted and adjusted infant mortality rates will be shown. IHS is assuming that data years 1992-1994 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 1992-1994 take precedent over the NDI adjustments for the under 1 year age group, described above.

The vital event statistics in this publication pertain to only American Indians and Alaska Natives residing in the IHS service area. Editions of this publication before 1992 showed vital event statistics calculated on a Reservation State basis. Therefore, data were included for Indians residing outside the geographic areas for which IHS has responsibility. This was done in order to show trends starting in FY 1955, to correspond with the inception of the Indian Health Service (IHS) program. Prior to 1972, only total Reservation State data are available.

Now that there are sufficient vital event data available for the IHS service area to show meaningful trends, this publication shows vital event statistics for the IHS service population, starting with data for calendar year 1972. IHS service area data are more indicative of the health status of the Indians that IHS serves. Reservation State vital event rates tend to be lower in value (i.e., lower birth rates, lower death rates) than IHS service area rates. However, the vital event tables in this publication will still include the 1955 Reservation State figure as an historical benchmark.

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.

Beginning with the 1996 edition, the leading causes of death are shown



for finer age groups in support of the IHS Director's initiatives on youth and elder care. In particular, the 1 to 14 year age group has been split into 1 to 4 and 5 to 14, and the 45 to 64 year age group has been split into 45 to 54 and 55 to 64.

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 since this is the standard used by 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. It is important not to compare age-adjusted death rates with crude rates.

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% 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 *Regional Differences 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 was used by IHS for the first time in 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 *Regional Differences in Indian Health*.



Injury and poisoning deaths are shown for various sub-groups in this publication, e.g., accidents, homicides, suicides. A new grouping, “injury by firearms,” was added starting with the 1996 edition because of its significance in the Indian community. It includes deaths with the following ICD-9 codes: E922 — accident caused by firearm missile; E955.0-E955.4 — suicide and self-inflicted injury by firearms; E965.0-E965.4 and E970 — assault by firearms and legal intervention; and E985.0-E985.4 — injury by firearms, undetermined whether accidentally or purposely inflicted. Injury by firearm causes exclude explosives and other causes indirectly related to firearms.

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 that 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.

Starting with the 1996 edition, leading causes of hospitalization and ambulatory medical visits are shown for specific age groups. In prior editions, they were only shown for all ages and by sex.

There are seven other information systems that provide data, presented in this report, pertaining to patient care. The Clinical Laboratory Workload Reporting System is the source of laboratory services



data. The Pharmacy System is the source of pharmacy workload data. The Contract Information System and Grants Data System are the sources for Tribal health contract and grant awards information. The Urban Projects Reporting System is the source for workload data for the Urban Projects. The Dental Data System is the source for dental services data. The Fluoridation Data System, managed by the IHS Dental Services Team, is the source for fluoridation systems information. The Pharmacy System and Urban Projects Reporting System are manual systems; the others are automated. The systems are monitored by IHS Headquarters personnel.

Community Health Statistics

The source of alcoholism and substance abuse program data is the Chemical Dependency Management Information System (CDMIS). This is an automated system, with computer edits, that is monitored by IHS Headquarters personnel.

The nutrition and dietetics statistics are derived from the IHS Nutrition and Dietetics Program Activity Reporting System (NDPARS). This is an automated system, with computer edits, that is monitored by IHS Headquarters personnel. Starting with FY 1994, the data reported through NDPARS are incomplete. This is because some Tribes who are participating in the Self-Governance activity have elected not to use this program reporting system.

The public health nursing data are collected through the IHS Community Health Activity Reporting System. This is an automated system, with computer edits, that is monitored by IHS Headquarters personnel.

Data on the IHS Community Health Representatives (CHR) Program were obtained from the IHS Community Health Representative Information System (CHRIS II). CHRIS II is an automated reporting system that is monitored by IHS CHR Program Headquarters personnel. This system was approved by the Office of Management and Budget on March 31, 1989, and has been operational since July 10, 1989. Data are collected during one week randomly selected from each month. At the start of FY 1992, minor changes in the CHRIS II activity code categories were implemented. Primarily, the service codes were simplified by consolidating administrative functions. This change improved the data quality by greatly reducing the incidence of inaccurately reported persons served when administrative functions were performed by CHRs. In addition, the setting category, "radio/telephone," was added to allow the reporting of CHR services provided to individuals via these



media. Health area category names were changed only to add greater specificity and clarity to the activity reporting system and its data (e.g., “substance abuse” was changed to “alcohol/substance abuse”). Data presented encompass 12 sample reporting weeks. These data have been expanded to represent estimated workload for a 12-month period. Starting with FY 1994, the data reported through CHRIS II are incomplete. This is because many Tribes who are participating in the Self-Governance activity have elected not to use the national CHR program reporting system.

The sanitation facilities statistics are derived from IHS reporting systems and financial systems. The IHS reporting systems are the Project Data System and the Sanitation Deficiency System. The Project Data System is the source of detailed data on P.L. 86-121 construction projects that provide water supplies and sewerage and waste disposal facilities to American Indians and Alaska Natives. It includes such data as community name, type and number of homes provided with services, the funds allocated and funds expended, completion dates, and accomplishments. Data are collected quarterly. The Sanitation Deficiency System is the source of additional data on sanitation facilities serving American Indians and Alaska Natives. It includes such data as the number of homes served, water rates, fluoridation information, Safe Drinking Water Act Compliance, system reliability, and the unmet need for new or upgraded facilities. Data are collected annually. The systems are monitored by IHS Headquarters personnel.

The health education data are collected through the IHS Health Education Resource Management System (HERMS). This is an automated system, with computer edits, that is monitored by IHS Headquarters personnel. Currently, only some IHS Areas are reporting data using HERMS. The data have not been extrapolated to represent the totals of all IHS health education programs since the main purpose of the charts and tables is to show the distributions of provider hours and clients served. It is assumed that the distributions calculated from the data of the 5 Areas are similar to the distributions for all 12 Areas. It should be noted that the totals of provider hours and clients served are different for each chart/table due to specific report parameters. That is, different records may be excluded in the generation of the various reports because of screens specific to each report.



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.
Community Health Representative (CHR)	Indians selected, employed, and supervised by their Tribes and trained by IHS to provide specific health care services at the community level.
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, that 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 of life 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 may 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, 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 eligible for IHS services who have used those services at least once during the last 3-year period.
Years of Productive Life Lost (YPLL)	A mortality indicator that 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

Chart 1.1

Indian Health Service

The Indian Health Service is composed of 12 regional administrative units called Area Offices. Some of the health programs are operated by Tribes, and there are a limited number of projects to serve Indians living in urban areas.

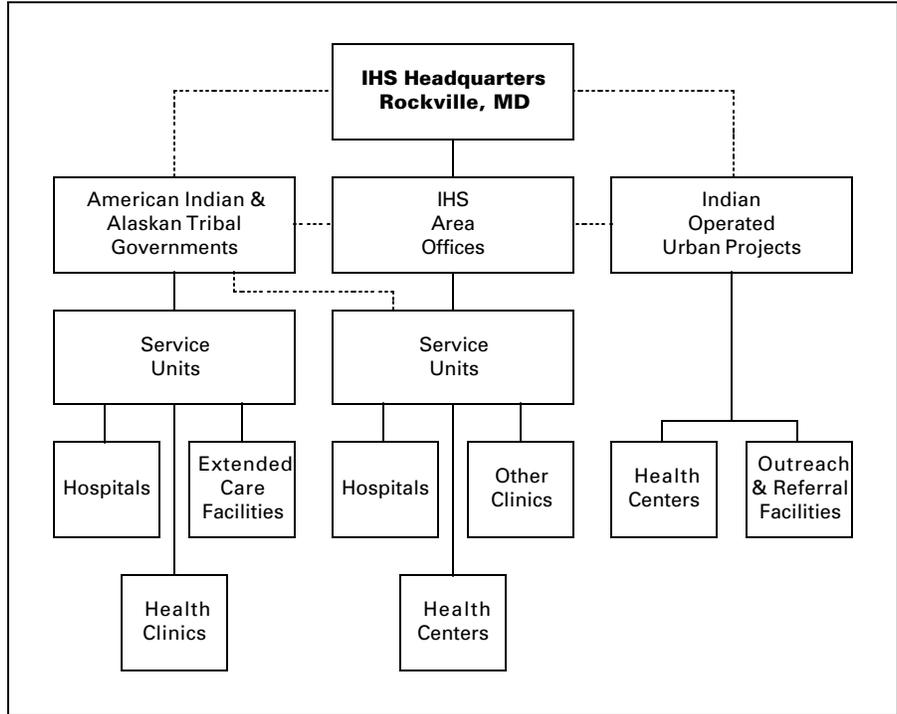


Chart 1.2

*Indian Health Service
Area Offices*

There were 66 Indian Health Service-operated service units that administered 37 hospitals and 113 health centers, school health centers, and health stations as of October 1, 1996.

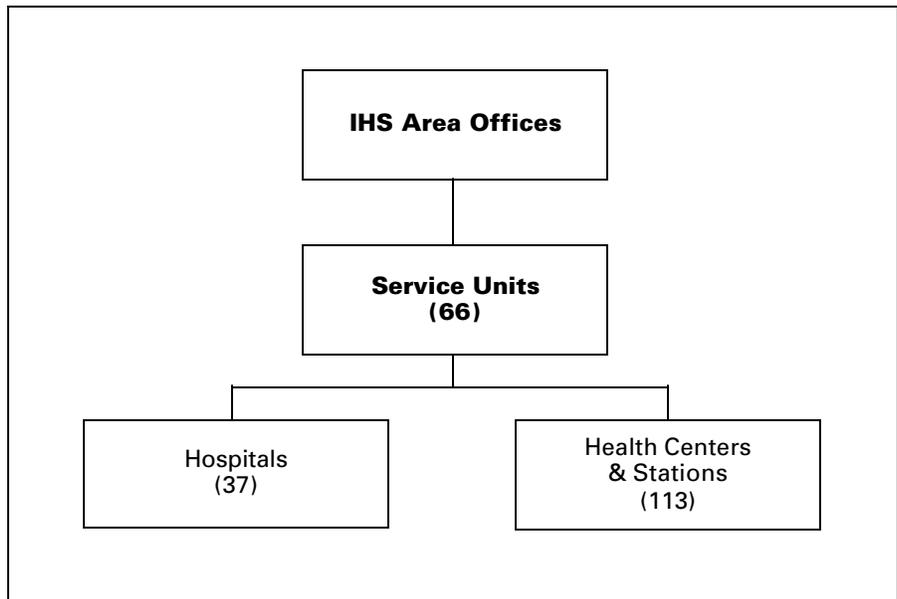


Chart 1.3

Indian and Alaska Native Tribal Governments

There were 84 Tribally operated service units that administered 12 hospitals and 379 health centers, school health centers, health stations, and Alaska village clinics as of October 1, 1996.

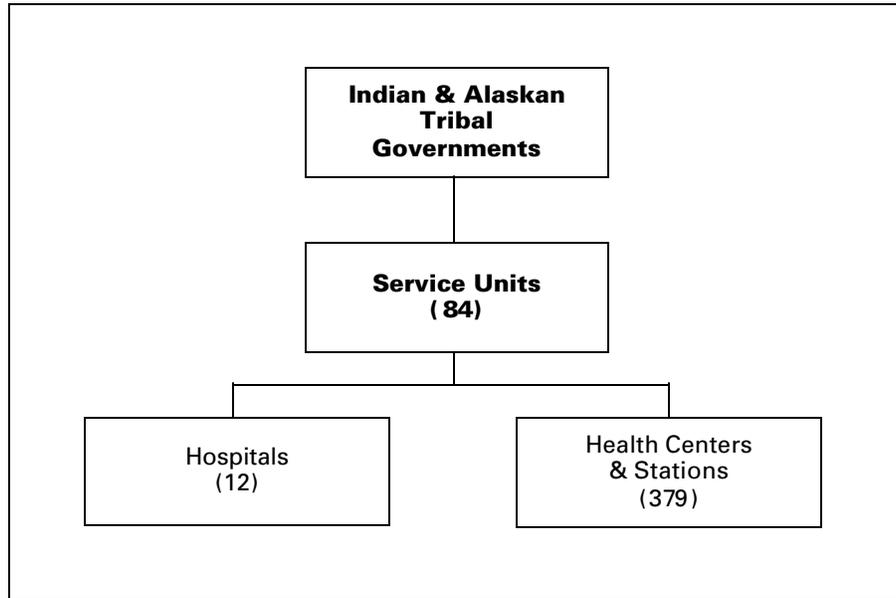
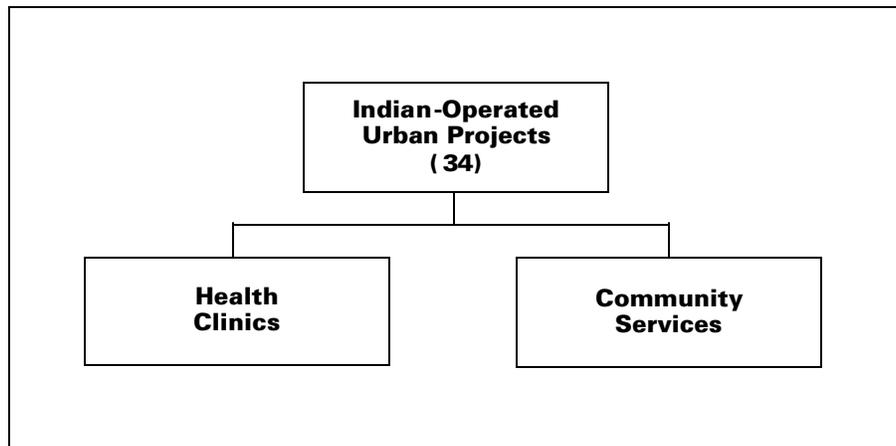


Chart 1.4

Indian-Operated Urban Projects

There were 34 Indian-operated Urban Projects as of October 1, 1996. The Urban programs range from information referral and community health services to comprehensive primary health care services.





1997 Trends in Indian Health

Chart 1.5

Number of Facilities Operated by Indian Health Service and Tribes as of October 1, 1996

Indian Health Service operated 37 hospitals, 61 health centers, 4 school health centers, and 48 health stations as of October 1, 1996. Tribes can operate a facility under a P.L. 93-638 self-determination contract (Title I) or self-governance compact (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).

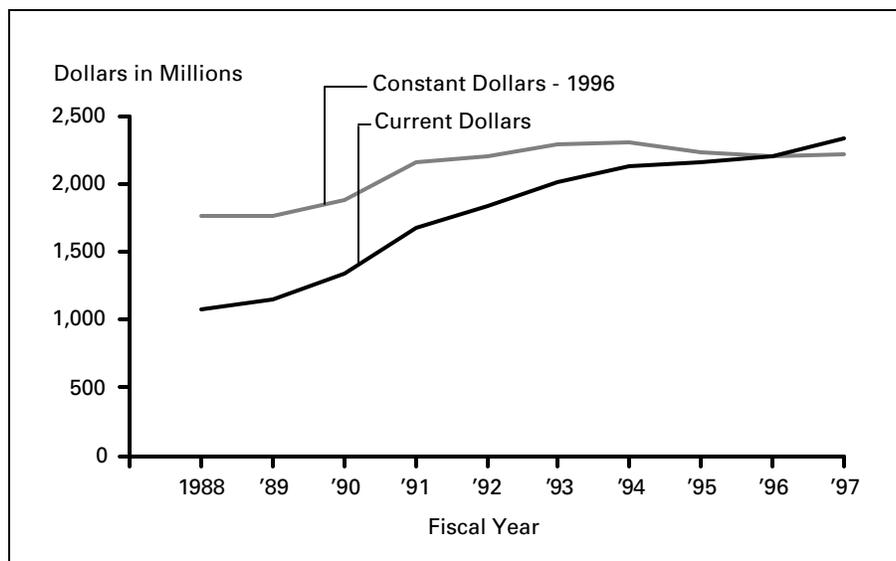
Type of Facility	Total	IHS	Tribal		
			Total	I	III
Hospitals	49	37	12	3	9
Ambulatory Facilities	492	113	379	168	211
Health Centers	195	61	134	90	44
School Health Centers	8	4	4	2	2
Health Stations	121	48	73	60	13
Alaska Village Clinics	168	—	168	16	152

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

Chart 1.6

Trend in Indian Health Service Budget

The Indian Health Service budget (appropriations and collections) has increased 117 percent from FY1988 to FY1997. However, in constant 1996 dollars, the budget has only increased 25 percent.



Part 1 — IHS Structure

Table 1.6

Trend in Indian Health Service Budget

<i>(Dollars in Thousands)</i>										
Category	FY 1988	FY 1989	FY 1990	FY 1991	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996	FY 1997
Clinical Services	816,729	883,088	1,031,072	1,235,481	1,276,185	1,251,660	1,325,462	1,370,421	1,417,641	1,368,639
Preventive Health Services	70,110	73,471	77,630	89,978	64,951	70,011	74,464	77,032	78,018	79,346
Other Services										
Urban Health	9,624	9,962	13,049	15,687	17,195	20,965	22,834	23,349	23,360	24,768
Indian Health Professions	7,646	8,115	9,540	13,380	19,205	26,092	27,406	27,479	26,271	28,270
Tribal Management	3,094	3,218	2,562	4,235	5,038	5,161	5,285	5,048	2,348	2,348
Direct Operations/Agency Management	39,104	42,471	44,484	52,406	49,029	48,659	49,471	49,709	49,260	133,088
Self Governance	—	—	—	—	—	1,884	4,980	8,594	9,104	9,090
Contract Support Cost	—	—	—	—	—	100,558	136,186	145,460	154,840	161,202
Sub-Total Other	<u>59,468</u>	<u>63,766</u>	<u>69,635</u>	<u>85,708</u>	<u>90,467</u>	<u>203,319</u>	<u>246,162</u>	<u>259,639</u>	<u>265,183</u>	<u>358,766</u>
Total Services	946,307	1,020,325	1,178,337	1,411,167	1,431,603	1,524,990	1,646,088	1,707,092	1,760,842	1,806,751
Facilities	<u>62,511</u>	<u>61,668</u>	<u>71,633</u>	<u>166,402</u>	<u>274,351</u>	<u>333,640</u>	<u>296,982</u>	<u>252,982</u>	<u>238,958</u>	<u>247,249</u>
Total Services & Facilities¹	1,008,818	1,081,993	1,249,970	1,577,569	1,705,954	1,858,630	1,943,070	1,960,074	1,999,800	2,054,000
Medicare/Medicaid Collections	66,126	75,019	88,097	94,301	121,628	140,805	159,605	162,066	176,536	247,397 ²
Private Insurance Collections	—	—	3,500	8,326	12,350	18,184	22,700	31,233	33,784	35,811 ²
Total IHS³ Current \$s	<u>1,074,944</u>	<u>1,157,012</u>	<u>1,341,567</u>	<u>1,680,196</u>	<u>1,839,932</u>	<u>2,017,619</u>	<u>2,125,375</u>	<u>2,153,373</u>	<u>2,210,120</u>	<u>2,337,208</u>
Total IHS³ Constant \$s⁴	<u>1,769,857</u>	<u>1,768,454</u>	<u>1,880,501</u>	<u>2,166,219</u>	<u>2,208,693</u>	<u>2,286,101</u>	<u>2,298,628</u>	<u>2,228,570</u>	<u>2,210,120</u>	<u>2,219,571</u>

¹ Total IHS appropriations.
² Estimated collections.
³ Total dollars available to spend.
⁴ Constant 1996 dollars based on consumer price index for medical care, 1988-96, and 1997 budget inflation factor of 5.3 percent.

1997 Trends in Indian Health

Chart 1.7

Accreditation Status of Selected Health Facilities, January 1, 1997

As of January 1, 1997, all hospitals and eligible health centers were accredited by the Joint Commission on Accreditation of Healthcare Organizations. Since 1990, six of nine Regional Youth Treatment Centers have become accredited, and the remaining three are preparing for accreditation.

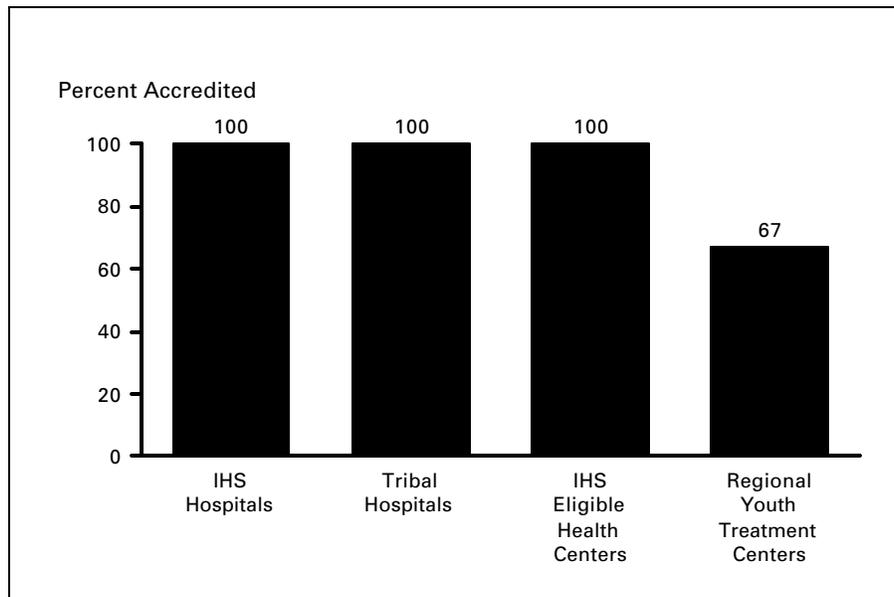


Table 1.7

Accreditation Status of Hospitals, Health Centers, and Regional Youth Treatment Centers, January 1, 1997

Type of Facility	Total	Accredited ¹	Not Accredited	Percent Accredited
IHS Hospitals	37	37	0	100
Tribal Hospitals	12	12	0	100
IHS Eligible Health Centers	57 ²	57	0	100
Regional Youth Treatment Centers ³	9	6 ⁴	3	67

¹ Accredited by the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO).
² Excludes health centers not eligible for accreditation survey and those under Tribal management pursuant to P.L. 93-638.
³ Provide alcohol and substance abuse treatment.
⁴ Includes 3 facilities accredited by JCAHO and 3 facilities accredited by the Commission on Accreditation of Rehabilitation Facilities.

Chart 1.8

Accreditation Status of Indian Health Service Laboratories

Ninety-eight percent of health center laboratories and 100 percent of hospital laboratories operated by the Indian Health Service were accredited as of January 1, 1997.

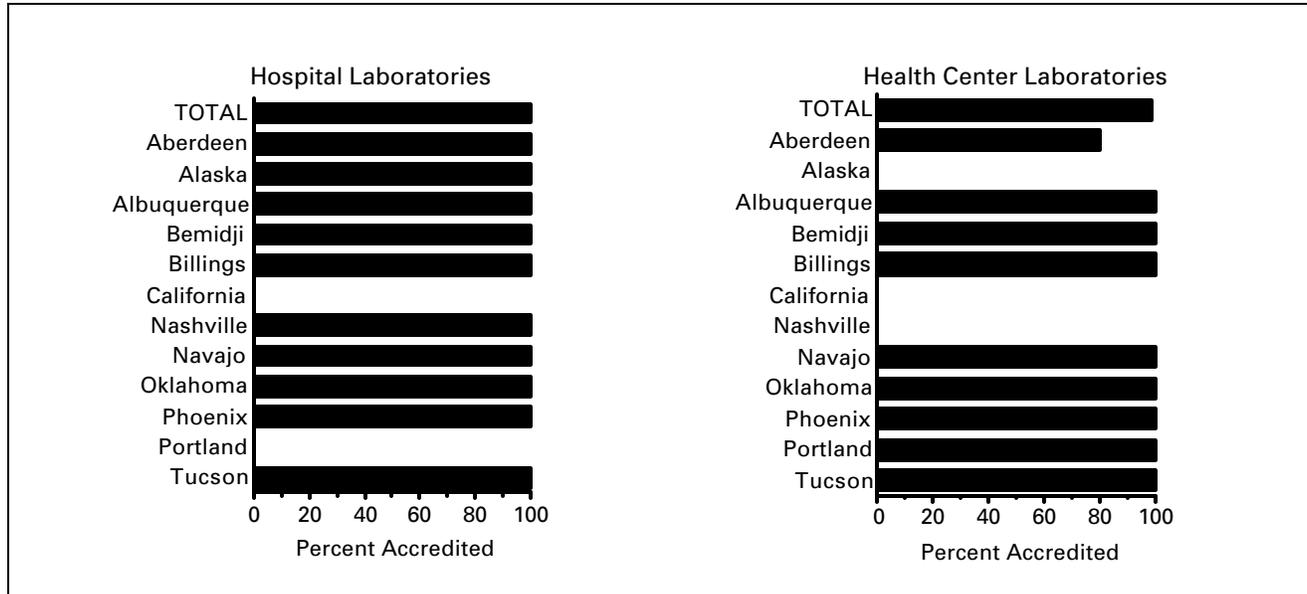


Table 1.8

Indian Health Service Laboratory Accreditation Status, January 1, 1997

Area	IHS Hospital Laboratories					IHS Health Center Laboratories				
	Total	Accredited ¹	Not Accredited	Percent Accredited	Percent in Proficiency Testing Program ²	Total	Accredited ¹	Not Accredited	Percent Accredited	Percent in Proficiency Testing Program ²
All Areas	37	37	0	100	100	49	48	1	98	100
Aberdeen	8	8	0	100	100	5	4	1	80	100
Alaska	1	1	0	100	100	—	—	—	—	—
Albuquerque	5	5	0	100	100	5	5	0	100	100
Bemidji	2	2	0	100	100	1	1	0	100	100
Billings	3	3	0	100	100	6	6	0	100	100
California	—	—	—	—	—	—	—	—	—	—
Nashville	1	1	0	100	100	—	—	—	—	—
Navajo	6	6	0	100	100	5	5	0	100	100
Oklahoma	4	4	0	100	100	11	11	0	100	100
Phoenix	6	6	0	100	100	3	3	0	100	100
Portland	—	—	—	—	—	11	11	0	100	100
Tucson	1	1	0	100	100	2	2	0	100	100

¹ Laboratories hold a certificate of accreditation from the College of American Pathologists, the Joint Commission on the Accreditation of Healthcare Organizations, or the Health Care Financing Administration as mandated under the Clinical Laboratory Improvement Amendments (CLIA) of 1988. Excludes laboratories under Tribal management pursuant to P.L. 93-638.

² Laboratories participating in the College of American Pathologists (CAP) national proficiency testing program.



1997 Trends in Indian Health

Chart 1.9

*Proficiency Rating for
Indian Health Service
Laboratory Services, 1996*

IHS proficiency testing rating exceeded the requirements of the Clinical Laboratory Improvement Amendments of 1988 (CLIA '88) for all private and public sector laboratories. Overall proficiency rating for IHS laboratories is 98 percent. CLIA '88 requires 80 percent proficiency on all regulated analytes.

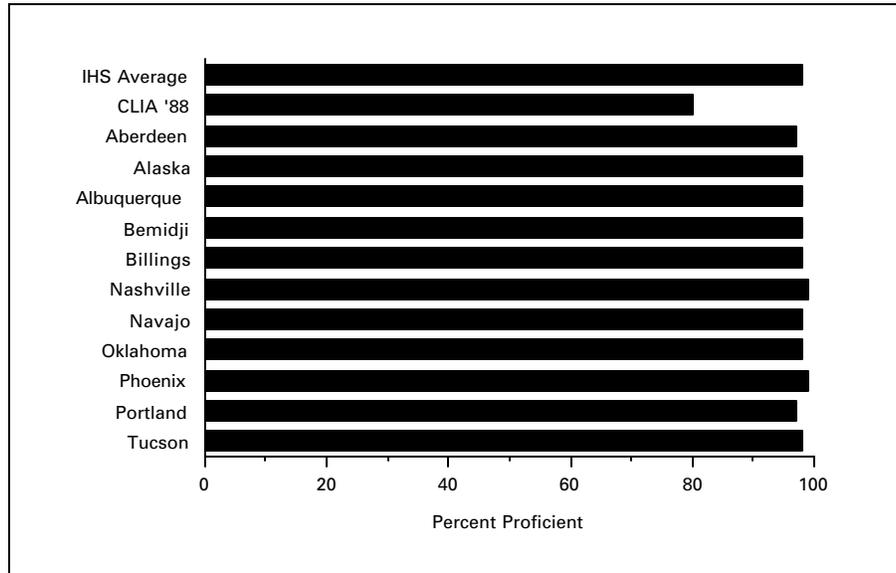


Table 1.9

*Proficiency Rating for
Indian Health Service
Laboratory Services, 1996*

Area	Percent Proficient
IHS Average	98
CLIA '88 ¹	80
Aberdeen	97
Alaska	98
Albuquerque	98
Bemidji	98
Billings	98
Nashville	99
Navajo	98
Oklahoma	98
Phoenix	99
Portland	97
Tucson	98

¹ Proficiency level required by Clinical Laboratory Improvement Amendments (CLIA) of 1988.

Chart 1.10

Outpatient Prescriptions Filled per Pharmacist, IHS and Tribal Direct Facilities, FY 1996

The average number of outpatient prescriptions filled per pharmacist at Indian Health Service and Tribal direct facilities in FY 1996 was 14,040. There was a wide variability among the Areas, ranging from 3,184 in Alaska to 22,060 in Aberdeen.

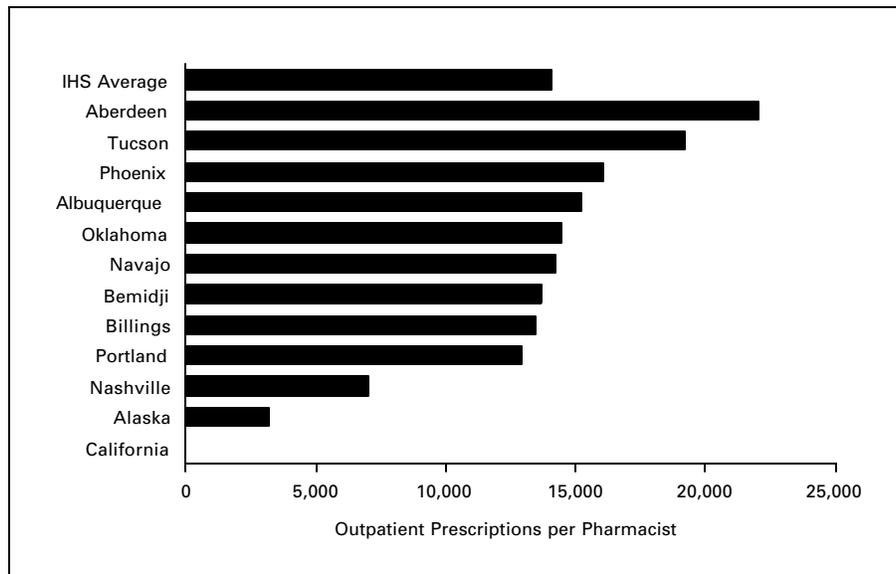


Table 1.10

Outpatient Prescriptions Filled per Pharmacist, Indian Health Service and Tribal Direct Facilities, FY 1996

Area	Number of Outpatient Prescriptions Filled	Number of Pharmacists	Prescriptions Filled per Pharmacist
All Areas	5,812,532	414	14,040
Aberdeen	1,058,871	48	22,060
Alaska	133,718	42	3,184
Albuquerque	470,995	31	15,193
Bemidji	204,938	15	13,663
Billings	443,296	33	13,433
California	—	1	—
Nashville	77,245	11	7,022
Navajo	1,082,624	76	14,245
Oklahoma	1,025,704	71	14,447
Phoenix	785,976	49	16,040
Portland	375,628	29	12,953
Tucson	153,537	8	19,192

Tribal direct facilities are excluded because the reporting of the number of prescriptions filled was incomplete.



1997 Trends in Indian Health

Chart 1.11

Pharmacy Workload by Type of Activity, IHS and Tribal Direct Facilities, FY 1995

Over 61 percent of pharmacy workload at Indian Health Service and Tribal direct facilities in FY 1995 was associated with outpatient activities, followed by clinical support activities at 19 percent.

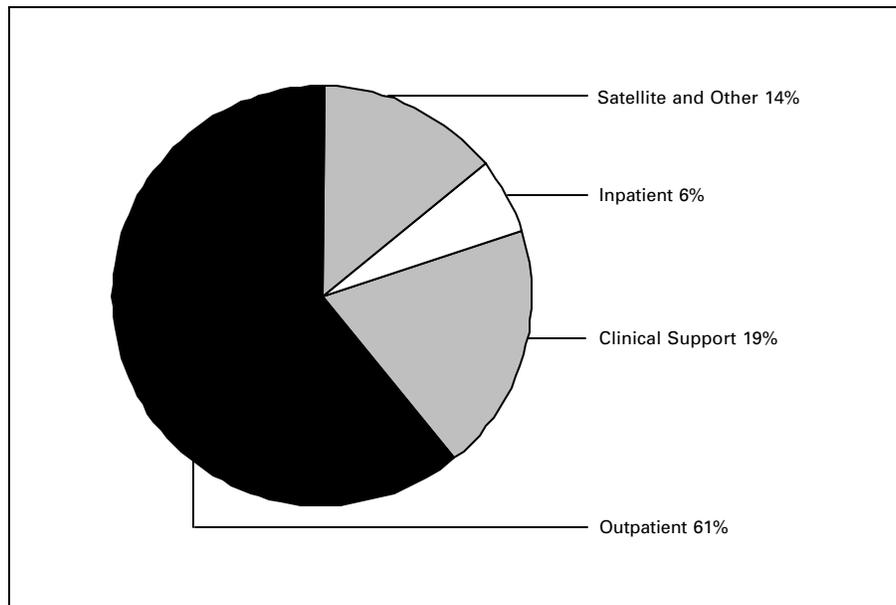


Table 1.11

Pharmacy Workload by Type of Activity, Indian Health Service and Tribal Direct Facilities, FY 1995

Type Activity	Workload Units	Percent of Total
Total	96,805,303	100.0
Outpatient	59,435,251	61.4
Clinical Support	18,186,552	18.8
Inpatient	6,213,147	6.4
Satellite	1,218,622	1.3
Other	11,751,731	12.1

Chart 1.12

Ambulatory Medical Visits per Pharmacist, IHS and Tribal Direct Facilities, FY 1996

The average number of ambulatory medical visits per pharmacist at Indian Health Service and Tribal direct facilities in FY 1996 was 12,036. There was a wide variability among the Areas, ranging from 9,764 in Nashville to 15,767 in California.

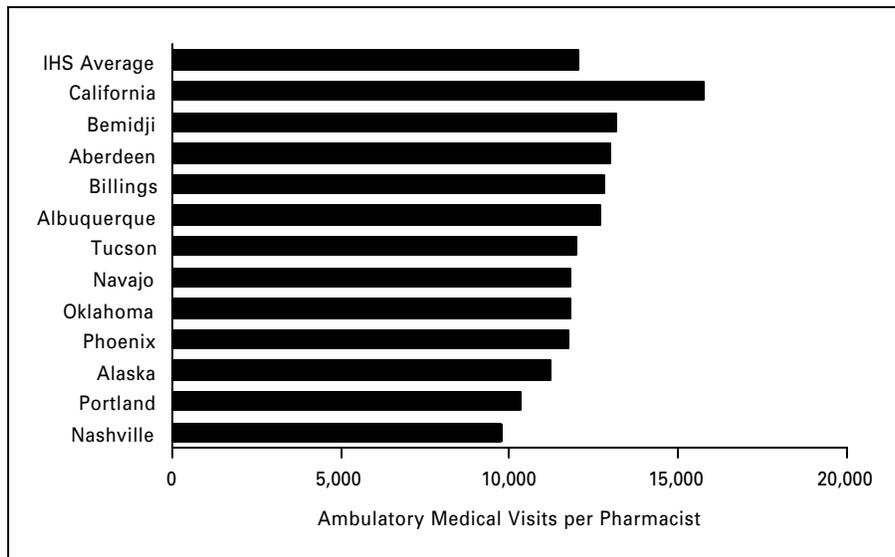


Table 1.12

Ambulatory Medical Visits per Pharmacist, Indian Health Service and Tribal Direct Facilities, FY 1996

Area	Number of Ambulatory Medical Visits	Number of Pharmacists	Visits per Pharmacist
All Areas	6,342,744	527	12,036
Aberdeen	675,307	52	12,987
Alaska	603,767	54	11,181
Albuquerque	406,636	32	12,707
Bemidji	513,406	39	13,164
Billings	447,775	35	12,794
California	315,339	20	15,767
Nashville	205,043	21	9,764
Navajo	898,048	76	11,816
Oklahoma	1,157,019	98	11,806
Phoenix	622,154	53	11,739
Portland	402,280	39	10,315
Tucson	95,970	8	11,996



Part 2 — Population Statistics

Chart 2.1

*Indian Health Service—
Service Population*

The IHS service population is increasing at a rate of about 2.0 percent per year, excluding the impact of new Tribes. It is estimated to be approximately 1.46 million in FY 1998.

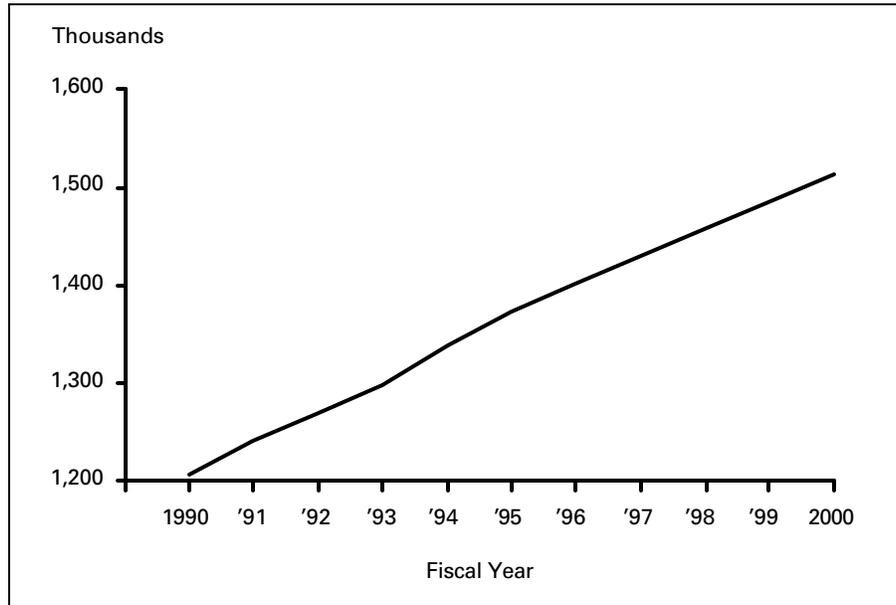
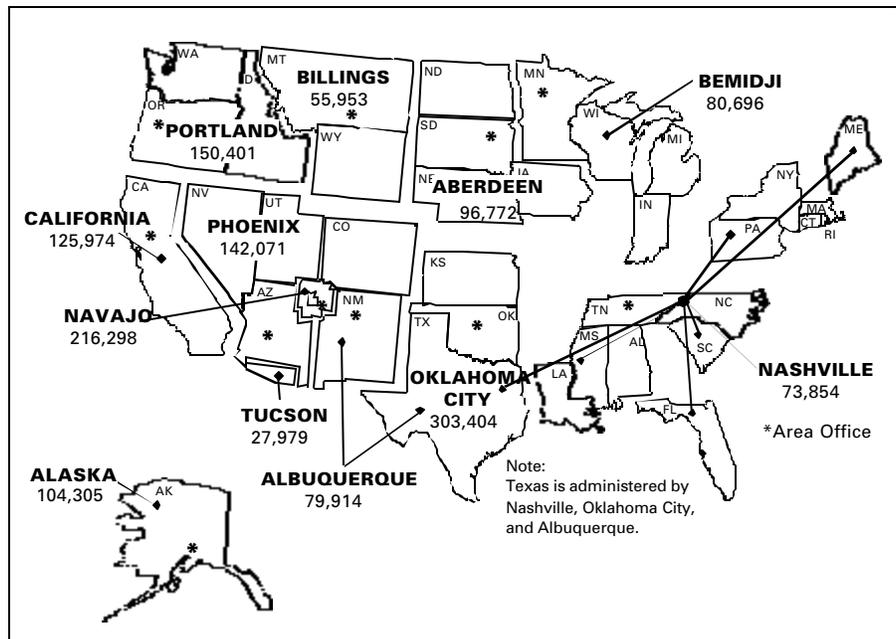


Chart 2.2

*Indian Health Service—
Service Population by Area*

The largest percentage of the FY 1998 service population, 21%, is located in the Oklahoma City Area, followed by the Navajo Area with 15%. The Tucson Area has the smallest percentage, 2%.



Part 2—Population Statistics

Table 2.1

Indian Health Service—Service Population by Area, 1990-2000

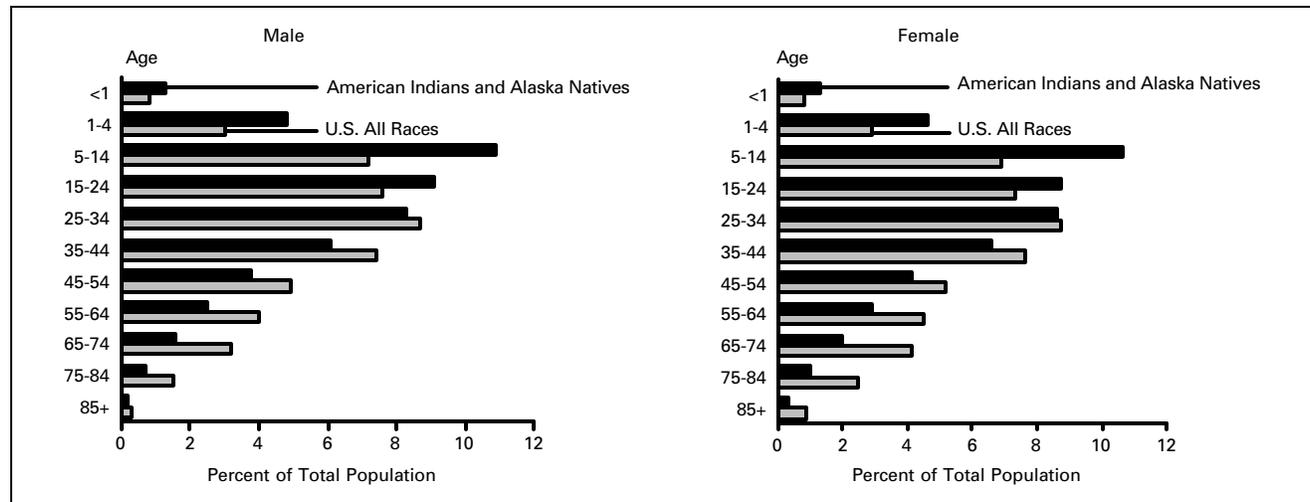
Area	(Census) 1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
All Areas	1,207,236	1,242,482	1,269,163	1,298,090	1,338,500	1,373,408	1,402,062	1,429,801	1,457,621	1,485,553	1,513,618
(Growth Factor)	—	(2.92)	(2.15)	(2.23)	(3.11)	(2.61)	(2.09)	(1.98)	(1.95)	(1.92)	(1.89)
Aberdeen	74,789	81,066	83,187	85,312	87,416	89,462	92,626	94,709	96,772	98,812	100,839
Alaska	86,251	88,554	90,842	93,119	95,382	97,633	99,870	102,094	104,305	106,506	108,695
Albuquerque	67,504	68,989	70,500	72,032	73,574	75,134	76,710	78,304	79,914	81,544	83,189
Bemidji	61,349	62,680	64,013	65,351	67,100	76,149	77,656	79,168	80,696	82,237	83,787
Billings	47,008	48,188	49,346	50,494	51,618	52,730	53,819	54,898	55,953	56,992	58,013
California	104,828	107,031	109,250	113,590	116,675	118,976	121,298	123,630	125,974	128,329	130,696
Nashville	48,943	54,264	55,121	56,002	69,145	70,263	71,433	72,629	73,854	75,113	76,406
Navajo	180,959	185,588	190,158	194,699	199,100	203,489	207,818	212,091	216,298	220,449	224,535
Oklahoma	262,517	267,309	272,171	277,110	282,172	287,304	292,567	297,944	303,404	308,948	314,598
Phoenix	120,707	123,445	126,172	128,417	131,188	133,908	136,625	139,350	142,071	144,789	147,511
Portland	127,774	130,337	132,948	136,086	138,829	141,638	144,498	147,424	150,401	153,437	156,535
Tucson	24,607	25,031	25,455	25,878	26,301	26,722	27,142	27,560	27,979	28,397	28,814

SOURCE: Estimated American Indian and Alaska Native service population by Area based on 1985-1994 vital events and the 1990 Census modified age, race, and sex file.

Chart 2.3

Population by Age and Sex, 1990 Census

The Indian male and female populations were younger than the corresponding male and female populations for the U.S. All Races. Seventeen percent of Indian males were under age 15 and 16 percent of Indian females were in this age group. For U.S. All Races, this was 11 percent for both sexes.



1997 Trends in Indian Health

Table 2.3

Age and Sex Percent Distribution

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1990 Census Data

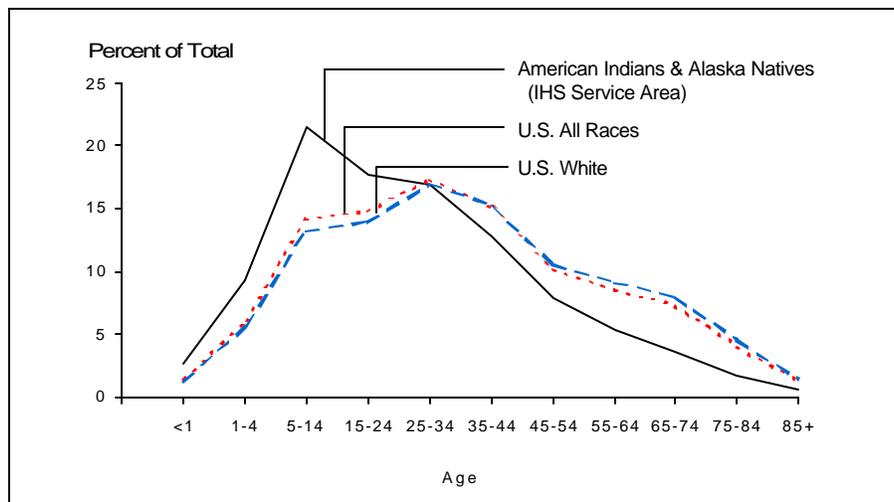
Age Group	American Indian & Alaska Native IHS Service Area ¹		U.S. All Races		U.S. White	
	Male	Female	Male	Female	Male	Female
Percent of Both Sexes:						
All Ages	49.274	50.726	48.747	51.253	48.941	51.059
Under 1 year	1.322	1.294	0.812	0.775	0.768	0.730
1-4 years	4.774	4.616	3.048	2.907	2.909	2.761
5-14 years	10.921	10.568	7.226	6.885	6.932	6.567
15-24 years	9.066	8.690	7.605	7.277	7.374	6.995
25-34 years	8.284	8.643	8.670	8.684	8.658	8.508
35-44 years	6.148	6.564	7.442	7.610	7.579	7.587
45-54 years	3.794	4.136	4.918	5.156	5.091	5.245
55-64 years	2.537	2.913	4.003	4.486	4.223	4.647
65-74 years	1.566	1.977	3.179	4.076	3.415	4.335
75-84 years	0.687	1.022	1.506	2.520	1.628	2.725
85 years and over	0.175	0.303	0.338	0.877	0.364	0.959
Percent Within Each Sex:						
All Ages	100.000	100.000	100.000	100.000	100.000	100.000
Under 1 year	2.683	2.551	1.665	1.512	1.570	1.430
1-4 years	9.689	9.100	6.253	5.673	5.944	5.407
5-14 years	22.164	20.834	14.823	13.434	14.163	12.862
15-24 years	18.399	17.133	15.602	14.198	15.066	13.700
25-34 years	16.812	17.038	17.787	16.941	17.693	16.663
35-44 years	12.477	12.940	15.267	14.847	15.487	14.859
45-54 years	7.700	8.153	10.089	10.061	10.401	10.272
55-64 years	5.149	5.742	8.211	8.753	8.628	9.101
65-74 years	3.178	3.897	6.522	7.954	6.978	8.491
75-84 years	1.394	2.015	3.089	4.917	3.326	5.337
85 years and over	0.355	0.597	0.694	1.710	0.744	1.878

¹ Based upon data from the 1990 Census modified age, race, and sex file, and current IHSservice area boundaries. Percentage point distributions were adjusted for errors due to rounding. More recent population estimates for the American Indian and Alaska Native population by age and sex are unavailable at the county level. As a result, IHS service area estimates by age and sex, which need to be based on county level data could not be prepared.

Chart 2.4

Population by Age, 1990

For Indians, 33 percent of the population was younger than 15 years and 6 percent was older than 64 years. For the U.S. All Races population, the corresponding percentages were 22 and 13, respectively.



Part 2—Population Statistics

Table 2.4

Percent Age Distribution

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1990 Census Data

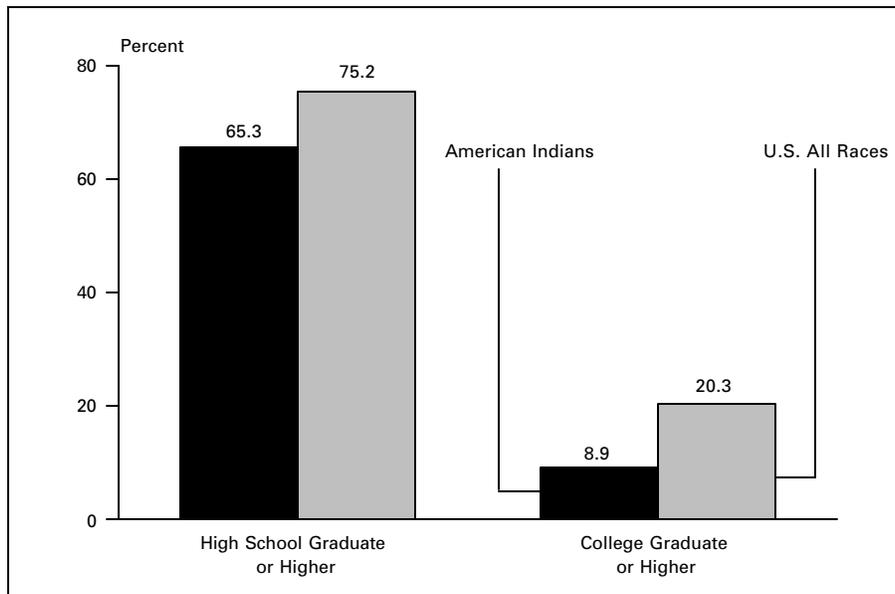
Age Group	American Indian and Alaska Native ¹	U.S. All Races	U.S. White
All Ages	100.000	100.000	100.000
Under 1 year	2.616	1.294	1.204
1-4 years	9.390	6.086	5.631
5-9 years	11.239	7.277	6.819
10-14 years	10.251	6.881	6.437
15-19 years	9.470	7.138	6.682
20-24 years	8.286	7.647	7.273
25-29 years	8.729	8.569	8.332
30-34 years	8.198	8.791	8.690
35-39 years	6.971	8.027	8.053
40-44 years	5.740	7.083	7.265
45-49 years	4.353	5.578	5.802
50-54 years	3.577	4.564	4.760
55-59 years	2.965	4.235	4.491
60-64 years	2.485	4.268	4.613
65-69 years	2.077	4.066	4.457
70-74 years	1.466	3.215	3.569
75-79 years	1.090	2.461	2.747
80-84 years	0.619	1.582	1.779
85 years & over	0.478	1.238	1.396
Median Age	24.2 yrs.	32.9 yrs.	34.4 yrs.

¹ Based upon data from the 1990 Census modified age, race, and sex file and current IHS service area boundaries. Percentage point distribution was adjusted for errors due to rounding. More recent population estimates for the American Indian and Alaska Native population by age and sex are unavailable at the county level. As a result, IHS service area estimates by age and sex, which need to be based on county level data, could not be prepared.

Chart 2.5

Educational Attainment, American Indians and U.S. All Races, 1990 Census

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 with 75.2 percent for the U.S. All Races population. For bachelor's degree or higher, these percentages are 8.9 and 20.3, respectively.





1997 Trends in Indian Health

Chart 2.6

Employment Status by Sex, American Indians and U.S. All Races, 1990 Census

In 1990, 16.2 percent of Indian males age 16 and older residing in the current Reservation States were unemployed, compared with 6.4 percent for the U.S. All Races male population. For females, these percentages were 13.4 and 6.2, respectively.

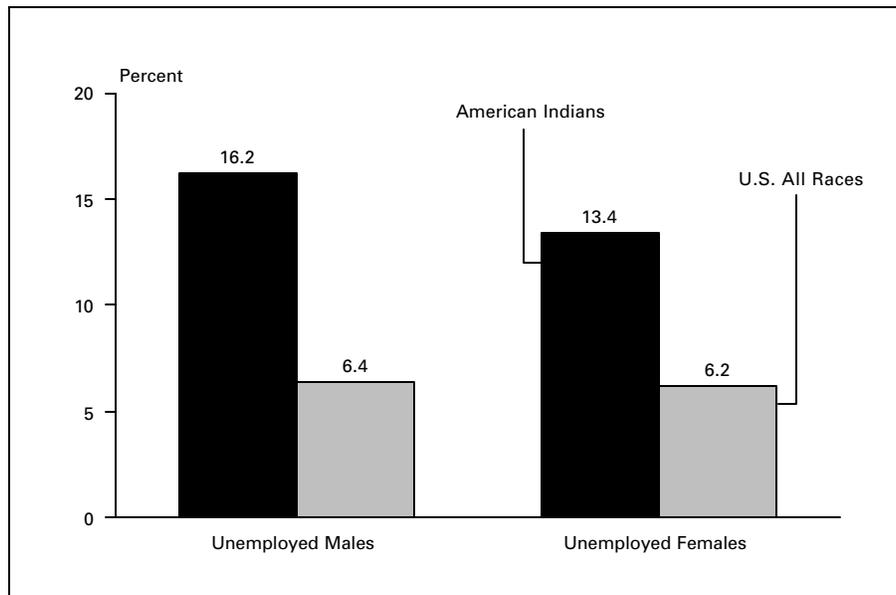
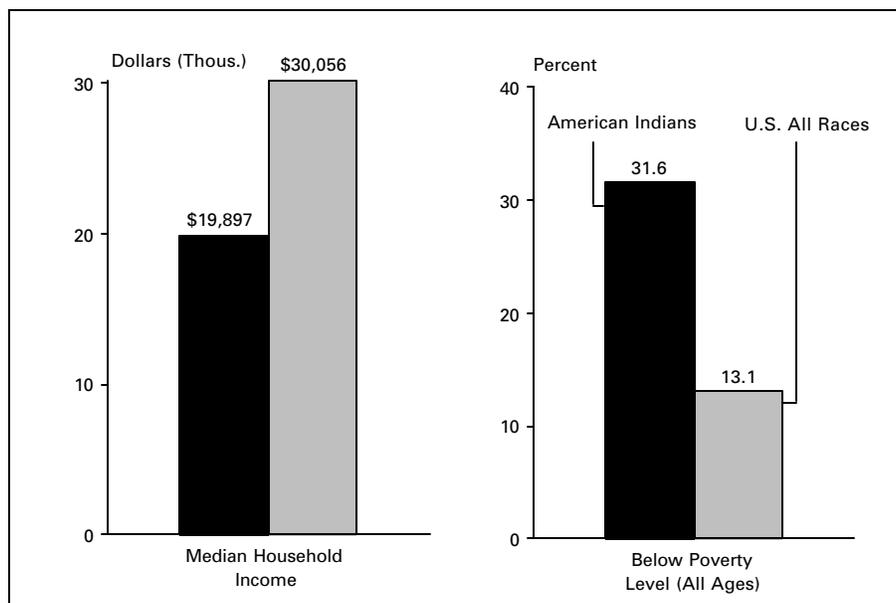


Chart 2.7

Income Status in 1989, American Indians and U.S. All Races, 1990 Census

According to the 1990 Census, the median household income in 1989 for Indians residing in the current Reservation States was \$19,897, compared with \$30,056 for the U.S. All Races population. During this period, 31.6 percent of Indians lived below the poverty level in contrast to 13.1 percent for the U.S. All Races population.



Part 2—Population Statistics

Table 2.5

Selected Economic Profiles for the United States, 1990 Census

	American Indian and Alaska Native	All Races	White	Black	Asian and Pacific Islander	Hispanic
<i>Educational Attainment</i>						
<i>(Persons 25 years and older):</i>						
Percent less than 9th grade	14.1	10.4	8.9	13.8	12.9	30.7
Percent 9th to 12th grade, no diploma	20.6	14.4	13.1	23.2	9.5	19.5
Percent high school grad or higher	65.3	75.2	77.9	63.1	77.5	49.8
Percent bachelor's degree or higher	8.9	20.3	21.5	11.4	36.6	9.2
<i>Employment Status by Sex</i>						
<i>(Persons 16 years and older):</i>						
Percent unemployed, males	16.2	6.4	5.3	13.7	5.1	9.8
Percent unemployed, females	13.4	6.2	5.0	12.2	5.5	11.2
<i>Household Income in 1989:</i>						
Median household income	\$19,897	\$30,056	\$31,435	\$19,758	\$36,784	\$24,156
<i>Percent Below the Poverty Line</i>						
<i>Level by Age:</i>						
All ages	31.6	13.1	9.8	29.5	14.1	25.3
Under 5 years	43.1	20.1	13.8	44.0	17.5	33.4
5 years	41.6	19.7	13.6	42.8	18.0	33.9
6 to 11 years	37.7	18.3	12.5	39.8	17.3	32.6
12 to 17 years	33.1	16.3	11.0	35.5	16.3	30.3
18 to 64 years	27.7	11.0	8.5	23.4	13.0	21.3
65 to 74 years	26.9	10.4	8.4	28.6	11.3	21.9
75 years and older	33.3	16.5	14.6	37.3	13.5	27.8
NOTE American Indian data are for residents of the 35 Reservation States. (South Carolina was added as a Reservation State in FY 1994. Indiana was added as a Reservation State in 1995.)						
SOURCE U.S. Bureau of the Census, Minority Economic Profiles, July 24, 1992, Tables CPH-L-92, 93, 94, and 95, and unpublished data from the U.S. Bureau of the Census.						



1997 Trends in Indian Health

Chart 2.8

Urban Projects Service Area Population

The service area for Urban Indian Projects overlaps with the traditional IHS service area. According to the 1990 Census, there were over 360,000 Indians residing in the Urban Projects service area. Of these, 37 percent also were within the IHS service area.

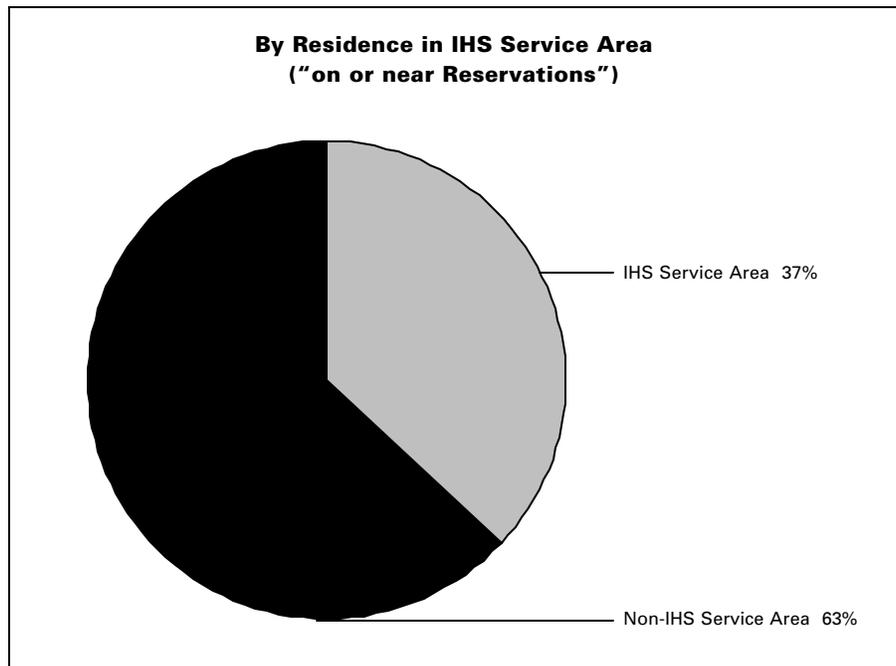


Table 2.8

Urban Indian Projects Service Area Population by Category

Population Category	1990 Census Population	Percent of Total American Indians in Urban Projects
Total	362,087	100.0
American Indians in Metropolitan Areas	354,097	97.8
American Indians in non-Metropolitan Areas	7,990	2.2
American Indians in IHS Service Area ¹	134,088	37.0
America Indians outside IHS Service Area	227,999	63.0

¹ "On or near reservations," i.e., contract health service delivery areas.

Part 3— Natality and Infant / Maternal Mortality Statistics

Chart 3.1

Birth Rates

The American Indian and Alaska Native birth rate for 1992-1994 of 25.6 births per 1,000 population was 65 percent greater than the U.S. All Races birth rate for 1993 of 15.5, and 74 percent greater than the rate for the U.S. White population (14.7).

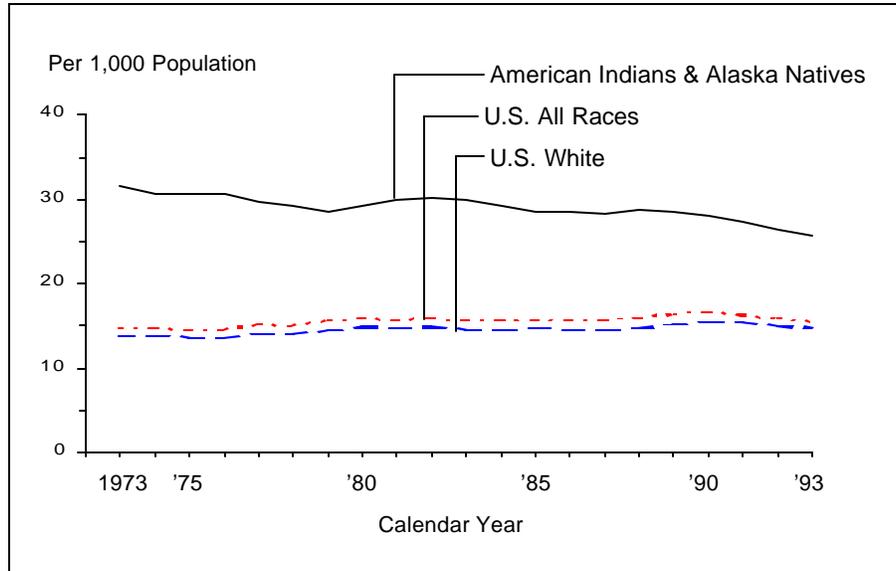


Table 3.1

Number and Rate of Live Births

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993 (Rate per 1,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races		U.S. White
	Number	Rate	Number	Rate	Rate ¹
(1994)	32,876				
1992-1994 (1993)	33,429	25.6	4,000,240	15.5	14.7
1991-1993 (1992)	33,894	26.6	4,065,014	15.9	15.0
1990-1992 (1991)	34,083	27.3	4,110,907	16.3	15.4
1989-1991 (1990)	33,554	28.1	4,158,212	16.7	15.5
1988-1990 (1989)	34,143	28.5	4,040,958	16.4	15.1
1987-1989 (1988)	32,544	28.7	3,909,510	16.0	14.8
1986-1988 (1987)	31,133	28.3	3,809,394	15.7	14.6
1985-1987 (1986)	29,996	28.4	3,756,547	15.6	14.6
1984-1986 (1985)	30,194	28.4	3,760,561	15.8	14.8
1983-1985 (1984)	28,416	29.3	3,669,141	15.6	14.6
1982-1984 (1983)	29,352	29.9	3,638,933	15.6	14.6
1981-1983 (1982)	28,701	30.2	3,680,537	15.9	14.9
1980-1982 (1981)	25,595	30.0	3,629,238	15.8	14.8
1979-1981 (1980)	25,346	29.3	3,612,258	15.9	14.9
1978-1980 (1979)	23,252	28.4	3,494,398	15.6	14.5
1977-1979 (1978)	20,250	29.3	3,333,279	15.0	14.0
1976-1978 (1977)	19,458	29.7	3,326,632	15.1	14.1
1975-1977 (1976)	18,797	30.6	3,167,788	14.6	13.6
1974-1976 (1975)	17,852	30.6	3,144,198	14.6	13.6
1973-1975 (1974)	17,099	30.8	3,159,958	14.8	13.9
1972-1974 (1973)	16,662	31.7	3,136,965	14.8	13.8
(1972)	16,801		3,258,411		
1954-1956 (1955)	17,028	37.5	4,097,000	25.0	23.8

¹ Starting in 1991 birth data for the U.S. White population are shown for the race of the mother, rather than the race of the child (as is shown for years prior to 1991).

NOTE: Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native birth rates are for the 3-year periods specified. Numbers of births and rates for U.S. populations are for the single year specified.

Chart 3.2

Births of Low Birthweight (Under 2,500 Grams) as a Percent of Total Live Births by Age of Mother

Of reported American Indian and Alaska Native live births in 1992-1994, 5.9 percent were of low birthweight, essentially the same as the White population (6.0 in 1993). The U.S. All Races population was significantly higher at 7.2 percent in 1993.

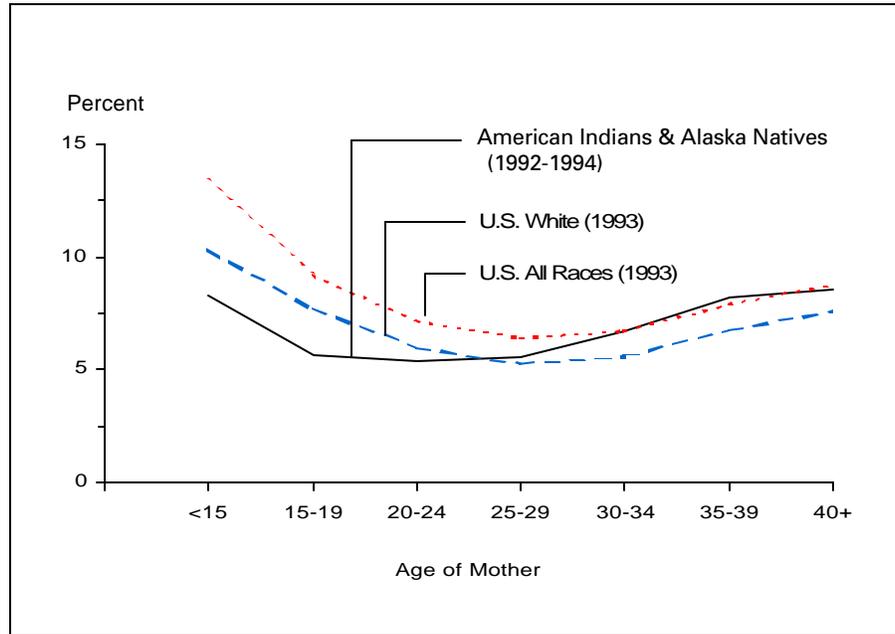


Table 3.2

Births of Low Birthweight (Under 2,500 Grams) by Age of Mother

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993

Age of Mother	American Indian and Alaska Native			U.S. All Races			U.S. White		
	Total Live Births	Number Low Weight	Percent Low Weight	Total Live Births	Number Low Weight	Percent Low Weight	Total Live Births	Number Low Weight	Percent Low Weight
ALL AGES	100,016 ¹	5,919	5.9	3,995,448 ¹	288,482	7.2	3,146,378 ¹	188,249	6.0
Under 20 years	20,470	1,174	5.7	512,975	47,945	9.3	347,166	26,740	7.7
Under 15 years	422	35	8.3	12,526	1,686	13.5	5,741	599	10.4
15-19 years	20,048	1,139	5.7	500,449	46,259	9.2	341,425	26,141	7.7
20-24 years	32,992	1,779	5.4	1,036,950	74,804	7.2	789,384	47,049	6.0
25-29 years	24,139	1,347	5.6	1,127,637	71,859	6.4	919,846	48,715	5.3
30-34 years	14,950	1,004	6.7	900,025	60,233	6.7	748,557	42,264	5.6
35-39 years	6,239	509	8.2	356,556	28,243	7.9	292,302	19,748	6.8
40 years and over	1,226	106	8.6	61,305	5,398	8.8	49,123	3,733	7.6

¹ Excludes 183 American Indian and Alaska Native live births, 4,792 U.S. All Races live births, and 3,455 U.S. White live births with birthweight not stated.

1997 Trends in Indian Health

Chart 3.3

Births of High Birthweight (4,000 Grams or More) as a Percent of Total Live Births by Age of Mother

High birthweight births (4,000 grams or more) are a relatively greater problem for Indian women than low weight births. High birthweights are a complication of diabetic pregnancies and should be of concern. For Indian women, 12.5 percent of reported live births were of high birthweight in 1992-1994 compared to 10.5 percent for the U.S. All Races population in 1993.

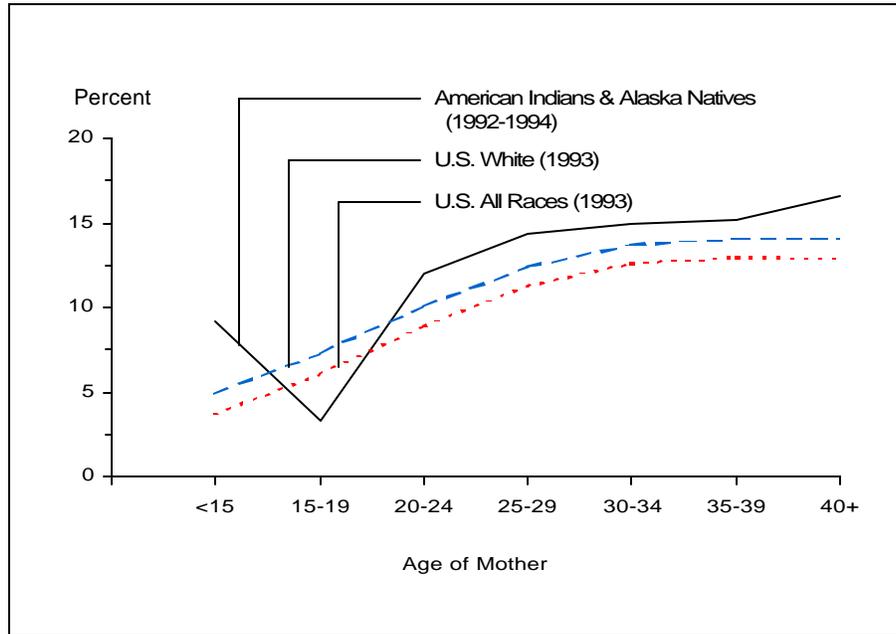


Table 3.3

Births of High Birthweight (4,000 Grams or More) by Age of Mother

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993

Age of Mother	American Indian and Alaska Native			U.S. All Races			U.S. White		
	Total Live Births	Number High Weight	Percent High Weight	Total Live Births	Number High Weight	Percent High Weight	Total Live Births	Number High Weight	Percent High Weight
ALL AGES	100,016 ¹	11,545	11.5	3,995,448 ¹	418,487	10.5	3,146,378 ¹	370,098	11.8
Under 20 years	20,470	724	3.5	512,975	31,079	6.1	347,166	25,153	7.2
Under 15 years	422	39	9.2	12,526	458	3.7	5,741	289	5.0
15-19 years	20,048	685	3.4	500,449	30,621	6.1	341,425	24,864	7.3
20-24 years	32,992	3,959	12.0	1,036,950	92,375	8.9	789,384	79,780	10.1
25-29 years	24,139	3,476	14.4	1,127,637	127,319	11.3	919,846	114,123	12.4
30-34 years	14,950	2,236	15.0	900,025	113,600	12.6	748,557	102,773	13.7
35-39 years	6,239	946	15.2	356,556	46,208	13.0	292,302	41,323	14.1
40 years and over	1,226	204	16.6	61,305	7,906	12.9	49,123	6,946	14.1

¹ Excludes 183 American Indian and Alaska Native live births, 4,792 U.S. All Races live births, and 3,455 U.S. White live births with birthweight not stated.

Chart 3.4

Birth Order by Age of Mother, Percent Within Birth Order, American Indians and Alaska Natives

For the Indian population, 45 percent of mothers were under age 20 when they had their first child while 20 percent were at least age 25.

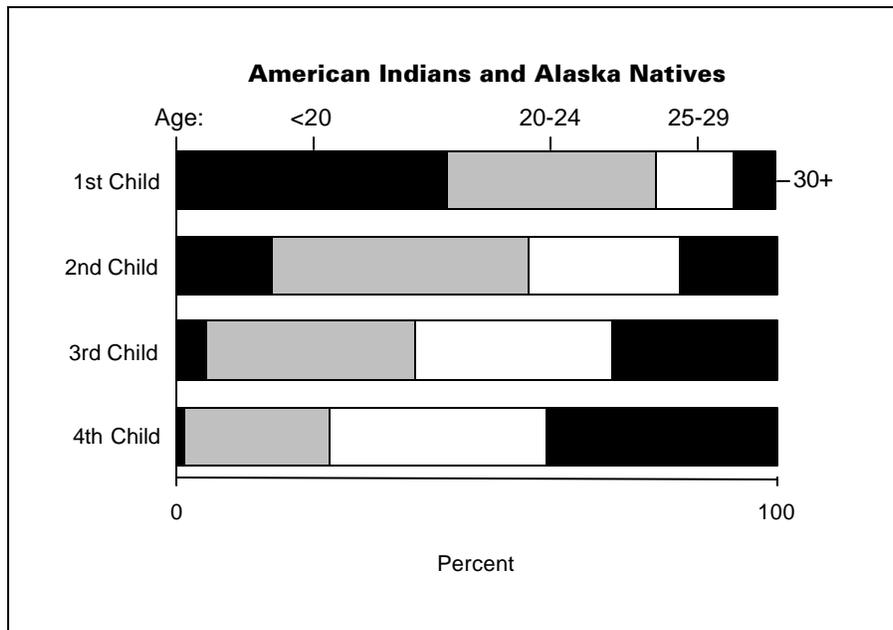
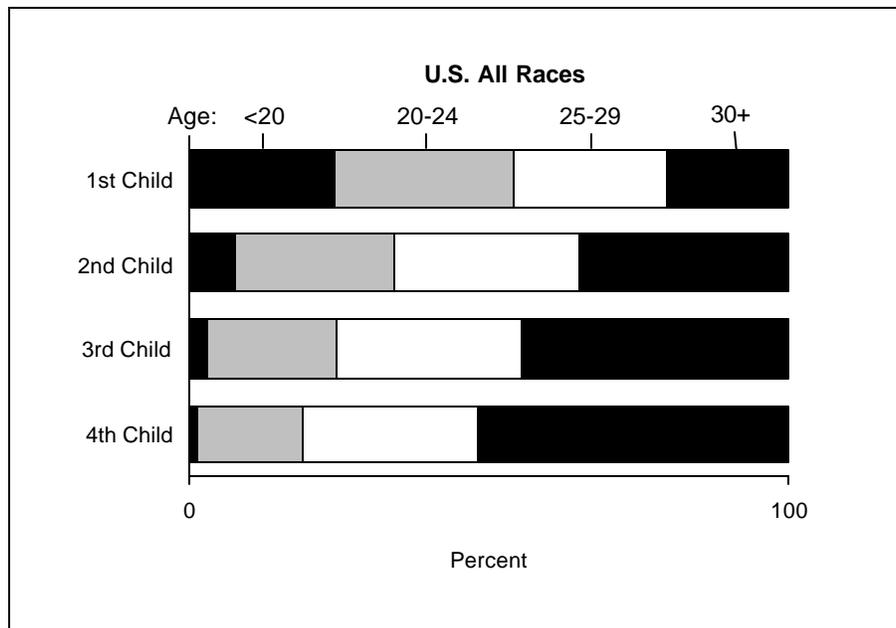


Chart 3.5

Birth Order by Age of Mother, Percent Within Birth Order, U.S. All Races

For the U.S. All Races population, 24 percent of mothers were under age 20 when they had their first child while 46 percent were at least age 25.



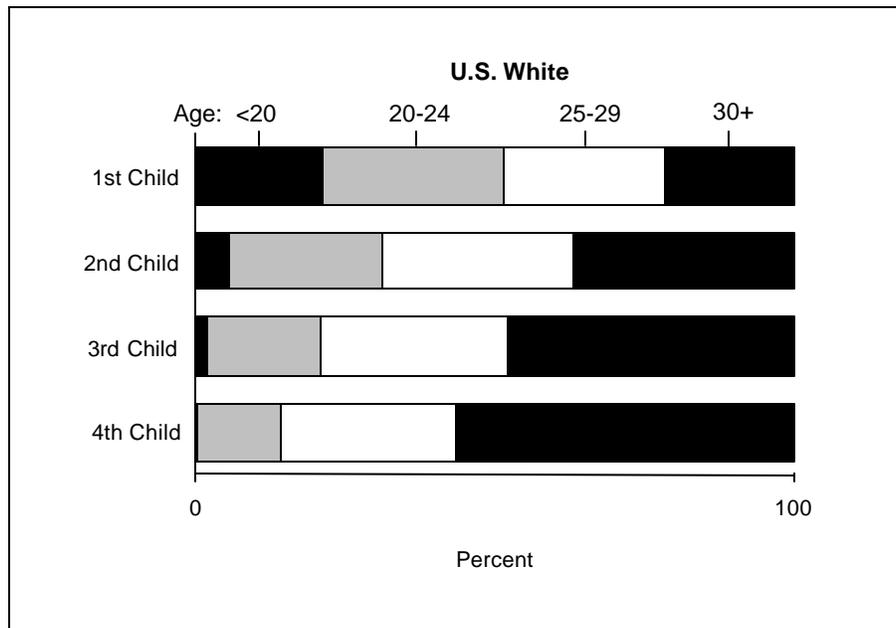


1997 Trends in Indian Health

Chart 3.6

Birth Order by Age of Mother, Percent Within Birth Order, U.S. White

For the U.S. White population, 21 percent of mothers were under age 20 when they had their first child while 49 percent were at least age 25.



Part 3—Natality and Infant/Maternal Mortality Statistics

Table 3.4

Number and Percent Distribution of Live Births by Age of Mother Within Birth Order

Age Group	Total Live Births	Live Birth Order					
		1st Child	2nd Child	3rd Child	4th Child	5th Child	6th+ Child
American Indian and Alaska Native, IHS Service Area, 1992-1994							
ALL AGES	100,199 ¹	33,581	26,307	18,016	10,555	5,779	5,606
ALL AGES	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 20 years	20.5	45.2	16.0	4.9	1.3	0.3	—
20-24 years	33.0	34.6	42.9	35.0	24.2	14.6	5.1
25-29 years	24.1	13.0	25.0	32.7	36.3	34.8	25.5
30-34 years	15.0	5.4	11.8	19.1	25.8	31.2	37.1
35-39 years	6.2	1.5	3.7	7.2	10.5	16.1	25.1
40-49 years	1.2	0.3	0.6	1.1	1.9	3.0	7.2
U.S. All Races, 1993							
ALL AGES	3,982,169 ²	1,619,840	1,289,326	645,596	253,619	96,154	77,634
ALL AGES	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 20 years	12.8	24.2	7.5	3.0	1.3	0.5	0.1
20-24 years	26.0	29.9	26.8	21.7	17.6	13.4	5.9
25-29 years	28.3	25.5	30.7	30.6	29.3	27.5	21.2
30-34 years	22.5	14.9	25.1	30.0	32.0	33.2	33.4
35-39 years	8.9	4.7	8.7	12.8	16.7	20.6	28.5
40-49 years	1.5	0.8	1.2	1.9	3.1	4.8	10.8
U.S. White, 1993							
ALL AGES	3,135,975 ³	1,294,431	1,038,865	503,392	186,085	65,184	48,018
ALL AGES	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 20 years	11.0	21.3	5.7	1.9	0.6	0.2	0.1
20-24 years	25.1	30.2	25.7	19.1	13.7	8.9	3.4
25-29 years	29.2	27.0	31.9	31.2	29.2	25.8	16.8
30-34 years	23.8	15.7	26.5	32.2	34.9	36.3	34.2
35-39 years	9.3	5.0	9.0	13.6	18.3	23.4	32.8
40-49 years	1.6	0.8	1.2	2.0	3.3	5.4	12.7

¹ Excludes 387 American Indian and Alaska Native births (0.4 percent) with birth order not reported.
² Excludes 18,071 U.S. All Races births (0.5 percent) with birth order not reported.
³ Excludes 13,858 U.S. White births (0.4 percent) with birth order not reported.

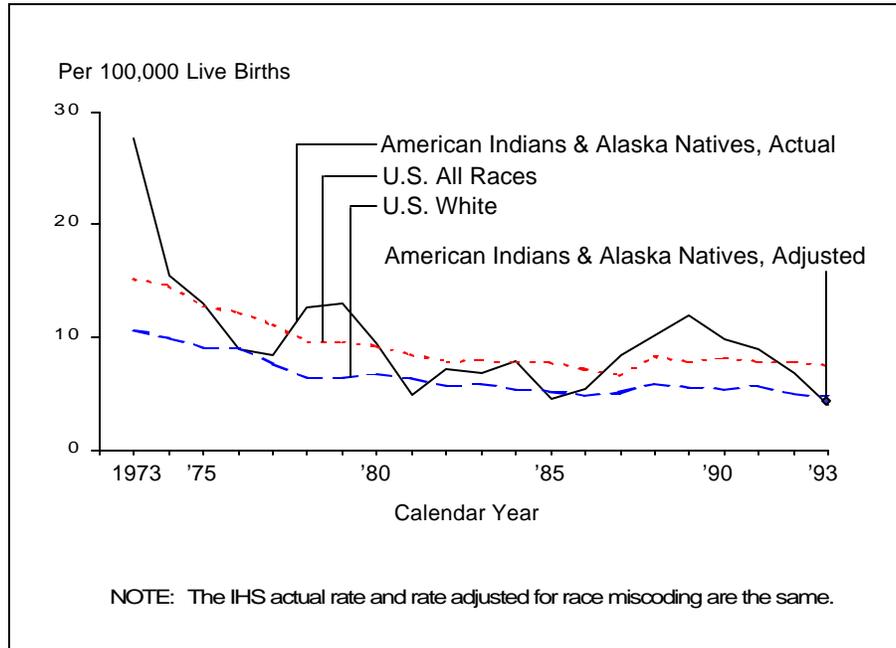
NOTE: Where needed, percents were adjusted to sum to 100.0 due to rounding. Adjustments were made in the largest age category within a birth order group and did not exceed 0.1 percent for any age category shown.

1997 Trends in Indian Health

Chart 3.7

Maternal Death Rates

The maternal mortality rate for American Indians and Alaska Natives dropped from 27.7 (rate per 100,000 live births) in 1972-1974 to 4.0 in 1992-1994, a decrease of 86 percent. The 1992-1994 rate remains at 4.0 even after adjustment for miscoding of Indian race on death certificates because there were only four maternal deaths, actual and adjusted. If all the past Indian rates were similarly adjusted for miscoding, the actual/unadjusted trend line might rise in value, but the rate of change would probably remain the same.



Part 3—Natality and Infant/Maternal Mortality Statistics

Table 3.7

Maternal Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1958-1993 (Rate per 100,000 Live Births)

Calendar Years	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:	
	Number	Rate			U.S. All Races	U.S. White
(1994)	0	0 (adj)				
1992-1994 (1993)	2	2 (adj)	4.0 4.0(adj)	7.5	4.8	0.5 0.5 (adj) 0.8 0.8 (adj)
1991-1993 (1992)	2	2 (adj)	6.9	7.8	5.0	0.9 1.4
1990-1992 (1991)	3		8.9	7.9	5.8	1.1 1.5
1989-1991 (1990)	4		9.8	8.2	5.4	1.2 1.8
1988-1990 (1989)	3		12.0	7.9	5.6	1.5 2.1
1987-1989 (1988)	5		10.2	8.4	5.9	1.2 1.7
1986-1988 (1987)	2		8.5	6.6	5.1	1.3 1.7
1985-1987 (1986)	1		5.5	7.2	4.9	0.8 1.1
1984-1986 (1985)	2		4.5	7.8	5.2	0.6 0.9
1983-1985 (1984)	1		8.0	7.8	5.4	1.0 1.5
1982-1984 (1983)	4		6.9	8.0	5.9	0.9 1.2
1981-1983 (1982)	1		7.2	7.9	5.8	0.9 1.2
1980-1982 (1981)	1		5.0	8.5	6.3	0.6 0.8
1979-1981 (1980)	2		9.4	9.2	6.7	1.0 1.4
1978-1980 (1979)	4		13.1	9.6	6.4	1.4 2.0
1977-1979 (1978)	3		12.7	9.6	6.4	1.3 2.0
1976-1978 (1977)	1		8.5	11.2	7.7	0.8 1.1
1975-1977 (1976)	1		8.9	12.3	9.0	0.7 1.0
1974-1976 (1975)	3		13.0	12.8	9.1	1.0 1.4
1973-1975 (1974)	3		15.5	14.6	10.0	1.1 1.6
1972-1974 (1973)	2		27.7	15.2	10.7	1.8 2.6
(1972)	9					
1957-1959 (1958)	16		82.6	37.6	26.3	2.2 3.1

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

NOTE Data are presented above for the year in which maternal death data were first collected (1958) and as close to the year in which IHS was established (1955) as is possible. For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native maternal death rates are for the 3-year periods specified. Numbers of deaths for the Indian population and rates for U.S. populations are for the single years specified. IHS actual numbers of maternal deaths and numbers of maternal deaths adjusted for race miscoding are the same.

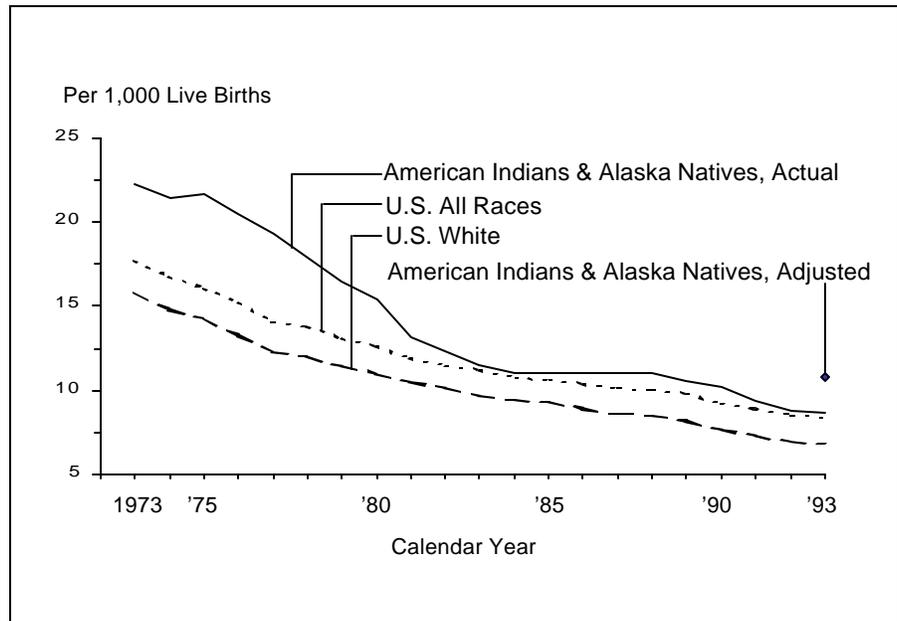


1997 Trends in Indian Health

Chart 3.8

Infant Mortality Rates

The infant mortality rate for American Indians and Alaska Natives dropped from 22.2 (rate per 1,000 live births) in 1972-1974 to 8.7 in 1992-1994, a decrease of 61 percent. When the 1992-1994 rate is adjusted for miscoding of Indian race on death certificates, it increases to 10.9. This is 30 percent higher than the U.S. All Races rate of 8.4 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/unadjusted trend line would rise in value, but the rate of change would probably remain the same.



Part 3—Natality and Infant/Maternal Mortality Statistics

Table 3.8

Infant Mortality Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993 (Rate per 1,000 Live Births)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races	U.S. White	Ratio of American Indian and Alaska Native to:			
					U.S. All Races		U.S. White	
1992-1994 (1993)	8.7	10.9 (adj)	8.4	6.8	1.0	1.3 (adj)	1.3	1.6 (adj)
1991-1993 (1992)	8.8		8.5	6.9	1.0		1.3	
1990-1992(1991)	9.4		8.9	7.3	1.1		1.3	
1989-1991 (1990)	10.2		9.2	7.7	1.1		1.3	
1988-1990 (1989)	10.6		9.8	8.2	1.1		1.3	
1987-1989 (1988)	11.0		10.0	8.5	1.1		1.3	
1986-1988 (1987)	11.1		10.1	8.6	1.1		1.3	
1985-1987 (1986)	11.1		10.4	8.9	1.1		1.2	
1984-1986 (1985)	11.1		10.6	9.3	1.0		1.2	
1983-1985 (1984)	11.1		10.8	9.4	1.0		1.2	
1982-1984 (1983)	11.5		11.2	9.7	1.0		1.2	
1981-1983 (1982)	12.3		11.5	10.1	1.1		1.2	
1980-1982 (1981)	13.2		11.9	10.5	1.1		1.3	
1979-1981 (1980)	15.4		12.6	11.0	1.2		1.4	
1978-1980 (1979)	16.5		13.1	11.4	1.3		1.4	
1977-1979 (1978)	17.9		13.8	12.0	1.3		1.5	
1976-1978 (1977)	19.2		14.1	12.3	1.4		1.6	
1975-1977 (1976)	20.5		15.2	13.3	1.3		1.5	
1974-1976 (1975)	21.6		16.1	14.2	1.3		1.5	
1973-1975 (1974)	21.4		16.7	14.8	1.3		1.4	
1972-1974 (1973)	22.2		17.7	15.8	1.3		1.4	
1954-1956 (1955)	62.7		26.4	23.6	2.4		2.7	

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

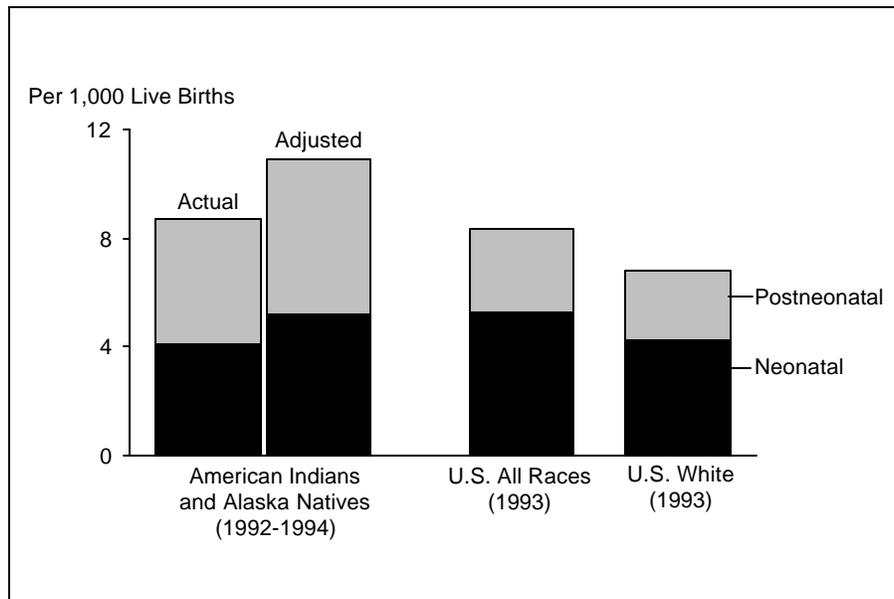
NOTE Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Rates for U.S. populations are for the single year specified.

1997 Trends in Indian Health

Chart 3.9

*Infant Mortality Rates
by Age*

The neonatal mortality rate for American Indians and Alaska Natives in 1992-1994 (5.2 deaths per 1,000 live births) was one-tenth lower than the U.S. All Races rate (5.3) and 21 percent higher than the U.S. White rate (4.3) for 1993. Indians fare much worse in comparison during the postneonatal period. The postneonatal rate for Indians (5.8) was 1.9 and 2.3 times the U.S. All Races (3.1) and White (2.5) populations' rates, respectively. These Indian rates have been adjusted for miscoding of Indian race on death certificates.



Part 3—Natality and Infant/Maternal Mortality Statistics

Table 3.9

Infant Mortality Rates by Age

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1973-1993 (Rate per 1,000 Live Births)

Calendar Years	American Indian and Alaska Native					
	Infant Mortality Rates		Neonatal Under 28 Days		Postneonatal 28 Days-11 Months	
1992-1994	8.7	10.9 (adj)	4.1	5.2 (adj)	4.6	5.8(adj)
1991-1993	8.8		4.0		4.9	
1990-1992	9.4		4.3		5.1	
1989-1991	10.2		4.7		5.5	
1988-1990	10.6		4.8		5.8	
1987-1989	11.0		5.1		5.9	
1986-1988	11.1		5.2		5.9	
1985-1987	11.1		5.3		5.9	
1984-1986	11.1		5.0		6.0	
1983-1985	11.1		5.1		6.0	
1982-1984	11.5		5.1		6.4	
1981-1983	12.3		5.3		7.0	
1980-1982	13.2		5.9		7.3	
1979-1981	15.4		7.2		8.1	
1978-1980	16.5		8.2		8.4	
1977-1979	17.9		8.9		9.0	
1976-1978	19.2		9.3		9.9	
1975-1977	20.5		10.0		10.5	
1974-1976	21.6		10.4		11.2	
1973-1975	21.4		10.4		11.1	
1972-1974	22.2		10.2		12.0	

Calendar Year	U.S. All Races			U.S. White		
	Infant Mortality Rates	Neonatal Under 28 Days	Postneonatal 28 Days-11 Months	Infant Mortality Rates	Neonatal Under 28 Days	Postneonatal 28 Days-11 Months
1993	8.4	5.3	3.1	6.8	4.3	2.5
1992	8.5	5.4	3.1	6.9	4.3	2.6
1991	8.9	5.6	3.4	7.3	4.5	2.8
1990	9.2	5.8	3.4	7.7	4.9	2.8
1989	9.8	6.2	3.6	8.2	5.2	3.0
1988	10.0	6.3	3.7	8.5	5.4	3.1
1987	10.1	6.5	3.6	8.6	5.5	3.1
1986	10.4	6.7	3.6	8.9	5.8	3.1
1985	10.6	7.0	3.7	9.3	6.1	3.2
1984	10.8	7.0	3.8	9.4	6.2	3.3
1983	11.2	7.3	3.9	9.7	6.4	3.3
1982	11.5	7.7	3.8	10.1	6.8	3.3
1981	11.9	8.0	3.9	10.5	7.1	3.4
1980	12.6	8.5	4.1	11.0	7.5	3.5
1979	13.1	8.9	4.2	11.4	7.9	3.5
1978	13.8	9.5	4.3	12.0	8.4	3.6
1977	14.1	9.9	4.2	12.3	8.7	3.6
1976	15.2	10.9	4.3	13.3	9.7	3.6
1975	16.1	11.6	4.5	14.2	10.4	3.8
1974	16.7	12.3	4.4	14.8	11.1	3.7
1973	17.7	13.0	4.7	15.8	11.8	4.0

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.
 NOTE Starting in 1972 data on infant mortality by age are first available, and are shown above, for the specific counties in the IHS service area.



1997 Trends in Indian Health

Chart 3.10

Leading Causes of Infant Deaths (Birth to Under 1 Year)

The two leading causes of infant deaths for American Indians and Alaska Natives (1992-1994) were sudden infant death syndrome (SIDS) and congenital anomalies. For the U.S. All Races and White populations (1993), the order was reversed.

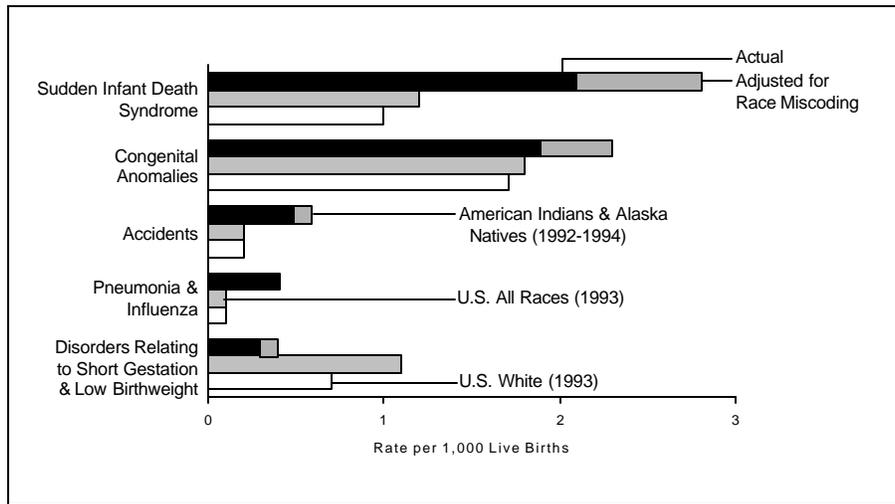


Chart 3.11

Leading Causes of Neonatal Deaths (Under 28 Days)

The two leading causes of neonatal deaths for American Indians and Alaska Natives (1992-1994) and the U.S. All Races and White populations (1993) were congenital anomalies and disorders related to short gestation and low birthweight.

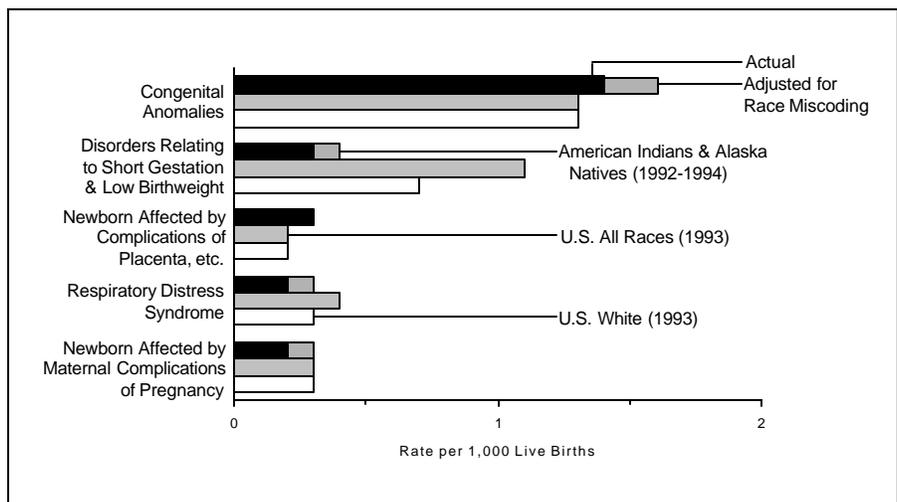
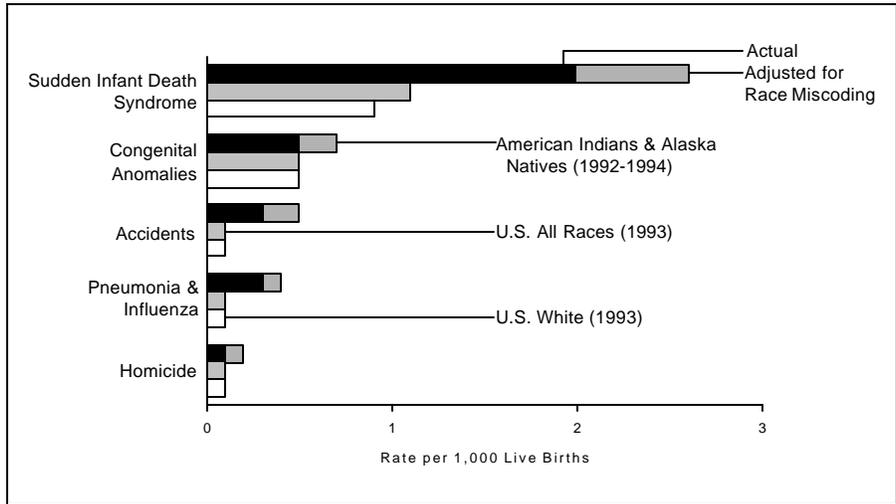


Chart 3.12

Leading Causes of Postneonatal Deaths (28 Days to Under 1 Year)

The two leading causes of postneonatal deaths for American Indians and Alaska Natives (1992-1994) and the U.S. All Races and White populations (1993) were sudden infant death syndrome (SIDS) and congenital anomalies.



1997 Trends in Indian Health

Table 3.10

Leading Causes of Infant Deaths by Age

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 1,000 Live Births)

Cause of Death	American Indian and Alaska Native Number		Rate		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:	
	Actual	Adj ¹	Actual	Adj ¹			U.S. All Races	U.S. White
Total Infant Deaths								
All Causes	872	1,096	8.7	10.9	8.4	6.8	1.3	1.6
Sudden infant death syndrome	210	277	2.1	2.8	1.2	1.0	2.3	2.8
Congenital anomalies	193	229	1.9	2.3	1.8	1.7	1.3	1.4
Accidents	49	58	0.5	0.6	0.2	0.2	3.0	3.0
Pneumonia and influenza	37	44	0.4	0.4	0.1	0.1	4.0	4.0
Disorders relating to short gestation and low birthweight	31	38	0.3	0.4	1.1	0.7	0.4	0.6
Respiratory distress syndrome	27	36	0.3	0.4	0.5	0.3	0.8	1.3
Newborn affected by complications of placenta, cord, and membranes	26	33	0.3	0.3	0.2	0.2	1.5	1.5
Newborn affected by maternal complications of pregnancy	17	27	0.2	0.3	0.3	0.3	1.0	1.0
Intrauterine hypoxia and birth asphyxia	15	17	0.1	0.2	0.1	0.1	2.0	2.0
Homicide	15	16	0.1	0.2	0.1	0.1	2.0	2.0
All other causes	252	321						
Neonatal Deaths								
All Causes	409	517	4.1	5.2	5.3	4.3	1.0	1.2
Congenital anomalies	138	163	1.4	1.6	1.3	1.3	1.2	1.2
Disorders relating to short gestation and low birthweight	30	37	0.3	0.4	1.1	0.7	0.4	0.6
Newborn affected by complications of placenta, cord, and membranes	26	33	0.3	0.3	0.2	0.2	1.5	1.5
Respiratory distress syndrome	23	30	0.2	0.3	0.4	0.3	0.8	1.0
Newborn affected by maternal complications of pregnancy	16	26	0.2	0.3	0.3	0.3	1.0	1.0
Sudden infant death syndrome	14	18	0.1	0.2	0.1	0.1	2.0	2.0
Intrauterine hypoxia and birth asphyxia	14	16	0.1	0.2	0.1	0.1	2.0	2.0
Infections specific to the perinatal period	14	15	0.1	0.2	0.2	0.1	1.0	2.0
Newborn affected by maternal conditions which may be unrelated to present pregnancy	7	8	0.1	0.1	0.0	0.0	*	*
Pneumonia and influenza	6	7	0.1	0.1	0.0	0.0	*	*
All other causes	121	164						
Postneonatal Deaths								
All Causes	463	579	4.6	5.8	3.1	2.5	1.9	2.3
Sudden infant death syndrome	196	259	2.0	2.6	1.1	0.9	2.4	2.9
Congenital anomalies	55	66	0.5	0.7	0.5	0.5	1.4	1.4
Accidents	26	54	0.3	0.5	0.1	0.1	5.0	5.0
Pneumonia and influenza	31	37	0.3	0.4	0.1	0.1	4.0	4.0
Homicide	14	15	0.1	0.2	0.1	0.1	2.0	2.0
Septicemia	5	6	0.0	0.1	0.1	0.0	1.0	1.0
Bronchitis and bronchiolitis	5	6	0.0	0.1	0.0	0.0	*	*
Respiratory distress syndrome	4	6	0.0	0.1	0.0	0.0	*	*
Viral diseases	4	5	0.0	0.1	0.0	0.0	*	*
Gastritis and duodenitis	3	5	0.0	0.1	0.0	0.0	*	*
All other causes	120	120						

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE 0.0 Rounds to zero. * Not applicable. Causes of death are listed based upon the order of adjusted number of deaths.

SOURCE: National Center for Health Statistics (NCHS), U.S. infant mortality rates (all ages)—Monthly Vital Statistics Report, Advance Report of Final Mortality Statistics, 1993, Vol. 44 No. 7, Supplement, February 29, 1996, Table 28; and Infant mortality rates by age and race, 1993, unpublished, from NCHS.

Part 4 — General Mortality Statistics

Chart 4.1

*Death Rates,
Leading Causes:
Ages 1 to 4 Years*

The two leading causes of death for American Indians and Alaska Natives, ages 1 to 4 (1992-1994), were accidents and congenital anomalies. For the U.S. All Races and White populations (1993), they were also accidents and congenital anomalies.

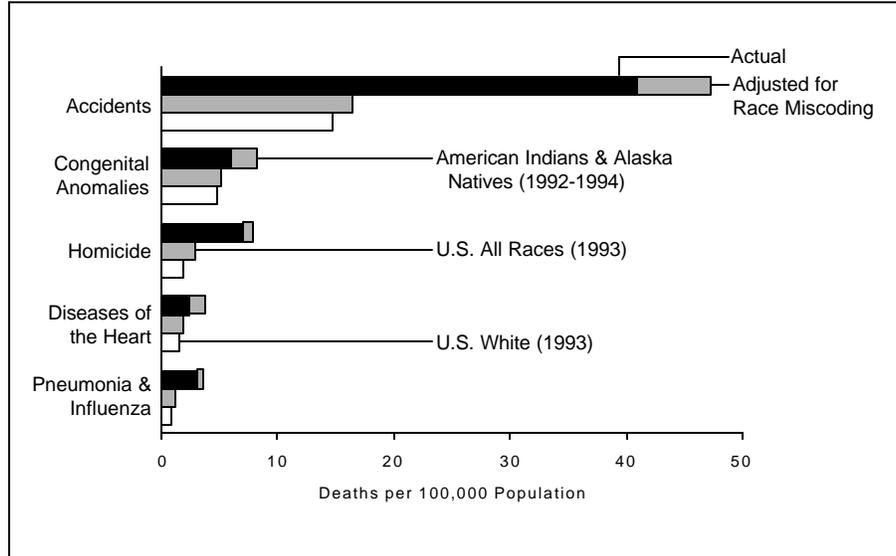


Table 4.1

Ten Leading Causes of Death for Decedents 1 to 4 Years of Age

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Cause of Death	American Indian & Alaska Native Number		American Indian & Alaska Native Rate		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to: U.S.	
	Actual	Adj ¹	Actual	Adj ¹			All Races	White
All Causes	304	357	82.5	96.8	44.8	38.3	2.2	2.5
Accidents	151	176	41.0	47.7	16.4	14.6	2.9	3.3
Motor vehicle	69	76	18.7	20.6	5.6	5.1	3.7	4.0
Other accidents	82	100	22.2	27.1	10.8	9.5	2.5	2.9
Congenital anomalies	22	31	6.0	8.4	5.1	4.8	1.6	1.8
Homicide and legal intervention	26	29	7.1	7.9	2.9	1.8	2.7	4.4
Diseases of the heart	9	14	2.4	3.8	1.9	1.5	2.0	2.5
Pneumonia and influenza	11	13	3.0	3.5	1.2	0.9	2.9	3.9
Malignant neoplasms	10	10	2.7	2.7	3.3	3.4	0.8	0.8
Chronic obstructive pulmonary diseases and allied conditions	4	5	1.1	1.4	0.3	0.2	4.7	7.0
Meningitis	4	4	1.0	1.1	0.2	0.2	5.5	5.5
Certain conditions originating in the perinatal period	2	3	0.5	0.8	0.6	0.5	1.3	1.6
Benign neoplasms	2	2	0.5	0.5	0.5	0.5	1.0	1.0
All other causes	63	70						

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE Causes of death are listed based upon the order of adjusted number of deaths.

Part 4—General Mortality Statistics

Chart 4.2

*Death Rates,
Leading Causes:
Ages 5 to 14 Years*

The two leading causes of death for American Indians and Alaska Natives, ages 5 to 14 (1992-1994), were accidents and malignant neoplasms. For the U.S. All Races and White populations (1993), they were also accidents and malignant neoplasms.

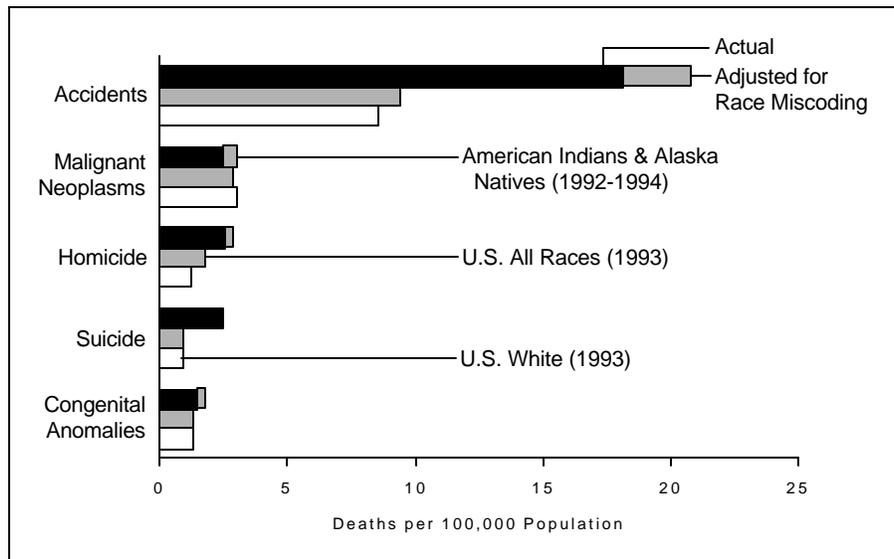


Table 4.2

Ten Leading Causes of Death for Decedents 5 to 14 Years of Age

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Cause of Death	American Indian & Alaska Native Number		American Indian & Alaska Native Rate		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to: U.S.	
	Actual	Adj ¹	Actual	Adj ¹			All Races	White
All Causes	298	331	35.4	39.3	23.4	21.4	1.7	1.8
Accidents	152	175	18.1	20.8	9.4	8.6	2.2	2.4
Motor vehicle	74	88	8.8	10.5	5.3	5.1	2.0	2.1
Other accidents	78	87	9.3	10.3	4.1	3.5	2.5	2.9
Malignant neoplasms	21	26	2.5	3.1	2.9	3.0	1.1	1.0
Homicide and legal intervention	22	24	2.6	2.9	1.8	1.2	1.6	2.4
Suicide	21	21	2.5	2.5	0.9	0.9	2.8	2.8
Congenital anomalies	13	14	1.5	1.7	1.3	1.3	1.3	1.3
Diseases of the heart	8	9	1.0	1.1	0.8	0.7	1.4	1.6
Pneumonia and influenza	6	6	0.7	0.7	0.4	0.4	1.8	1.8
Septicemia	5	5	0.6	0.6	0.2	0.1	3.0	6.0
Meningitis	4	5	0.5	0.6	0.1	0.1	6.0	6.0
Viral hepatitis	2	2	0.2	0.2	0.0	0.0	NA	NA
All other causes	44	44						

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE 0.0 Rounds to zero. NA—Not applicable. Causes of death are listed based upon the order of adjusted number of deaths.

1997 Trends in Indian Health

Chart 4.3

*Death Rates,
Leading Causes:
Ages 15 to 24 Years*

The two leading causes of death for American Indians and Alaska Natives, ages 15 to 24 years (1992-1994), and U.S. Whites (1993) were accidents and suicide. For the U.S. All Races (1993), they were accidents and homicide.

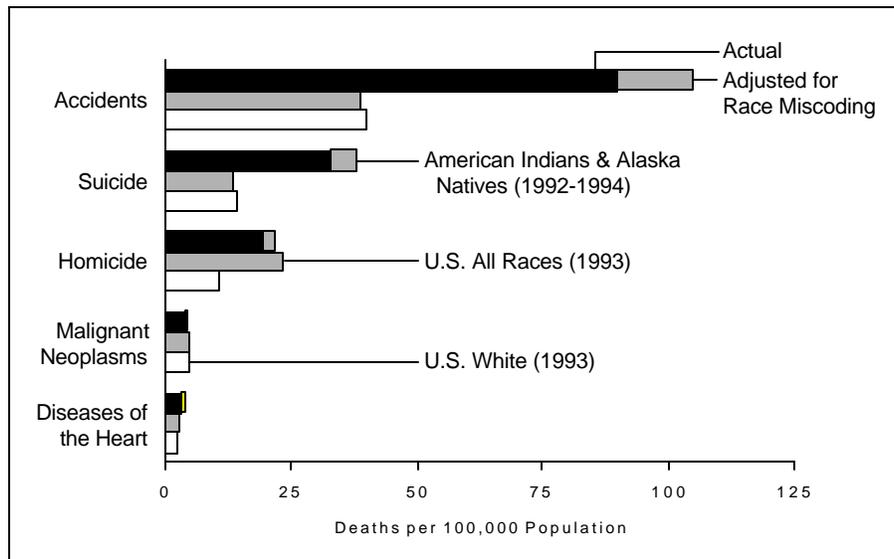


Table 4.3

Ten Leading Causes of Death for Decedents 15 to 24 Years of Age

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Cause of Death	American Indian & Alaska Native Number		American Indian & Alaska Native Rate		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:	
	Actual	Adj ¹	Actual	Adj ¹			U.S. All Races	U.S. White
All Causes	1,180	1,406	170.3	202.9	98.5	84.7	2.1	2.4
Accidents	621	767	89.6	110.1	38.8	40.0	2.8	2.8
Motor vehicle	457	574	66.0	82.9	29.1	30.8	2.8	2.7
Other accidents	164	193	23.7	27.9	9.6	9.2	2.9	3.0
Suicide	228	257	32.9	37.1	13.5	14.0	2.7	2.7
Homicide and legal intervention	135	155	19.5	22.4	23.4	10.8	1.0	1.8
Malignant neoplasms	26	29	3.8	4.2	4.8	4.7	0.9	0.9
Diseases of the heart	22	27	3.2	3.9	2.7	2.2	1.4	1.8
Cerebrovascular diseases	7	8	1.0	1.2	0.6	0.5	2.0	2.4
Pneumonia and influenza	7	7	1.0	1.0	0.7	0.6	1.4	1.7
Human immunodeficiency virus (HIV) infection	5	6	0.7	0.9	1.7	1.0	0.5	0.9
Complications of pregnancy, childbirth, and the puerperium	4	5	0.6	0.7	0.2	0.1	3.5	7.0
Chronic liver disease and cirrhosis	4	4	0.6	0.6	0.1	0.1	6.0	6.0
Congenital anomalies	4	4	0.6	0.6	1.3	1.3	0.5	0.5
All other causes	117	137						

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE Causes of death are listed based upon the order of adjusted number of deaths.

Chart 4.4

*Death Rates,
Leading Causes:
Ages 25 to 44 Years*

The two leading causes of death for American Indians and Alaska Natives, ages 25 to 44 years (1992-1994), were accidents and chronic liver disease and cirrhosis. For the U.S. All Races population (1993), they were accidents and human immunodeficiency virus (HIV) infection, while for the U.S. White population (1993) they were accidents and malignant neoplasms. HIV infection was seventh for Indians and third for Whites.

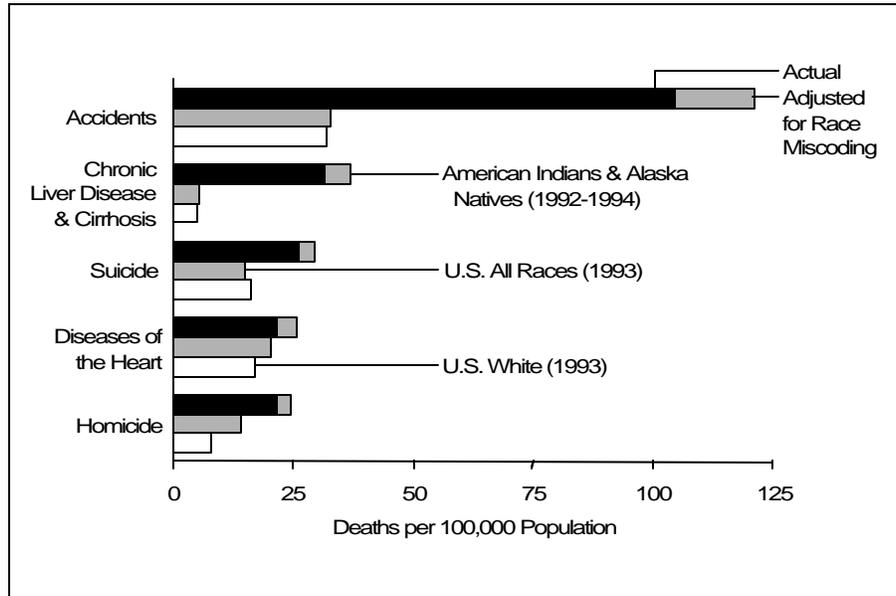


Table 4.4

Ten Leading Causes of Death for Decedents 25 to 44 Years of Age

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Cause of Death	American Indian & Alaska Native		U.S. All Races		U.S. White		Ratio of American Indian and Alaska Native to:	
	Actual	Adj ¹	Actual	Adj ¹	Rate	Rate	U.S. All Races	U.S. White
All Causes	3,535	4,032	306.0	353.1	188.3	161.8	1.9	2.2
Accidents	1,210	1,406	104.8	121.7	33.0	32.1	3.7	3.8
Motor vehicle	694	823	60.1	71.3	17.3	17.2	4.1	4.1
Other accidents	516	583	44.7	50.5	15.7	14.8	3.2	3.4
Chronic liver disease and cirrhosis	364	416	31.5	36.0	5.4	4.9	6.7	7.3
Suicide	305	340	26.4	29.4	15.1	16.1	1.9	1.8
Diseases of the heart	248	295	21.5	25.5	20.2	17.1	1.3	1.5
Homicide and legal intervention	248	281	21.5	24.3	14.3	8.2	1.7	3.0
Malignant neoplasms	201	242	17.4	21.0	26.4	25.2	0.8	0.8
Human immunodeficiency virus (HIV) infection	95	113	8.2	9.8	32.9	25.1	0.3	0.4
Pneumonia and influenza	80	86	6.9	7.4	2.8	2.2	2.6	3.4
Cerebrovascular diseases	56	63	4.8	5.5	4.0	3.1	1.4	1.8
Diabetes mellitus	41	47	3.6	4.1	2.8	2.4	1.5	1.7
All other causes	687	743						

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE Causes of death are listed based upon the order of adjusted number of deaths.

1997 Trends in Indian Health

Chart 4.5

*Death Rates,
Leading Causes:
Ages 45 to 54 Years*

The two leading causes of death for American Indians and Alaska Natives, ages 45 to 54 years (1992-1994), were diseases of the heart and malignant neoplasms. This ranking was in reverse order for the U.S. All Races and White populations (1993).

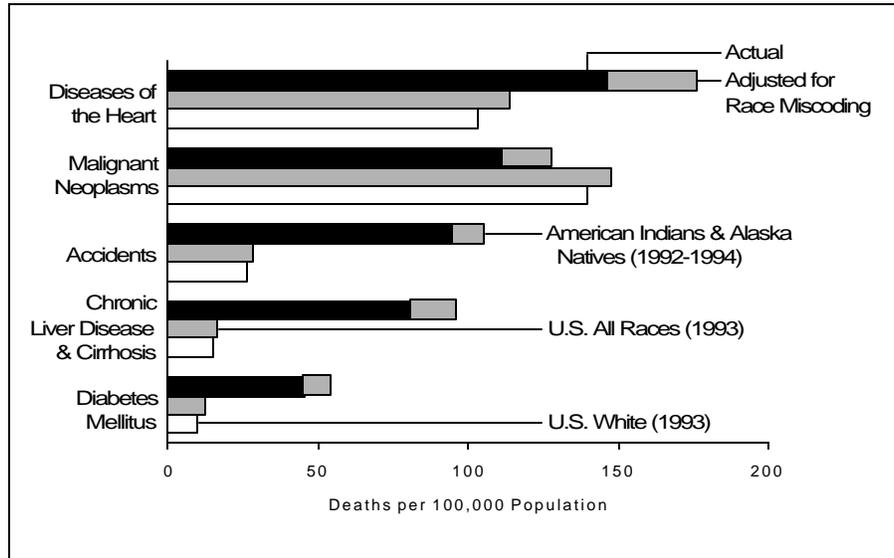


Table 4.5

Ten Leading Causes of Death for Decedents 45 to 54 Years of Age

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Cause of Death	American Indian & Alaska Native		U.S. All Races		U.S. White		Ratio of American Indian and Alaska Native to:	
	Actual	Adj ¹	Actual	Adj ¹	All Races Rate	White Rate	U.S. All Races	U.S. White
All Causes	2,148	2,471	696.3	801.1	460.0	413.8	1.7	1.9
Diseases of the heart	451	539	146.2	174.7	114.0	102.9	1.5	1.7
Malignant neoplasms	343	394	111.2	127.7	147.9	139.6	0.9	0.9
Accidents	292	323	94.7	104.7	28.0	26.3	3.7	4.0
Motor vehicle	145	162	47.0	52.5	13.3	12.8	3.9	4.1
Other accidents	147	161	47.7	52.2	14.7	13.4	3.6	3.9
Chronic liver disease and cirrhosis	250	295	81.0	95.6	16.4	15.2	5.8	6.3
Diabetes mellitus	140	166	45.4	53.8	12.0	10.0	4.5	5.4
Cerebrovascular diseases	46	50	14.9	16.2	17.6	13.7	0.9	1.2
Suicide	45	48	14.6	15.6	14.5	15.7	1.1	1.0
Pneumonia and influenza	36	39	11.7	12.6	6.6	5.5	1.9	2.3
Homicide and legal intervention	34	38	11.0	12.3	7.2	5.1	1.7	2.4
Chronic obstructive pulmonary diseases and allied conditions	27	29	8.8	9.4	8.7	8.3	1.1	1.1
All other causes	484	550						

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE Causes of death are listed based upon the order of adjusted number of deaths.

Part 4—General Mortality Statistics

Chart 4.6

*Death Rates,
Leading Causes:
Ages 55 to 64 Years*

The two leading causes of death for American Indians and Alaska Natives, ages 55 to 64 years (1992-1994), were diseases of the heart and malignant neoplasms. This ranking was in reverse order for the U.S. All Races and White populations (1993).

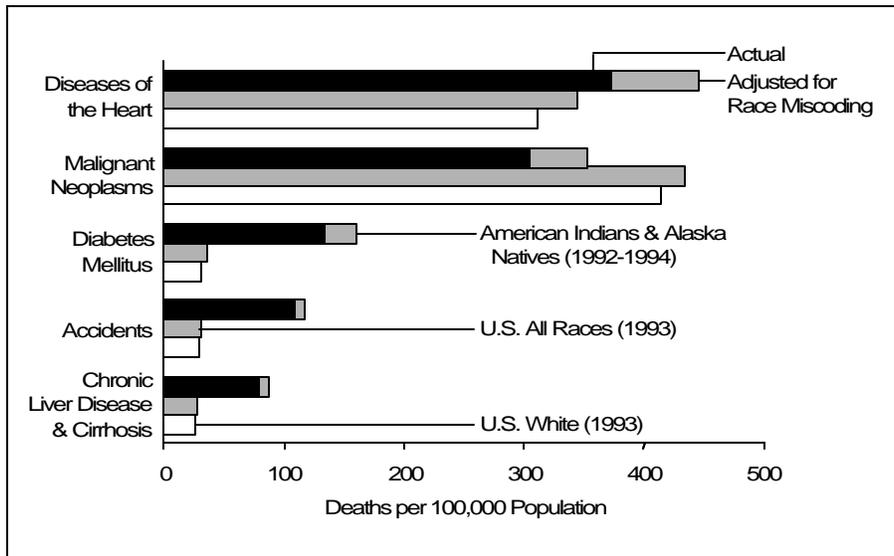


Table 4.6

Ten Leading Causes of Death for Decedents 55 to 64 Years of Age

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Cause of Death	American Indian & Alaska Native		U.S. All Races		U.S. White		Ratio of American Indian and Alaska Native to:	
	Actual Number	Adj ¹	Actual Rate	Adj ¹	All Races Rate	White Rate	U.S. All Races	U.S. White
All Causes	2,995	3,450	1,409.3	1,623.4	1,154.7	1,069.4	1.4	1.5
Diseases of the heart	793	945	373.1	444.7	344.3	311.7	1.3	1.4
Malignant neoplasms	649	757	305.4	356.2	433.4	414.1	0.8	0.9
Diabetes mellitus	284	339	133.6	159.5	35.7	31.7	4.5	5.0
Accidents	231	244	108.7	114.8	30.6	28.7	3.8	4.0
Motor vehicles	114	121	53.6	56.9	13.9	13.4	4.1	4.2
Other accidents	117	123	55.1	57.9	16.7	15.3	3.5	3.8
Chronic liver disease and cirrhosis	168	189	79.1	88.9	26.8	25.8	3.3	3.4
Cerebrovascular diseases	126	138	59.3	64.9	46.0	38.8	1.4	1.7
Chronic obstructive pulmonary diseases and allied conditions	73	83	34.4	39.1	51.0	50.8	0.8	0.8
Pneumonia and influenza	70	76	32.9	35.8	17.7	15.3	2.0	2.3
Nephritis, nephrotic syndrome, and nephrosis	45	47	21.2	22.1	8.9	6.2	2.5	3.6
Septicemia	29	34	13.6	16.0	7.7	6.8	2.1	2.4
All other causes	527	598						

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE Causes of death are listed based upon the order of adjusted number of deaths.

1997 Trends in Indian Health

Chart 4.7

*Death Rates,
Leading Causes:
Ages 65+ Years*

The two leading causes of death for American Indians and Alaska Natives, ages 65 and over (1992-1994), were diseases of the heart and malignant neoplasms. For the U.S. All Races and White populations (1993), they were also diseases of the heart and malignant neoplasms.

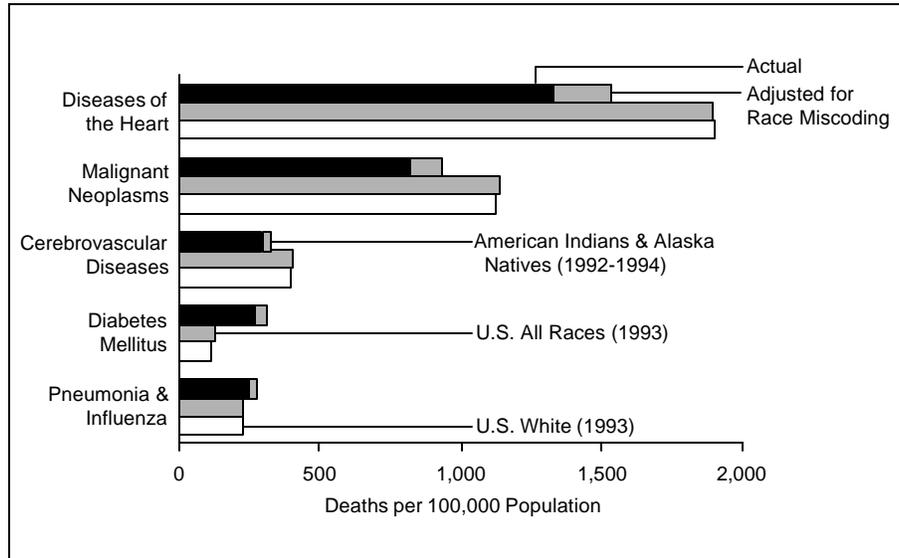


Table 4.7

Ten Leading Causes of Death for Decedents 65 Years of Age and Older

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Cause of Death	American Indian & Alaska Native Number		American Indian & Alaska Native Rate		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:	
	Actual	Adj ¹	Actual	Adj ¹			U.S. All Races	U.S. White
All Causes	9,543	10,709	4,269.2	4,790.8	5,047.7	5,036.6	0.9	1.0
Diseases of the heart	2,967	3,439	1,327.3	1,538.5	1,891.0	1,895.6	0.8	0.8
Malignant neoplasms	1,842	2,081	824.1	931.0	1,133.7	1,123.4	0.8	0.8
Cerebrovascular diseases	658	727	294.4	325.2	401.4	397.4	0.8	0.8
Diabetes mellitus	610	698	272.9	312.3	123.6	114.5	2.5	2.7
Pneumonia and influenza	556	592	248.7	264.8	225.3	228.4	1.2	1.2
Chronic obstructive pulmonary diseases and allied conditions	413	454	184.8	203.1	263.7	275.6	0.8	0.7
Accidents	298	316	133.3	141.4	84.8	84.7	1.7	1.7
Motor vehicle	94	97	42.1	43.4	22.3	22.3	1.9	1.9
Other accidents	204	219	91.3	98.0	62.4	62.3	1.6	1.6
Nephritis, nephrotic syndrome, and nephrosis	206	225	92.2	100.7	60.2	56.2	1.7	1.8
Chronic liver disease and cirrhosis	154	167	68.9	74.7	31.5	32.0	2.4	2.3
Septicemia	122	130	54.6	58.2	51.4	48.0	1.1	1.2
All other causes	1,717	1,880						

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE Causes of death are listed based upon the order of adjusted number of deaths.

Chart 4.8

Death Rates for Leading Causes, American Indians and Alaska Natives (1992-1994)

The two leading causes of death for American Indians and Alaska Natives (1992-1994) and the U.S. All Races and White populations (1993) were diseases of the heart and malignant neoplasms. This is a recent change for the Indian population; accidents had been the second leading cause of death.

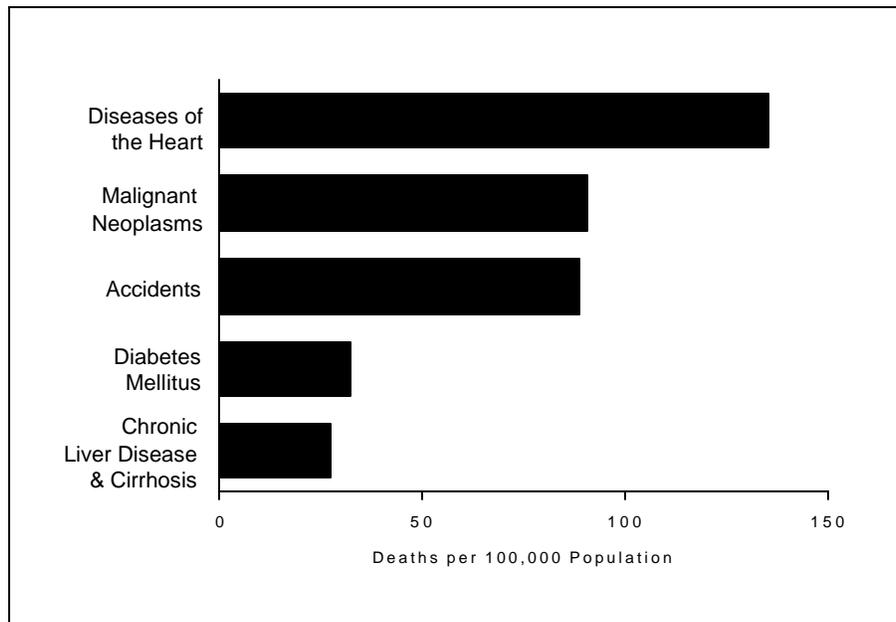


Table 4.8

Ten Leading Causes of Death for Decedents of All Ages

American Indians and Alaska Natives, IHS Service Area, 1992-1994 (Rate per 100,000 Population)

Cause of Death	Number		Rate	
	Actual	Adj ¹	Actual	Adj ¹
All Causes	20,893	23,917	534.9	612.4
Diseases of the heart	4,523	5,297	115.8	135.6
Malignant neoplasms	3,097	3,544	79.3	90.7
Accidents	3,006	3,467	77.0	88.8
Motor vehicle	1,658	1,954	42.5	50.0
Other accidents	1,348	1,513	34.5	38.7
Diabetes mellitus	1,077	1,252	27.6	32.1
Chronic liver disease and cirrhosis	940	1,071	24.1	27.4
Cerebrovascular diseases	898	992	23.0	25.4
Pneumonia and influenza	803	863	20.6	22.1
Suicide	639	708	16.4	18.1
Chronic obstructive pulmonary diseases	532	587	13.6	15.0
Homicide and legal intervention	512	576	13.1	14.7
All other causes	4,866	5,560		

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE Causes of death are listed based upon the order of adjusted number of deaths.



1997 Trends in Indian Health

Chart 4.9

*Death Rates,
Leading Causes: Males,
American Indians and
Alaska Natives (1992-1994)*

The two leading causes of death for Indian males (1992-1994) were diseases of the heart and accidents. For U.S. All Races and White males (1993), they were diseases of the heart and malignant neoplasms.

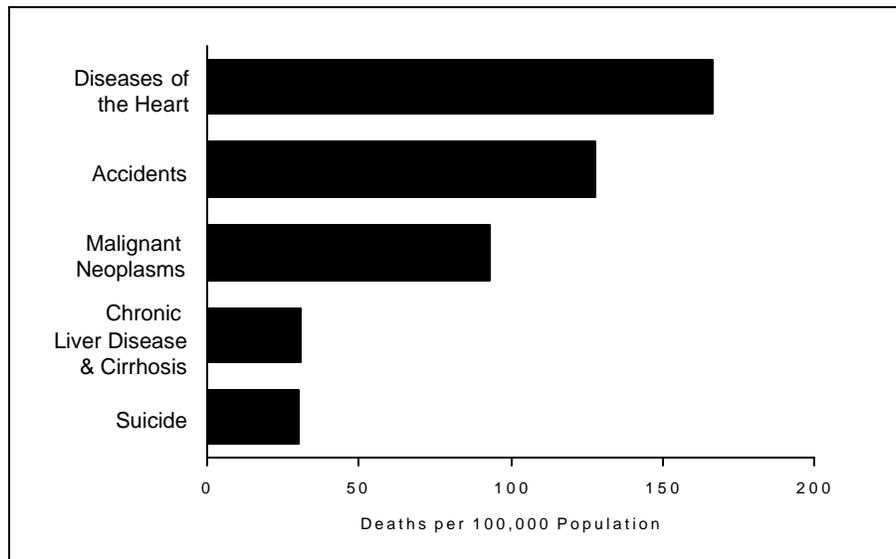
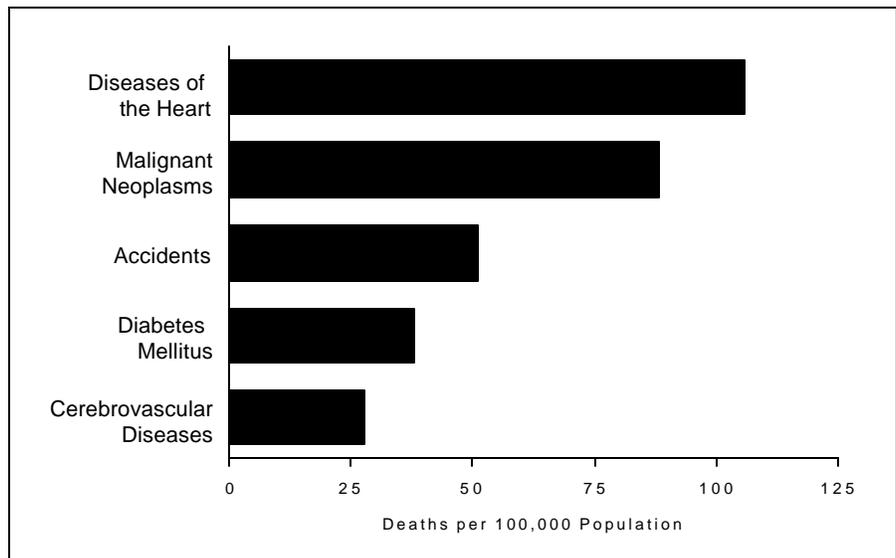


Chart 4.10

*Death Rates, Leading
Causes: Females,
American Indians and
Alaska Natives (1992-1994)*

The two leading causes of death for Indian females (1992-1994) were diseases of the heart and malignant neoplasms. The same was true for U.S. All Races and White females in 1993.



Part 4—General Mortality Statistics

Table 4.9

*Ten Leading Causes
of Death by Sex*

American Indians and
Alaska Natives, IHS
Service Area, 1992-1994
(Rate per 100,000 Population)

Cause of Death	Male			
	Number		Rate	
	Actual	A _{adj} ¹	Actual	A _{adj} ¹
All Causes	12,071	13,778	627.6	716.3
Diseases of the heart	2,684	3,196	139.5	166.2
Accidents	2,166	2,458	112.6	127.8
Motor vehicle	1,122	1,290	58.3	67.1
Other accidents	1,044	1,168	54.3	60.7
Malignant neoplasms	1,578	1,792	82.0	93.2
Chronic liver disease and cirrhosis	530	595	27.6	30.9
Suicide	526	576	27.3	29.9
Diabetes mellitus	441	501	22.9	26.0
Pneumonia and influenza	436	474	22.7	24.6
Homicide and legal intervention	402	449	20.9	23.3
Cerebrovascular diseases	409	448	21.3	23.3
Chronic obstructive pulmonary diseases and allied conditions	288	314	15.0	16.3
All other causes	2,611	2,975		
Cause of Death	Female			
	Number		Rate	
	Actual	A _{adj} ¹	Actual	A _{adj} ¹
All Causes	8,822	10,139	445.0	511.5
Diseases of the heart	1,839	2,101	92.8	106.0
Malignant neoplasms	1,519	1,752	76.6	88.4
Accidents	840	1,009	42.4	50.9
Motor vehicle	536	664	27.0	33.5
Other accidents	304	345	15.3	17.4
Diabetes mellitus	636	751	32.1	37.9
Cerebrovascular diseases	489	544	24.7	27.4
Chronic liver disease and cirrhosis	410	476	20.7	24.0
Pneumonia and influenza	367	389	18.5	19.6
Chronic obstructive pulmonary diseases and allied conditions	244	273	12.3	13.8
Congenital anomalies	143	164	7.2	8.3
Nephritis, nephrotic syndrome, and nephrosis	149	161	7.5	8.1
All other causes	2,186	2,519		

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE Causes of death are listed based upon the order of adjusted number of deaths.

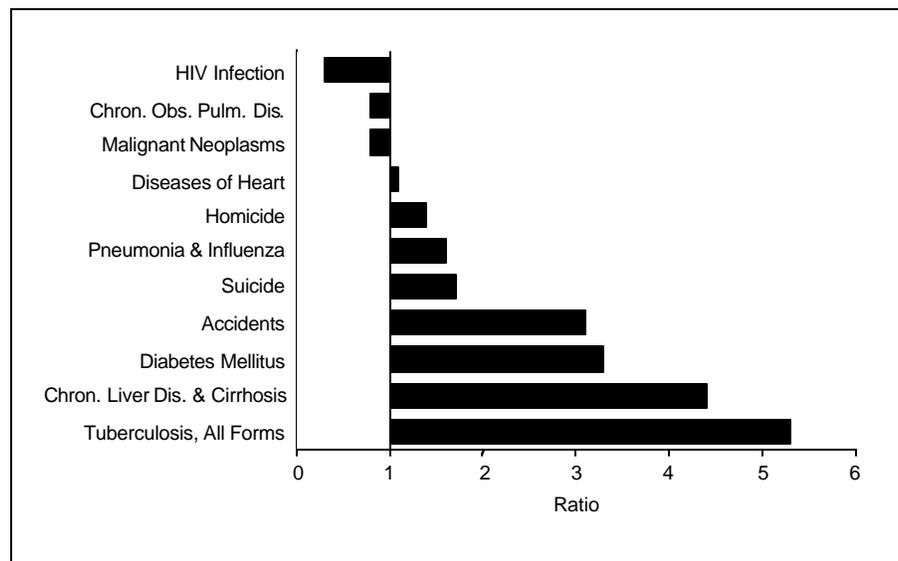


1997 Trends in Indian Health

Chart 4.11

*Selected Age-Adjusted
Death Rates:
Ratio of Indians (1992-94)
to U.S. All Races (1993)*

The American Indian and Alaska Native age-adjusted death rates for 1992-1994 were more than triple those of the U.S. All Races (1993) for tuberculosis (5.3 times), chronic liver disease and cirrhosis (4.4 times), and accidents (3.1 times). Indian rates were below those of the U.S. All Races for HIV infection (.3 times), chronic obstructive pulmonary diseases (.8 times), and malignant neoplasms (.8 times). These Indian rates have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.11

Age-Adjusted Death Rates

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Cause of Death	American Indian and Alaska Native		U.S. All Races	U.S. White	Ratio of American Indian and Alaska Native to:	
	Actual	Adj ¹			U.S. All Races	U.S. White
All Causes	601.3	690.4	513.3	485.1	1.3	1.4
Major cardiovascular diseases	167.0	194.6	181.8	173.9	1.1	1.1
Diseases of the heart	133.4	157.6	145.3	139.9	1.1	1.1
Cerebrovascular diseases	25.1	27.8	26.5	24.5	1.0	1.1
Atherosclerosis	2.2	2.3	2.4	2.4	1.0	1.0
Hypertension	1.8	1.8	2.2	1.7	0.8	1.1
Accidents	82.3	94.5	30.3	29.6	3.1	3.2
Motor vehicle	45.5	53.3	16.0	16.1	3.3	3.3
All other	36.9	41.2	14.4	13.5	2.9	3.1
Malignant neoplasms	97.5	112.2	132.6	129.4	0.8	0.9
Chronic liver disease and cirrhosis	30.7	35.0	7.9	7.6	4.4	4.6
Diabetes mellitus	35.1	41.1	12.4	11.0	3.3	3.7
Pneumonia and influenza	20.1	21.7	13.5	12.9	1.6	1.7
Suicide	17.3	19.2	11.3	12.0	1.7	1.6
Homicide	13.4	15.1	10.7	6.0	1.4	2.5
Chronic obstructive pulmonary diseases and allied conditions	15.7	17.4	21.4	21.9	0.8	0.8
Tuberculosis, all forms	2.3	2.3	0.4	0.3	5.3	7.0
Human immunodeficiency virus (HIV) infection	3.3	3.9	13.8	10.5	0.3	0.4

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

SOURCE: U.S. Mortality Rates: Monthly Vital Statistics Report, NCHS, DHHS, Advance Report of Final Mortality Statistics, 1993, Vol. 44, No. 7, Supplement, February 29, 1996, Tables 9 and 22.



1997 Trends in Indian Health

Chart 4.12

Age-Specific Death Rates: Ratio of American Indians and Alaska Natives (1992-1994) to U.S. All Races (1993)

The age-specific death rate for American Indians and Alaska Natives (1992-1994) was more than double the U.S. All Races rate (1993) for age groups 1 to 4 and 15 through 34. The Indian rate was less than the U.S. All Races rate for only one age group, 85 years and older. These Indian rates have been adjusted for miscoding of Indian race on death certificates.

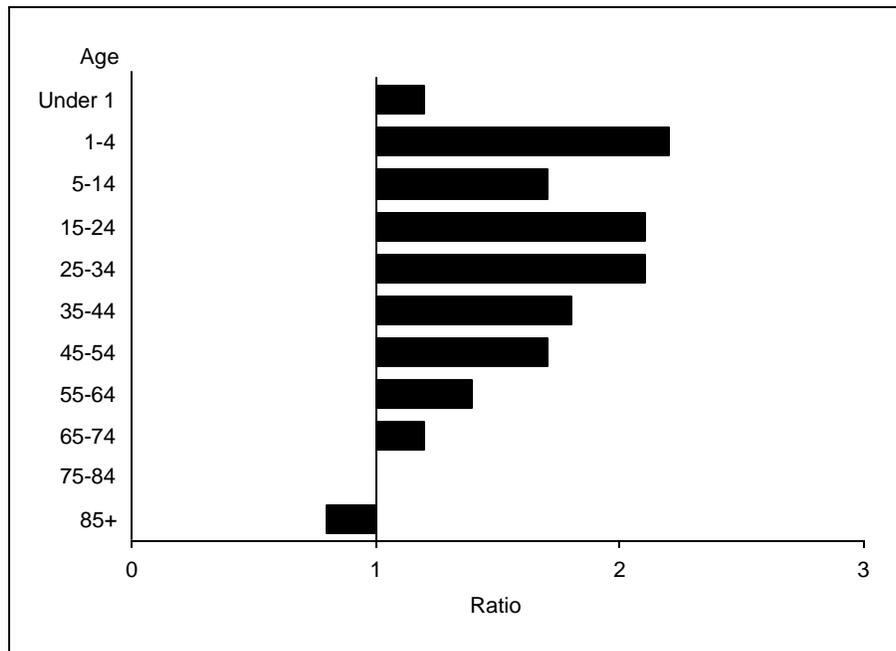
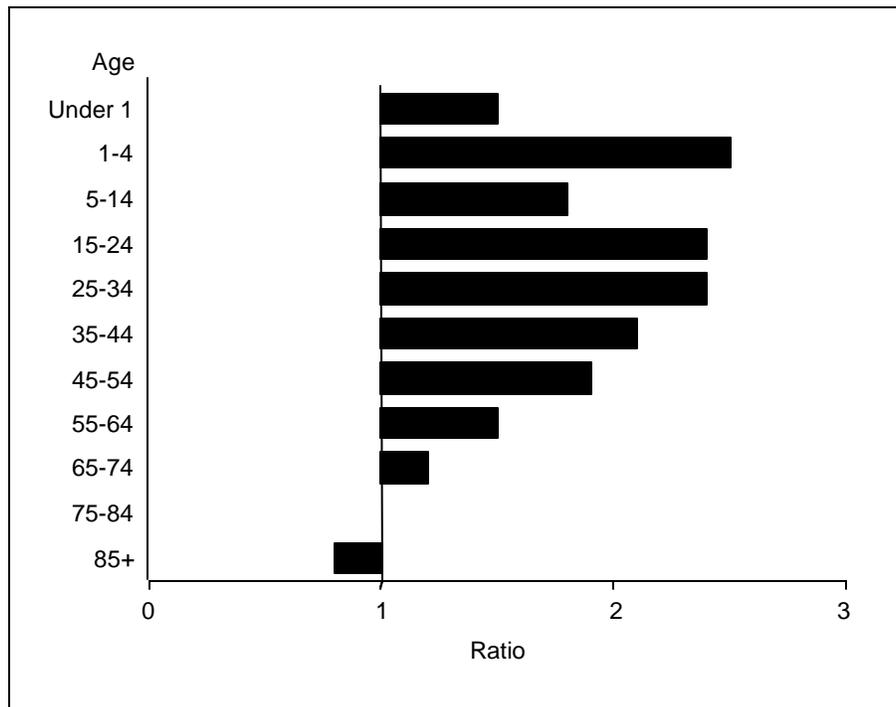


Chart 4.13

Age-Specific Death Rates: Ratio of American Indians and Alaska Natives (1992-1994) to U.S. White (1993)

The age-specific death rate for American Indians and Alaska Natives (1992-1994) was more than double the U.S. White rate (1993) for age groups 1 to 4 and 15 through 44. The Indian rate was less than the U.S. White rate for only one age group, 85 years and older. These Indian rates have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.12

Age-Specific Death Rates

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and Selected U.S. Populations, 1993
(Rate per 100,000 Population)

Age Group	American Indian & Alaska Native Number		Rate		All Races	U.S. Rate		Ratio of American Indian and Alaska Native to:	
	Actual	Adj ¹	Actual	Adj ¹		White	Black	U.S. All Races	U.S. White
Under 1	872	1,096	848.2	1,066.1	854.4	697.3	1,735.6	1.2	1.5
1-4	304	357	82.5	96.8	44.8	38.3	79.1	2.2	2.5
5-14	298	331	35.4	39.3	23.4	21.4	35.0	1.7	1.8
15-24	1,180	1,406	170.3	202.9	98.5	84.7	181.2	2.1	2.4
25-34	1,681	1,951	254.6	295.5	142.4	122.2	290.0	2.1	2.4
35-44	1,854	2,128	374.7	430.1	235.5	202.2	489.3	1.8	2.1
45-54	2,148	2,471	696.3	801.1	460.0	413.8	919.4	1.7	1.9
55-64	2,995	3,450	1,409.3	1,623.5	1,154.7	1,090.9	1,867.1	1.4	1.5
65-74	3,799	4,363	2,749.1	3,157.2	2,617.1	2,546.7	3,659.0	1.2	1.2
75-84	3,511	4,022	5,266.2	6,032.6	5,951.6	5,899.1	7,010.8	1.0	1.0
85+	2,233	2,324	11,960.4	12,447.8	15,481.7	15,625.4	14,418.1	0.8	0.8

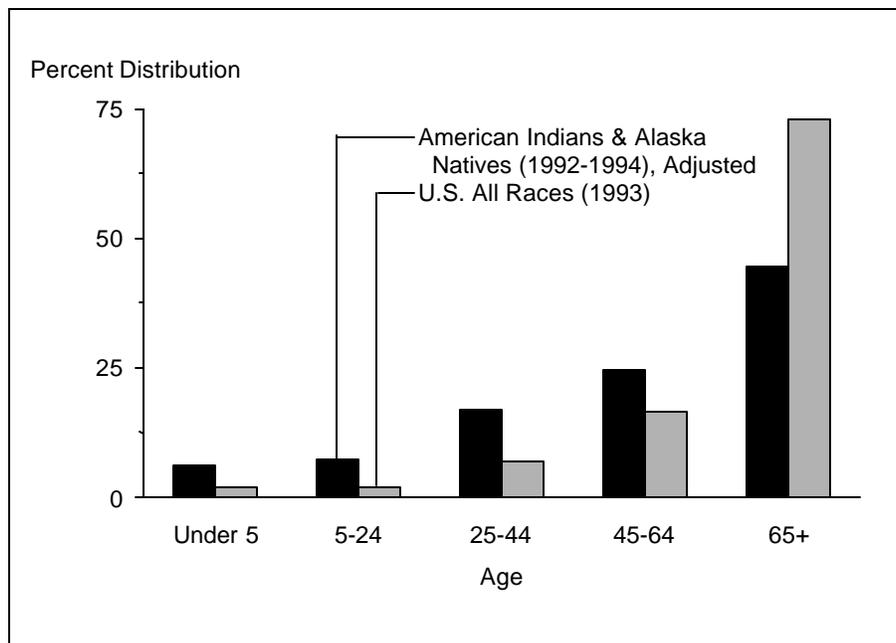
¹ Adjusted to compensate for miscoding of Indian race on death certificates.

SOURCE U.S. Data by Age: NCHS, DHHS, Advance Report of Final Mortality Statistics, 1993, Vol. 44, No. 7, Supplement, February 29, 1996, Tables 7 and 8.

Chart 4.14

Deaths by Age

Of all American Indian and Alaska Native people who died during 1992-1994, 30 percent were under 45 years of age. This Indian death count has been adjusted for miscoding of Indian race on death certificates. This compared to 11 percent for the U.S. All Races population (1993).





1997 Trends in Indian Health

Chart 4.15

Deaths by Age and Race

23 percent of Black decedents and 9 percent of White decedents in 1993 were under 45 years of age.

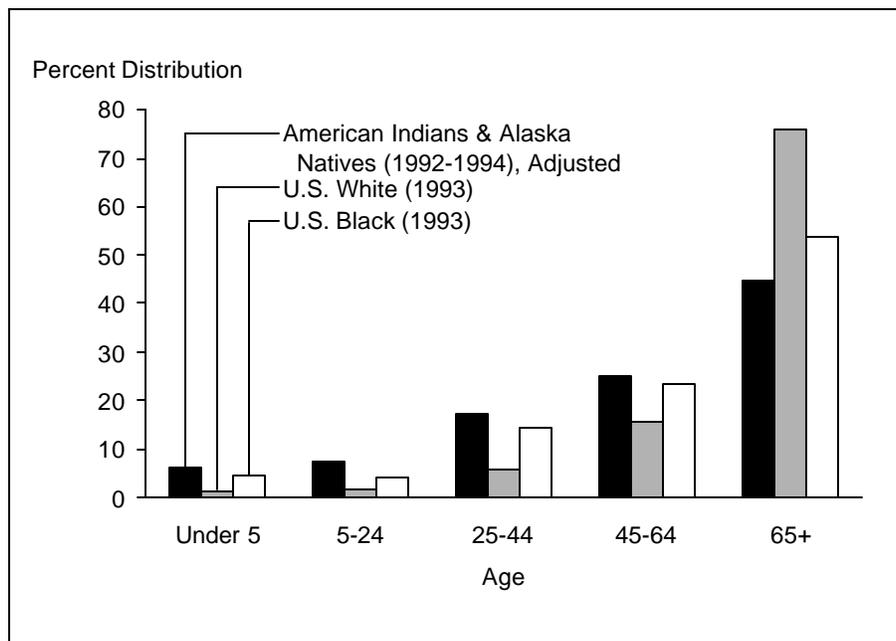
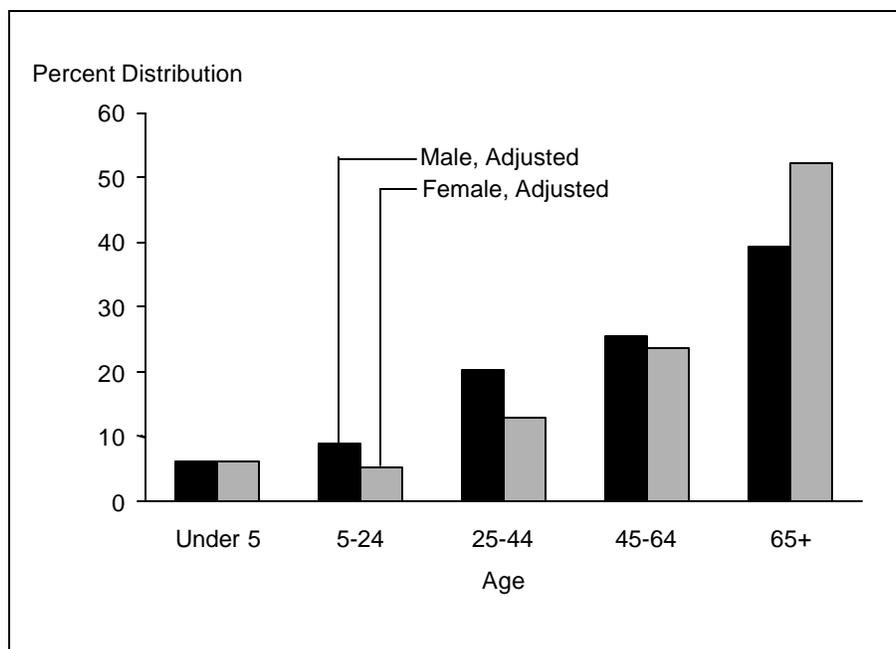


Chart 4.16

Deaths by Age and Sex: American Indians and Alaska Natives (1992-1994)

35 percent of Indian male deaths (1992-1994) pertained to ages under 45. This compared with 24 percent for Indian female deaths. These Indian death counts have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.14

Number and Percent Distribution of Deaths by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and Selected U.S. Populations, 1993

Age Group	Both Sexes				American Indian and Alaska Native Male				Female			
	Number Actual	Aq ¹	Percent Actual	Aq ¹	Number Actual	Aq ¹	Percent Actual	Aq ¹	Number Actual	Aq ¹	Percent Actual	Aq ¹
All Ages	20,893	23,917	100.0	100.0	12,071	13,778	100.0	100.0	8,822	10,139	100.0	100.0
Under 1	872	1,096	4.2	4.6	486	634	4.0	4.6	386	462	4.4	4.6
1 to 4	304	357	1.5	1.5	170	200	1.4	1.5	134	157	1.5	1.5
5 to 14	298	331	1.4	1.4	187	206	1.5	1.5	111	125	1.3	1.2
15 to 24	1,180	1,406	5.6	5.9	878	1,005	7.3	7.3	302	401	3.4	4.0
25 to 34	1,681	1,951	8.0	8.2	1,208	1,360	10.0	9.9	473	591	5.4	5.8
35 to 44	1,854	2,128	8.9	8.9	1,269	1,422	10.5	10.3	585	706	6.6	7.0
45 to 54	2,148	2,471	10.3	10.3	1,360	1,537	11.3	11.2	788	934	8.9	9.2
55 to 64	2,995	3,450	14.3	14.4	1,726	1,980	14.3	14.4	1,269	1,470	14.4	14.5
65 to 74	3,799	4,363	18.2	18.2	2,072	2,383	17.2	17.3	1,727	1,980	19.6	19.5
75 to 84	3,511	4,022	16.8	16.8	1,786	2,069	14.8	15.0	1,725	1,953	19.6	19.3
85 and over	2,233	2,324	10.7	9.7	916	969	7.6	7.0	1,317	1,355	14.9	13.4
Age Not Stated	18	18	0.1	0.1	13	13	0.1	0.1	5	5	0.1	0.1
Age Group	United States				United States				United States			
	All Races				White				Black			
Number of Deaths, All Ages	2,268,553				1,951,437				282,151			
Percent Distribution, All Ages	100.0				100.0				100.0			
Under 1	1.5				1.1				3.9			
1 to 4	0.3				0.2				0.7			
5 to 14	0.4				0.3				0.7			
15 to 24	1.6				1.3				3.4			
25 to 34	2.6				2.2				5.7			
35 to 44	4.2				3.5				8.8			
45 to 54	5.8				5.2				9.5			
55 to 64	10.6				10.2				13.7			
65 to 74	21.5				21.7				20.5			
75 to 84	28.1				29.4				19.9			
85 and over	23.3				24.9				13.1			
Age Not Stated	0.0				0.0				0.0			

¹Adjusted to compensate for miscoding of Indian race on death certificates.

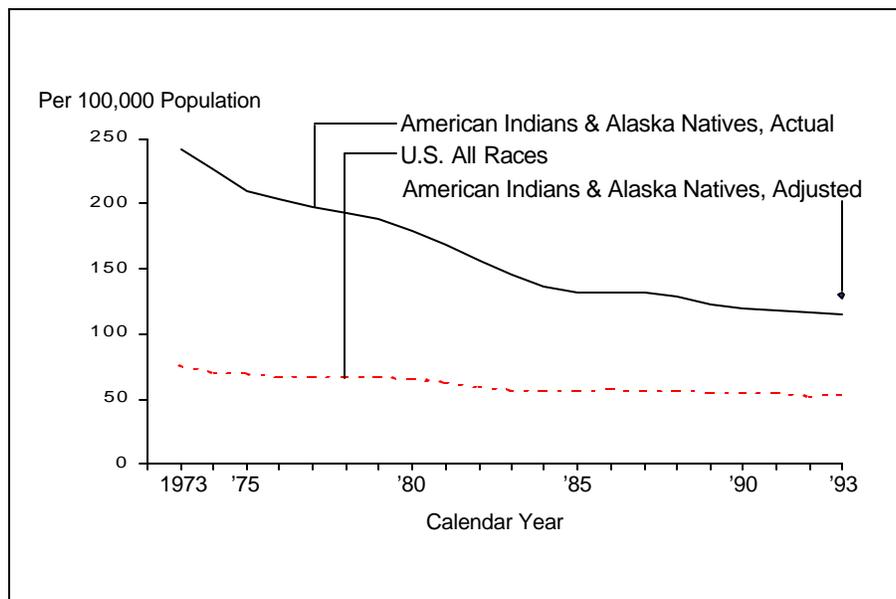
NOTE 0.0 Rounds to zero.

1997 Trends in Indian Health

Chart 4.17

Age-Adjusted Injury and Poisoning Deaths

The American Indian and Alaska Native age-adjusted death rate due to injury and poisoning (accidents, suicide, homicide, and other injuries) in 1992-1994 (115.3 deaths per 100,000 population) is less than half of what it was in 1972-1974 (241.7). When the 1992-1994 rate is adjusted for miscoding of Indian race on death certificates, it increases to 131.1. This is 2.4 times the U.S. All Races rate of 53.8 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/unadjusted trend line would rise in value, but the rate of change would probably remain the same.



Part 4—General Mortality Statistics

Table 4.17

Injury and Poisoning¹ Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:					
	Number	Rate			U.S. All Races	U.S. White				
(1994)	1,464	1,665 (adj)								
1992-1994 (1993)	1,403	1,609 (adj)	115.3	131.1 (adj)	53.8	48.9	2.1	2.4 (adj)	2.4	2.7 (adj)
1991-1993 (1992)	1,369	1,564 (adj)	116.3		52.4	48.0	2.2	2.4		
1990-1992 (1991)	1,397		117.6		54.5	49.8	2.2	2.4		
1989-1991 (1990)	1,349		120.3		55.1	50.8	2.2	2.4		
1988-1990 (1989)	1,367		123.6		55.6	50.9	2.2	2.4		
1987-1989 (1988)	1,391		128.7		56.7	52.7	2.3	2.4		
1986-1988 (1987)	1,390		132.4		56.2	52.8	2.4	2.5		
1985-1987 (1986)	1,375		132.5		57.4	54.1	2.3	2.4		
1984-1986 (1985)	1,275		132.5		55.8	53.0	2.4	2.5		
1983-1985 (1984)	1,254		136.1		56.3	53.7	2.4	2.5		
1982-1984 (1983)	1,280		146.9		56.6	53.6	2.6	2.7		
1981-1983 (1982)	1,351		156.6		59.2	55.9	2.6	2.8		
1980-1982 (1981)	1,344		168.3		63.2	59.5	2.7	2.8		
1979-1981 (1980)	1,418		179.2		66.1	61.9	2.7	2.9		
1978-1980 (1979)	1,472		188.4		66.4	62.1	2.8	3.0		
1977-1979 (1978)	1,383		193.3		66.7	62.6	2.9	3.1		
1976-1978 (1977)	1,346		197.6		67.3	62.8	2.9	3.1		
1975-1977 (1976)	1,321		203.4		66.2	63.8	3.1	3.2		
1974-1976 (1975)	1,283		210.4		69.5	63.8	3.0	3.3		
1973-1975 (1974)	1,229		227.3		70.8	64.6	3.2	3.5		
1972-1974 (1973)	1,381		241.7		76.1	69.4	3.2	3.5		
(1972)	1,241									
1954-1956 (1955)	2,273		200.3		69.2	51.9	2.9	3.9		

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

¹ Includes the following deaths and ICD-9 codes: 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, and Injury resulting from operations of war-E990-E999.

NOTE Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths for the Indian population and rates for U.S. populations are for the single year specified.

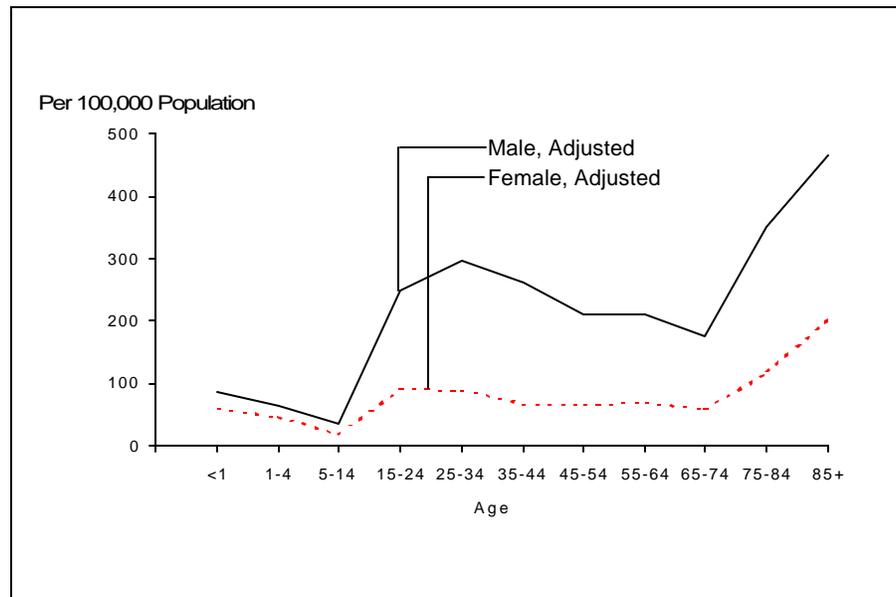


1997 Trends in Indian Health

Chart 4.18

Injury and Poisoning Death Rates by Age and Sex: American Indians and Alaska Natives (1992-1994)

The age-specific death rate due to injury and poisoning for Indian males (1992-1994) was higher for all age groups in comparison with Indian females. The Indian male rate was over 200 deaths per 100,000 population for all age groups except under 15 and 65 to 74 years. These Indian rates have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.18

Injury and Poisoning¹ Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Age Group	American Indian and Alaska Native					
	Both Sexes		Male		Female	
	Actual	Adj ¹	Actual	Adj ¹	Actual	Adj ¹
Under 1 year	64.2	73.9	75.1	88.6	53.1	59.0
1-4 years	48.6	56.1	56.6	65.6	40.3	46.3
5-14 years	23.5	26.5	30.4	33.7	16.4	19.1
15-24 years	144.0	172.9	217.4	250.5	67.7	92.2
25-34 years	166.0	191.6	262.7	297.7	73.5	90.1
35-44 years	142.3	162.1	232.1	262.6	58.3	68.1
45-54 years	124.2	136.5	196.6	212.9	57.8	66.5
55-64 years	128.5	135.5	200.5	212.6	65.9	69.5
65-74 years	105.7	110.7	166.9	176.7	57.1	58.4
75-84 years	193.5	211.5	316.7	350.3	110.5	118.0
85 years+	300.0	300.0	467.5	467.5	203.0	203.0

Age Group	U.S. All Races		
	Both Sexes	Male	Female
Under 1 year	33.3	36.7	29.8
1-4 years	19.7	22.9	16.3
5-14 years	12.2	15.5	8.7
15-24 years	77.2	121.8	30.8
25-34 years	68.4	107.8	29.0
35-44 years	61.5	95.9	27.8
45-54 years	51.5	68.7	22.6
55-64 years	51.1	76.9	27.9
65-74 years	64.6	95.3	40.3
75-84 years	126.5	188.9	88.1
85+ years	292.0	443.2	233.9

Age Group	U.S. White		
	Both Sexes	Male	Female
Under 1 year	26.9	29.4	24.2
1-4 years	16.6	19.6	13.4
5-14 years	10.8	13.9	7.6
15-24 years	66.4	101.8	29.2
25-34 years	61.1	95.6	25.9
35-44 years	56.5	86.6	26.1
45-54 years	48.7	72.8	25.3
55-64 years	49.5	73.4	27.5
65-74 years	63.1	92.5	39.5
75-84 years	126.7	188.5	87.7
85+ years	295.8	449.5	237.6

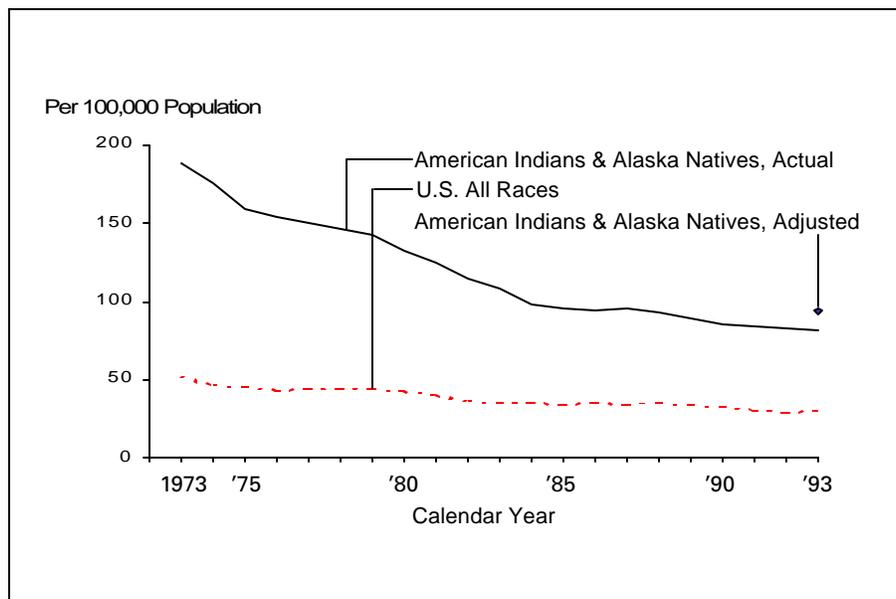
¹ Adjusted to compensate for miscoding of Indian race on death certificates.

1997 Trends in Indian Health

Chart 4.19

*Age-Adjusted Accident
Death Rates*

The age-adjusted accident death rate for American Indians and Alaska Natives has decreased over 56 percent since 1972-1974, 188.0 to 82.3. However, during the last 10 years the decline has slowed to about 16 percent. When the 1992-1994 rate is adjusted for miscoding of Indian race on death certificates, it increases to 94.5. This is more than triple the U.S. All Races rate of 30.3 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/unadjusted trend line would rise in value, but the rate of change would probably remain the same.



Part 4—General Mortality Statistics

Table 4.19

Accident Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		Motor Vehicle	U.S. All Races		U.S. White				
	Total Deaths	All Accidents		All Accidents	Motor Vehicle	All Accidents	Motor Vehicle			
(1994)	1,022	1,173 (adj)								
1992-1994 (1993)	1,007	1,168 (adj)	82.3	94.5 (adj)	45.5	53.3 (adj)	30.3	16.0	29.6	16.1
1991-1993 (1992)	977	1,126 (adj)	83.4		47.0		29.4	15.8	28.8	15.9
1990-1992 (1991)	988		84.3		47.5		31.0	17.0	30.3	17.2
1989-1991 (1990)	970		86.0		48.4		32.5	18.5	31.8	18.6
1988-1990 (1989)	969		89.1		49.6		33.8	18.9	32.9	19.1
1987-1989 (1988)	1,012		93.1		52.2		35.0	19.7	34.1	20.0
1986-1988 (1987)	1,000		95.4		54.3		34.6	19.5	33.9	19.8
1985-1987 (1986)	983		94.8		54.2		35.2	19.4	34.5	19.8
1984-1986 (1985)	912		95.6		53.0		34.7	18.8	34.1	19.1
1983-1985 (1984)	920		98.4		53.2		35.0	19.1	34.6	19.6
1982-1984 (1983)	905		107.8		57.0		35.3	18.5	34.7	19.0
1981-1983 (1982)	999		113.9		62.1		36.6	19.3	36.1	19.8
1980-1982 (1981)	972		124.5		69.4		39.8	21.8	39.3	22.5
1979-1981 (1980)	1,058		132.1		75.2		42.3	22.9	41.5	23.4
1978-1980 (1979)	1,095		142.4		80.4		43.7	23.7	42.9	24.3
1977-1979 (1978)	1,070		145.9		82.4		44.3	23.4	43.3	23.8
1976-1978 (1977)	1,004		149.7		85.0		43.8	22.4	42.5	22.5
1975-1977 (1976)	994		154.1		86.9		43.2	21.5	41.8	21.5
1974-1976 (1975)	999		159.7		87.8		44.8	21.3	43.1	21.2
1973-1975 (1974)	921		175.7		97.3		46.0	21.8	44.3	21.7
1972-1974 (1973)	1,089		188.0		104.8		51.7	26.4	49.5	26.0
(1972)	987									
1954-1956 (1955)	714		184.0		97.6		54.3	24.6	52.2	24.3

A q— specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates

NOTE Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths for the Indian population and rates for U.S. populations are for the single year specified.

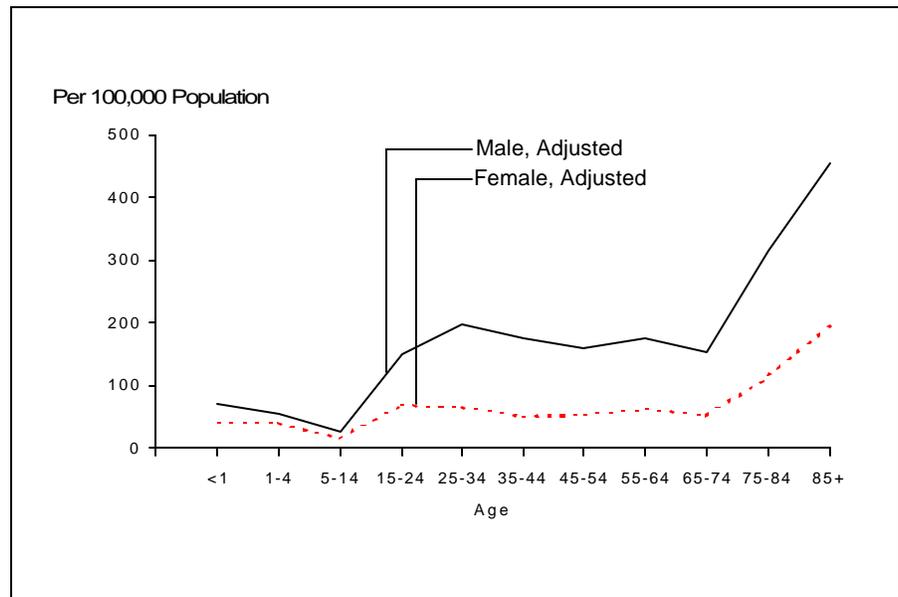


1997 Trends in Indian Health

Chart 4.20

Accident Death Rates by Age and Sex: American Indians and Alaska Natives (1992-1994)

The age-specific death rate for accidents for Indian males (1992-1994) was higher for all age groups in comparison with Indian females. The Indian male rate was 2.8 to 3.5 times the Indian female rate for age groups 25 through 84 years. These Indian rates have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.20

Accident Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Age Group	American Indian and Alaska Native					
	Both Sexes		Male		Female	
	Actual	Adj ¹	Actual	Adj ¹	Actual	Adj ¹
Under 1 year	47.7	56.4	57.8	71.3	37.3	41.3
1-4 years	41.0	47.7	48.0	56.0	33.7	39.2
5-14 years	18.1	20.8	22.4	25.5	13.5	15.9
15-24 years	89.6	110.7	127.4	150.0	50.4	69.8
25-34 years	110.7	130.1	171.6	197.3	52.5	65.8
35-44 years	96.8	110.6	154.7	175.6	42.6	49.7
45-54 years	94.7	104.7	146.4	160.0	47.2	54.0
55-64 years	108.7	114.8	166.0	176.2	58.9	61.5
65-74 years	91.9	96.2	144.0	152.2	50.6	51.9
75-84 years	175.5	193.5	279.5	313.0	105.5	113.0
85 years+	289.2	289.2	452.9	452.9	194.5	194.5

Age Group	U.S. All Races		
	Both Sexes	Male	Female
Under 1 year	22.9	25.1	20.6
1-4 years	16.4	19.1	13.6
5-14 years	9.4	11.8	6.7
15-24 years	38.8	57.6	19.1
25-34 years	33.5	51.9	15.0
35-44 years	32.5	50.5	14.9
45-54 years	28.0	36.9	12.7
55-64 years	30.6	43.9	18.6
65-74 years	43.6	59.0	31.4
75-84 years	99.5	133.5	78.6
85+ years	263.5	366.9	223.8

Age Group	U.S. White		
	Both Sexes	Male	Female
Under 1 year	19.4	21.1	17.6
1-4 years	14.6	17.1	11.9
5-14 years	8.6	11.0	6.0
15-24 years	40.0	58.9	20.1
25-34 years	33.3	51.7	14.6
35-44 years	30.8	47.4	14.1
45-54 years	26.3	38.8	14.0
55-64 years	29.0	40.8	18.0
65-74 years	42.0	56.0	30.7
75-84 years	99.2	131.9	78.5
85+ years	266.8	369.6	227.9

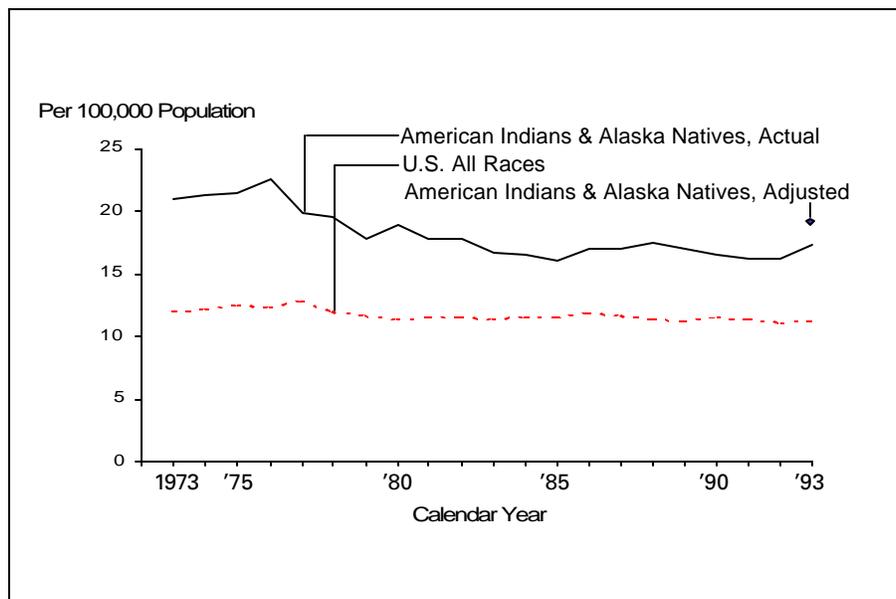
¹ Adjusted to compensate for miscoding of Indian race on death certificates.

1997 Trends in Indian Health

Chart 4.21

*Age-Adjusted Suicide
Death Rates*

The age-adjusted suicide death rate for American Indians and Alaska Natives decreased 29 percent from a high (22.5) in 1975-1977 to a low (16.0) in 1984-1986. Since then, it has increased 8.0 percent to 17.3 in 1992-1994. When the 1992-1994 rate is adjusted for miscoding of Indian race on death certificates, it increases to 19.2. This is 70 percent higher than the U.S. All Races rate of 11.3 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/unadjusted trend line would rise in value, but the rate of change would probably remain the same.



Part 4—General Mortality Statistics

Table 4.21

Suicide Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:					
	Number	Rate			U.S. All Races	U.S. White				
(1994)	242	263 (adj)								
1992-1994 (1993)	204	226 (adj)	17.3	19.2 (adj)	11.3	12.0	1.5	1.7 (adj)	1.4	1.6 (adj)
1991-1993 (1992)	193	219 (adj)	16.2		11.1	11.8	1.5		1.4	
1990-1992 (1991)	184		16.2		11.4	12.1	1.4		1.3	
1989-1991 (1990)	195		16.5		11.5	12.2	1.4		1.4	
1988-1990 (1989)	192		17.1		11.3	12.0	1.5		1.4	
1987-1989 (1988)	185		17.5		11.4	12.2	1.5		1.4	
1986-1988 (1987)	187		17.0		11.7	12.5	1.5		1.4	
1985-1987 (1986)	158		17.0		11.9	12.7	1.4		1.3	
1984-1986 (1985)	172		16.0		11.5	12.3	1.4		1.3	
1983-1985 (1984)	148		16.6		11.6	12.4	1.4		1.3	
1982-1984 (1983)	161		16.7		11.4	12.2	1.5		1.4	
1981-1983 (1982)	154		17.9		11.6	12.4	1.5		1.4	
1980-1982 (1981)	157		17.8		11.5	12.2	1.5		1.5	
1979-1981 (1980)	146		19.0		11.4	12.1	1.7		1.6	
1978-1980 (1979)	162		17.8		11.7	12.4	1.5		1.4	
1977-1979 (1978)	117		19.6		12.0	12.7	1.6		1.5	
1976-1978 (1977)	161		19.9		12.9	13.6	1.5		1.5	
1975-1977 (1976)	143		22.5		12.3	12.9	1.8		1.7	
1974-1976 (1975)	139		21.4		12.6	13.3	1.7		1.6	
1973-1975 (1974)	122		21.3		12.2	12.8	1.7		1.7	
1972-1974 (1973)	116		21.0		12.0	12.6	1.8		1.7	
(1972)	113									
1954-1956 (1955)	39		11.9		9.9	10.4	1.2		1.1	

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

NOTE Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths for the Indian population and rates for U.S. populations are for the single year specified.

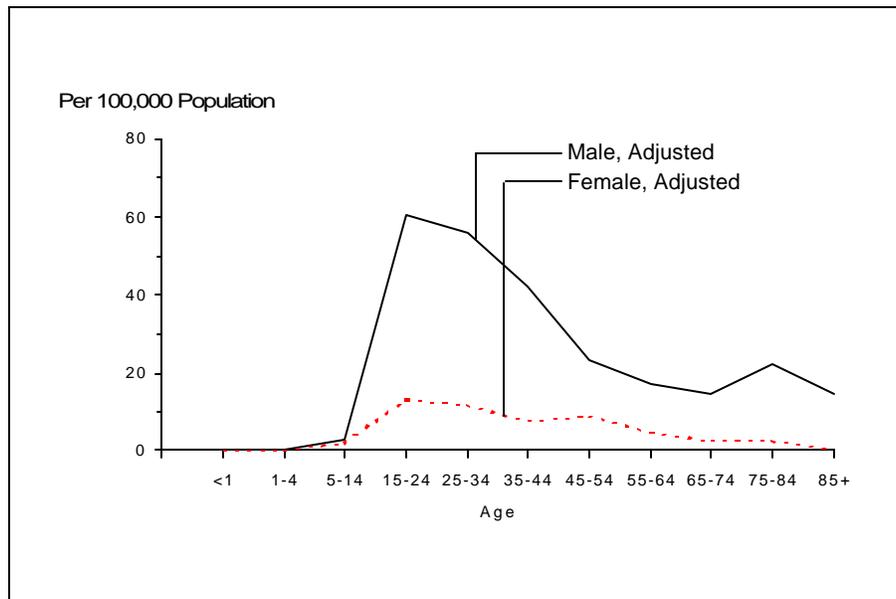


1997 Trends in Indian Health

Chart 4.2.2

Suicide Death Rates by Age and Sex: American Indians and Alaska Natives (1992-1994)

The age-specific suicide death rate (1992-1994) for Indian males was higher for all age groups in comparison with Indian females. The Indian male rate was around 60.0 deaths per 100,000 population for age groups 15 to 34 years. These Indian rates have been adjusted for mis-coding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.22

Suicide¹ Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Age Group	Both Sexes		American Indian and Alaska Native		Female	
	Actual	Aq ¹	Actual	Aq ¹	Actual	Aq ¹
Under 1 year	—	—	—	—	—	—
1-4 years	—	—	—	—	—	—
5-14 years	2.5	2.5	3.0	3.0	1.9	1.9
15-24 years	32.9	37.1	54.4	60.3	10.6	13.0
25-34 years	29.8	33.3	50.8	56.1	9.8	11.6
35-44 years	21.8	24.3	38.5	42.2	6.3	7.4
45-54 years	14.6	15.6	22.4	23.1	7.5	8.7
55-64 years	9.9	10.4	16.2	17.2	4.4	4.4
65-74 years	7.2	8.0	13.1	14.7	2.6	2.6
75-84 years	10.5	10.5	22.4	22.4	2.5	2.5
85 years+	5.4	5.4	14.6	14.6	—	—

Age Group	Both Sexes	U.S. All Races	
		Male	Female
Under 1 year	—	—	—
1-4 years	—	—	—
5-14 years	0.9	1.2	0.5
15-24 years	13.5	22.4	4.1
25-34 years	15.1	24.9	5.2
35-44 years	15.1	24.0	6.5
45-54 years	14.5	19.6	6.2
55-64 years	14.6	23.9	6.3
65-74 years	16.3	29.4	5.9
75-84 years	22.3	49.0	5.8
85+ years	22.8	68.3	5.4

Age Group	Both Sexes	U.S. White	
		Male	Female
Under 1 year	—	—	—
1-4 years	—	—	—
5-14 years	0.9	1.2	0.5
15-24 years	14.0	23.1	4.3
25-34 years	15.8	25.9	5.5
35-44 years	16.4	25.5	7.1
45-54 years	15.7	23.9	7.8
55-64 years	15.9	25.7	6.8
65-74 years	17.4	31.4	6.2
75-84 years	23.7	51.8	6.1
85+ years	24.2	73.6	5.5

¹Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE — Represents zero.

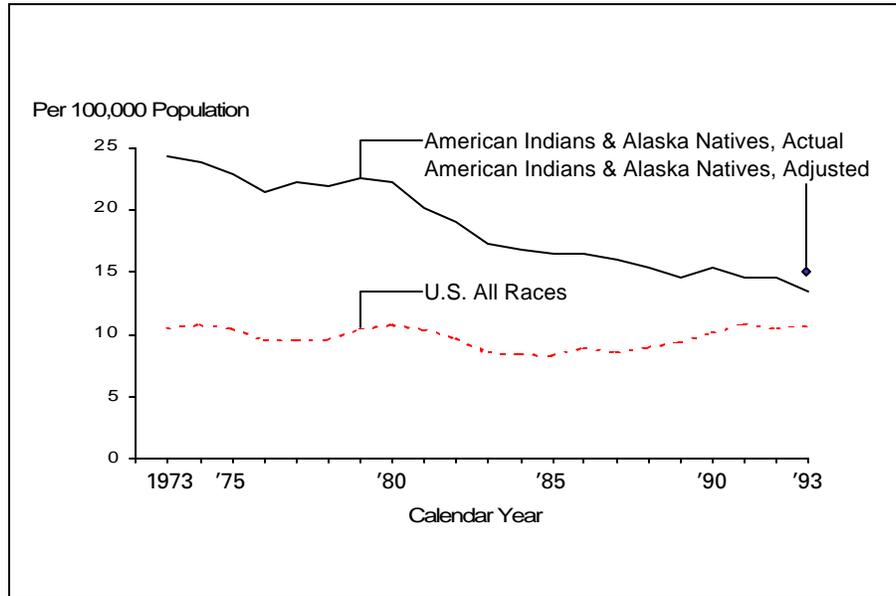


1997 Trends in Indian Health

Chart 4.23

*Age-Adjusted Homicide
Death Rates*

The age-adjusted homicide death rate for American Indians and Alaska Natives has decreased 45 percent since 1972-1974. When the 1992-1994 rate is adjusted for miscoding of Indian race on death certificates, it increases from 13.4 to 15.1. This is 41 percent higher than the U.S. All Races rate of 10.7 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/ unadjusted trend line would rise in value, but the rate of change would probably remain the same.



Part 4—General Mortality Statistics

Table 4.23

Homicide Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:					
	Number	Rate			U.S. All Races	U.S. White				
(1994)	176	201 (adj)								
1992-1994 (1993)	168	190 (adj)	13.4	15.1 (adj)	10.7	6.0	1.3	1.4 (adj)	2.2	2.5 (adj)
1991-1993 (1992)	168	185 (adj)	14.6		10.5	6.1	1.4		2.4	
1990-1992 (1991)	199		14.6		10.9	6.2	1.3		2.4	
1989-1991 (1990)	153		15.3		10.2	5.9	1.5		2.6	
1988-1990 (1989)	177		14.6		9.4	5.4	1.6		2.7	
1987-1989 (1988)	160		15.4		9.0	5.3	1.7		2.9	
1986-1988 (1987)	161		16.0		8.6	5.3	1.9		3.0	
1985-1987 (1986)	184		16.4		9.0	5.6	1.8		2.9	
1984-1986 (1985)	151		16.4		8.3	5.4	2.0		3.0	
1983-1985 (1984)	146		16.8		8.4	5.5	2.0		3.1	
1982-1984 (1983)	171		17.3		8.6	5.6	2.0		3.1	
1981-1983 (1982)	145		19.0		9.7	6.3	2.0		3.0	
1980-1982 (1981)	165		20.1		10.4	6.6	1.9		3.0	
1979-1981 (1980)	172		22.2		10.8	6.9	2.1		3.2	
1978-1980 (1979)	164		22.5		10.4	6.5	2.2		3.5	
1977-1979 (1978)	158		21.9		9.6	6.0	2.3		3.7	
1976-1978 (1977)	139		22.3		9.6	5.9	2.3		3.8	
1975-1977 (1976)	144		21.4		9.5	5.5	2.3		3.9	
1974-1976 (1975)	115		22.8		10.5	6.1	2.2		3.7	
1973-1975 (1974)	136		23.8		10.8	6.0	2.2		4.0	
1972-1974 (1973)	139		24.3		10.5	5.7	2.3		4.3	
(1972)	93									
1954-1956 (1955)	77		23.8		4.8	2.4	5.0		9.9	

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

NOTE Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths for the Indian population and rates for U.S. populations are for the single year specified.

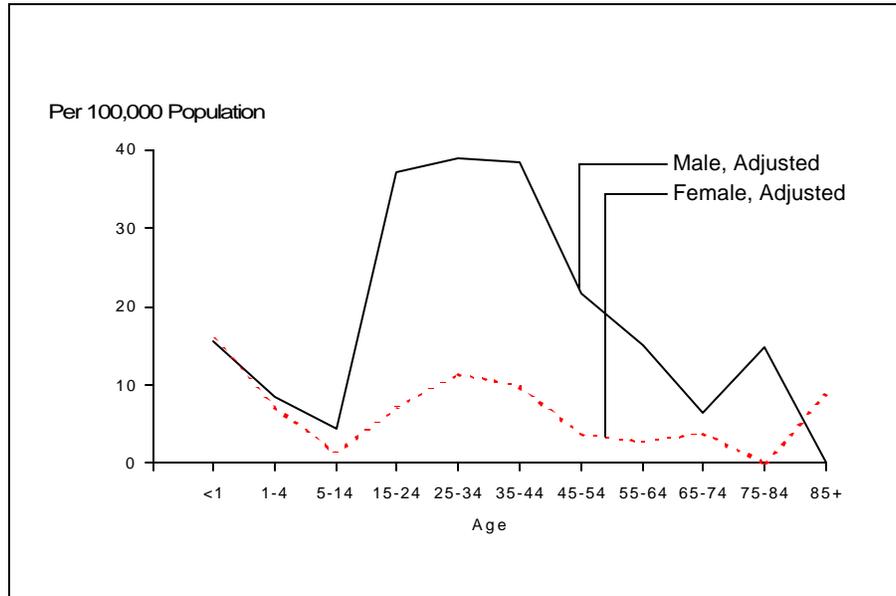


1997 Trends in Indian Health

Chart 4.24

*Homicide Death Rates by Age and Sex:
American Indians and Alaska Natives (1992-1994)*

The age-specific homicide death rate (1992-1994) for Indian males was higher for all age groups except under 1 and 85 years and older in comparison with Indian females. The Indian male rate was near 40.0 deaths per 100,000 population for age groups 15 through 44. These Indian rates have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.24

Homicide¹ Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Age Group	Both Sexes		American Indian and Alaska Native		Female	
	Actual	Aq ¹	Actual	Aq ¹	Actual	Aq ¹
Under 1 year	14.6	15.6	15.4	15.4	13.8	15.7
1-4 years	7.1	7.9	7.5	8.5	6.6	7.2
5-14 years	2.6	2.9	4.2	4.4	1.0	1.2
15-24 years	19.5	22.4	32.8	37.1	5.6	7.1
25-34 years	22.6	24.8	35.6	39.0	10.1	11.3
35-44 years	20.0	23.6	32.6	38.5	8.2	9.8
45-54 years	11.0	12.3	19.7	21.7	3.1	3.7
55-64 years	8.0	8.5	14.2	15.2	2.6	2.6
65-74 years	5.1	5.1	6.5	6.5	3.9	3.9
75-84 years	6.0	6.0	14.9	14.9	—	—
85 years+	5.4	5.4	—	—	8.5	8.5

Age Group	Both Sexes	U.S. All Races	
		Male	Female
Under 1 year	8.8	9.6	7.9
1-4 years	2.9	3.4	2.5
5-14 years	1.8	2.2	1.4
15-24 years	23.4	39.2	6.9
25-34 years	17.4	27.2	7.6
35-44 years	11.1	17.2	5.2
45-54 years	7.2	10.0	2.7
55-64 years	4.7	7.4	2.2
65-74 years	3.7	5.3	2.5
75-84 years	3.5	4.5	3.0
85+ years	4.1	5.7	3.4

Age Group	Both Sexes	U.S. White	
		Male	Female
Under 1 year	6.4	7.0	5.9
1-4 years	1.8	2.2	1.4
5-14 years	1.2	1.3	1.0
15-24 years	10.9	17.3	4.2
25-34 years	9.7	14.5	4.7
35-44 years	6.9	10.2	3.7
45-54 years	5.1	7.8	2.5
55-64 years	3.5	5.2	1.9
65-74 years	2.8	5.0	2.1
75-84 years	2.7	3.1	2.4
85+ years	3.1	4.0	2.8

¹Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE — Represents zero.

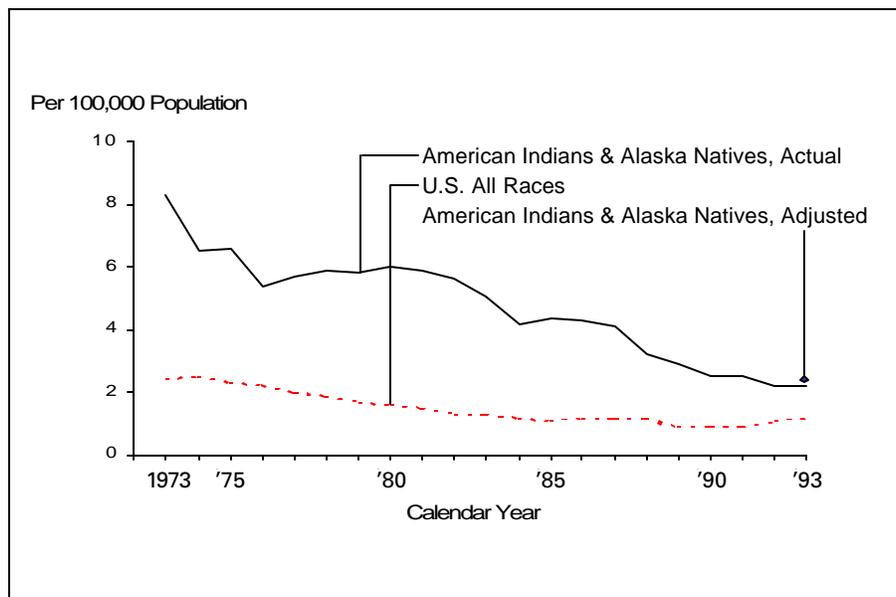


1997 Trends in Indian Health

Chart 4.25

Other Injury Deaths and Death Rates

The age-adjusted death rate due to other injuries (undetermined injury and war injury) has decreased 73 percent since 1972-1974. When the 1992-1994 rate is adjusted for miscoding of Indian race on death certificates, it increases from 2.2 to 2.4. This is twice the U.S. All Races rate of 1.2 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/ unadjusted trend line would rise in value, but the rate of change would probably remain the same.



Part 4—General Mortality Statistics

Table 4.25

Other Injury^{1,2} Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1972-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:					
	Number	Rate			U.S. All Races	U.S. White				
(1994)	2 4	28 (adj)								
1992-1994 (1993)	2 4	25 (adj)	2.2	2.4 (adj)	1.2	1.1	1.8	2.0 (adj)	2.0	2.2 (adj)
1991-1993 (1992)	3 1	34 (adj)	2.2		1.1	1.0	2.0		2.2	
1990-1992 (1991)	2 6		2.5		0.9	0.8	2.8		3.1	
1989-1991 (1990)	3 1		2.5		0.9	0.8	2.8		3.1	
1988-1990 (1989)	2 8		2.9		0.9	0.8	3.2		3.6	
1987-1989 (1988)	3 4		3.2		1.2	1.0	2.7		3.2	
1986-1988 (1987)	4 1		4.1		1.2	1.0	3.4		4.1	
1985-1987 (1986)	5 0		4.3		1.2	1.1	3.6		3.9	
1984-1986 (1985)	3 9		4.4		1.1	1.0	4.0		4.4	
1983-1985 (1984)	3 9		4.2		1.2	1.1	3.5		3.8	
1982-1984 (1983)	4 0		5.1		1.3	1.1	3.9		4.6	
1981-1983 (1982)	5 2		5.6		1.3	1.2	4.3		4.7	
1980-1982 (1981)	4 6		5.9		1.5	1.3	3.9		4.5	
1979-1981 (1980)	3 9		6.0		1.6	1.4	3.8		4.3	
1978-1980 (1979)	4 9		5.8		1.7	1.5	2.4		2.7	
1977-1979 (1978)	3 7		5.9		1.9	1.6	3.1		3.7	
1976-1978 (1977)	3 8		5.7		2.0	1.6	2.9		3.6	
1975-1977 (1976)	3 9		5.4		2.2	1.8	2.5		2.2	
1974-1976 (1975)	2 9		6.6		2.3	1.9	2.9		3.5	
1973-1975 (1974)	5 0		6.5		2.5	2.1	2.6		3.1	
1972-1974 (1973)	3 8 ³		8.3		2.4	2.0	3.5		4.2	
(1972)	4 6									

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

¹ Includes deaths with ICD-9 codes E980-E989; Injury undetermined whether accidentally or purposely inflicted.

² Includes deaths with ICD-9 codes E990-E999; Injury resulting from operations of war.

³ In 1973 there was one American Indian injury death resulting from operations of war. For each of the other years shown above there were no American Indian injury deaths due to this cause.

NOTE Data were first available for these cause of death categories in 1969, through use of the ICD-8 coding system. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths for the Indian population and rates for U.S. populations are for the single year specified.

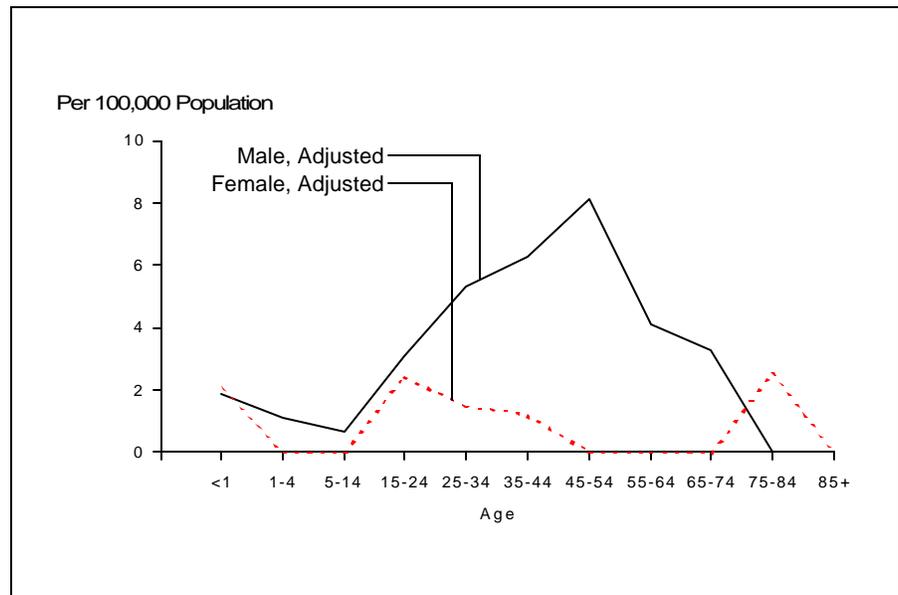


1997 Trends in Indian Health

Chart 4.26

Other Injury Death Rates by Age and Sex: American Indians and Alaska Natives (1992-1994)

The age-specific death rate due to other injuries (1992-1994) for Indian males was higher for all age groups from 1 through 74 years in comparison with Indian females (for 85 years and older the rates were both 0.0). The highest age and sex-specific rates occurred for males in age groups 25 through 54 years, 5.3 to 8.1 deaths per 100,000 population. These Indian rates have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.26

Other Injury Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Age Group	Both Sexes		American Indian and Alaska Native		Female	
	Actual	Aq ¹	Actual	Aq ¹	Actual	Aq ¹
Under 1 year	1.9	1.9	1.9	1.9	2.0	2.0
1-4 years	0.5	0.5	1.1	1.1	—	—
5-14 years	0.4	0.4	0.7	0.7	—	—
15-24 years	2.0	2.7	2.8	3.1	1.2	2.4
25-34 years	2.9	3.3	4.6	5.3	1.2	1.5
35-44 years	3.6	3.6	6.3	6.3	1.2	1.2
45-54 years	3.9	3.9	8.1	8.1	—	—
55-64 years	1.9	1.9	4.1	4.1	—	—
65-74 years	1.4	1.4	3.3	3.3	—	—
75-84 years	1.5	1.5	—	—	2.5	2.5
85 years +	—	—	—	—	—	—

Age Group	Both Sexes	U.S. All Races	
		Male	Female
Under 1 year	1.6	1.9	1.2
1-4 years	0.2	0.3	0.2
5-14 years	0.2	0.2	0.1
15-24 years	1.2	1.8	0.5
25-34 years	2.1	3.2	1.0
35-44 years	2.5	3.8	1.2
45-54 years	1.5	1.9	0.8
55-64 years	1.0	1.4	0.6
65-74 years	0.8	1.2	0.4
75-84 years	0.9	1.5	0.5
85+ years	1.5	2.3	1.2

Age Group	Both Sexes	U.S. White	
		Male	Female
Under 1 year	1.0	1.3	0.7
1-4 years	0.2	0.2	0.1
5-14 years	0.1	0.2	0.1
15-24 years	1.1	1.7	0.4
25-34 years	1.9	2.9	0.9
35-44 years	2.2	3.3	1.1
45-54 years	1.4	1.9	0.9
55-64 years	0.9	1.3	0.6
65-74 years	0.7	1.1	0.4
75-84 years	0.8	1.3	0.5
85+ years	1.4	2.0	1.2

¹Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE — Represents zero.

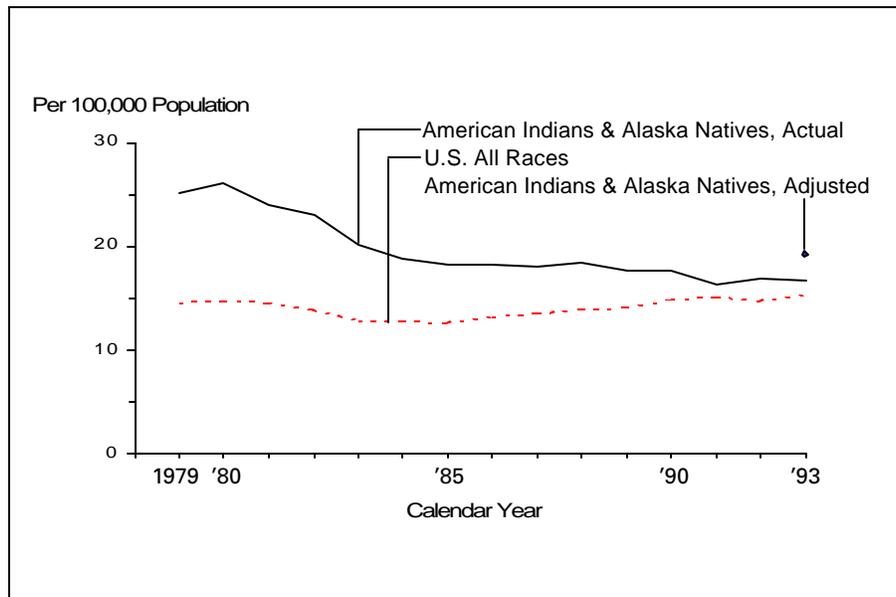


1997 Trends in Indian Health

Chart 4.27

Firearm Injury Deaths and Death Rates

The age-adjusted firearm injury death rate for American Indians and Alaska Natives has decreased 34 percent since 1978-1980. When the 1992-1994 rate is adjusted for miscoding of Indian race on death certificates, it increases from 16.6 to 19.0. This is 23 percent higher than the U.S. All Races rate of 15.4 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/ unadjusted trend line would rise in value, but the rate of change would probably remain the same.



Part 4—General Mortality Statistics

Table 4.27

Firearm Injury¹ Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1979-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:					
	Number	Rate			U.S. All Races	U.S. White				
(1994)	230	264 (adj)								
1992-1994 (1993)	204	232 (adj)	16.6	19.0 (adj)	15.4	12.5	1.1	1.2 (adj)	1.3	1.5 (adj)
1991-1993 (1992)	181	204 (adj)	16.9		14.8	12.3	1.1		1.4	
1990-1992 (1991)	221		16.3		15.2	12.5	1.1		1.3	
1989-1991 (1990)	172		17.6		14.9	12.6	1.2		1.4	
1988-1990 (1989)	215		17.6		14.1	12.1	1.2		1.5	
1987-1989 (1988)	205		18.5		13.9	12.1	1.3		1.5	
1986-1988 (1987)	182		18.1		13.6	12.1	1.3		1.5	
1985-1987 (1986)	186		18.2		13.3	11.7	1.4		1.6	
1984-1986 (1985)	186		18.2		12.7	11.4	1.4		1.6	
1983-1985 (1984)	169		18.8		12.8	11.6	1.5		1.6	
1982-1984 (1983)	185		20.2		12.9	11.5	1.6		1.8	
1981-1983 (1982)	210		23.0		13.9	12.2	1.7		1.9	
1980-1982 (1981)	210		24.0		14.6	12.5	1.6		1.9	
1979-1981 (1980)	195		26.1		14.8	12.4	1.8		2.1	
1978-1980 (1979)	229		25.2		14.6	12.2	1.7		2.1	
(1978)	176									

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

¹ Includes deaths with ICD-9 codes: Accident caused by firearm missile-E922, Suicide and self-inflicted injury by firearms-E955.0-E955.4, Assault by firearms and legal intervention-E965.0-E965.4, E970, and Injury by firearms, undetermined whether accidentally or purposely inflicted-E985.0-E985.4. Injury by firearm causes exclude explosive and other causes indirectly related to firearms. Includes ICD-8 codes: E922, E955, E965, E970, and E985 (1978 only).

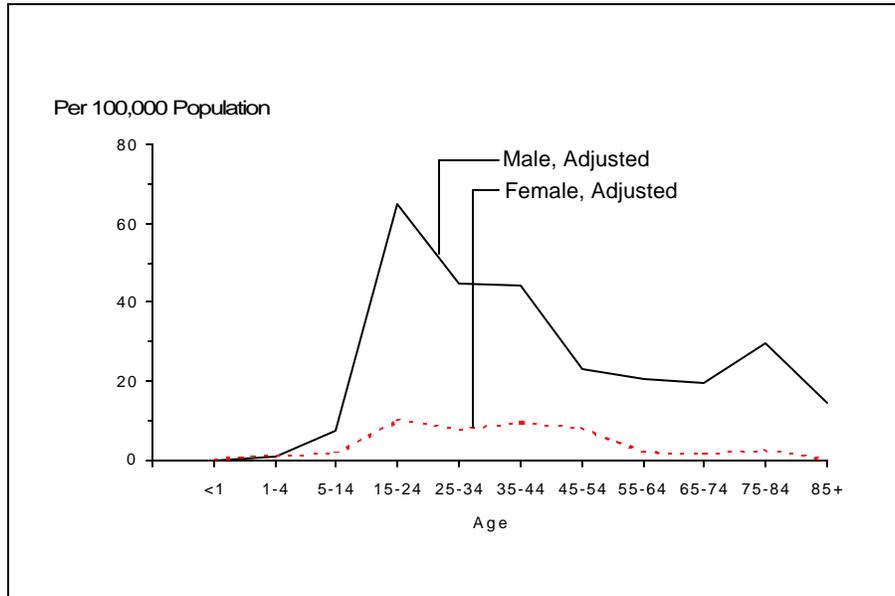
SOURCE U.S. All Races and White Mortality Data: Advance Report on Final Mortality Statistics, 1993, NCHS, DHHS, Report Vol. 44, No. 7, Supplement, February 29, 1996, Table 11. Data not published for the U.S. populations prior to 1979.

1997 Trends in Indian Health

Chart 4.28

Firearm Injury Death Rates by Age and Sex: American Indians and Alaska Natives (1992-1994)

The age-specific firearm injury death rate (1992-1994) for Indian males was considerably higher for all age groups over 4 years in comparison with Indian females. The Indian male rate peaked at 65.1 deaths per 100,000 population for the 15 to 24 year age group. This was also the age group in the 1993 U.S. All Races male population that had the highest rate (54.0). However for the 1993 U.S. White population, the highest rate occurred for the male group 85 years and over (54.6). These Indian rates have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.28

Firearm Injury¹ Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Age Group	Both Sexes		American Indian and Alaska Native				
	Actual	Aq ²	Actual	Male	Aq ²	Female	Aq ²
Under 1 year	—	—	—	—	—	—	—
1-4 years	0.8	0.8	0.5	0.5	1.1	1.1	1.1
5-14 years	4.3	4.5	7.2	7.5	1.2	1.4	1.4
15-24 years	33.2	38.2	57.7	65.1	7.7	10.3	10.3
25-34 years	23.0	25.9	40.6	44.9	6.2	7.7	7.7
35-44 years	22.2	26.3	38.1	44.3	7.4	9.4	9.4
45-54 years	13.3	15.2	21.0	23.1	6.2	8.1	8.1
55-64 years	9.4	10.4	18.2	20.3	1.8	1.8	1.8
65-74 years	8.7	9.4	18.0	19.6	1.3	1.3	1.3
75-84 years	13.5	13.5	29.8	29.8	2.5	2.5	2.5
85 years+	5.4	5.4	14.6	14.6	—	—	—

Age Group	Both Sexes		U.S. All Races	
	Actual	Aq ²	Male	Female
Under 1 year	—	—	—	—
1-4 years	0.6	0.6	0.8	0.5
5-14 years	2.3	2.3	3.4	1.1
15-24 years	31.1	31.1	54.0	7.1
25-34 years	22.4	22.4	37.8	7.1
35-44 years	16.0	16.0	26.4	5.8
45-54 years	13.7	13.7	23.1	4.8
55-64 years	12.5	12.5	22.2	3.8
65-74 years	13.5	13.5	26.2	3.4
75-84 years	17.7	17.7	41.9	2.8
85+ years	15.4	15.4	50.5	1.9

Age Group	Both Sexes		U.S. White	
	Actual	Aq ²	Male	Female
Under 1 year	—	—	—	—
1-4 years	0.4	0.4	0.5	0.4
5-14 years	1.7	1.7	2.6	0.8
15-24 years	19.5	19.5	33.0	5.2
25-34 years	16.9	16.9	27.9	5.7
35-44 years	13.8	13.8	22.2	5.3
45-54 years	13.2	13.2	21.8	4.9
55-64 years	12.8	12.8	22.3	3.9
65-74 years	14.0	14.0	27.2	3.4
75-84 years	18.6	18.6	44.1	2.7
85+ years	16.5	16.5	54.6	2.0

¹ Includes deaths with ICD-9 codes; Accident caused by firearm missile-E922, Suicide and self-inflicted injury by firearms-E955.0-E955.4, Assault by firearms and legal intervention-E965.0-E965.4, E970, and Injury by firearms, undetermined whether accidentally or purposely inflicted-E985.0-E985.4. Injury by firearm causes exclude explosive and other causes indirectly related to firearms.

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

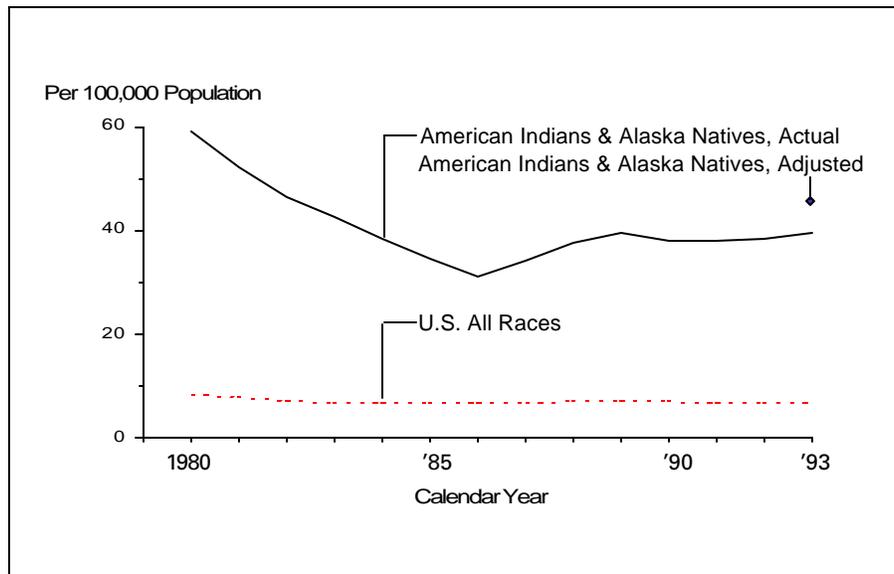
NOTE — Represents zero.

1997 Trends in Indian Health

Chart 4.29

*Age-Adjusted
Alcoholism Death Rates*

The age-adjusted alcoholism death rate for American Indians and Alaska Natives decreased 47 percent between 1979-1981 and 1985-1987. Since then, it has increased 27 percent. When the 1992-1994 rate is adjusted for miscoding of Indian race on death certificates, it increases from 39.4 to 45.5. This is nearly 7 times the U.S. All Races rate of 6.7 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/unadjusted trend line would rise in value, but the rate of change would probably remain the same.



Part 4—General Mortality Statistics

Table 4.29

Alcoholism Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1980-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:					
	Number	Rate			U.S. All Races	U.S. White				
(1994)	427	494 (adj)								
1992-1994 (1993)	395	458 (adj)	39.4	45.5 (adj)	6.7	6.1	5.9	6.8 (adj)	6.5	7.5 (adj)
1991-1993 (1992)	402	458 (adj)	38.4		6.8	6.1	5.6		6.3	
1990-1992 (1991)	367		37.9		6.8	6.0	5.6		6.3	
1989-1991 (1990)	350		38.0		7.2	6.2	5.3		6.1	
1988-1990 (1989)	376		39.4		7.3	6.2	5.4		6.4	
1987-1989 (1988)	375		37.5		7.1	5.9	5.3		6.4	
1986-1988 (1987)	264		34.1		6.8	5.8	5.0		5.9	
1985-1987 (1986)	264		31.1		6.7	5.7	4.6		5.5	
1984-1986 (1985)	274		34.4		7.0	5.8	4.9		5.9	
1983-1985 (1984)	302		38.5		7.0	5.9	5.5		6.5	
1982-1984 (1983)	295		42.6		7.0	6.0	6.1		7.1	
1981-1983 (1982)	293		46.6		7.2	6.2	6.5		7.5	
1980-1982 (1981)	344		52.4		7.8	6.6	6.7		7.9	
1979-1981 (1980)	369		59.0		8.4	6.9	7.0		8.6	
(1979)	377									

A d—specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

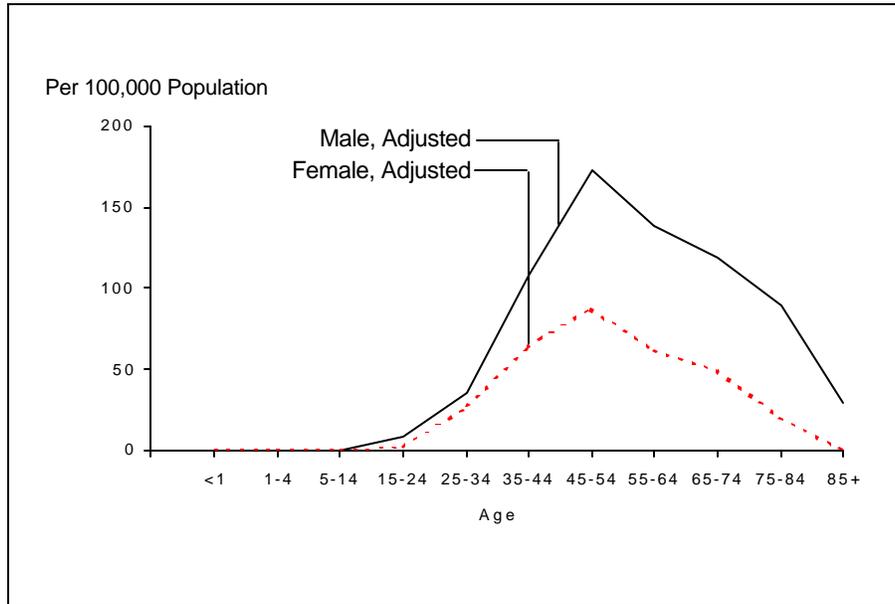
NOTE For all years presented above, the causes of death that define alcoholism deaths have been expanded to include alcoholic polyneuropathy-357.5 and the entire code group for accidental poisoning by alcohol-E860, as defined by the National Center for Health Statistics, DHHS, for all years in which ICD-9 codes are employed (1979 to the present). For a complete description of the causes of death that define deaths due to alcoholism, refer to the Glossary of ICD-9 Codes. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths for the Indian population and rates for U.S. populations are for the single year specified.

1997 Trends in Indian Health

Chart 4.30

*Alcoholism Death Rates
by Age and Sex,
American Indians
and Alaska Natives
(1992-1994)*

Drinking has taken a greater toll on Indian males compared to Indian females as evidenced by alcoholism death rates. The age-specific alcoholism death rate (1992-1994) for Indian males was higher for all age groups, with a non-zero rate, in comparison with Indian females. However, the Indian female rate is much higher than the rate for females in the U.S. All Races population. The U.S. female rate never reached 10.0 for an age group in 1993, whereas the Indian female rate ranged from 20.1 to 87.6 for age groups 25 through 84 years. These Indian rates have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.30

Alcoholism¹ Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Age Group	Both Sexes		American Indian and Alaska Native		Female	
	Actual	Aq ¹	Actual	Aq ¹	Actual	Aq ¹
Under 1 year	—	—	—	—	—	—
1-4 years	—	—	—	—	—	—
5-14 years	—	—	—	—	—	—
15-24 years	5.2	5.5	8.8	8.8	1.5	2.1
25-34 years	27.3	30.7	32.8	35.3	21.9	26.4
35-44 years	73.8	85.3	96.6	107.9	52.4	64.2
45-54 years	108.3	128.1	149.2	172.2	70.8	87.6
55-64 years	85.6	97.4	123.5	138.7	52.7	61.5
65-74 years	71.6	80.3	106.4	119.4	44.1	49.3
75-84 years	39.0	48.0	70.8	89.4	17.6	20.1
85 years+	10.7	10.7	29.2	29.2	—	—

Age Group	Both Sexes		U.S. All Races	
	Actual	Aq ¹	Male	Female
Under 1 year	0.0	—	0.0	—
1-4 years	0.0	—	0.0	—
5-14 years	0.0	—	—	0.0
15-24 years	0.3	—	0.5	0.1
25-34 years	2.4	—	3.5	1.4
35-44 years	10.1	—	15.3	4.9
45-54 years	16.9	—	23.7	6.3
55-64 years	22.2	—	35.8	9.9
65-74 years	18.8	—	32.1	8.3
75-84 years	11.1	—	21.1	4.9
85+ years	4.6	—	12.3	1.6

Age Group	Both Sexes		U.S. White	
	Actual	Aq ¹	Male	Female
Under 1 year	0.0	—	0.1	—
1-4 years	—	—	—	—
5-14 years	—	—	—	—
15-24 years	0.3	—	0.5	0.1
25-34 years	2.2	—	3.2	1.1
35-44 years	8.7	—	13.3	3.9
45-54 years	14.7	—	23.6	6.0
55-64 years	20.7	—	32.9	9.4
65-74 years	17.9	—	30.3	8.0
75-84 years	10.8	—	20.4	4.8
85+ years	4.1	—	11.0	1.6

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

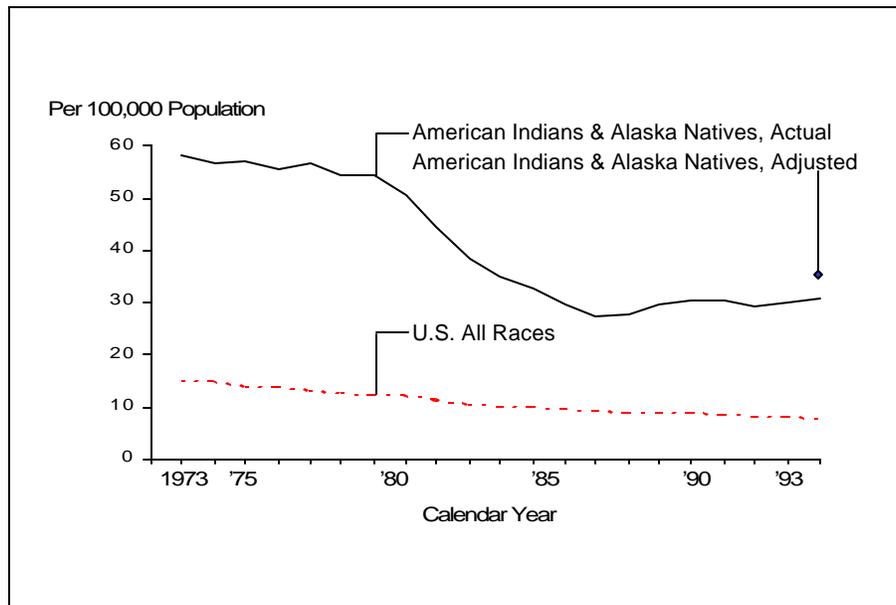
NOTE — Represents zero. 0.0 Rounds to zero.

1997 Trends in Indian Health

Chart 4.31

Age-Adjusted Chronic Liver Disease and Cirrhosis Death Rates

The age-adjusted chronic liver disease and cirrhosis death rate for American Indians and Alaska Natives has decreased 47 percent since 1972-1974. When the 1992-1994 rate is adjusted for miscoding of Indian race on death certificates, it increases from 30.7 to 35.0. This is 4.4 times the U.S. All Races rate of 7.9 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/ unadjusted trend line would rise in value, but the rate of change would probably remain the same.



Part 4—General Mortality Statistics

Table 4.31

Chronic Liver Disease and Cirrhosis Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:					
	Number	Rate			U.S. All Races	U.S. White				
(1994)	329	377 (adj)								
1992-1994 (1993)	312	358 (adj)	30.7	35.0 (adj)	7.9	7.6	3.9	4.4 (adj)	4.0	4.6 (adj)
1991-1993 (1992)	299	336 (adj)	30.1		8.0	7.7	3.8		3.9	
1990-1992 (1991)	288		29.5		8.3	7.8	3.6		3.8	
1989-1991 (1990)	267		30.3		8.6	8.0	3.5		3.8	
1988-1990 (1989)	299		30.5		8.9	8.3	3.4		3.7	
1987-1989 (1988)	267		29.9		9.0	8.4	3.3		3.6	
1986-1988 (1987)	224		27.8		9.1	8.4	3.1		3.3	
1985-1987 (1986)	224		27.3		9.2	8.6	3.0		3.2	
1984-1986 (1985)	237		29.7		9.6	8.9	3.1		3.3	
1983-1985 (1984)	243		32.5		10.0	9.3	3.3		3.5	
1982-1984 (1983)	236		34.8		10.2	9.5	3.4		3.7	
1981-1983 (1982)	230		38.3		10.5	9.8	3.6		3.9	
1980-1982 (1981)	284		44.6		11.4	10.5	3.9		4.2	
1979-1981 (1980)	324		50.7		12.2	11.0	4.2		4.6	
1978-1980 (1979)	305		54.4		12.2	11.1	4.5		4.9	
1977-1979 (1978)	308		54.4		12.5	11.3	4.4		4.8	
1976-1978 (1977)	281		56.6		13.1	11.8	4.3		4.8	
1975-1977 (1976)	296		55.5		13.6	12.3	4.1		4.5	
1974-1976 (1975)	249		57.2		13.8	12.6	4.1		4.5	
1973-1975 (1974)	257		56.6		14.8	13.4	3.8		4.2	
1972-1974 (1973)	238		58.3		15.0	13.7	3.9		4.3	
(1972)	222									
1954-1956 (1955)			26.9		9.4	9.4				

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

NOTE Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths for the Indian population and rates for U.S. populations are for the single year specified.

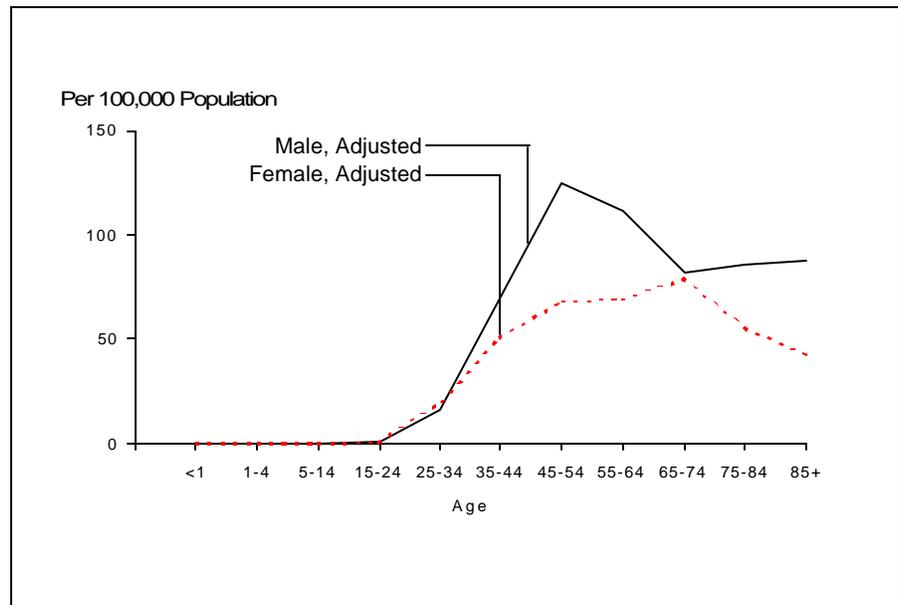


1997 Trends in Indian Health

Chart 4.32

Chronic Liver Disease and Cirrhosis Death Rates by Age and Sex: American Indians and Alaska Natives (1992-1994)

Other than for age groups under 35 years, the age-specific chronic liver disease and cirrhosis death rate (1992-1994) for Indian males was higher for all age groups in comparison with Indian females. The Indian male rate exceeded 111.0 deaths per 100,000 population for age groups 45 through 64 years. These Indian rates have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.32

Chronic Liver Disease and Cirrhosis Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Age Group	Both Sexes		American Indian and Alaska Native		Female	
	Actual	Aq ¹	Actual	Aq ¹	Actual	Aq ¹
Under 1 year	—	—	—	—	—	—
1-4 years	—	—	—	—	—	—
5-14 years	—	—	—	—	—	—
15-24 years	0.6	0.6	0.6	0.6	0.6	0.6
25-34 years	16.5	18.3	15.5	16.4	17.5	20.2
35-44 years	51.5	59.6	61.5	69.4	42.2	50.5
45-54 years	81.0	95.6	107.8	125.4	56.5	68.3
55-64 years	79.1	88.9	99.2	111.4	61.5	68.6
65-74 years	73.8	80.3	76.9	81.8	71.4	79.1
75-84 years	61.5	67.5	78.2	85.7	50.2	55.2
85 years+	58.9	58.9	87.7	87.7	42.3	42.3

Age Group	Both Sexes		U.S. All Races		Female	
	Actual	Aq ¹	Actual	Aq ¹	Actual	Aq ¹
Under 1 year	0.5	—	0.7	—	0.2	—
1-4 years	0.1	—	0.1	—	0.1	—
5-14 years	0.0	—	0.0	—	0.0	—
15-24 years	0.1	—	0.1	—	0.1	—
25-34 years	1.7	—	2.3	—	1.2	—
35-44 years	9.2	—	13.5	—	5.0	—
45-54 years	16.4	—	21.6	—	7.5	—
55-64 years	26.8	—	38.2	—	16.5	—
65-74 years	32.7	—	44.8	—	23.1	—
75-84 years	32.6	—	42.7	—	26.3	—
85+ years	21.7	—	34.2	—	16.9	—

Age Group	Both Sexes		U.S. White		Female	
	Actual	Aq ¹	Actual	Aq ¹	Actual	Aq ¹
Under 1 year	0.5	—	0.6	—	0.3	—
1-4 years	0.1	—	0.1	—	0.0	—
5-14 years	0.0	—	—	—	0.0	—
15-24 years	0.1	—	0.1	—	0.1	—
25-34 years	1.6	—	2.1	—	1.0	—
35-44 years	8.2	—	12.3	—	4.1	—
45-54 years	15.2	—	22.9	—	7.6	—
55-64 years	26.4	—	37.5	—	16.2	—
65-74 years	33.0	—	44.9	—	23.4	—
75-84 years	33.4	—	43.7	—	26.9	—
85+ years	22.5	—	35.7	—	17.3	—

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

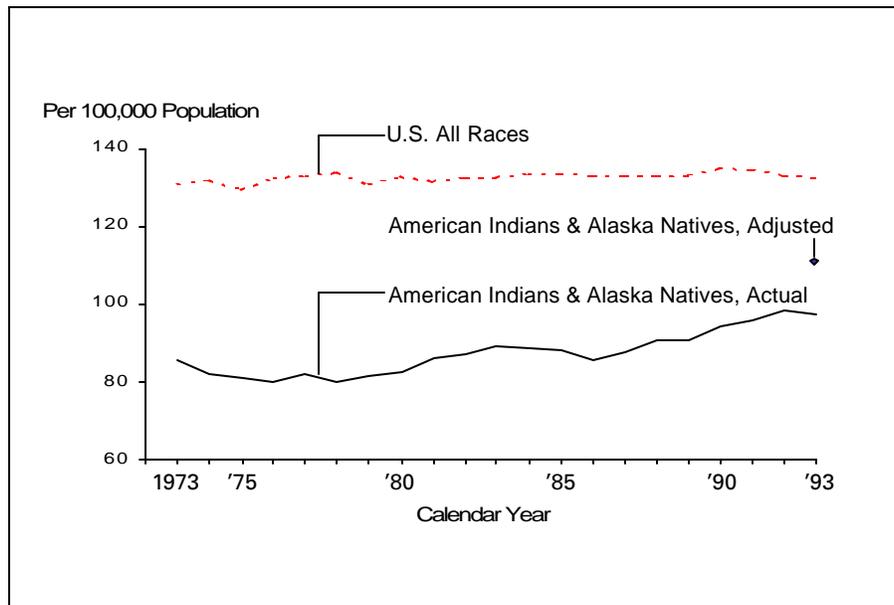
NOTE — Represents zero. 0.0 Rounds to zero.

1997 Trends in Indian Health

Chart 4.33

Age-Adjusted Malignant Neoplasm Death Rates

The age-adjusted malignant neoplasm death rate for American Indians and Alaska Natives hit a low in 1977-1979 of 80.2 deaths per 100,000 population, but has increased 22 percent since then to 97.5 in 1992-1994. The Indian rate is lower than the U.S. All Races rate, but the gap between the two rates has been decreasing. The 1992-1994 Indian rate increases to 112.2 after adjusting for miscoding of Indian race on death certificates, which is only 15 percent less than the All Races rate of 132.6 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/ unadjusted trend line would rise in value, but the rate of change would probably remain the same.



Part 4—General Mortality Statistics

Table 4.33

Malignant Neoplasm Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:					
	Number	Rate			U.S. All Races	U.S. White				
(1994)	1,046	1,201 (adj)								
1992-1994 (1993)	1,025	1,169 (adj)	97.5	112.2 (adj)	132.6	129.4	0.7	0.8 (adj)	0.8	0.9 (adj)
1991-1993 (1992)	1,026	1,174 (adj)	98.8		133.1	129.9	0.7	0.8		
1990-1992 (1991)	1,021		96.2		134.5	131.3	0.7	0.7		
1989-1991 (1990)	859		94.6		135.0	131.5	0.7	0.7		
1988-1990 (1989)	913		91.1		133.0	130.2	0.7	0.7		
1987-1989 (1988)	831		90.9		132.7	130.0	0.7	0.7		
1986-1988 (1987)	768		87.6		132.9	130.1	0.7	0.7		
1985-1987 (1986)	756		85.8		133.2	130.4	0.6	0.7		
1984-1986 (1985)	714		88.1		133.6	130.7	0.7	0.7		
1983-1985 (1984)	712		88.8		133.5	130.2	0.7	0.7		
1982-1984 (1983)	662		89.6		132.6	129.4	0.7	0.7		
1981-1983 (1982)	617		87.5		132.5	129.4	0.7	0.7		
1980-1982 (1981)	578		86.3		131.6	128.5	0.7	0.7		
1979-1981 (1980)	567		82.7		132.8	129.6	0.6	0.6		
1978-1980 (1979)	480		81.7		130.8	130.2	0.6	0.6		
1977-1979 (1978)	503		80.2		133.8	130.8	0.6	0.6		
1976-1978 (1977)	456		82.4		133.0	130.0	0.6	0.6		
1975-1977 (1976)	441		80.3		132.3	129.5	0.6	0.6		
1974-1976 (1975)	395		81.4		129.4	128.1	0.6	0.6		
1973-1975 (1974)	403		82.2		131.8	129.0	0.6	0.6		
1972-1974 (1973)	385		85.6		130.7	127.7	0.7	0.7		
(1972)	354									
1954-1956 (1955)	296		95.0		125.8	125.8	0.8	0.8		

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

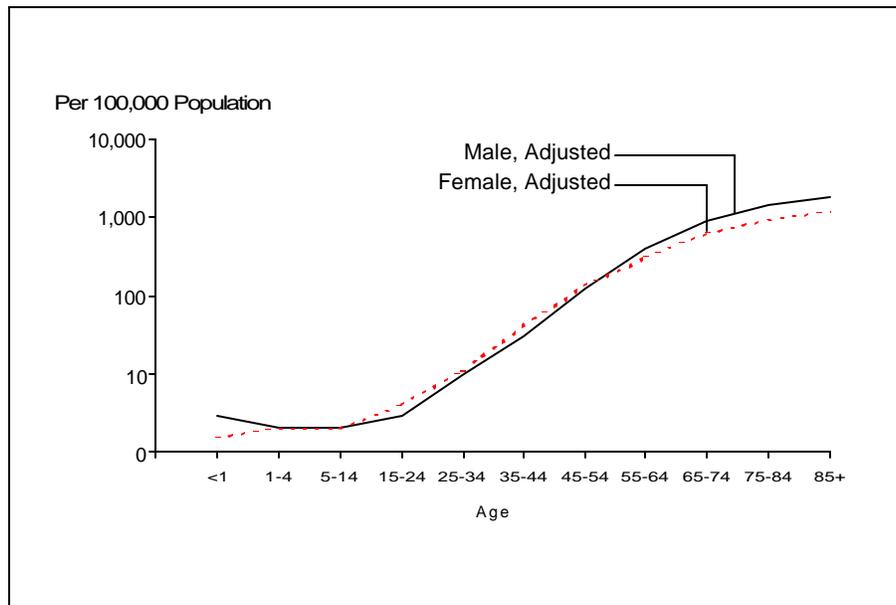
NOTE Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths for the Indian population and rates for U.S. populations are for the single year specified.

1997 Trends in Indian Health

Chart 4.34

Malignant Neoplasm Death Rates by Age and Sex: American Indians and Alaska Natives (1992-1994)

The age-specific malignant neoplasm death rate (1992-1994) for Indian males and females was fairly similar for age groups 1 through 74 years. For the other age groups, the Indian male rate was at least 57 percent greater than the Indian female rate. The rate for Indian females increased with age, and for Indian males the rate increased beginning with age 1. These Indian rates have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.34

Malignant Neoplasm Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Age Group	American Indian and Alaska Native					
	Both Sexes		Male		Female	
	Actual	Aq ¹	Actual	Aq ¹	Actual	Aq ¹
Under 1 year	2.9	2.9	3.9	3.9	2.0	2.0
1-4 years	2.7	2.7	2.7	2.7	2.8	2.8
5-14 years	2.5	3.1	2.6	3.3	2.4	2.9
15-24 years	3.8	4.2	3.7	3.7	3.8	4.7
25-34 years	8.3	10.4	8.4	9.6	8.3	11.3
35-44 years	29.5	35.0	26.8	28.9	32.1	40.7
45-54 years	111.2	127.7	109.8	123.4	112.4	131.7
55-64 years	305.4	356.2	349.3	404.0	267.3	314.7
65-74 years	654.2	756.9	772.3	896.6	560.5	646.1
75-84 years	1,009.5	1,143.0	1,311.6	1,483.0	805.9	913.9
85 years+	1,419.4	1,462.2	1,811.5	1,899.2	1,192.4	1,209.3

Age Group	U.S. All Races		
	Both Sexes	Male	Female
Under 1 year	2.2	2.8	1.7
1-4 years	3.3	3.7	2.9
5-14 years	2.9	3.3	2.6
15-24 years	4.8	5.5	4.1
25-34 years	12.1	11.9	12.3
35-44 years	41.1	38.0	44.1
45-54 years	147.9	131.9	127.7
55-64 years	433.4	507.3	366.7
65-74 years	876.1	1,113.3	688.4
75-84 years	1,366.9	1,890.0	1,046.1
85+ years	1,807.7	2,830.7	1,415.3

Age Group	U.S. White		
	Both Sexes	Male	Female
Under 1 year	2.2	2.7	1.8
1-4 years	3.4	3.9	2.9
5-14 years	3.1	3.4	2.7
15-24 years	4.8	5.5	3.5
25-34 years	11.7	11.6	11.9
35-44 years	39.0	36.0	41.9
45-54 years	139.8	139.3	140.4
55-64 years	422.6	486.5	363.8
65-74 years	863.7	1,084.9	686.6
75-84 years	1,353.9	1,841.3	1,045.1
85+ years	1,793.2	2,795.3	1,413.7

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

1997 Trends in Indian Health

Chart 4.35

Death Rates for Leading Cancer Sites: American Indians and Alaska Natives (1992-1994)

The leading site for cancer deaths among Indians in 1992-1994 was trachea, bronchus, and lung. Nearly 3.5 times as many Indian people died of this type of cancer than the next leading site, colon. The third and fourth leading sites were female breast and prostate, respectively. These Indian counts have been adjusted for miscoding of Indian race on death certificates.

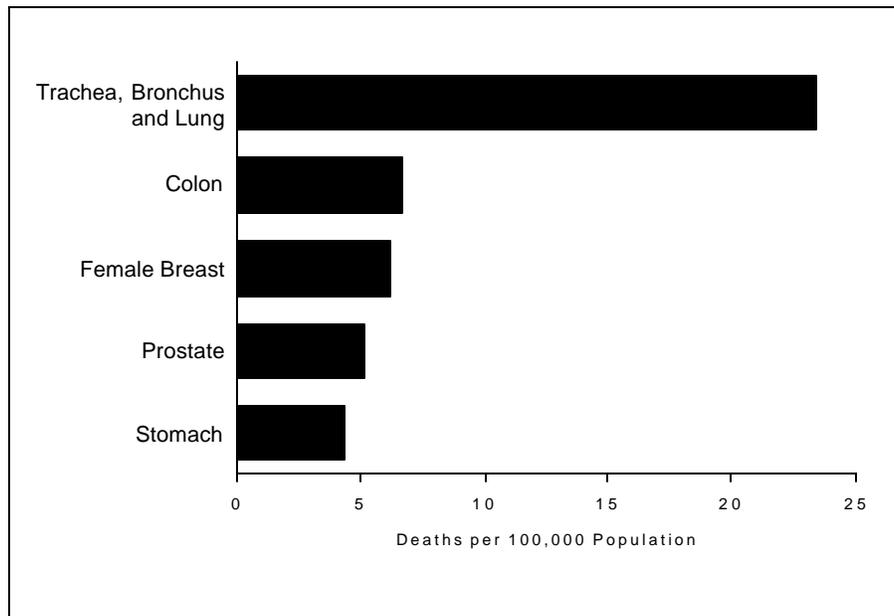


Table 4.35

Leading Sites for Cancer Deaths for Decedents of All Ages

American Indians and Alaska Natives, IHS Service Area, 1992-1994 (Rate per 100,000 Population)

Site of Cancer Death	Number		Rate	
	Actual	A _q ¹	Actual	A _q ¹
All Sites	3,097	3,544	79.3	90.7
Trachea, bronchus, and lung	757	915	19.4	23.4
Colon	219	263	5.6	6.7
Female breast	204	243	5.2	6.2
Prostate	188	204	4.8	5.2
Stomach	146	171	3.7	4.4
Pancreas	125	145	3.2	3.7
Liver	132	142	3.4	3.6
Kidney	128	137	3.3	3.5
Leukemia	110	115	2.8	2.9
Ovary	78	90	2.0	2.3
Gallbladder	80	81	2.0	2.1
Cervix uteri	60	71	1.5	1.8
Esophagus	58	69	1.5	1.8
Rectum, rectosigmoid junction and anus	49	60	1.3	1.5
Multiple myeloma	58	59	1.5	1.5
Brain	49	53	1.3	1.4
Pharynx	44	45	1.1	1.2
Connective and other soft tissue	28	38	0.7	1.0
Bladder	27	32	0.7	0.8
Melanoma of skin	17	21	0.4	0.5
Larynx	19	19	0.5	0.5
Tongue	12	13	0.3	0.3
Bone and articular cartilage	11	13	0.3	0.3
Thyroid gland	8	9	0.2	0.2
All other sites	490	536		

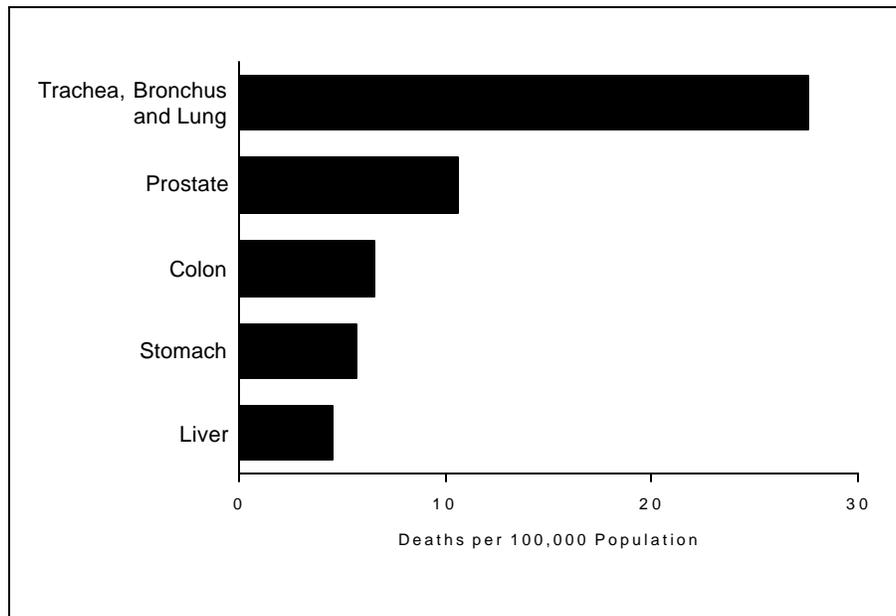
¹ Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE See appendix titled "Method Used to Rank Leading Sites of Cancer Deaths." Cancer sites are listed based upon the order of adjusted number of deaths.

Chart 4.36

*Death Rates for Leading
Cancer Sites: Males—
American Indians and
Alaska Natives (1992-1994)*

The leading site for cancer deaths among Indian males in 1992-1994 was trachea, bronchus, and lung. About 2.6 times as many Indian males died of this type of cancer than the next leading site, prostate. In turn, the likelihood of dying from prostate cancer was about 61 percent greater than the next leading type of cancer, colon. These Indian counts have been adjusted for miscoding of Indian race on death certificates.



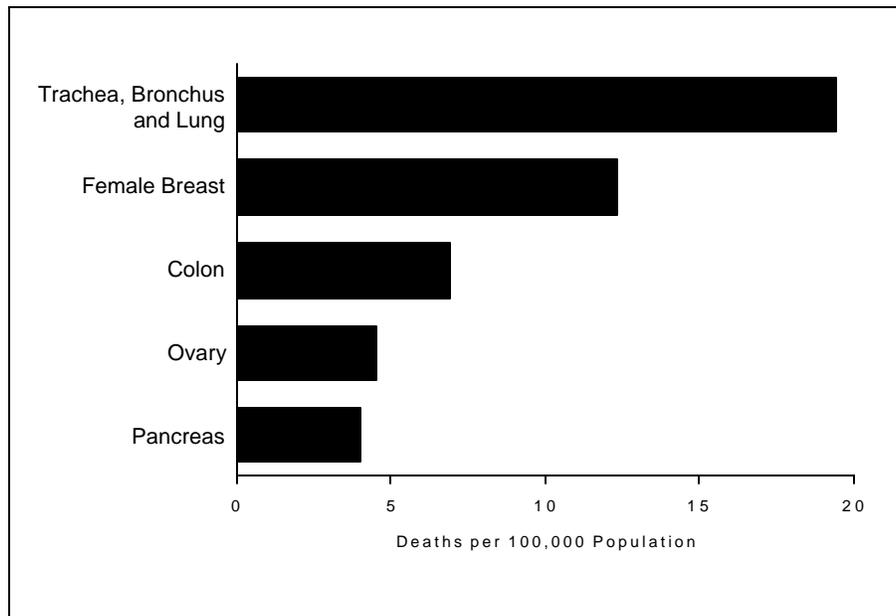


1997 Trends in Indian Health

Chart 4.37

Death Rates for Leading Cancer Sites: Females — American Indians and Alaska Natives (1992-1994)

The leading site for cancer deaths among Indian females in 1992-1994 was trachea, bronchus, and lung. About 58 percent more Indian females died of this type of cancer than the next leading site, breast. In turn, the likelihood of dying from breast cancer was about 79 percent greater than the next leading type of cancer, colon. These Indian counts have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.36

*Leading Sites for
Cancer Deaths by Sex*

American Indians and Alaska
Natives, IHS Service Area,
1992-1994 (Rate per 100,000
Population)

Site of Cancer Death	Male			
	Number		Rate	
	Actual	Aq ¹	Actual	Aq ¹
All Sites	1,578	1,792	82.0	93.2
Trachea, bronchus, and lung	436	531	22.7	27.6
Prostate	188	204	9.8	10.6
Colon	103	127	5.4	6.6
Stomach	94	109	4.9	5.7
Liver	81	87	4.2	4.5
Kidney	80	87	4.2	4.5
Leukemia	64	65	3.3	3.4
Pancreas	58	65	3.0	3.4
Esophagus	51	61	2.7	3.2
Pharynx	34	34	1.8	1.8
Multiple myeloma	33	34	1.7	1.8
Brain	28	31	1.5	1.6
Gallbladder	30	30	1.6	1.6
Rectum, rectosigmoid junction and anus	24	29	1.2	1.5
Connective and other soft tissue	12	15	0.6	0.8
Larynx	14	14	0.7	0.7
Bladder	13	14	0.7	0.7
Melanoma of skin	7	8	0.4	0.4
Tongue	6	7	0.3	0.4
Bone and articular cartilage	6	7	0.3	0.4
Penis	3	3	0.2	0.2
Thyroid gland	2	3	0.1	0.2
Testis	2	2	0.1	0.1
All other sites	209	225		
Site of Cancer Death	Female			
	Number		Rate	
	Actual	Aq ¹	Actual	Aq ¹
All Sites	1,519	1,752	76.6	88.4
Trachea, bronchus, and lung	321	384	16.2	19.4
Female breast	204	243	10.3	12.3
Colon	116	136	5.9	6.9
Ovary	78	90	3.9	4.5
Pancreas	67	80	3.4	4.0
Cervix uteri	60	71	3.0	3.6
Stomach	52	62	2.6	3.1
Liver	51	55	2.6	2.8
Gallbladder	50	51	2.5	2.6
Kidney	48	50	2.4	2.5
Leukemia	46	50	2.3	2.5
Rectum, rectosigmoid junction and anus	25	31	1.3	1.6
Multiple myeloma	25	25	1.3	1.3
Connective and other soft tissue	16	23	0.8	1.2
Brain	21	22	1.1	1.1
Bladder	14	18	0.7	0.9
Melanoma of skin	10	13	0.5	0.7
Pharynx	10	11	0.5	0.6
Esophagus	7	8	0.4	0.4
Tongue	6	6	0.3	0.3
Thyroid gland	6	6	0.3	0.3
Bone and articular cartilage	5	6	0.3	0.3
Larynx	5	5	0.3	0.3
All other sites	276	306		

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE See appendix titled "Method Used to Rank Leading Sites of Cancer Deaths." Cancer sites are listed based upon the order of adjusted number of deaths.

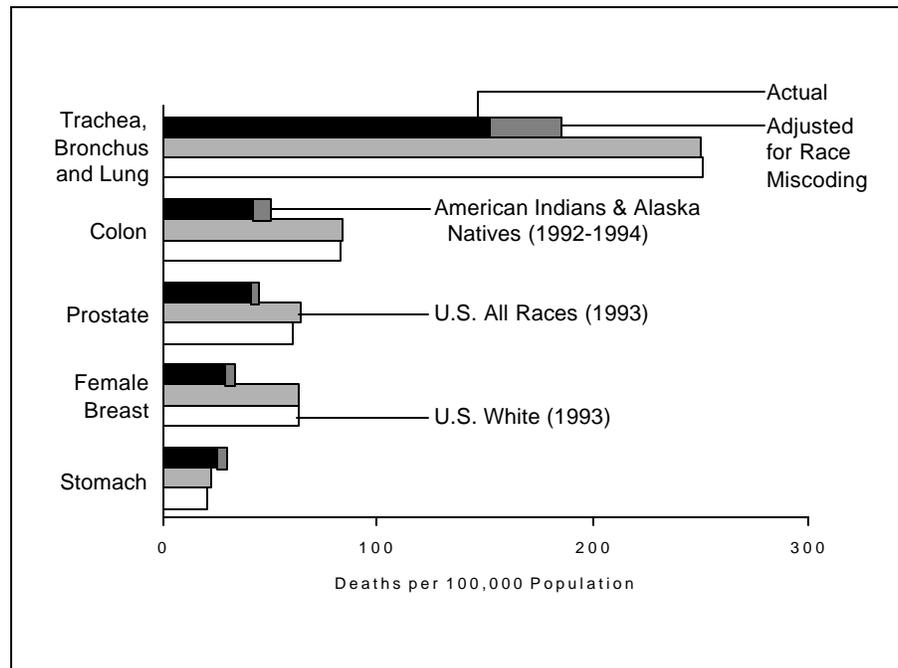


1997 Trends in Indian Health

Chart 4.38

*Death Rates,
Leading Cancer Sites:
Ages 55+ Years*

The leading site for cancer deaths among Indians, 55 years and older, in 1992-1994 was trachea, bronchus, and lung. About 3.6 times as many Indian people in this age group died of this type of cancer than the next leading site, colon. The third and fourth leading sites were prostate and female breast, respectively. These Indian counts have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.38

Leading Sites for Cancer Deaths for Decedents 55 Years Old and Older

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Site of Cancer Death	American Indian & Alaska Native Number		Rate		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:	
	Actual	Adj ¹	Actual	Adj ¹			U.S. All Races	U.S. White
All Sites	2,491	2,838	571.3	650.8	860.8	855.4	0.8	0.8
Trachea, bronchus, and lung	669	810	153.4	185.8	250.2	251.1	0.7	0.7
Colon	188	225	43.1	51.6	83.3	83.0	0.6	0.6
Prostate	183	199	42.0	45.6	64.3	60.1	0.7	0.8
Female breast	130	152	29.8	34.9	62.8	63.4	0.6	0.6
Stomach	113	132	25.9	30.3	22.8	20.7	1.3	1.5
Pancreas	109	128	25.0	29.4	44.9	44.1	0.7	0.7
Liver	113	119	25.9	27.3	16.3	15.4	1.7	1.8
Kidney	103	109	23.6	25.0	17.2	17.6	1.5	1.4
Gallbladder	72	73	16.5	16.7	6.6	6.7	2.5	2.5
Ovary	57	66	13.1	15.1	20.7	21.2	0.7	0.7
Esophagus	49	58	11.2	13.3	17.0	15.6	0.8	0.9
Leukemia	53	55	12.2	12.8	29.2	30.1	0.4	0.4
Multiple myeloma	49	50	11.2	11.5	17.0	9.7	0.7	1.2
Rectum, rectosigmoid junction and anus	38	45	8.7	10.3	13.6	13.6	0.8	0.8
Cervix uteri	31	33	7.1	7.6	4.9	4.2	1.6	1.8
Pharynx	32	32	7.3	7.3	5.8	5.4	1.3	1.4
Bladder	23	28	5.3	6.4	19.5	20.2	0.3	0.3
Brain	22	23	5.1	5.3	15.0	15.9	0.4	0.3
Larynx	19	19	4.4	4.4	6.5	6.1	0.7	0.7
Connective and other soft tissue	12	16	2.8	3.7	4.7	4.6	0.8	0.8
Tongue	11	12	2.5	2.8	2.7	2.6	1.0	1.1
Melanoma of skin	7	10	1.6	2.3	8.7	9.6	0.3	0.2
Bone and articular cartilage	7	9	1.6	2.1	1.4	1.4	1.5	1.5
Thyroid gland	6	6	1.4	1.4	2.5	2.5	0.6	0.6
All other sites	395	429						

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE See appendix titled "Method Used to Rank Leading Sites of Cancer Deaths." Cancer sites are listed based upon the order of adjusted number of deaths.



1997 Trends in Indian Health

Chart 4.39

*Death Rates,
Leading Cancer Sites:
Males, 55+ Years*

The leading site for cancer deaths among Indian males, 55 years and older, in 1992-1994 was trachea, bronchus, and lung. About 2.3 times as many Indian males in this age group died of this type of cancer than the next leading site, prostate. In turn, the likelihood of dying from prostate cancer was about 86 percent greater than the next leading type of cancer, colon. These Indian counts have been adjusted for miscoding of Indian race on death certificates.

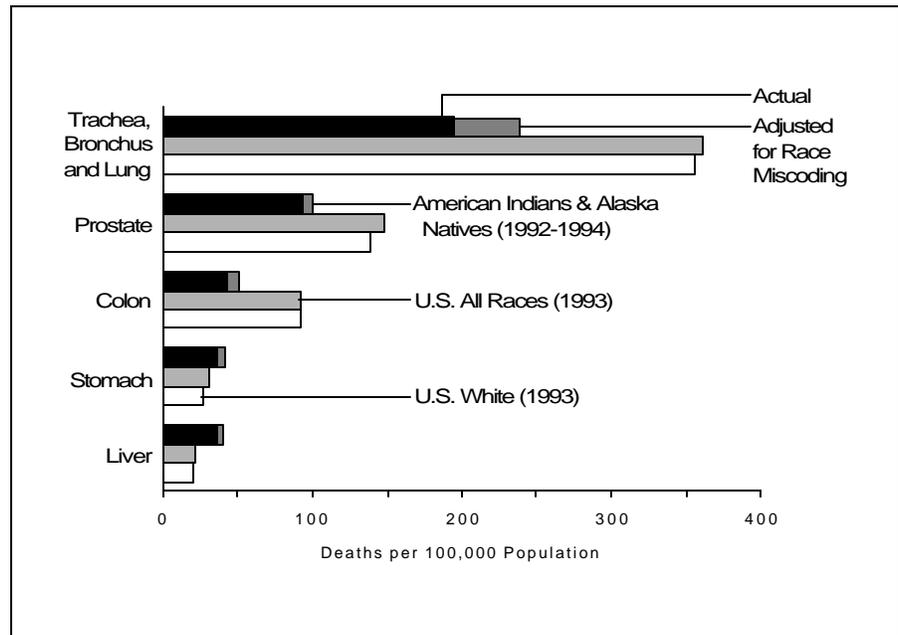
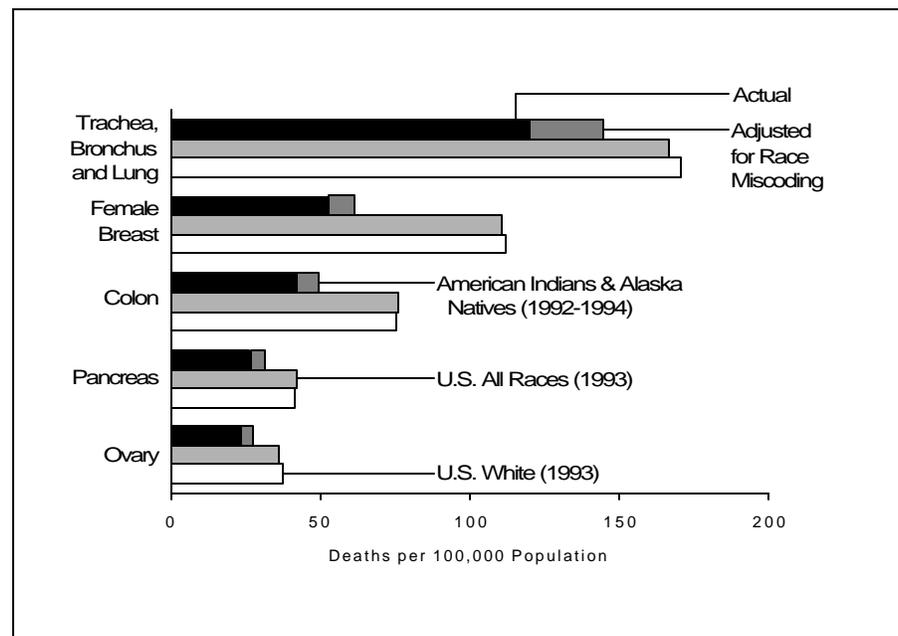


Chart 4.40

*Death Rates,
Leading Cancer Sites:
Females, 55+ Years*

The leading site for cancer deaths among Indian females, 55 years and older, in 1992-1994 was trachea, bronchus, and lung. About 2.3 times as many Indian females in this age group died of this type of cancer than the next leading site, breast. In turn, the likelihood of dying from breast cancer was about 29 percent greater than the next leading type of cancer, colon. These Indian counts have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.39

Leading Sites for Cancer Deaths by Sex, 55 Years Old and Older

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Site of Cancer Death	American Indian & Alaska Native Number		Rate		U.S. All Races Rate	U.S. White Rate	Ratio ¹ of American Indian and Alaska Native to:	
	Actual	Adj ¹	Actual	Adj ¹			U.S. All Races	U.S. White
Male								
All Sites	1,293	1,475	668.0	762.0	1,060.4	1,039.9	0.7	0.7
Trachea, bronchus, and lung	378	464	195.3	239.7	360.4	355.6	0.7	0.7
Prostate	183	199	94.5	102.8	148.8	138.2	0.7	0.7
Colon	87	107	44.9	55.3	92.6	92.3	0.6	0.6
Stomach	73	86	37.7	44.4	30.8	27.8	1.4	1.6
Liver	73	78	37.7	40.3	22.2	20.9	1.8	1.9
Kidney	64	70	33.1	36.2	23.8	24.4	1.5	1.5
Pancreas	45	51	23.3	26.4	48.6	47.6	0.5	0.6
Esophagus	42	50	21.7	25.8	28.8	26.4	0.9	1.0
Leukemia	32	33	16.5	17.1	36.7	37.8	0.5	0.5
Gallbladder	29	29	15.0	15.0	5.5	5.7	2.7	2.6
Multiple myeloma	27	28	14.0	14.5	19.3	18.1	0.8	0.8
Pharynx	25	25	12.9	12.9	9.3	8.5	1.4	1.5
Rectum, rectosigmoid junction and anus	18	21	9.3	10.9	16.2	16.2	0.7	0.7
Larynx	14	14	7.2	7.2	11.9	11.1	0.6	0.6
Brain	11	11	5.7	5.7	18.2	19.2	0.3	0.3
Bladder	9	10	4.7	5.2	30.7	32.0	0.2	0.2
Connective and other soft tissue	7	10	3.6	5.2	4.8	5.0	1.1	1.0
Tongue	6	7	3.1	3.6	4.0	3.8	0.9	0.9
Melanoma of skin	4	5	2.1	2.6	12.3	13.7	0.2	0.2
Bone and articular cartilage	3	4	1.6	2.1	1.6	1.6	1.3	1.3
Penis	3	3	1.6	1.6	0.8	0.7	2.0	2.3
Thyroid gland	1	1	0.5	0.5	4.4	1.5	0.1	0.3
Hodgkins disease	1	1	0.5	0.5	1.9	2.0	0.3	0.3
All other sites	158	168						
Female								
All Sites	1,198	1,363	494.1	562.1	708.9	713.7	0.8	0.8
Trachea, bronchus, and lung	291	346	120.0	142.7	166.2	170.8	0.9	0.8
Female breast	130	152	53.6	62.7	110.6	112.1	0.6	0.6
Colon	101	118	41.7	48.7	76.2	75.8	0.6	0.6
Pancreas	64	77	26.4	31.8	42.1	41.3	0.8	0.8
Ovary	57	66	23.5	27.2	36.4	37.6	0.7	0.7
Stomach	40	46	16.5	19.0	16.6	15.2	1.1	1.3
Gallbladder	43	44	17.7	18.2	7.4	7.6	2.5	2.4
Liver	40	41	16.5	16.9	11.8	11.3	1.4	1.5
Kidney	39	39	16.1	16.1	12.2	12.5	1.3	1.3
Cervix uteri	31	33	12.8	13.6	8.7	7.4	1.6	1.8
Rectum, rectosigmoid junction and anus	20	24	8.3	9.9	11.6	11.6	0.9	0.9
Multiple myeloma	22	22	9.1	9.1	15.2	12.5	0.6	0.7
Leukemia	21	22	8.7	9.1	23.4	24.1	0.4	0.4
Bladder	14	18	5.8	7.4	11.0	11.1	0.7	0.7
Brain	11	12	4.5	5.0	12.5	13.3	0.4	0.4
Esophagus	7	8	2.9	3.3	8.0	7.3	0.4	0.5
Pharynx	7	7	2.9	2.9	3.1	3.0	0.9	1.0
Connective and other soft tissue	5	6	2.1	2.5	4.6	3.9	0.5	0.6
Thyroid gland	5	5	2.1	2.1	2.2	2.2	1.0	1.0
Larynx	5	5	2.1	2.1	2.4	2.3	0.9	0.9
Tongue	5	5	2.1	2.1	1.7	1.7	1.2	1.2
Bone and articular cartilage	4	5	1.7	2.1	1.2	1.0	1.8	2.1
Small intestine	4	4	1.7	1.7	1.5	1.4	1.1	1.2
All other sites	232	258						

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

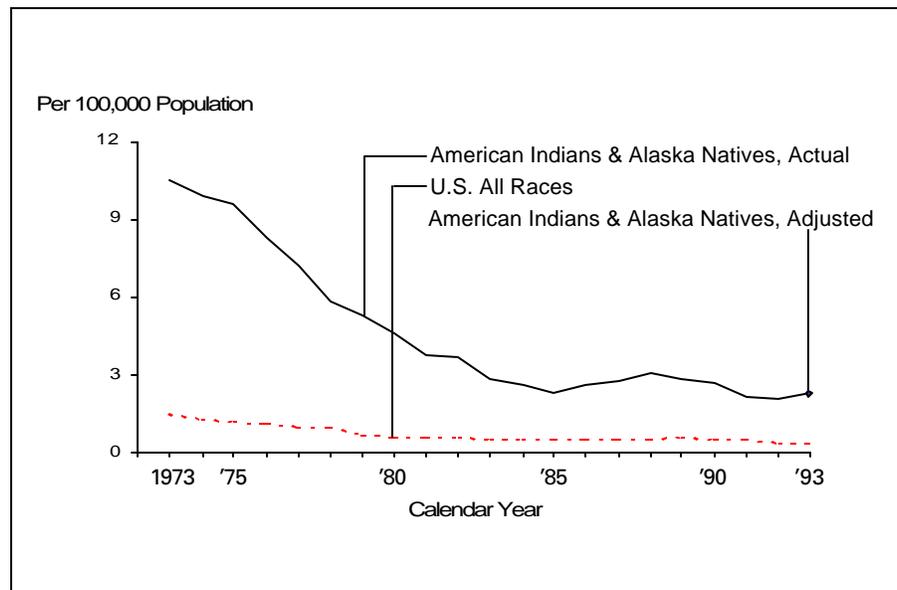
NOTE See appendix titled "Method Used to Rank Leading Sites of Cancer Deaths." Cancer sites are listed based upon the order of adjusted number of deaths.

1997 Trends in Indian Health

Chart 4.4.1

Age-Adjusted Tuberculosis Death Rates

The age-adjusted tuberculosis death rate for American Indians and Alaska Natives has dropped from 10.5 deaths per 100,000 population in 1972-1974 to 2.3 in 1992-1994, a decrease of 78 percent. The 1992-1994 rate remains at 2.3 even after adjustment for miscoding of Indian race on death certificates. This is nearly 6 times the U.S. All Races rate of 0.4 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/unadjusted trend line might rise in value, but the rate of change would probably remain the same.



Part 4—General Mortality Statistics

Table 4.41

Tuberculosis Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:					
	Number	Rate			U.S. All Races	U.S. White				
(1994)	30	30 (adj)								
1992-1994 (1993)	24	24 (adj)	2.3	2.3 (adj)	0.4	0.3	5.8	5.8 (adj)	7.7	7.7 (adj)
1991-1993 (1992)	19	19 (adj)	2.1		0.4	0.3	5.3		7.0	
1990-1992 (1991)	25		2.2		0.5	0.3	4.4		7.3	
1989-1991 (1990)	24		2.7		0.5	0.3	5.4		9.0	
1988-1990 (1989)	33		2.9		0.6	0.3	4.8		9.7	
1987-1989 (1988)	25		3.1		0.5	0.3	6.2		10.3	
1986-1988 (1987)	28		2.8		0.5	0.3	5.6		9.3	
1985-1987 (1986)	24		2.6		0.5	0.3	5.2		8.7	
1984-1986 (1985)	18		2.3		0.5	0.3	4.6		7.7	
1983-1985 (1984)	17		2.6		0.5	0.3	5.2		8.7	
1982-1984 (1983)	30		2.9		0.5	0.3	5.8		9.7	
1981-1983 (1982)	22		3.7		0.6	0.4	6.2		9.3	
1980-1982 (1981)	30		3.8		0.6	0.4	6.3		9.5	
1979-1981 (1980)	31		4.6		0.6	0.4	7.7		11.5	
1978-1980 (1979)	33		5.3		0.7	0.4	7.6		13.3	
1977-1979 (1978)	40		5.9		1.0	0.7	5.9		8.4	
1976-1978 (1977)	33		7.2		1.0	0.7	7.2		10.3	
1975-1977 (1976)	48		8.3		1.1	0.8	7.5		10.4	
1974-1976 (1975)	53		9.6		1.2	0.9	8.0		12.0	
1973-1975 (1974)	48		9.9		1.3	0.9	7.6		11.0	
1972-1974 (1973)	45		10.5		1.5	1.1	7.0		9.5	
(1972)	50									
1954-1956 (1955)	253		57.9		8.4	6.2	6.9		9.3	

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

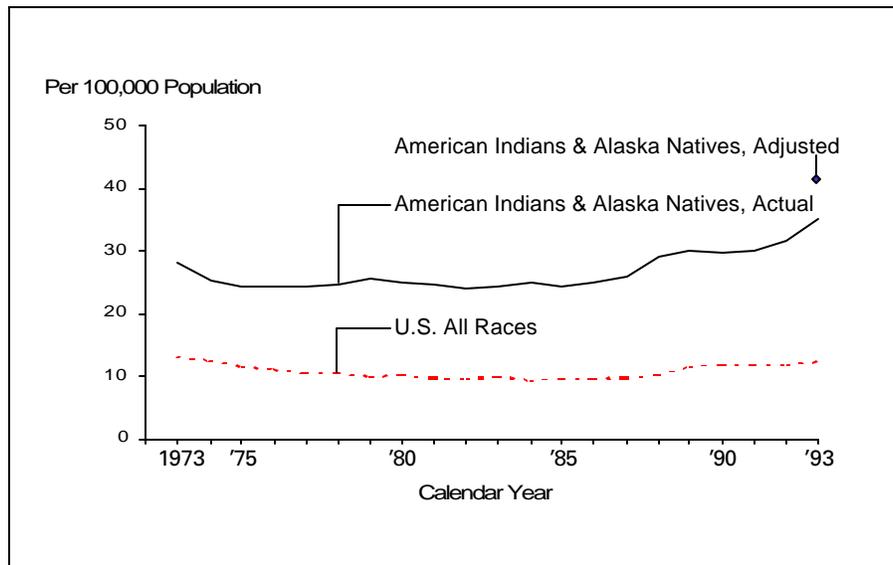
NOTE Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths for the Indian population and rates for U.S. populations are for the single year specified.

1997 Trends in Indian Health

Chart 4.42

Age-Adjusted Diabetes Mellitus Death Rates

The age-adjusted diabetes mellitus death rate for American Indians and Alaska Natives varied between 24.0 and 30.0 between 1972-1974 and 1990-1992. In 1991-1993, it rose to 31.7 and in 1992-1994 to 35.1. When the 1992-1994 rate is adjusted for miscoding of Indian race on death certificates, it increases to 41.1. This is 3.3 times the U.S. All Races rate of 12.4 for 1993. This is the highest U.S. rate since 1974, when the rate was 12.5. If all the past Indian rates were similarly adjusted for miscoding, the actual/unadjusted trend line would rise in value, but the rate of change would probably remain the same.



Part 4—General Mortality Statistics

Table 4.42

Diabetes Mellitus Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:					
	Number	Rate			U.S. All Races	U.S. White				
(1994)	399	467 (adj)								
1992-1994 (1993)	354	412 (adj)	35.1	41.1 (adj)	12.4	11.0	2.8	3.3 (adj)	3.2	3.7 (adj)
1991-1993 (1992)	324	373 (adj)	31.7		11.9	10.5	2.7		3.0	
1990-1992 (1991)	275		30.0		11.8	10.5	2.5		2.9	
1989-1991 (1990)	285		29.7		11.7	10.4	2.5		2.9	
1988-1990 (1989)	301		30.0		11.5	10.3	2.6		2.9	
1987-1989 (1988)	260		29.1		10.1	9.0	2.9		3.2	
1986-1988 (1987)	227		26.0		9.8	8.7	2.7		3.0	
1985-1987 (1986)	195		25.0		9.6	8.5	2.6		2.9	
1984-1986 (1985)	208		24.4		9.6	8.6	2.5		2.8	
1983-1985 (1984)	189		25.0		9.5	8.5	2.6		2.9	
1982-1984 (1983)	179		24.3		9.9	8.9	2.5		2.7	
1981-1983 (1982)	164		24.0		9.6	8.7	2.5		2.8	
1980-1982 (1981)	156		24.8		9.8	8.8	2.5		2.8	
1979-1981 (1980)	173		25.2		10.1	9.1	2.5		2.8	
1978-1980 (1979)	153		25.6		10.0	9.0	2.6		2.8	
1977-1979 (1978)	147		24.6		10.4	9.4	2.4		2.6	
1976-1978 (1977)	133		24.4		10.4	9.4	2.3		2.6	
1975-1977 (1976)	125		24.3		11.1	10.0	2.2		2.4	
1974-1976 (1975)	123		24.3		11.6	10.4	2.1		2.3	
1973-1975 (1974)	110		25.5		12.5	11.4	2.0		2.2	
1972-1974 (1973)	117		28.1		13.2	11.8	2.1		2.4	
(1972)	129									
1954-1956 (1955)	64		17.0		13.0	12.6	1.3		1.3	

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

NOTE Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths for the Indian population and rates for U.S. populations are for the single year specified.

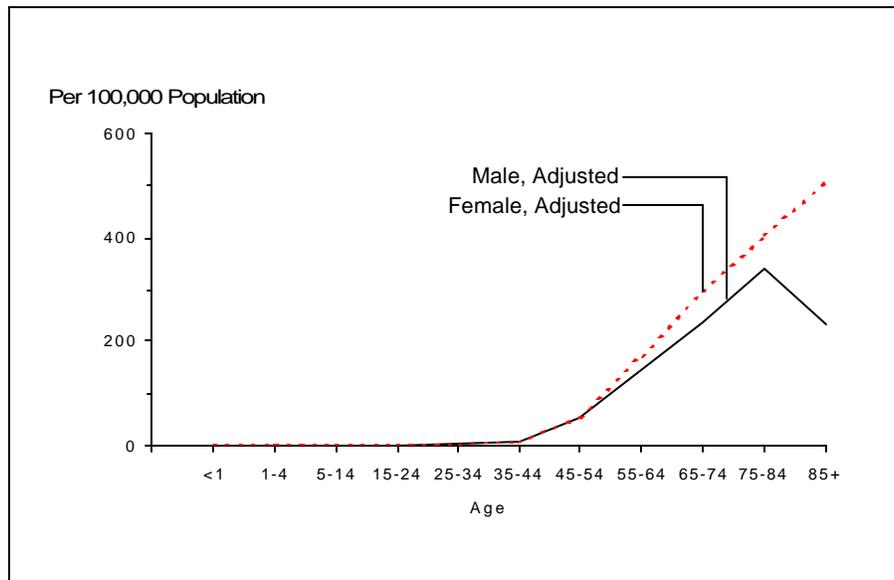


1997 Trends in Indian Health

Chart 4.43

Diabetes Mellitus Death Rates by Age and Sex: American Indians and Alaska Natives (1992-1994)

The age-specific diabetes mellitus death rate (1992-1994) for Indian females increased sharply with age. The same was true for Indian males until the 85 years and over age group. Starting with age groups over 44 years, the Indian female rate was greater than the Indian male rate. These Indian rates have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.43

Diabetes Mellitus Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Age Group	American Indian and Alaska Native					
	Both Sexes		Male		Female	
	Actual	Aq ¹	Actual	Aq ¹	Actual	Aq ¹
Under 1 year	—	—	—	—	—	—
1-4 years	—	—	—	—	—	—
5-14 years	—	—	—	—	—	—
15-24 years	0.3	0.3	0.3	0.3	0.3	0.3
25-34 years	1.4	1.8	1.5	1.9	1.2	1.8
35-44 years	6.5	7.1	8.4	8.4	4.7	5.9
45-54 years	45.4	53.8	47.5	52.9	43.5	54.7
55-64 years	133.6	159.5	126.6	145.8	139.8	171.4
65-74 years	228.7	268.5	206.2	237.3	246.5	293.2
75-84 years	328.5	376.5	290.6	339.1	354.0	401.7
85 years+	401.7	407.1	233.7	233.8	498.9	507.4

Age Group	U.S. All Races		
	Both Sexes	Male	Female
Under 1 year	0.0	0.1	—
1-4 years	0.1	0.1	0.1
5-14 years	0.1	0.1	0.1
15-24 years	0.3	0.4	0.3
25-34 years	1.4	1.5	1.3
35-44 years	4.2	5.0	3.3
45-54 years	12.0	12.0	9.2
55-64 years	35.7	38.1	33.6
65-74 years	80.4	85.1	76.6
75-84 years	152.3	161.9	146.5
85+ years	269.4	282.2	264.5

Age Group	U.S. White		
	Both Sexes	Male	Female
Under 1 year	0.0	0.1	—
1-4 years	0.1	0.0	0.1
5-14 years	0.1	0.1	0.1
15-24 years	0.3	0.3	0.2
25-34 years	1.3	1.3	1.2
35-44 years	3.6	4.4	2.8
45-54 years	10.0	11.8	8.3
55-64 years	30.3	33.4	27.4
65-74 years	71.7	78.7	66.2
75-84 years	141.8	154.5	133.4
85+ years	257.4	273.4	251.3

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

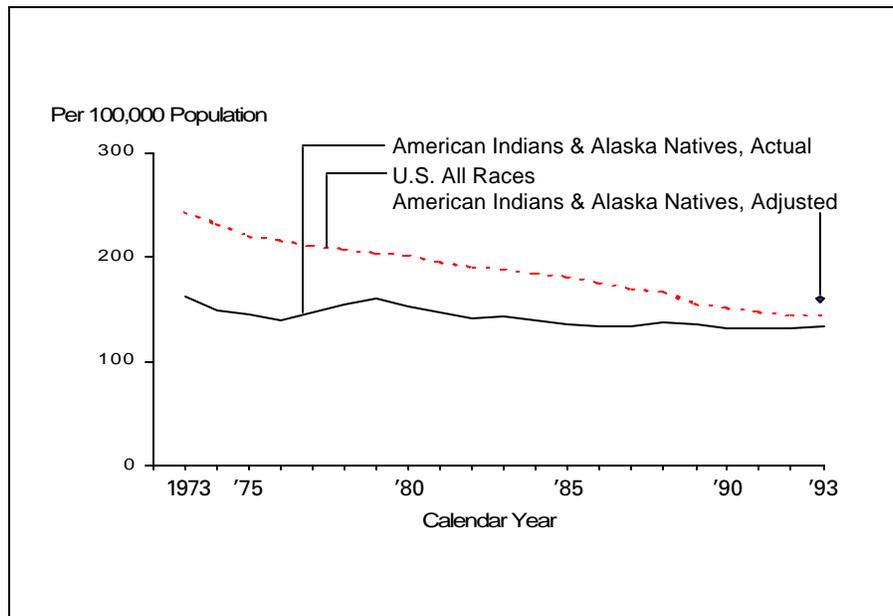
NOTE — Represents zero. 0.0 Rounds to zero.

1997 Trends in Indian Health

Chart 4.44

Age-Adjusted Heart Disease Death Rates

The age-adjusted heart disease death rate for American Indians and Alaska Natives has been relatively stable since 1984-1986. During this same time period, the U.S. All Races rate decreased 20 percent. When the 1992-1994 Indian rate is adjusted for miscoding of Indian race on death certificates, it increases from 133.4 to 157.6. This is 8 percent higher than the U.S. All Races rate of 145.3 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/ unadjusted trend line would rise in value, but the rate of change would probably remain the same.



Part 4—General Mortality Statistics

Table 4.44

Heart Disease Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:					
	Number	Rate			U.S. All Races	U.S. White				
(1994)	1,515	1,754 (adj)								
1992-1994 (1993)	1,524	1,779 (adj)	133.4	157.6 (adj)	145.3	139.9	0.9	1.1 (adj)	1.0	1.1 (adj)
1991-1993 (1992)	1,484	1,764 (adj)	132.8		144.3	139.2	0.9	1.0		
1990-1992 (1991)	1,416		131.5		148.2	143.1	0.9	0.9		
1989-1991 (1990)	1,349		132.2		152.0	146.9	0.9	0.9		
1988-1990 (1989)	1,408		135.5		155.9	151.0	0.9	0.9		
1987-1989 (1988)	1,359		138.0		166.3	161.5	0.8	0.9		
1986-1988 (1987)	1,312		135.0		169.6	165.0	0.8	0.8		
1985-1987 (1986)	1,190		134.6		175.0	170.4	0.8	0.8		
1984-1986 (1985)	1,223		136.4		180.5	176.1	0.8	0.8		
1983-1985 (1984)	1,206		140.6		183.6	179.5	0.8	0.8		
1982-1984 (1983)	1,117		143.5		188.8	184.6	0.8	0.8		
1981-1983 (1982)	1,102		141.9		190.5	186.8	0.7	0.8		
1980-1982 (1981)	1,000		147.4		195.0	191.1	0.8	0.8		
1979-1981 (1980)	1,096		154.0		202.0	197.6	0.8	0.8		
1978-1980 (1979)	1,096		160.2		203.5	199.8	0.8	0.8		
1977-1979 (1978)	965		156.0		207.6	204.0	0.8	0.8		
1976-1978 (1977)	873		146.7		210.4	206.8	0.7	0.7		
1975-1977 (1976)	798		140.5		216.7	213.5	0.6	0.7		
1974-1976 (1975)	729		144.8		220.5	217.2	0.7	0.7		
1973-1975 (1974)	796		149.6		232.7	228.8	0.6	0.7		
1972-1974 (1973)	716		162.8		244.4	239.9	0.7	0.7		
(1972)	763									
1954-1956 (1955)			223.0		291.3	285.6	0.8	0.8		

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

NOTE Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths for the Indian population and rates for U.S. populations are for the single year specified.

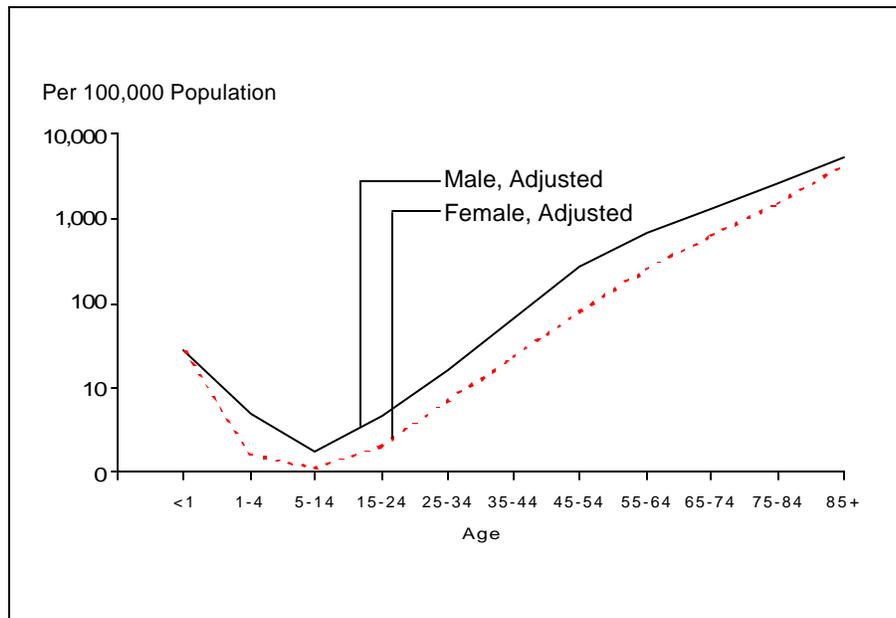


1997 Trends in Indian Health

Chart 4.45

Heart Disease Death Rates by Age and Sex: American Indians and Alaska Natives (1992-1994)

The age-specific heart disease death rate (1992-1994) for Indian males was greater for all age groups in comparison to Indian females. The rate for both Indian males and females increased with age starting with age groups over 4 years. These Indian rates have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.45

Heart Disease Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Age Group	American Indian and Alaska Native					
	Both Sexes		Male		Female	
	Actual	Aq ¹	Actual	Aq ¹	Actual	Aq ¹
Under 1 year	22.4	26.3	23.1	27.0	21.6	25.5
1-4 years	2.4	3.8	3.7	5.9	1.1	1.7
5-14 years	1.0	1.1	1.6	1.9	0.2	0.2
15-24 years	3.2	3.9	4.8	5.7	1.5	2.1
25-34 years	9.8	12.0	14.2	16.1	5.6	8.0
35-44 years	37.0	43.7	55.6	65.7	19.6	23.1
45-54 years	146.2	174.7	231.9	278.7	67.7	79.5
55-64 years	373.1	444.7	548.7	663.2	220.7	254.9
65-74 years	790.2	939.3	1,107.7	1,328.6	538.4	630.6
75-84 years	1,642.5	1,959.0	2,164.8	2,634.3	1,290.5	1,503.9
85 years +	4,177.8	4,472.4	4,660.3	5,084.0	3,898.5	4,118.4

Age Group	U.S. All Races		
	Both Sexes	Male	Female
Under 1 year	16.9	18.3	15.5
1-4 years	1.9	2.0	1.7
5-14 years	0.8	0.8	0.9
15-24 years	2.7	3.4	2.0
25-34 years	8.5	11.3	5.6
35-44 years	32.2	47.4	17.2
45-54 years	114.0	151.2	51.0
55-64 years	344.3	499.1	204.5
65-74 years	848.2	1,175.3	589.3
75-84 years	2,182.9	2,795.5	1,808.2
85+ years	6,668.9	7,331.9	6,414.6

Age Group	U.S. White		
	Both Sexes	Male	Female
Under 1 year	14.0	15.9	12.1
1-4 years	1.5	1.3	1.3
5-14 years	0.7	0.7	0.8
15-24 years	2.2	2.8	1.6
25-34 years	6.9	9.3	4.5
35-44 years	27.5	41.9	12.9
45-54 years	102.9	159.9	47.5
55-64 years	322.6	475.6	181.7
65-74 years	823.0	1,154.6	557.4
75-84 years	2,169.4	2,780.3	1,780.8
85+ years	6,761.9	7,466.9	6,495.0

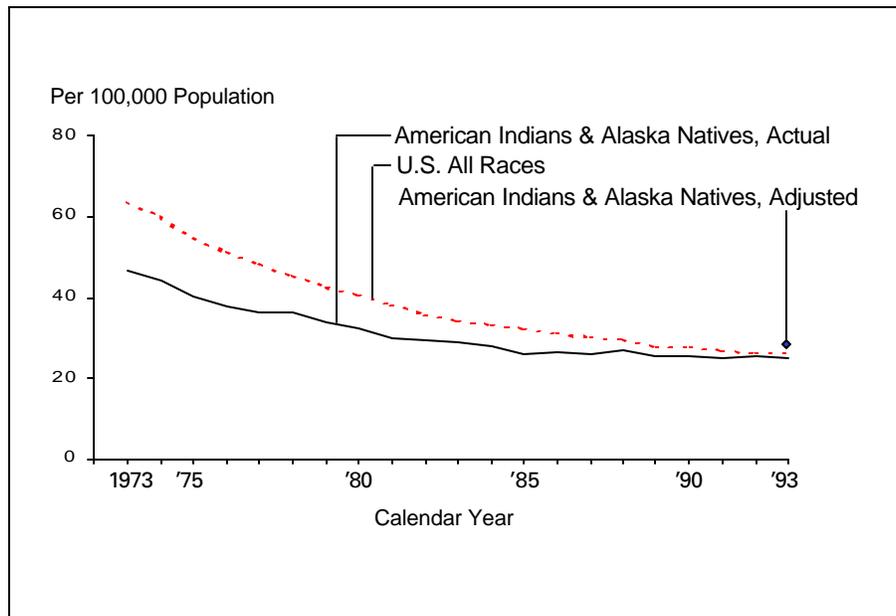
¹Adjusted to compensate for miscoding of Indian race on death certificates.

1997 Trends in Indian Health

Chart 4.46

*Age-Adjusted
Cerebrovascular Diseases
Death Rates*

The age-adjusted cerebrovascular diseases death rate for American Indians and Alaska Natives has been relatively stable since 1984-1986. During this same time period, the U.S. All Races rate decreased 18 percent. When the 1992-1994 Indian rate is adjusted for miscoding of Indian race on death certificates, it increases from 25.1 to 27.8. This is 5 percent higher than the U.S. All Races rate of 26.5 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/unadjusted trend line would rise in value, but the rate of change would probably remain the same.



Part 4—General Mortality Statistics

Table 4.46

Cerebrovascular Diseases Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:					
	Number	Rate			U.S. All Races	U.S. White				
(1994)	305	337 (adj)								
1992-1994 (1993)	305	335 (adj)	25.1	27.8 (adj)	26.5	24.5	0.9	1.0 (adj)	1.0	1.1 (adj)
1991-1993 (1992)	288	320 (adj)	25.4		26.2	24.2	1.0		1.0	
1990-1992 (1991)	294		25.0		26.8	24.7	0.9		1.0	
1989-1991 (1990)	275		25.3		27.7	25.5	0.9		1.0	
1988-1990 (1989)	270		25.4		28.0	25.9	0.9		1.0	
1987-1989 (1988)	275		26.9		29.7	27.5	0.9		1.0	
1986-1988 (1987)	282		26.2		30.3	28.1	0.9		0.9	
1985-1987 (1986)	232		26.4		31.0	28.8	0.9		0.9	
1984-1986 (1985)	254		26.0		32.3	30.1	0.8		0.9	
1983-1985 (1984)	245		28.0		33.4	31.1	0.8		0.9	
1982-1984 (1983)	236		28.9		34.4	32.0	0.8		0.9	
1981-1983 (1982)	237		29.6		35.8	33.4	0.8		0.9	
1980-1982 (1981)	241		29.9		38.1	35.6	0.8		0.8	
1979-1981 (1980)	225		32.6		40.8	38.0	0.8		0.9	
1978-1980 (1979)	259		34.0		42.5	39.8	0.8		0.9	
1977-1979 (1978)	227		36.3		45.3	42.5	0.8		0.9	
1976-1978 (1977)	234		36.4		48.2	45.3	0.8		0.8	
1975-1977 (1976)	226		38.0		51.4	48.5	0.7		0.8	
1974-1976 (1975)	215		40.5		54.5	51.3	0.7		0.8	
1973-1975 (1974)	233		44.2		59.9	56.4	0.7		0.8	
1972-1974 (1973)	239		46.7		63.7	59.6	0.7		0.8	
(1972)	209									
1954-1956 (1955)	NA		NA		NA	NA				

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

NOTE NA denotes data not available. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths for the Indian population and rates for U.S. populations are for the single year specified.

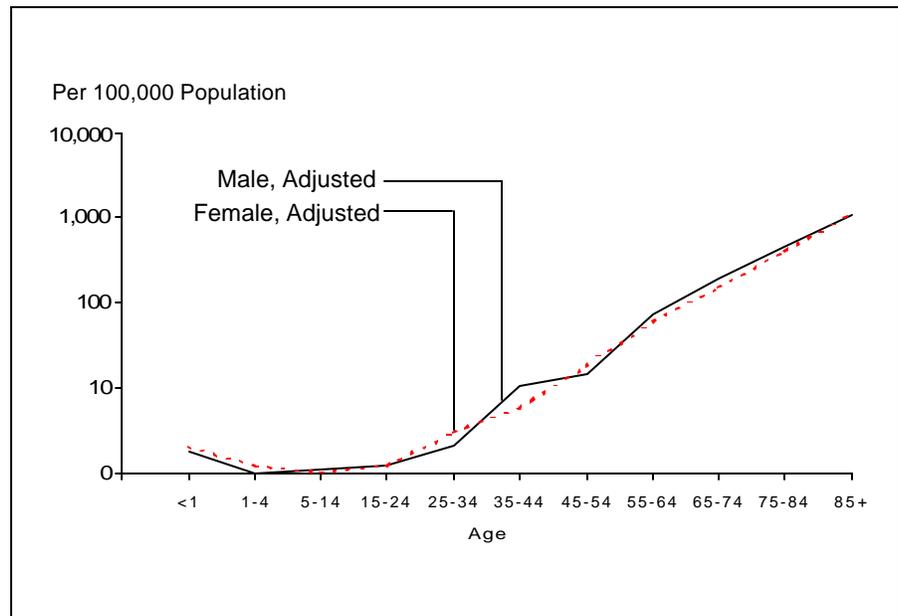


1997 Trends in Indian Health

Chart 4.47

*Cerebrovascular Diseases
Death Rates by Age and
Sex: American Indians
and Alaska Natives
(1992-1994)*

The age-specific cerebrovascular diseases death rate (1992-1994) was relatively close for Indian males and females at each age group. The rate for both Indian males and females increased with age starting with age groups over 4 years. These Indian rates have been adjusted for miscoding of Indian race on death certificates.



Part 4—General Mortality Statistics

Table 4.47

Cerebrovascular Diseases Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Age Group	American Indian and Alaska Native					
	Both Sexes		Male		Female	
	Actual	Aq ¹	Actual	Aq ¹	Actual	Aq ¹
Under 1 year	1.9	2.9	1.9	3.9	2.0	2.0
1-4 years	0.3	0.3	—	—	0.6	0.6
5-14 years	0.2	0.2	0.5	0.5	—	—
15-24 years	1.0	1.2	1.1	1.1	0.9	1.2
25-34 years	2.6	3.2	2.2	2.2	3.0	4.1
35-44 years	7.9	8.5	10.0	10.5	5.9	6.7
45-54 years	14.9	16.2	14.2	14.2	15.5	18.0
55-64 years	59.3	64.9	66.8	71.9	52.7	58.9
65-74 years	150.5	170.1	176.7	196.3	129.7	149.2
75-84 years	379.5	429.0	395.0	454.6	369.1	411.8
85 years +	1,055.2	1,103.4	1,022.6	1,081.1	1,074.0	1,116.3

Age Group	U.S. All Races		
	Both Sexes	Male	Female
Under 1 year	5.5	5.9	5.0
1-4 years	0.3	0.3	0.3
5-14 years	0.2	0.3	0.2
15-24 years	0.6	0.5	0.6
25-34 years	1.9	2.0	1.8
35-44 years	6.2	6.8	5.6
45-54 years	17.6	17.1	13.9
55-64 years	46.0	52.5	40.1
65-74 years	135.8	157.4	118.7
75-84 years	479.1	524.9	451.6
85+ years	1,607.7	1,541.9	1,632.9

Age Group	U.S. White		
	Both Sexes	Male	Female
Under 1 year	5.0	5.3	4.7
1-4 years	0.3	0.3	0.2
5-14 years	0.2	0.2	0.2
15-24 years	0.6	0.5	0.6
25-34 years	1.6	1.8	1.4
35-44 years	4.7	5.2	4.2
45-54 years	13.7	14.9	12.6
55-64 years	38.9	44.1	34.1
65-74 years	125.1	145.8	108.5
75-84 years	468.6	508.5	442.1
85+ years	1,627.3	1,562.0	1,652.0

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE —Represents zero.



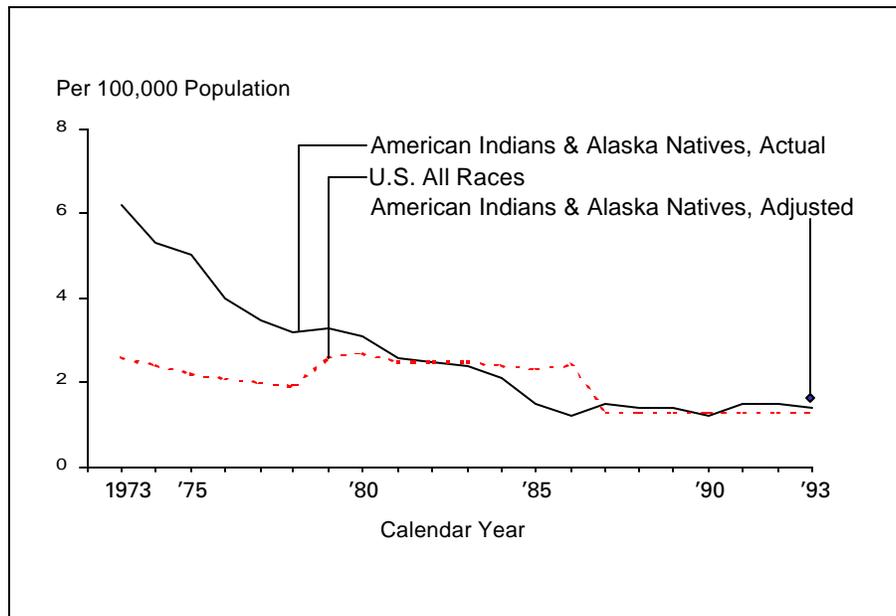
1997 Trends in Indian Health

Chart 4.48

*Age-Adjusted
Gastrointestinal Disease
Death Rates*

The age-adjusted gastrointestinal disease death rate for American Indians and Alaska Natives has decreased 77 percent since the 1972-1974 rate of 6.2 deaths per 100,000 population. When the 1992-1994 rate is adjusted for miscoding of Indian race on death certificates, it increases from 1.4 to 1.6. This is 23 percent higher than the U.S. All Races rate of 1.3 for 1993.

If all the past Indian rates were similarly adjusted for miscoding, the actual/unadjusted trend line would rise in value, but the rate of change would probably remain the same.



Part 4—General Mortality Statistics

Table 4.48

Gastrointestinal Disease Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:					
	Number	Rate			U.S. All Races	U.S. White				
(1994)	14	16 (adj)								
1992-1994 (1993)	17	20 (adj)	1.4	1.6 (adj)	1.3	1.2	1.1	1.2 (adj)	1.2	1.3 (adj)
1991-1993 (1992)	18	20 (adj)	1.5		1.3	1.2	1.2		1.3	
1990-1992 (1991)	18		1.5		1.3	1.2	1.2		1.3	
1989-1991 (1990)	17		1.2		1.3	1.2	0.9		1.0	
1988-1990 (1989)	9		1.4		1.3	1.2	1.1		1.2	
1987-1989 (1988)	24		1.4		1.3	1.5	1.1		0.9	
1986-1988 (1987)	14		1.5		1.3	1.5	1.2		1.0	
1985-1987 (1986)	15		1.2		2.4	1.2	0.5		1.0	
1984-1986 (1985)	13		1.5		2.3	1.3	0.7		1.2	
1983-1985 (1984)	21		2.1		2.4	1.4	0.9		1.6	
1982-1984 (1983)	25		2.4		2.5	1.4	1.0		1.9	
1981-1983 (1982)	18		2.5		2.5	1.2	1.0		2.2	
1980-1982 (1981)	20		2.6		2.5	1.2	1.0		2.2	
1979-1981 (1980)	29		3.1		2.7	1.6	1.2		2.0	
1978-1980 (1979)	29		3.3		2.6	1.8	1.4		2.0	
1977-1979 (1978)	26		3.2		1.9	1.8	1.8		1.9	
1976-1978 (1977)	28		3.5		2.0	1.8	2.1		2.3	
1975-1977 (1976)	37		4.0		2.1	1.9	2.3		2.5	
1974-1976 (1975)	36		5.0		2.2	2.1	2.6		2.8	
1973-1975 (1974)	44		5.3		2.4	2.3	2.5		2.7	
1972-1974 (1973)	37		6.2		2.6	2.4	2.7		2.9	
(1972)	43									
1954-1956 (1955)	165		15.4		3.6	3.1	4.3		5.0	

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

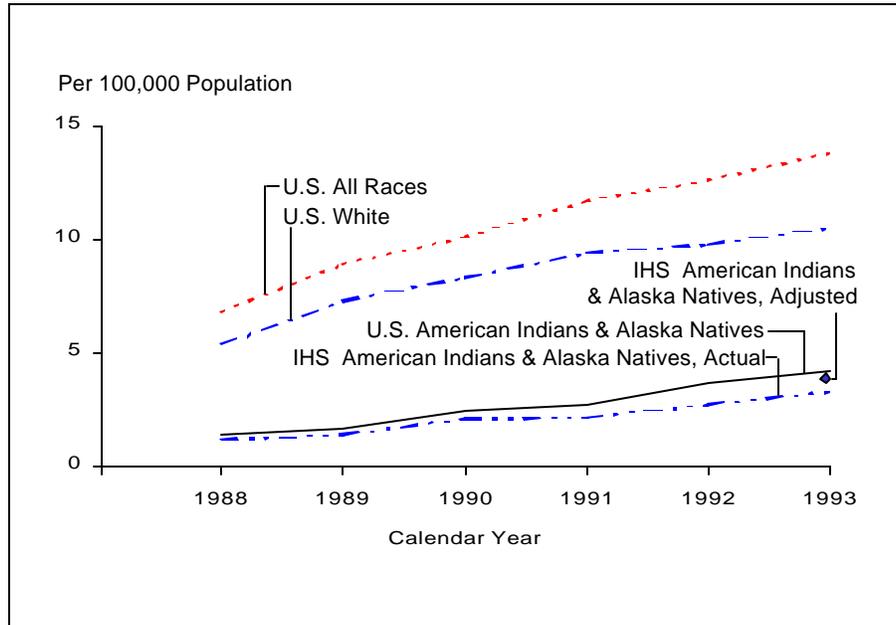
NOTE Data are presented above for the year in which IHS was established (1955). For this year Reservation State data are shown. Starting in 1972 data are first available, and are shown above, for the specific counties in the IHS service area. Data for these two geographic boundary systems are not directly comparable. American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths for the Indian population and rates for U.S. populations are for the single year specified. Starting in 1979 cause of death codes that define gastrointestinal deaths were revised to exclude ICD-9 code 557 (vascular insufficiency of intestine). Currently ICD-9 codes that define gastrointestinal disease deaths include: 004, 006, 007, 008, 009, 535, 555, 556, 558, and 562.

1997 Trends in Indian Health

Chart 4.49

*Human Immunodeficiency Virus (HIV)
Infection Death Rates*

The number of HIV deaths for American Indians and Alaska Natives residing in the entire U.S. in 1994 (120) is 6 times the number in 1987 (20). A somewhat higher relationship (a ratio of 7.8 to 1) exists for Indians residing in the IHS service area, i.e., there were 62 deaths in 1994 compared to 8 in 1987. However, IHS service area Indians comprise about 60 percent of all U.S. Indians, but in 1994 had only 52 percent of total Indian HIV deaths. When the 1994 IHS service area number is adjusted for miscoding of Indian race on death certificates, it increases to 75. An adjustment factor is not available for All U.S. Indians, but it is expected that the rate of miscoding for All U.S. Indians is greater than the rate for just IHS service area Indians. In this case, IHS service area Indians would have even less than 52 percent of total Indian HIV deaths.



Part 4—General Mortality Statistics

Table 4.49

Human Immunodeficiency Virus (HIV) Infection Deaths and Death Rates

American Indians and Alaska Natives, U.S. and IHS Service Area, and U.S. All Races and White Populations, 1988-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native						U.S. All Races Rate	U.S. White Rate
	Entire United States		IHS Service Area					
	Number	Rate	Number		Rate			
(1994)	120		62	75 (adj)				
1992-1994 (1993)	101	4.2	39	45 (adj)	3.3	3.9 (adj)	13.8	10.5
1991-1993 (1992)	57	3.7	20	21 (adj)	2.7		12.6	9.8
1990-1992 (1991)	76	2.7	38		2.2		11.7	9.4
1989-1991 (1990)	36	2.5	16		2.1		10.1	8.3
1988-1990 (1989)	36	1.7	16		1.4		8.9	7.3
1987-1989 (1988)	26	1.4	13		1.2		6.8	5.4
(1987)	20		8				5.5	4.5

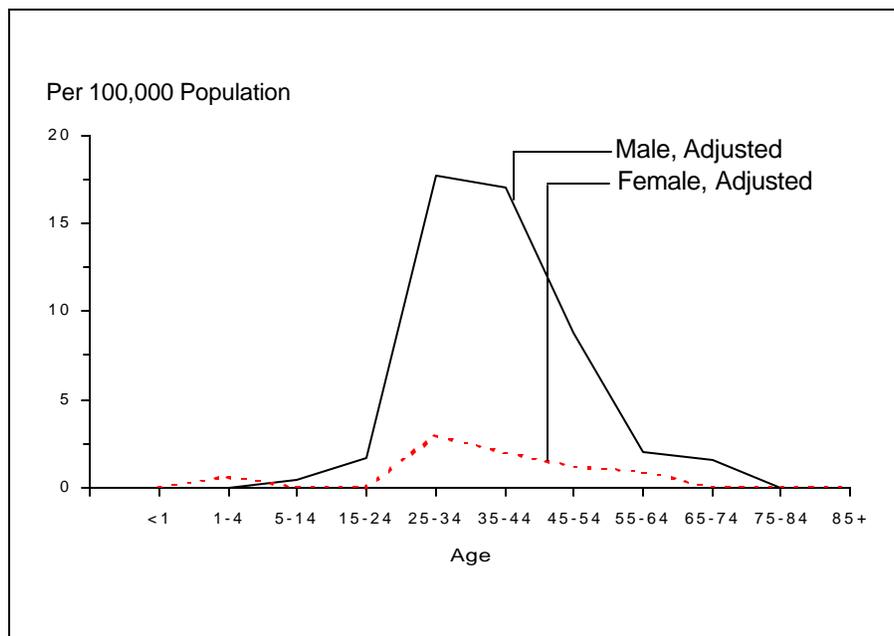
Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

NOTE Includes causes of death with ICD-9 codes 042-044, first classified in 1987. American Indian and Alaska Native rates are for the 3-year periods specified. Number of deaths for the Indian population and rates for U.S. populations are for the single year specified. American Indian and Alaska Native numbers and rates for the entire United States (shown above) are based on actual (not adjusted) numbers of deaths, since adjustment factors are only available for the American Indian and Alaska Native population residing in the IHS service area.

Chart 4.50

Human Immunodeficiency Virus (HIV) Infection Death Rates by Age and Sex, American Indians and Alaska Natives, IHS Service Area (1992-1994)

The age-specific HIV death rate (1992-1994) for Indian males was greater for all age groups in comparison to Indian females starting with age groups over 4 years. The rate for Indian males was highest (over 17.0) in age groups from 25 to 44 years. These Indian rates have been adjusted for miscoding of Indian race on death certificates.



1997 Trends in Indian Health

Table 4.50

Human Immunodeficiency Virus (HIV) Infection Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Age Group	American Indian and Alaska Native					
	Both Sexes		Male		Female	
	Actual	Aq ¹	Actual	Aq ¹	Actual	Aq ¹
Under 1 year	—	—	—	—	—	—
1-4 years	0.3	0.3	—	—	0.6	0.6
5-14 years	0.2	0.2	0.5	0.5	—	—
15-24 years	0.7	0.9	1.4	1.7	—	—
25-34 years	8.5	10.1	15.2	17.7	2.1	3.0
35-44 years	7.9	9.3	14.2	17.1	2.0	2.0
45-54 years	4.5	4.9	8.1	8.8	1.2	1.2
55-64 years	1.4	1.4	2.0	2.0	0.9	0.9
65-74 years	0.7	0.7	1.6	1.6	—	—
75-84 years	—	—	—	—	—	—
85 years +	—	—	—	—	—	—

Age Group	U.S. All Races		
	Both Sexes	Male	Female
Under 1 year	2.2	2.1	2.4
1-4 years	1.3	1.3	1.3
5-14 years	0.4	0.4	0.4
15-24 years	1.7	2.3	1.1
25-34 years	27.0	46.0	8.0
35-44 years	39.1	68.5	10.2
45-54 years	22.6	41.7	4.4
55-64 years	8.8	16.5	1.9
65-74 years	2.9	5.4	1.0
75-84 years	0.8	1.4	0.4
85+ years	—	—	—

Age Group	U.S. White		
	Both Sexes	Male	Female
Under 1 year	0.7	0.8	0.6
1-4 years	0.6	0.6	0.6
5-14 years	0.3	0.3	0.2
15-24 years	1.0	1.5	0.5
25-34 years	20.9	37.4	4.0
35-44 years	29.3	53.6	4.9
45-54 years	17.5	33.1	2.3
55-64 years	6.8	12.9	1.1
65-74 years	2.0	3.8	0.6
75-84 years	0.6	1.0	0.3
85+ years	0.5	1.2	0.3

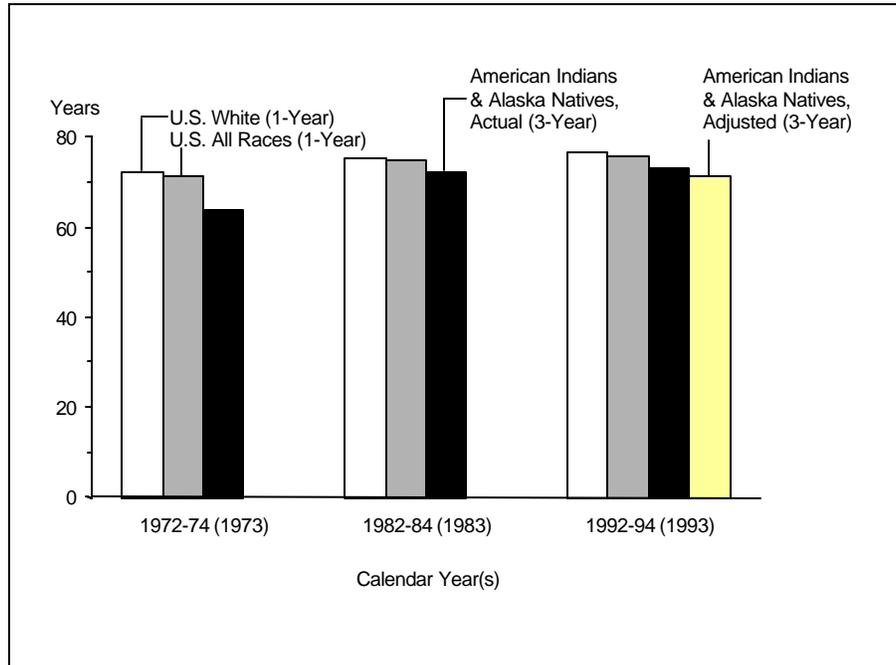
¹ Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE: —Represents zero.

Chart 4.51

Life Expectancy at Birth

Life expectancy at birth for American Indians and Alaska Natives in 1972-1974 was 63.5 years. By 1992-1994, it increased to 73.2 years. However when the 1992-1994 life expectancy is adjusted for miscoding of Indian race on death certificates, it decreases to 71.1. This is 4.4 years less than the U.S. All Races life expectancy of 75.5 for 1993 and 5.2 years less than that for U.S. Whites (76.3, 1993). If all the past Indian life expectancies were similarly adjusted for miscoding, the actual/unadjusted trend line would fall in value, but the rate of change would probably remain the same.





1997 Trends in Indian Health

Chart 4.52

Years of Potential Life Lost

The years of potential life lost (YPLL) rate for American Indians and Alaska Natives in 1992-1994 (80.3 per 1,000 population) is less than half of what it was in 1972-1974 (188.3). However when the 1992-1994 YPLL rate is adjusted for miscoding of Indian race on death certificates, it increases to 94.6. This is 73 percent greater than the U.S. All Races YPLL rate of 54.8 for 1993 and 93 percent greater than that for U.S. Whites (49.0, 1993). If all the past Indian YPLL rates were similarly adjusted for miscoding, the actual/ unadjusted trend line would rise in value, but the rate of change would probably remain the same.

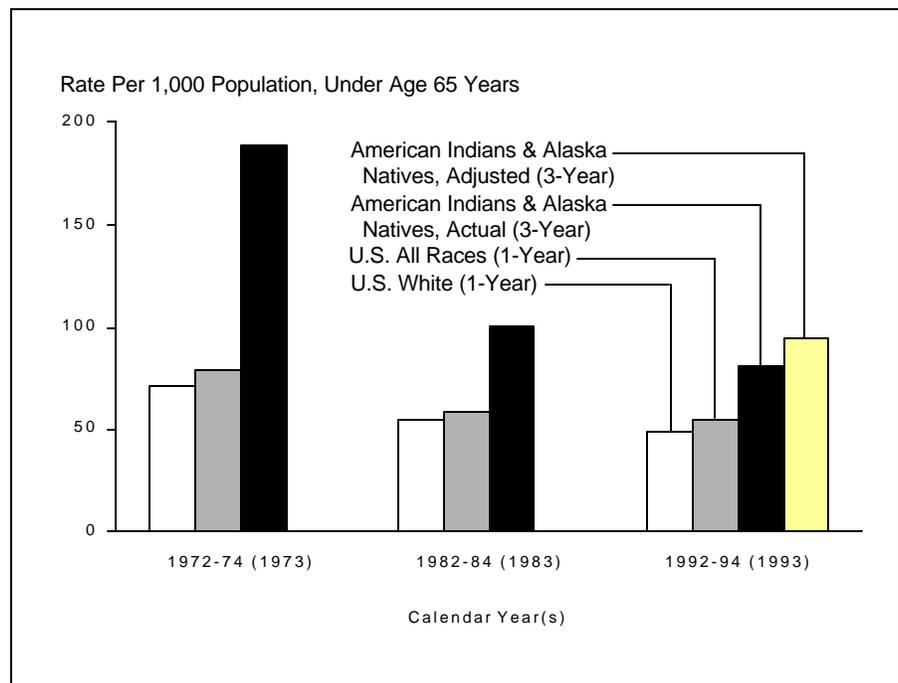
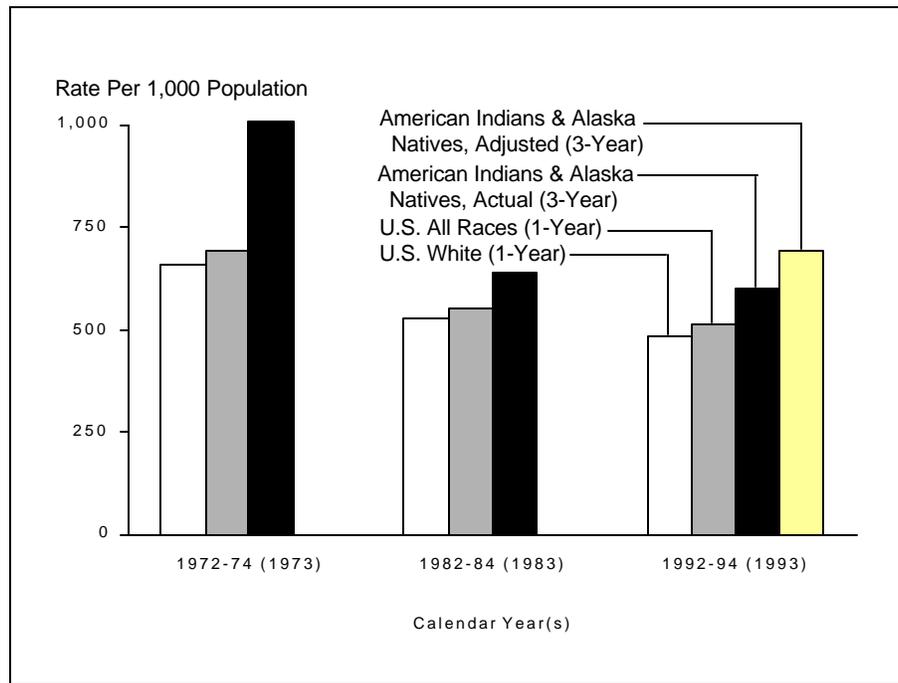


Chart 4.53

Age-Adjusted Death Rates

The age-adjusted death rate (all causes) for American Indians and Alaska Natives has decreased 40 percent from 1972-1974 (1,007.4 per 100,000 population) to 1992-1994 (601.3). From 1973 to 1993, the U.S. All Races rate decreased 26 percent (692.9 to 513.3) and the U.S. White rate also decreased 26 percent (659.3 to 485.1). When the 1992-1994 Indian rate is adjusted for miscoding of Indian race on death certificates, it increases to 690.4. This is 35 percent higher than the All Races rate for 1993 and 42 percent higher than the 1993 White rate. If all the past Indian rates were similarly adjusted for miscoding, the actual/unadjusted trend line would rise in value, but the rate of change would probably remain the same.



1997 Trends in Indian Health

Table 4.51

*Overall Measures of
Indian Health*

IHS Service Area Population
Compared with the
U.S. All Races and
U.S. White Populations

	Life Expectancy At Birth (Years)		Years of Potential Life Lost (Rate per 1,000 Population ¹)		Age-Adjusted Death Rate (per 100,000 Population)	
IHS Service Area:						
1992-1994	73.2	71.1 (adj)	80.3	94.6 (adj)	601.3	690.4 (adj)
1982-1984	72.0		100.5		638.0	
1972-1974	63.5		188.3		1,007.4	
U.S. All Races:						
1993	75.5		54.8		513.3	
1983	74.6		58.5		550.5	
1973	71.4		78.9		692.9	
U.S. White						
1993	76.3		49.0		485.1	
1983	75.2		54.8		528.0	
1973	72.2		70.8		659.3	
Ratio: IHS to U.S. All Races:						
1992-1994 (1993)	0.97	0.94 (adj)	1.49	1.73 (adj)	1.17	1.35 (adj)
1982-1984 (1983)	0.96		1.72		1.16	
1972-1974 (1973)	0.85		2.39		1.45	
Ratio: IHS to U.S. White:						
1992-1994 (1993)	0.96	0.93 (adj)	1.67	1.93 (adj)	1.24	1.42 (adj)
1982-1984 (1983)	0.96		1.83		1.21	
1972-1974 (1973)	0.84		2.66		1.53	
A ¶— Specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.						
¹ Sum of years below age 65 that decedents died divided by the total resident population younger than 65 years of age.						

Chart 4.54

*IHS Program
Accomplishments
Since 1973*

The health status of American Indians and Alaska Natives has experienced major improvements since 1972-1974. Some of these positive changes are evident from lower death rates. For example, maternal and infant mortality rates have declined 86 percent and 61 percent, respectively. Likewise, tuberculosis, gastrointestinal diseases, and accidents age-adjusted death rates have been reduced respectively by 78, 77, and 56 percent.

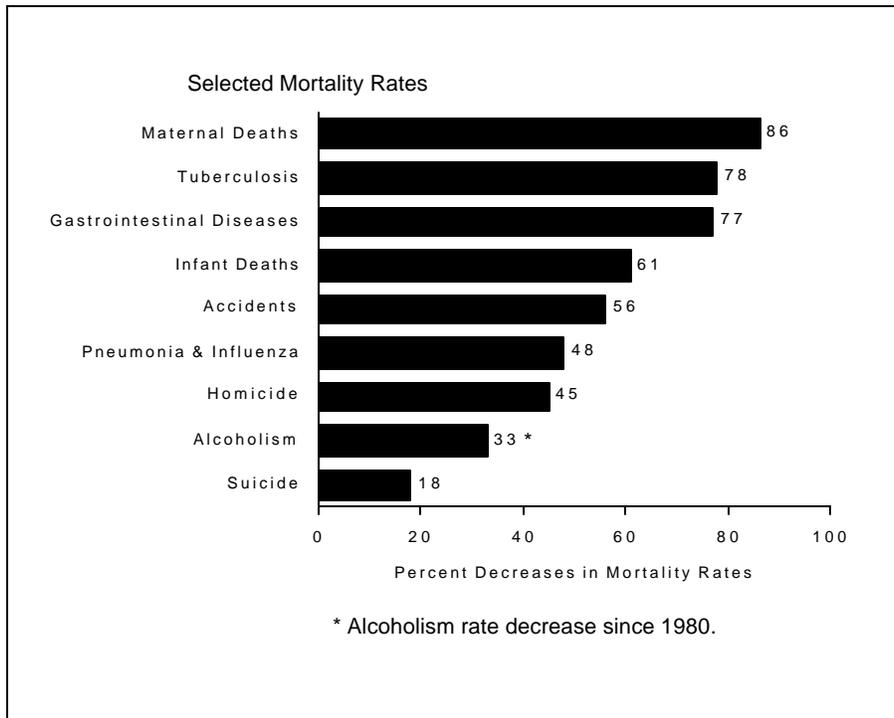


Table 4.54

*Program
Accomplishments,
IHS Service Area*

Health Improvements	Actual CYs 1972-74 Rate	Actual CYs 1992-94 Rate	Percent Decrease 1972-74 Actual minus 1992-94 Actual
Death Rates			
Infant ¹	22.2	8.7	61
Maternal ²	27.7	4.0	86
Pneumonia and influenza ³	40.8	20.1	48
Tuberculosis, all forms ³	10.5	2.3	78
Gastrointestinal diseases ³	6.2	1.4	77
Accidents ³	188.0	82.3	56
Suicide ³	21.0	17.3	18
Homicide ³	24.3	13.4	45
Alcoholism ³	59.0 ⁴	39.4	33

¹ Rate per 1,000 births.
² Rate per 100,000 live births.
³ Age-adjusted rate per 100,000 population.
⁴ 1979-81 age-adjusted alcoholism mortality rate, since specific mortality codes currently used to identify alcoholism deaths were not in use prior to 1979.

NOTE: In order to calculate decrease, it is necessary to use actual rates (not adjusted rates) at both points in time. Adjusted rates for CY 1992-94 for these causes of death are shown on other tables in this publication.

Part 5— Patient Care Statistics

Chart 5.1

*Indian Health Service
Tribal Health Contract
and Grant/Compact
Awards*

Indian Health Service contract and grant/compact awards for Tribal health in FY 1996 are more than triple what they were in FY 1988, \$716.1 million compared to \$230.3 million.

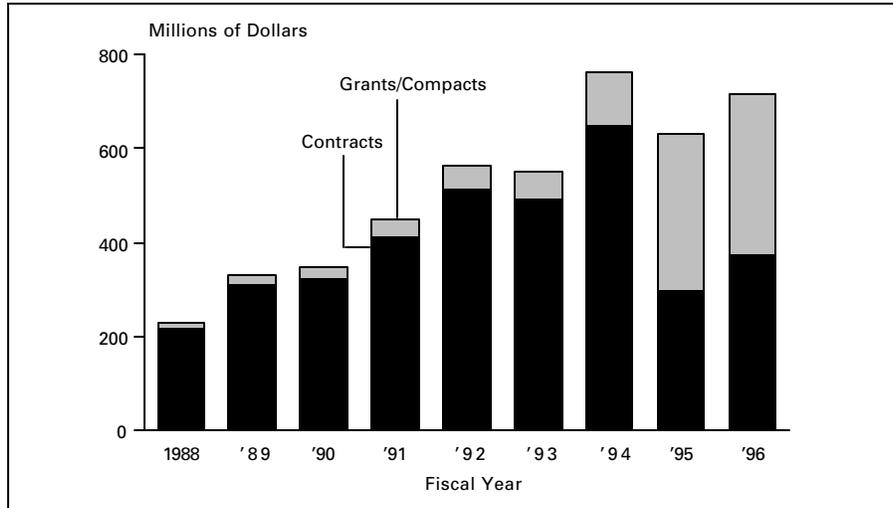


Table 5.1

*Indian Health Service
Tribal Health Contract
and Grant/Compact
Awards, Fiscal Years 1975-
1996 (Millions of dollars)*

Fiscal Year	Total	Contracts ¹	Grants/Compacts ²
1996	\$716.1	\$371.2	\$344.9
1995	632.5	297.5	335.0
1994	762.6	648.1	114.5
1993	551.4	491.5	59.9
1992	562.5	511.6	50.9
1991	450.2	410.1	40.1
1990	348.1	320.7	27.4
1989	330.1	306.6	23.5
1988	230.3	217.2	13.1
1987	210.7	200.9	9.8
1986	209.1	199.0	10.1
1985	234.0	218.1	15.9
1984	194.0	177.5	16.5
1983	157.7	143.1	14.6
1982	141.1	126.5	14.6
1981	142.8	130.7	12.1
1980	121.9		
1979	74.0		
1978	70.1		
1977	57.9		
1976	32.6		
1975	17.4		

¹ Starting in 1989, contracts issued to Tribal organizations for the construction of health facilities by the Office of Engineering Services are included in the contracts category. Contracts awards also include those issued by IHS Area Offices and IHS Headquarters and exclude purchase orders below \$25,000. Includes new contracts and contract modifications.

² Project grant obligations shown for first time in FY 1981. During 1987 and 1988, IHS Scholarship Program funding was reported under contracts rather than grants. The IHS Loan Repayment Program was initiated as a contract program starting in 1988. Both the IHS Scholarship and the IHS Loan Repayment programs were converted to grant programs in 1989. Includes Urban Indian Health Program grants that were first awarded in 1991. Includes Tribal self-governance compact planning grants that were first awarded in 1993. Includes self-governance cooperative agreements and self-governance compacts starting in 1994.

NOTE: Contract report completed as of April 22, 1997. Grant report completed as of May 9, 1997.
SOURCE: For Contract Data: 1996 DHHS Contracts Information System, Twinbrook Metro Bldg., Suite 450A, 301-443-1480, 1988 to 1995; PHS Contract Information System; prior to 1988, the IMPAC Data System run by NIH for PHS, and For Grant Data: PHS Grants Data System.

Chart 5.2

*Indian Health Service
Tribal Health Contract
and Grant/Compact
Awards by Type, FY 1996*

The \$311 million reported under the P.L. 93-638 Project Grants/Compacts category for FY 1996 comprised 43 percent of the total Indian Health Service contract and grant/compact awards for Tribal health. P.L. 93-638 contracts amounted to \$342 million or 48 percent of the total.

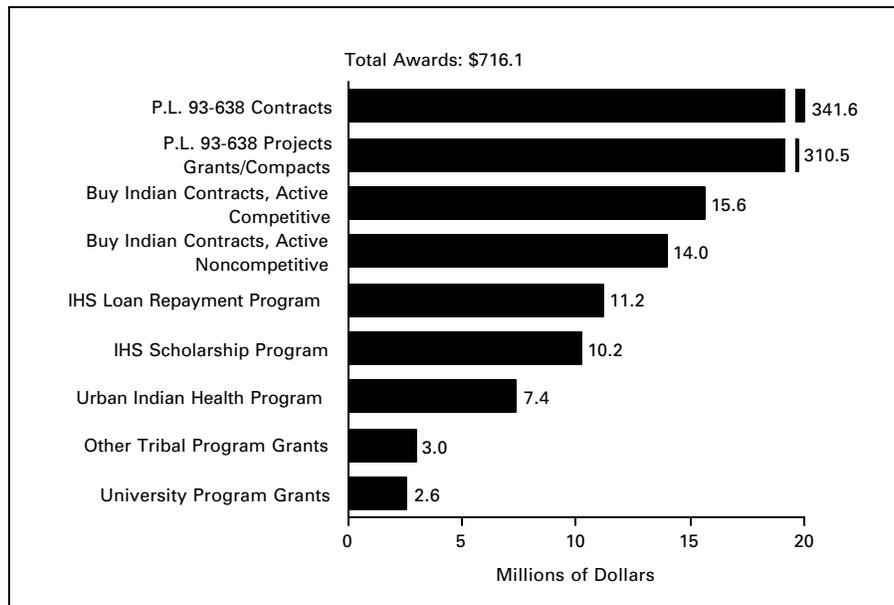


Table 5.2

*Indian Health Service
Tribal Health Contract
and Grant/Compact
Awards by Type, FY 1996*

Type of Contract or Grant	Total \$ Awarded (Millions)	Percent Distribution
Contract and Grant Total	\$716.1	100.0
Contract, Total ¹	371.2	51.8
P.L. 93-638 Contracts	341.6	47.7
Buy Indian Contracts, Active Competitive	15.6	2.2
Buy Indian Contracts, Active Noncompetitive	14.0	2.0
Grants/Compacts, Total	344.9	48.2
P.L. 93-638 Project Grants/Compacts ²	310.5	43.4
IHS Loan Repayment Program	11.2	1.6
IHS Scholarship Program	10.2	1.4
Urban Indian Health Programs ³	7.4	1.0
Other Tribal Program Grants ⁴	3.0	0.4
University Program Grants ⁵	2.6	0.4

¹ Contract awards include those of IHS Area Offices, IHS Headquarters, and the Office of Engineering Services. They include new contracts, contract modifications, and indirect costs and exclude purchase orders below \$25,000.

² Includes Tribal management grants, health service delivery grants, self-governance cooperative agreements, and self-governance compacts.

³ Urban Indian Health program grants.

⁴ Includes grants for tribal mental health, child abuse, tribal matching scholarships, tribal recruitment/retention, epidemiology, Alaska Area grants, and other special projects.

⁵ Includes grants to universities that conduct recruitment and training programs.

NOTE: Contract report completed as of April 22, 1997. Grant report completed as of May 9, 1997.

SOURCE: Department Contracts Information System, Twinbrook Metro Building, Suite 450A, 301-443-1480, and the PHS Grants Data System.

1997 Trends in Indian Health

Chart 5.3

Urban Indian Health Program Workload and Appropriation

The appropriation for the Urban Indian Health Program has increased 138 percent since FY 1985. Although the workload increased 35 percent during this time period, this is at a greater rate than the appropriation when inflation is taken into account. In FY 1995, the appropriation for this program was \$23.3 million, and there were over 682,000 patient encounters.

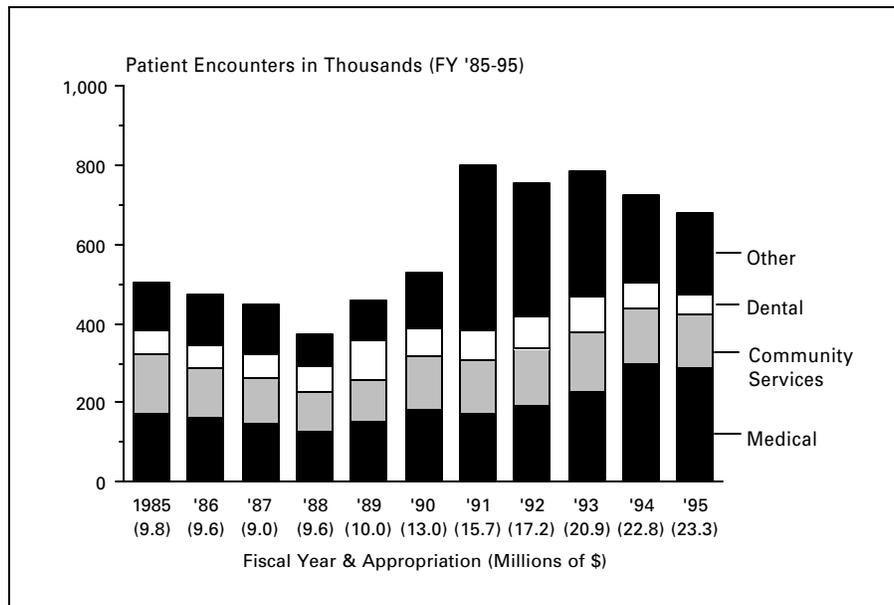


Table 5.3

Urban Indian Health Program Workload and Appropriation, Fiscal Years 1985-1995

Fiscal Year	Total Workload	Medical	Community Services	Dental	Other ¹	Appropriation (\$ Thousands)
1995	682,477	289,189	133,282	50,432	209,574	23,349
1994	727,425	299,538	140,920	62,743	224,224	22,834
1993 ²	784,581	229,737	151,139	88,845	314,860	20,965
1992	757,606	192,921	142,658	82,076	339,951	17,195
1991	802,335	172,297	138,204	76,028	415,806	15,687
1990	530,228	181,974	137,200	72,470	138,584	13,049
1989	459,684	150,472	106,940	102,886	99,386	9,962
1988	370,684	128,000	102,481	64,609	75,853	9,624
1987 ³	451,988	146,228	116,898	62,377	126,485	9,000
1986	471,757	163,004	124,783	57,663	126,307	9,644
1985	504,799	170,913	153,761	60,956	119,169	9,800

¹ The Other category includes the following types of services: nutrition education, health education, mental health, optometric services, and other allied health services, which includes substance abuse counseling.

² Includes \$2.0 million in urban alcohol programs transferred to the IHS Urban Program Branch from the IHS Alcohol and Substance Abuse Program Branch.

³ Beginning in Fiscal Year 1987 and thereafter, the Tulsa and Oklahoma City Urban Programs are excluded since they were funded as demonstration projects under the IHS hospitals and clinics activity.

Chart 5.4

Number of Hospital Admissions, IHS and Tribal Direct and Contract General Hospitals

Total hospital admissions peaked in FY 1978 at 112,000. In FY 1995, there were about 89,000 total admissions.

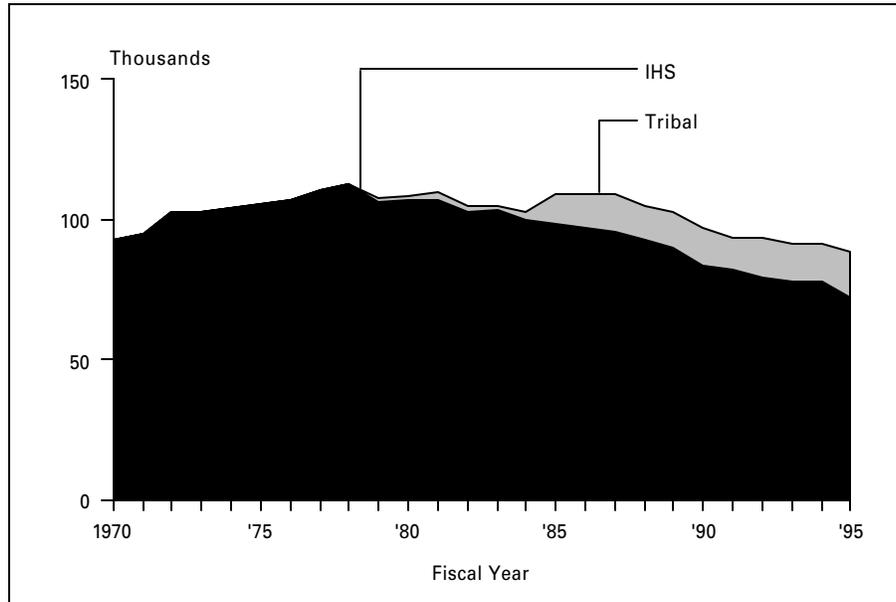


Table 5.4

Number of Hospital Admissions

IHS and Tribal Direct and Contract General Hospitals, Fiscal Years 1955-1996

Fiscal Year	Total IHS and Tribal Admissions	Indian Health Service			Tribal		
		Total	Direct	Contract ¹	Total	Direct	Contract
1996	NA	NA	55,656	NA	NA	11,908	NA
1995	88,549	71,898	56,796	15,102	16,651	11,034	5,617
1994	90,921	77,408	60,950	16,458	13,513	8,411	5,102
1993	91,542	77,646	60,575	17,071	13,896	8,443	5,453
1992	93,271	78,897	61,992	16,905	14,374	9,017	5,357
1991	93,180	81,746	64,312	17,434	11,434	6,924	4,510
1990	96,539	83,462	65,972	17,490	13,077	7,022	6,055
1989	102,793	89,777	71,243	18,534	13,016	6,558	6,458
1988	104,868	92,393	76,488	15,905	12,475	6,111	6,364
1987	108,835	95,700	76,244	19,456	13,135	5,953	7,182
1986	109,181	96,886	78,162	18,724	12,295	4,969	7,326
1985	108,777	98,245	78,423	19,822	10,532	3,678	6,854 ²
1980	108,242	106,992	77,798	29,194	1,250	1,250	
1975	105,735	105,735	74,594	31,141			
1970	92,710	92,710	67,877	24,833			
1965	91,744	91,744	67,744	24,000			
1960	76,674	76,674	56,874	19,800			
1955	50,143	50,143	42,762	7,381			

¹ Number of discharges used as estimate for number of admissions.
² Comparable Tribal contract health services data not available prior to FY 1985.

NOTE: NA denotes data not available.
 SOURCE: IHS Direct: Monthly Report of Inpatient Services (Form IHS-202-1)
 IHS Contract: Annual Report 3I
 Tribal Direct: Monthly Report of Inpatient Services
 Tribal Contract: IHS Area Submissions

1997 Trends in Indian Health

Chart 5.5

Average Daily Hospital Patient Load, IHS and Tribal Direct and Contract General Hospitals

The average daily hospital patient load in Indian Health Service and Tribal direct and contract general hospitals has decreased 55 percent since FY 1970. In FY 1995, the average patient load was 1,066.

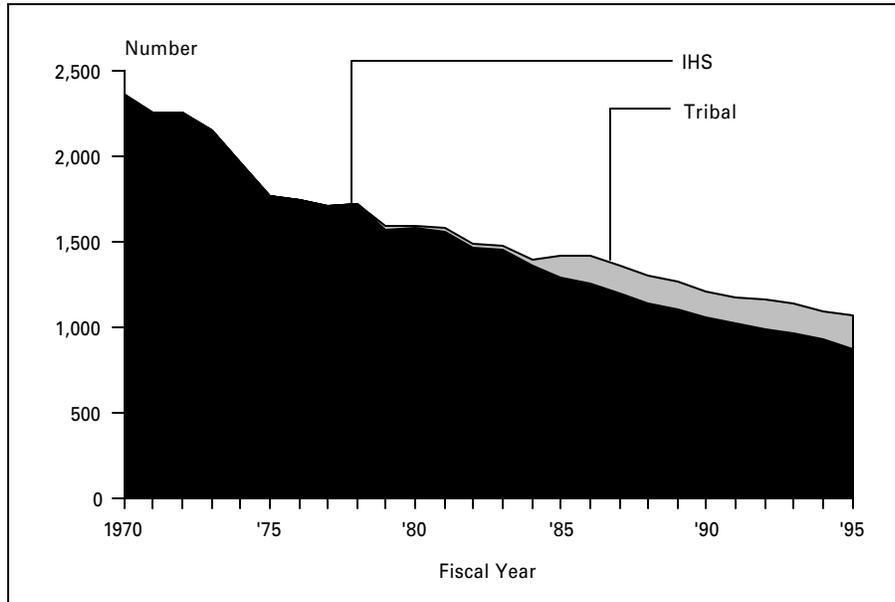


Table 5.5

Average Daily Hospital Patient Load

IHS and Tribal Direct and Contract General Hospitals, Fiscal Years 1955-1996

Fiscal Year	Total IHS and Tribal Admissions	Indian Health Service			Tribal		
		Total	Direct	Contract	Total	Direct	Contract
1996	NA	NA	636	NA	NA	121	NA
1995	1,066	874	672	202	192	127	65
1994	1,087	929	709	220	158	100	58
1993	1,133	963	735	228	170	108	62
1992	1,155	982	758	224	173	112	61
1991	1,174	1,025	794	231	149	96	53
1990	1,209	1,053	825	228	156	90	66
1989	1,265	1,107	873	234	158	90	68
1988	1,295	1,133	939	194	162	88	74
1987	1,359	1,193	960	233	166	87	79
1986	1,418	1,248	1,017	231	170	81	89
1985	1,410	1,286	1,052	234	124	47	77 ¹
1980	1,594	1,576	1,178	398	18	18	
1975	1,768	1,768	1,330	438			
1970	2,353	2,353	1,729	624			
1965	3,127	3,127	2,244	883			
1960	3,142	3,142	2,232	910			
1955	3,711	3,711	2,531	1,180			

¹ Tribal contract data not available prior to FY 1985.

NOTE: NA denotes data not available.

SOURCE: IHS Direct: Monthly Report of Inpatient Services (Form IHS-202-1)
IHS Contract: Annual Report 3I
Tribal Direct: Monthly Report of Inpatient Services
Tribal Contract: IHS Area Submissions

Chart 5.6

Leading Causes of Hospitalization: Ages Under 1 Year, IHS and Tribal Direct and Contract Hospitals, FY 1995

In FY 1995, 46.8 percent of all discharges for patients under 1 year of age from Indian Health Service and Tribal direct and contract general hospitals pertained to respiratory system diseases. This was followed by perinatal period conditions at 14.8 percent.

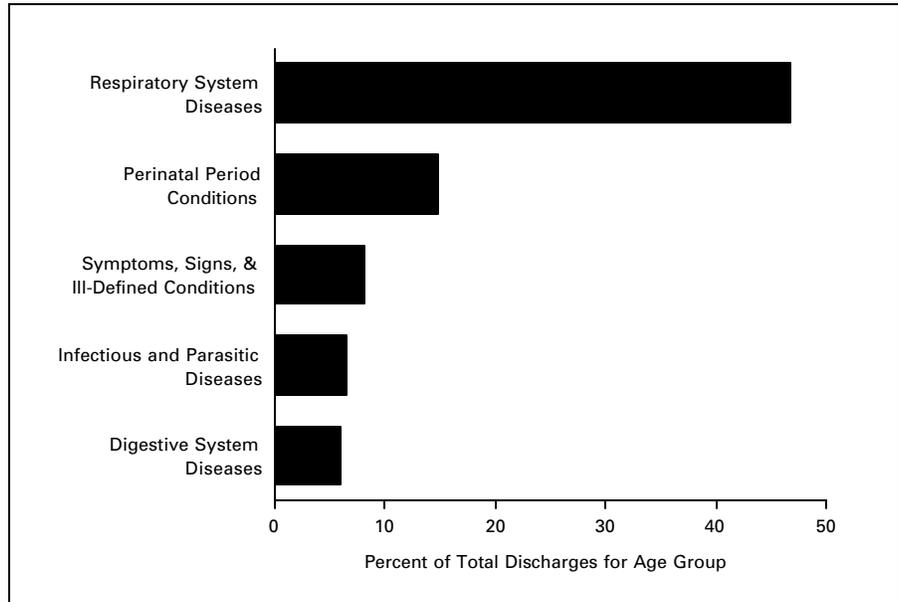


Table 5.6

Ten Leading Causes of Hospitalization for GM&S Patients Under 1 Year of Age

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

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	4,607	2,611	1,996	100.0	56.7	43.3
Respiratory system diseases	2,158	1,285	873	46.8	49.2	43.7
Perinatal period conditions	683	354	329	14.8	13.6	16.5
Symptoms, signs, & ill-defined conditions	374	201	173	8.1	7.7	8.7
Infectious and parasitic diseases	300	155	145	6.5	5.9	7.3
Digestive system diseases	274	161	113	5.9	6.2	5.7
Supplementary classification	152	76	76	3.3	2.9	3.8
Nervous system & sense organ diseases	141	87	54	3.1	3.3	2.7
Genitourinary system diseases	139	67	72	3.0	2.6	3.6
Congenital anomalies	104	61	43	2.3	2.3	2.2
Injury & poisoning	76	44	32	1.6	1.7	1.6
All other	206	120	86	4.5	4.6	4.3

SOURCE: Direct: Annual Report 2C
Contract: Annual Report 3I

1997 Trends in Indian Health

Chart 5.7

Leading Causes of Hospitalization: Ages 1 to 4 Years, IHS and Tribal Direct and Contract Hospitals, FY 1995

In FY 1995, 48.6 percent of all discharges for patients 1 to 4 years of age from Indian Health Service and Tribal direct and contract general hospitals pertained to respiratory system diseases. This was followed by injury and poisoning and digestive system diseases, each at 9.3 percent.

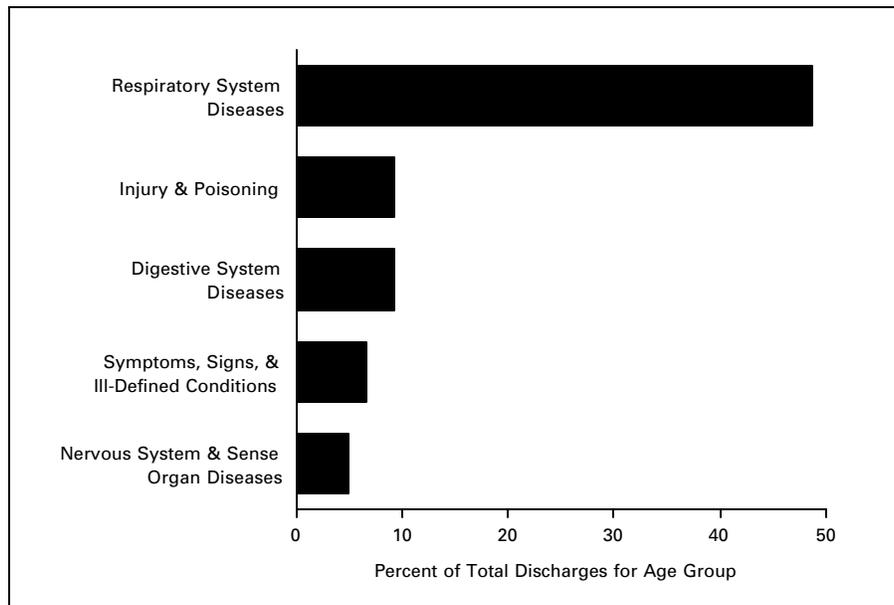


Table 5.7

Ten Leading Causes of Hospitalization for GM&S Patients 1 to 4 Years of Age

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

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	4,126	2,235	1,891	100.0	54.2	45.8
Respiratory system diseases	2,007	1,099	908	48.6	49.2	48.0
Injury & poisoning	385	226	159	9.3	10.1	8.4
Digestive system diseases	385	219	166	9.3	9.8	8.8
Symptoms, signs, & ill-defined conditions	277	158	119	6.7	7.1	6.3
Nervous system & sense organ diseases	203	111	92	4.9	5.0	4.9
Infectious and parasitic diseases	198	106	92	4.8	4.7	4.9
Skin and subcutaneous tissue diseases	166	80	86	4.0	3.6	4.5
Endocrine, nutritional, & metabolic disorders	151	73	78	3.7	3.3	4.1
Genitourinary system diseases	129	38	91	3.1	1.7	4.8
Blood and blood-forming organs diseases	71	43	28	1.7	1.9	1.5
All other	154	82	72	3.7	3.7	3.8

SOURCE: Direct: Annual Report 2C
Contract: Annual Report 3I

Chart 5.8

Leading Causes of Hospitalization: Ages 5 to 14 Years, IHS and Tribal Direct and Contract Hospitals, FY 1995

In FY 1995, 22.9 percent of all discharges for patients 5 to 14 years of age from Indian Health Service and Tribal direct and contract general hospitals pertained to respiratory system diseases. This was followed by injury and poisoning at 18.1 percent.

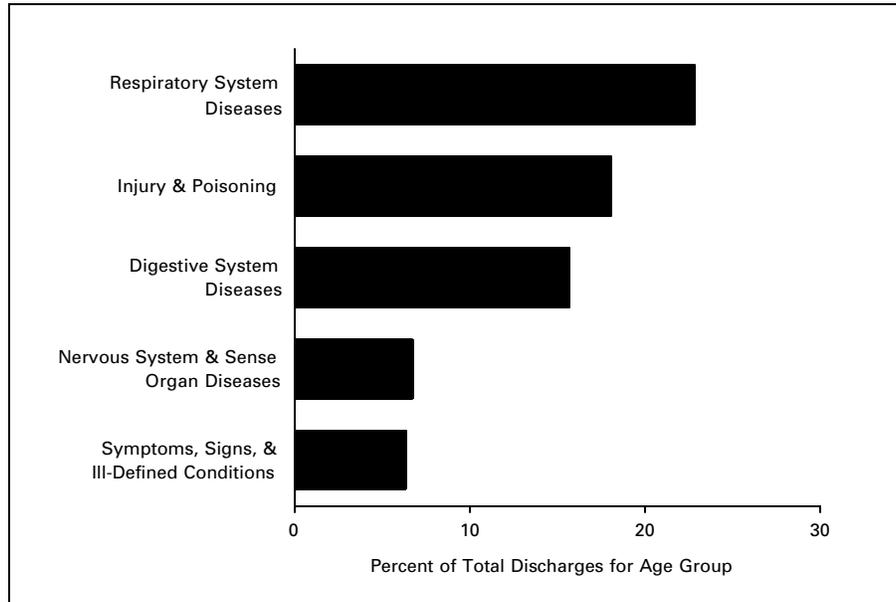


Table 5.8

Ten Leading Causes of Hospitalization for GM&S Patients 5 to 14 Years of Age

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

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	4,427	2,401	2,026	100.0	54.2	45.8
Respiratory system diseases	1,015	533	482	22.9	22.2	23.8
Injury & poisoning	800	487	313	18.1	20.3	15.4
Digestive system diseases	697	403	294	15.7	16.8	14.5
Nervous system & sense organ diseases	303	156	147	6.8	6.5	7.3
Symptoms, signs, & ill-defined conditions	282	150	132	6.4	6.2	6.5
Skin and subcutaneous tissue diseases	250	149	101	5.6	6.2	5.0
Infectious and parasitic diseases	243	127	116	5.5	5.3	5.7
Genitourinary system diseases	176	40	136	4.0	1.7	6.7
Endocrine, nutritional, & metabolic disorders	136	86	50	3.1	3.6	2.5
Mental disorders	134	57	77	3.0	2.4	3.8
All other	391	213	178	8.8	8.9	8.8

SOURCE: Direct: Annual Report 2C
Contract: Annual Report 3I

1997 Trends in Indian Health

Chart 5.9

Leading Causes of Hospitalization: Ages 15 to 24 Years, IHS and Tribal Direct and Contract Hospitals, FY 1995

In FY 1995, 53.8 percent of all discharges for patients 15 to 24 years of age from Indian Health Service and Tribal direct and contract general hospitals pertained to obstetric deliveries and complications of pregnancy and the puerperium. This was followed by injury and poisoning at 11.9 percent.

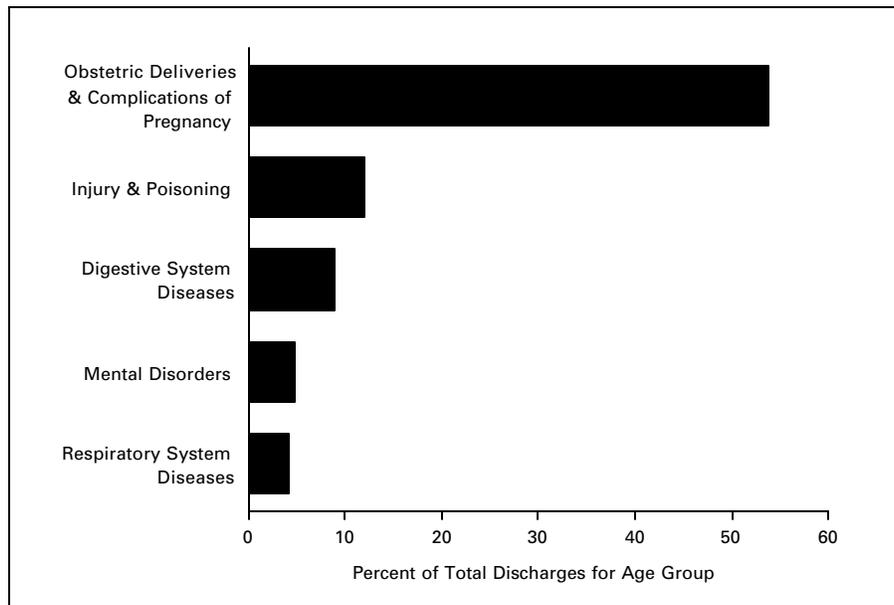


Table 5.9

Ten Leading Causes of Hospitalization for GM&S Patients 15 to 24 Years of Age

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

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	13,038	2,877	10,161	100.0	22.1	77.9
				100.0	100.0	100.0
Obstetric deliveries and complications of pregnancy & puerperium	7,008	0	7,008	53.8	0.0	69.0
Injury & poisoning	1,548	1,055	493	11.9	36.7	4.9
Digestive system diseases	1,161	390	771	8.9	13.6	7.6
Mental disorders	631	322	309	4.8	11.2	3.0
Respiratory system diseases	531	218	313	4.1	7.6	3.1
Genitourinary system diseases	476	50	426	3.7	1.7	4.2
Symptoms, signs, & ill-defined conditions	335	121	214	2.6	4.2	2.1
Skin and subcutaneous tissue diseases	268	184	84	2.1	6.4	0.8
Supplementary classification	235	124	111	1.8	4.3	1.1
Endocrine, nutritional, & metabolic disorders	182	86	96	1.4	3.0	0.9
All other	663	327	336	5.1	11.4	3.3

SOURCE: Direct: Annual Report 2C
Contract: Annual Report 3I

Chart 5.10

Leading Causes of Hospitalization: Ages 25 to 44 Years, IHS and Tribal Direct and Contract Hospitals, FY 1995

In FY 1995, 28.3 percent of all discharges for patients 25 to 44 years of age from Indian Health Service and Tribal direct and contract general hospitals pertained to obstetric deliveries and complications of pregnancy and the puerperium. This was followed by digestive system diseases at 14.1 percent.

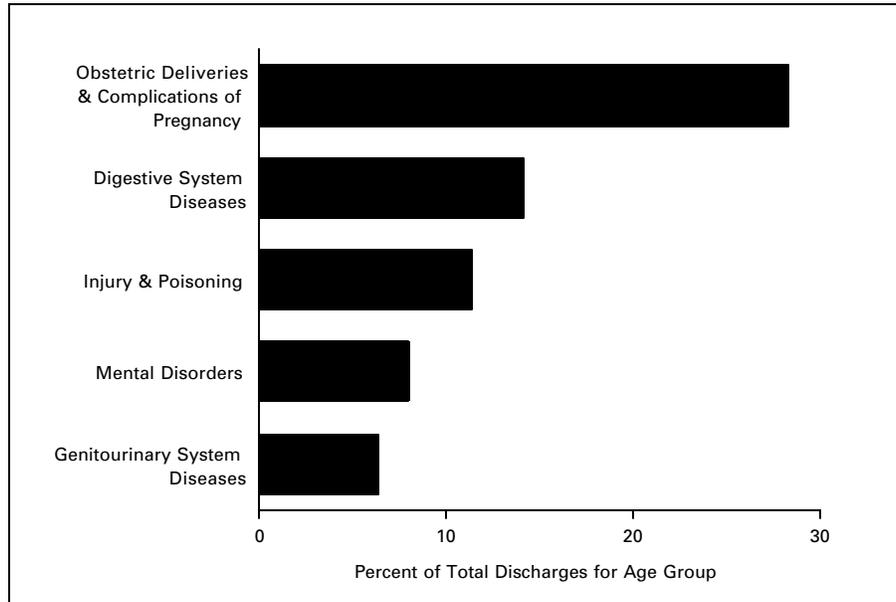


Table 5.10

Ten Leading Causes of Hospitalization for GM&S Patients 25 to 44 Years of Age

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

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	25,069	8,852	16,217	100.0	35.3	64.7
Obstetric deliveries and complications of pregnancy & puerperium	7,103	0	7,103	28.3	0.0	43.8
Digestive system diseases	3,534	1,535	1,999	14.1	17.3	12.3
Injury & poisoning	2,857	1,839	1,018	11.4	20.8	6.3
Mental disorders	2,010	1,327	683	8.0	15.0	4.2
Genitourinary system diseases	1,578	239	1,339	6.3	2.7	8.3
Respiratory system diseases	1,350	592	758	5.4	6.7	4.7
Symptoms, signs, & ill-defined conditions	1,174	590	584	4.7	6.7	3.6
Skin and subcutaneous tissue diseases	1,088	674	414	4.3	7.6	2.6
Endocrine, nutritional, & metabolic disorders	815	440	375	3.3	5.0	2.3
Circulatory system diseases	753	462	291	3.0	5.2	1.8
All other	2,807	1,154	1,653	11.2	13.0	10.2

SOURCE: Direct: Annual Report 2C
Contract: Annual Report 3I

1997 Trends in Indian Health

Chart 5.11

Leading Causes of Hospitalization: Ages 45 to 54 Years, IHS and Tribal Direct and Contract Hospitals, FY 1995

In FY 1995, 17.8 percent of all discharges for patients 45 to 54 years of age from Indian Health Service and Tribal direct and contract general hospitals pertained to digestive system diseases. This was followed by circulatory system diseases at 12.1 percent.

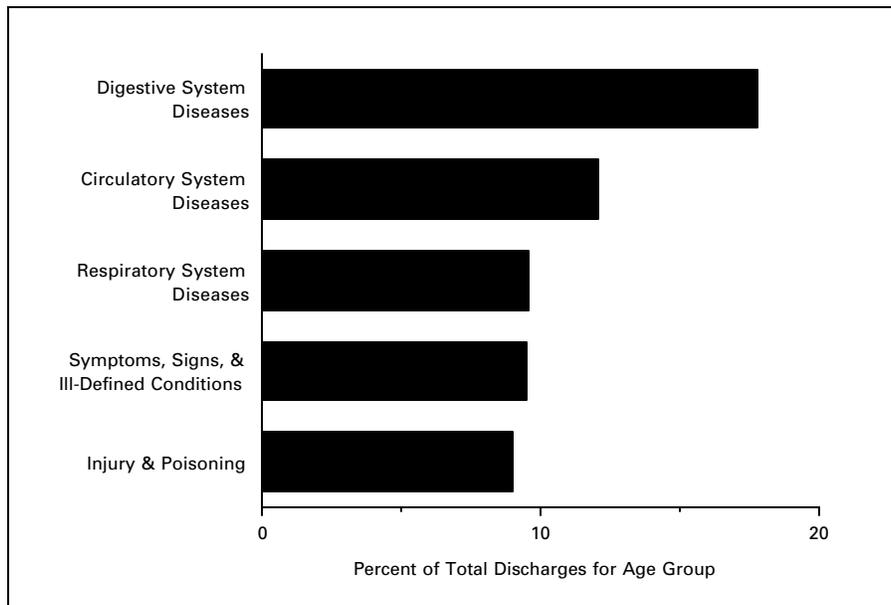


Table 5.11

Ten Leading Causes of Hospitalization for GM&S Patients 45 to 54 Years of Age

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

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	8,797	4,109	4,688	100.0	46.7	53.3
Digestive system diseases	1,569	677	892	17.8	16.5	19.0
Circulatory system diseases	1,068	660	408	12.1	16.1	8.7
Respiratory system diseases	842	341	501	9.6	8.3	10.7
Symptoms, signs, & ill-defined conditions	839	401	438	9.5	9.8	9.3
Injury & poisoning	791	433	358	9.0	10.5	7.6
Genitourinary system diseases	675	139	536	7.7	3.4	11.4
Endocrine, nutritional, & metabolic disorders	595	288	307	6.8	7.0	6.5
Mental disorders	501	347	154	5.7	8.4	3.3
Skin and subcutaneous tissue diseases	483	267	216	5.5	6.5	4.6
Musculoskeletal system diseases	415	185	230	4.7	4.5	4.9
All other	1,019	371	648	11.6	9.0	13.8

SOURCE: Direct: Annual Report 2C
Contract: Annual Report 3I

Chart 5.12

Leading Causes of Hospitalization: Ages 55 to 64 Years, IHS and Tribal Direct and Contract Hospitals, FY 1995

In FY 1995, 19.2 percent of all discharges for patients 55 to 64 years of age from Indian Health Service and Tribal direct and contract general hospitals pertained to circulatory system diseases. This was followed by digestive system diseases at 14.7 percent.

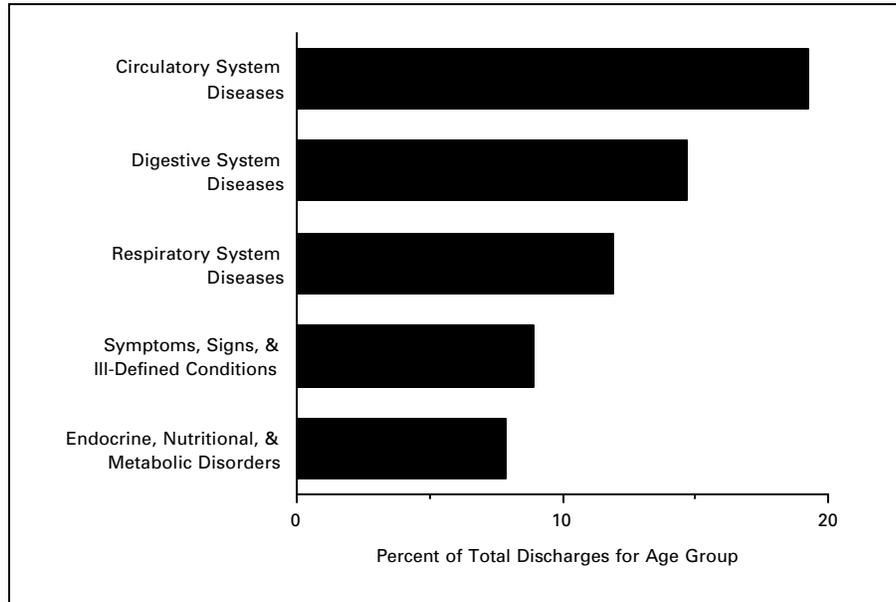


Table 5.12

Ten Leading Causes of Hospitalization for GM&S Patients 55 to 64 Years of Age

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

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	8,171	3,718	4,453	100.0	45.5	54.5
Circulatory system diseases	1,571	808	763	19.2	21.7	17.1
Digestive system diseases	1,201	531	670	14.7	14.3	15.0
Respiratory system diseases	974	406	568	11.9	10.9	12.8
Symptoms, signs, & ill-defined conditions	728	351	377	8.9	9.4	8.5
Endocrine, nutritional, & metabolic disorders	646	280	366	7.9	7.5	8.2
Genitourinary system diseases	532	173	359	6.5	4.7	8.1
Injury & poisoning	523	270	253	6.4	7.3	5.7
Neoplasms	444	173	271	5.4	4.7	6.1
Skin and subcutaneous tissue diseases	385	191	194	4.7	5.1	4.4
Musculoskeletal system diseases	369	169	200	4.5	4.5	4.5
All other	798	366	432	9.8	9.8	9.7

SOURCE: Direct: Annual Report 2C
Contract: Annual Report 3I

1997 Trends in Indian Health

Chart 5.13

Leading Causes of Hospitalization: Ages 65+ Years, IHS and Tribal Direct and Contract Hospitals, FY 1995

In FY 1995, 21.6 percent of all discharges for patients 65 years and older from Indian Health Service and Tribal direct and contract general hospitals pertained to circulatory system diseases. This was followed by respiratory system diseases at 17.4 percent.

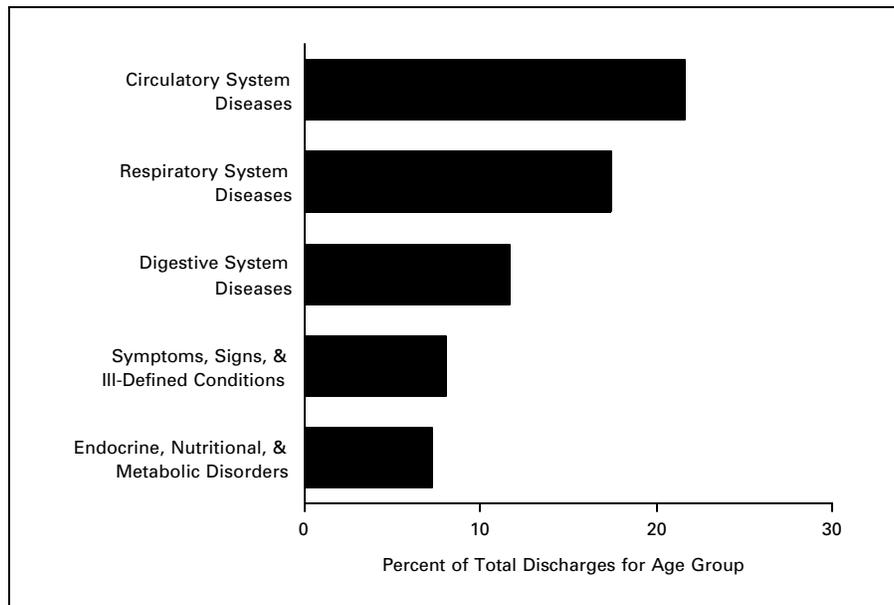


Table 5.13

Ten Leading Causes of Hospitalization for GM&S Patients 65 Years Old and Older

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

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	12,145	5,452	6,693	100.0	44.9	55.1
				100.0	100.0	100.0
Circulatory system diseases	2,627	1,252	1,375	21.6	23.0	20.5
Respiratory system diseases	2,116	1,028	1,088	17.4	18.9	16.3
Digestive system diseases	1,419	586	833	11.7	10.7	12.4
Symptoms, signs, & ill-defined conditions	974	431	543	8.0	7.9	8.1
Endocrine, nutritional, & metabolic disorders	880	350	530	7.2	6.4	7.9
Genitourinary system diseases	827	350	477	6.8	6.4	7.1
Injury & poisoning	742	310	432	6.1	5.7	6.5
Malignant neoplasms	538	275	263	4.4	5.0	3.9
Skin and subcutaneous tissue diseases	480	216	264	4.0	4.0	3.9
Nervous system & sense organ diseases	361	150	211	3.0	2.8	3.2
All other	1,181	504	677	9.7	9.2	10.1

SOURCE: Direct: Annual Report 2C
Contract: Annual Report 3I

Chart 5.14

Leading Causes of Hospitalization, IHS and Tribal Direct and Contract Hospitals, FY 1995

In FY 1995, 17.6 percent of all discharges from Indian Health Service and Tribal direct and contract general hospitals pertained to obstetric deliveries and complications of pregnancy and the puerperium. This was followed by respiratory system diseases (13.7 percent) and digestive system diseases (12.7 percent).

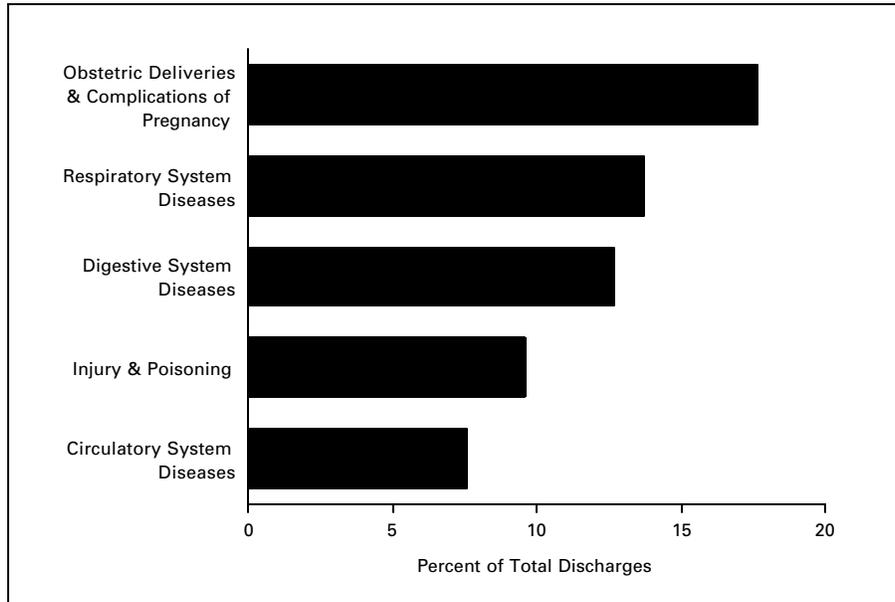


Table 5.14

Ten Leading Causes of Hospitalization for GM&S Patients

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

Diagnostic Category	Number of Discharges			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	80,380	63,015	17,365	100.0	78.4	21.6
				100.0	100.0	100.0
Obstetric deliveries and complications of pregnancy & puerperium	14,170	12,819	1,351	17.6	20.3	7.8
Respiratory system diseases	10,993	9,381	1,612	13.7	14.9	9.3
Digestive system diseases	10,240	7,880	2,360	12.7	12.5	13.6
Injury & poisoning	7,722	4,836	2,886	9.6	7.7	16.6
Circulatory system diseases	6,147	3,604	2,543	7.6	5.7	14.6
Symptoms, signs, & ill-defined conditions	4,983	3,965	1,018	6.2	6.3	5.9
Genitourinary system diseases	4,532	3,692	840	5.6	5.9	4.8
Mental disorders	3,691	2,666	1,025	4.6	4.2	5.9
Endocrine, nutritional, & metabolic disorders	3,528	2,785	743	4.4	4.4	4.3
Skin and subcutaneous tissue diseases	3,155	2,728	427	3.9	4.3	2.5
All other	11,219	8,659	2,560	14.0	13.7	14.7

SOURCE: Direct: Annual Report 2C
Contract: Annual Report 3I

1997 Trends in Indian Health

Chart 5.15

Leading Causes of Hospitalization for Males, IHS and Tribal Direct and Contract Hospitals, FY 1995

For males, 17.1 percent of all discharges (FY 1995) from Indian Health Service and Tribal direct and contract general hospitals pertained to respiratory system diseases. This was followed by injury and poisoning (14.5 percent) and digestive system diseases (14.0 percent).

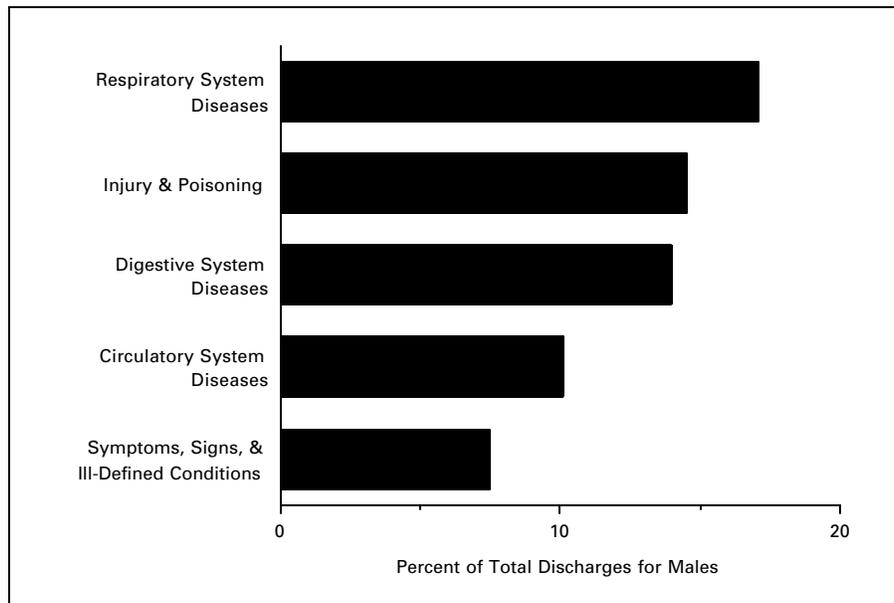
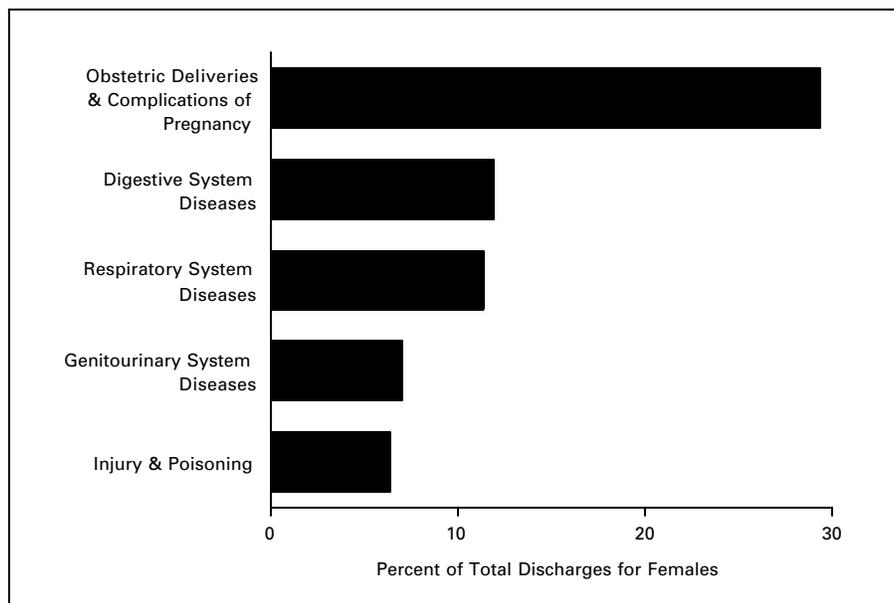


Chart 5.16

Leading Causes of Hospitalization for Females, IHS and Tribal Direct and Contract Hospitals, FY 1995

For females, 29.4 percent of all discharges (FY 1995) from Indian Health Service and Tribal direct and contract general hospitals pertained to obstetric deliveries and complications of pregnancy and the puerperium. This was followed by digestive system diseases (11.9 percent) and respiratory system diseases (11.4 percent).



Part 5—Patient Care Statistics

Table 5.15

Ten Leading Causes of Hospitalization by Sex

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

Male			Female		
Diagnostic Category	Number of Discharges	Percent of Total	Diagnostic Category	Number of Discharges	Percent of Total
All categories	32,255	100.0	All categories	48,125	100.0
Respiratory system diseases	5,502	17.1	Obstetric deliveries and complications of pregnancy & puerperium	14,168	29.4
Injury & poisoning	4,664	14.5	Digestive system diseases	5,738	11.9
Digestive system diseases	4,502	14.0	Respiratory system diseases	5,491	11.4
Circulatory system diseases	3,253	10.1	Genitourinary system diseases	3,436	7.1
Symptoms, signs, & ill-defined conditions	2,403	7.5	Injury & poisoning	3,058	6.4
Mental disorders	2,290	7.1	Circulatory system diseases	2,894	6.0
Skin and subcutaneous tissue diseases	1,782	5.5	Symptoms, signs, & ill-defined conditions	2,580	5.4
Endocrine, nutritional, & metabolic disorders	1,672	5.2	Endocrine, nutritional, & metabolic disorders	1,856	3.9
Genitourinary system diseases	1,096	3.4	Mental disorders	1,401	2.9
Musculoskeletal system and connective tissue diseases	1,054	3.3	Skin and subcutaneous tissue diseases	1,373	2.9
All other	4,037	12.5	All other	6,130	12.7

SOURCE: IHS and Tribal Direct: On-Request Report 21
IHS and Tribal Contract: On-Request Report 19

1997 Trends in Indian Health

Chart 5.17

Hospital Discharge Rates by Age

For both the Indian Health Service (FY 1995) and U.S. (CY 1995), discharge rates were highest for the age groups under 1 year and over 64 years. The U.S. rate was greater than the Indian rate except for the age group under 1 year.

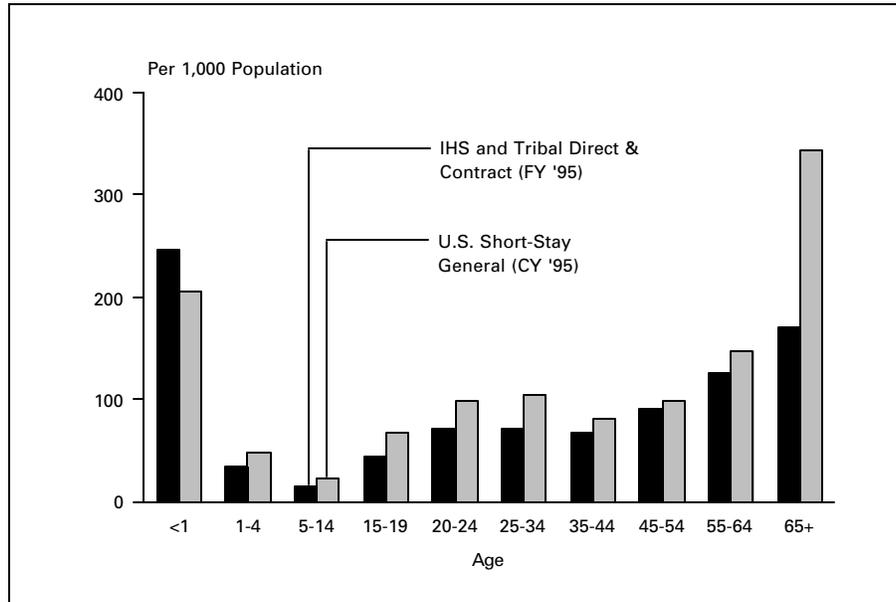


Table 5.17

Comparison of Indian Health Service and U.S. Hospital Discharge Rates by Age

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

Age of Admission	Discharges per 1,000 Population		Percent Difference IHS Rate to U.S. Rate
	IHS	U.S.	
All Ages	64.5	117.5	-45.1
Under 1 year	247.3	205.3	20.4
1-4 years	33.9	47.2	-28.1
5-14 years	15.5	22.9	-32.3
15-19 years	44.6	67.7	-34.1
20-24 years	71.5	98.9	-27.7
25-34 years	71.9	104.1	-31.0
35-44 years	67.2	81.7	-17.7
45-54 years	89.7	98.6	-9.1
55-64 years	126.4	147.0	-14.0
65 years and over	171.4	344.6	-50.3

NOTE: IHS discharge rates were calculated using the IHS FY 1995 user population.
SOURCE: IHS - Annual Reports 2C and 3I
U.S. - Utilization of Short-Stay Hospitals, Annual Summary of the U.S., NCHS

Chart 5.18

Beds per Hospital, IHS (FY 1996) vs. U.S. Short-Stay (CY 1995)

78 percent of Indian Health Service hospitals (FY 1996) had fewer than 50 beds, as compared to 23 percent of U.S. short-stay hospitals (CY 1995).

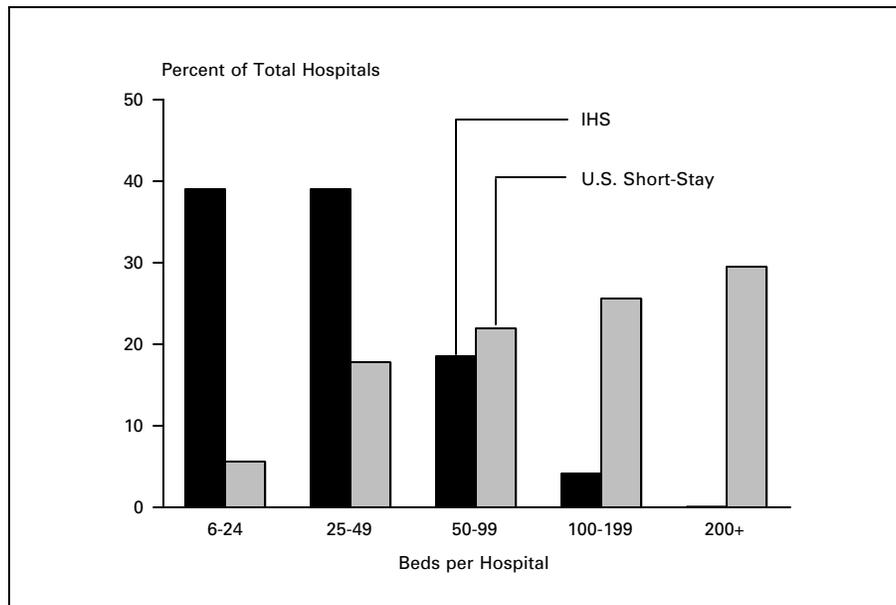


Table 5.18

Comparison of Indian Health Service and U.S. Hospitals by Bed Size

Indian Health Service and Tribal Hospitals, FY 1996, and U.S. General Short-Stay Hospitals, CY 1995

Bed Size	Number of Hospitals		Percent of Total	
	IHS ¹	U.S.	IHS	U.S.
All	49	5,194	100.0	100.0
6 - 24	19	278	38.8	5.4
25 - 49	19	922	38.8	17.8
50 - 99	9	1,139	18.4	21.9
100 - 199	2	1,324	4.1	25.5
200+	—	1,531	—	29.5

¹ Operated by IHS or the Tribes on September 30, 1996.

SOURCE: IHS - Monthly Report of Inpatient Services
U.S. - Hospital Statistics, 1996-97 Edition, American Hospital Association, Table 3A

1997 Trends in Indian Health

Chart 5.19

Number of Ambulatory Medical Visits, IHS and Tribal Direct and Contract Facilities

Ambulatory medical visits to Indian Health Service and Tribal direct and contract facilities have increased 266 percent since FY 1970. In FY 1995, there were over 6.5 million visits.

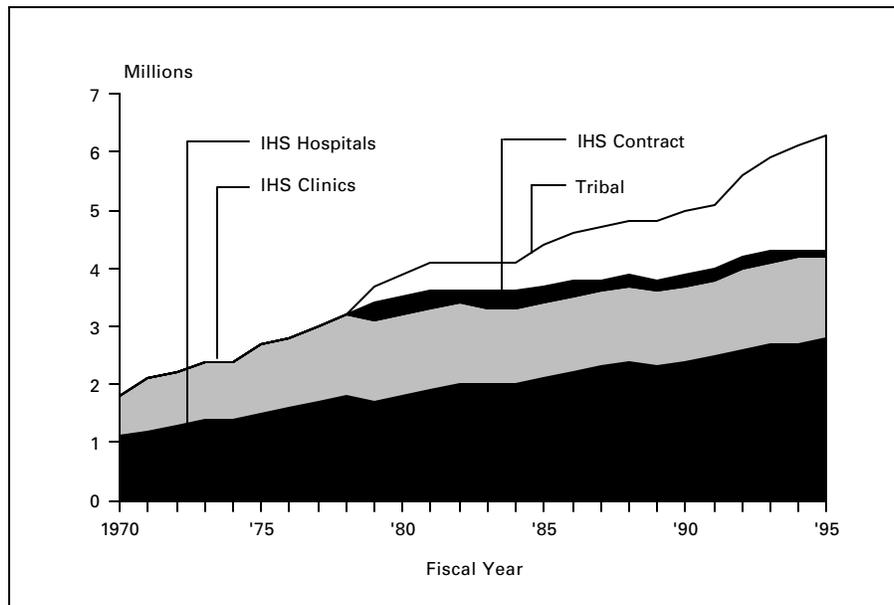


Table 5.19

Number of Ambulatory Medical Visits

Indian Health Service and Tribal Direct and Contract Facilities, Fiscal Years 1955-1996

Fiscal Year	Grand Total	Indian Health Service Direct Facilities					
		Total	Hospitals	Health Centers and Other Field Clinics	IHS Contract	Tribal Direct	Tribal Contract
1996	NA	4,108,800	2,734,825	1,373,975	NA	2,233,944	NA
1995	6,546,028	4,156,146	2,750,617	1,405,529	149,963	1,975,136	264,783
1994	6,339,270	4,184,641	2,718,482	1,466,159	145,295	1,764,625	244,709
1993	5,976,290	4,084,118	2,672,476	1,411,642	169,625	1,582,748	139,799
1992	5,659,820	3,924,484	2,561,024	1,363,460	167,697	1,407,421	160,218
1991	5,211,351	3,762,580	2,481,726	1,280,854	154,488	1,126,685	167,598
1990	5,031,262	3,629,952	2,363,459	1,266,493	161,001	1,084,923	155,386
1989	4,955,078	3,614,390	2,323,010	1,291,380	207,156	999,128	134,404
1988	4,989,680	3,702,762	2,353,106	1,349,656	175,569	943,322	168,027
1987	4,806,027	3,600,697	2,278,291	1,322,406	203,040	858,018	144,272
1986	4,745,887	3,507,725	2,200,039	1,307,686	295,227	803,859	139,076
1985	4,432,054	3,389,618	2,088,973	1,300,645	275,457	667,651	99,328 ²
1980	3,869,936	3,194,936	1,795,607	1,399,329	275,000 ¹	400,000 ¹	
1975		2,501,050	1,465,816	1,035,234			
1970		1,786,920	1,068,820	718,100			
1965		1,325,400	757,700	567,700			
1960		989,500	585,100	404,400			
1955		455,000	355,000	100,000			

¹ Estimate. Comparable data not available prior to FY 1980.
² Comparable Tribal contract health services data not available prior to FY 1985.

NOTE: NA denotes data not available.

SOURCE: IHS Direct: Annual Report 1A
IHS Contract: Annual Report 3G
Tribal Direct: IHS Area Submissions
Tribal Contract: IHS Area Submissions

Chart 5.20

Leading Causes of Ambulatory Medical Visits: Ages Under 1 Year, Indian Health Service and Tribal Direct and Contract Facilities, FY 1995

In FY 1995, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities for ages under 1 year was supplementary classification conditions. This was followed by nervous system and sense organ diseases.

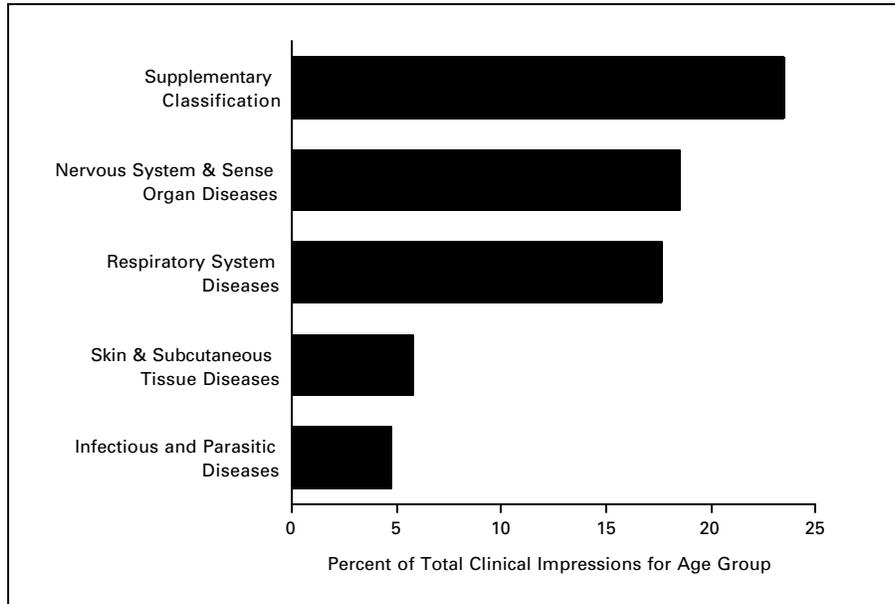


Table 5.20

Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients Under 1 Year of Age

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

Diagnostic Category	Number of Clinical Impressions			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	393,699	204,746	188,953	100.0	52.0	48.0
Supplementary classification	92,369	46,471	45,898	23.5	22.7	24.3
Nervous system & sense organ diseases	72,659	38,361	34,298	18.5	18.7	18.2
Respiratory system diseases	69,784	37,343	32,441	17.7	18.2	17.2
Skin and subcutaneous tissue diseases	22,664	11,529	11,135	5.8	5.6	5.9
Infectious and parasitic diseases	19,025	9,803	9,222	4.8	4.8	4.9
Symptoms, signs, & ill-defined conditions	16,636	8,841	7,795	4.2	4.3	4.1
Digestive system diseases	7,398	3,906	3,492	1.9	1.9	1.8
Perinatal period conditions	6,355	3,486	2,869	1.6	1.7	1.5
Injury & poisoning	3,891	2,109	1,782	1.0	1.0	0.9
Congenital anomalies	2,560	1,422	1,138	0.7	0.7	0.6
All other	80,358	41,475	38,883	20.4	20.3	20.6

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

1997 Trends in Indian Health

Chart 5.21

Leading Causes of Ambulatory Medical Visits: Ages 1 to 4 Years, Indian Health Service and Tribal Direct and Contract Facilities, FY 1995

In FY 1995, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities for ages 1 to 4 years was respiratory system diseases. This was followed by nervous system and sense organ diseases.

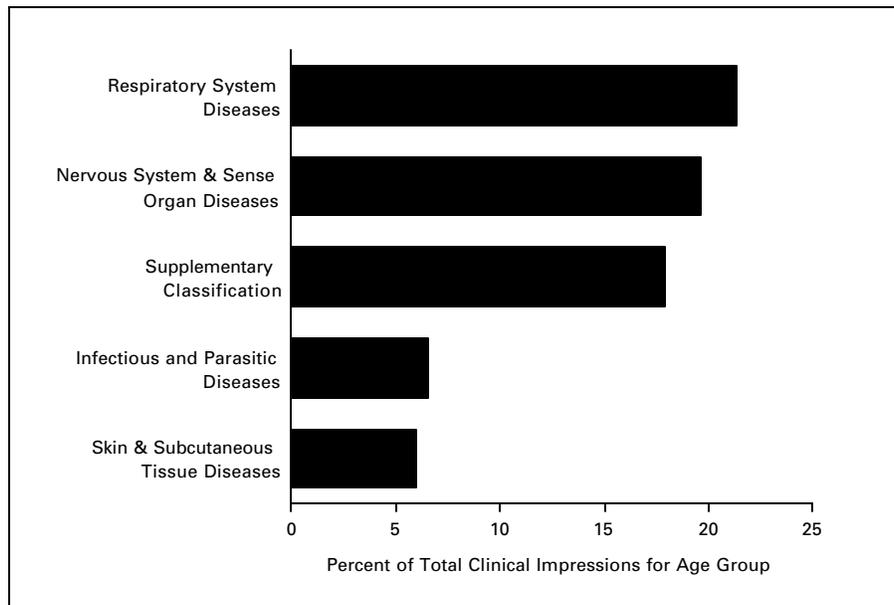


Table 5.21

Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 1 to 4 Years of Age

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

Diagnostic Category	Number of Clinical Impressions			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	776,861	398,277	378,584	100.0	51.3	48.7
Respiratory system diseases	165,808	85,950	79,858	21.3	21.6	21.1
Nervous system & sense organ diseases	152,439	79,988	72,451	19.6	20.1	19.1
Supplementary classification	138,670	70,211	68,459	17.9	17.6	18.1
Infectious and parasitic diseases	50,145	24,813	25,332	6.5	6.2	6.7
Skin and subcutaneous tissue diseases	46,510	22,987	23,523	6.0	5.8	6.2
Symptoms, signs, & ill-defined conditions	33,636	17,228	16,408	4.3	4.3	4.3
Injury & poisoning	31,897	17,816	14,081	4.1	4.5	3.7
Digestive system diseases	13,448	6,829	6,619	1.7	1.7	1.7
Genitourinary system diseases	7,787	2,496	5,291	1.0	0.6	1.4
Blood and blood-forming organs diseases	5,186	2,768	2,418	0.7	0.7	0.6
All other	131,335	67,191	64,144	16.9	16.9	16.9

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

Part 5— Patient Care Statistics

Chart 5.22

Leading Causes of Ambulatory Medical Visits: Ages 5 to 14 Years, Indian Health Service and Tribal Direct and Contract Facilities, FY 1995

In FY 1995, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities for ages 5 to 14 years was respiratory system diseases. This was followed by supplementary classification conditions.

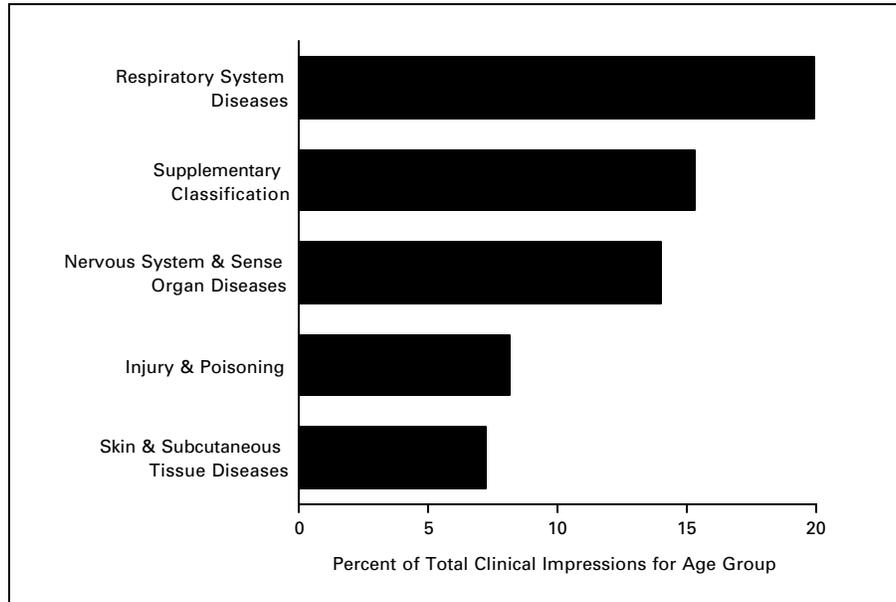


Table 5.22

Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 5 to 14 Years of Age

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

Diagnostic Category	Number of Clinical Impressions			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	1,057,784	525,335	532,449	100.0	49.7	50.3
Respiratory system diseases	210,443	102,127	108,316	19.9	19.4	20.3
Supplementary classification	161,619	82,735	78,884	15.3	15.7	14.8
Nervous system & sense organ diseases	148,122	70,278	77,844	14.0	13.4	14.6
Injury & poisoning	85,501	48,496	37,005	8.1	9.2	6.9
Skin and subcutaneous tissue diseases	75,768	37,170	38,598	7.2	7.1	7.2
Infectious and parasitic diseases	72,741	32,016	40,725	6.9	6.1	7.6
Symptoms, signs, & ill-defined conditions	50,679	24,263	26,416	4.8	4.6	5.0
Mental disorders	48,694	32,064	16,630	4.6	6.1	3.1
Musculoskeletal system diseases	18,341	8,571	9,770	1.7	1.6	1.8
Digestive system diseases	17,590	8,267	9,323	1.7	1.6	1.8
All other	168,286	79,348	88,938	15.9	15.1	16.7

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

1997 Trends in Indian Health

Chart 5.23

Leading Causes of Ambulatory Medical Visits: Ages 15 to 24 Years, Indian Health Service and Tribal Direct and Contract Facilities, FY 1995

In FY 1995, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities for ages 15 to 24 years was complications of pregnancy, childbirth, and the puerperium. This was followed by supplementary classification conditions.

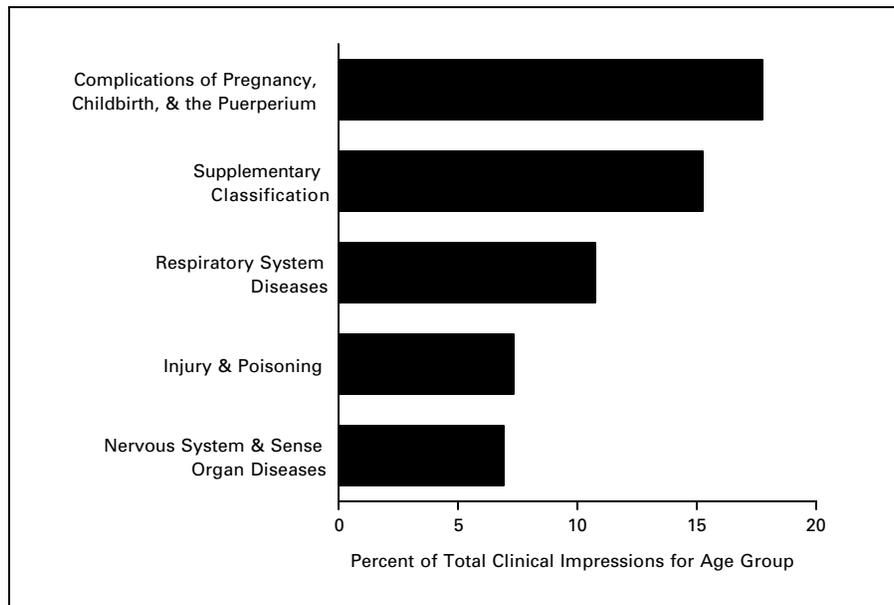


Table 5.23

Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 15 to 24 Years of Age

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

Diagnostic Category	Number of Clinical Impressions			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	1,161,972	344,530	817,442	100.0	29.7	70.3
Complications of pregnancy, childbirth, & the puerperium	205,781	0	205,781	17.7	0.0	25.2
Supplementary classification	176,259	55,522	120,737	15.2	16.1	14.8
Respiratory system diseases	123,911	44,847	79,064	10.7	13.0	9.7
Injury & poisoning	85,115	50,254	34,861	7.3	14.6	4.3
Nervous system & sense organ diseases	80,262	31,030	49,232	6.9	9.0	6.0
Skin and subcutaneous tissue diseases	61,924	26,493	35,431	5.3	7.7	4.3
Genitourinary system diseases	54,023	2,937	51,086	4.6	0.9	6.2
Mental disorders	52,204	24,236	27,968	4.5	7.0	3.4
Symptoms, signs, & ill-defined conditions	49,737	14,982	34,755	4.3	4.3	4.3
Musculoskeletal system diseases	37,966	16,249	21,717	3.3	4.7	2.7
All other	234,790	77,980	156,810	20.2	22.6	19.2

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

Chart 5.24

Leading Causes of Ambulatory Medical Visits: Ages 25 to 44 Years, Indian Health Service and Tribal Direct and Contract Facilities, FY 1995

In FY 1995, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities for ages 25 to 44 years was supplementary classification conditions. This was followed by respiratory system diseases.

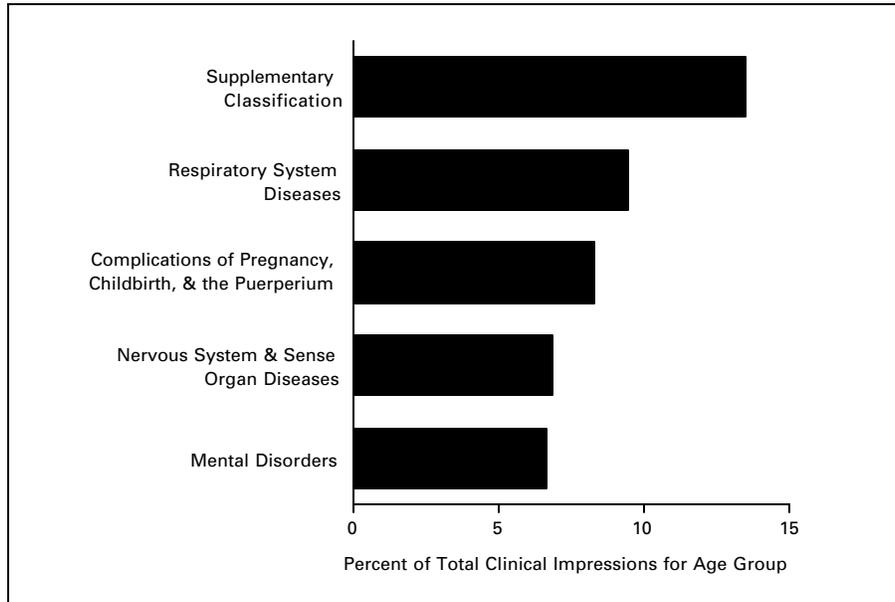


Table 5.24

Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 25 to 44 Years of Age

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

Diagnostic Category	Number of Clinical Impressions			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	2,485,603	792,315	1,693,288	100.0	31.9	68.1
Supplementary classification	336,666	102,697	233,969	13.5	13.0	13.8
Respiratory system diseases	236,072	69,978	166,094	9.5	8.8	9.8
Complications of pregnancy, childbirth, & the puerperium	206,281	0	206,281	8.3	0.0	12.2
Nervous system & sense organ diseases	170,808	63,227	107,581	6.9	8.0	6.4
Mental disorders	165,337	66,847	98,490	6.7	8.4	5.8
Musculoskeletal system diseases	154,416	56,829	97,587	6.2	7.2	5.8
Injury & poisoning	136,287	71,206	65,081	5.5	9.0	3.8
Symptoms, signs, & ill-defined conditions	131,732	40,957	90,775	5.3	5.2	5.4
Genitourinary system diseases	119,014	11,430	107,584	4.8	1.4	6.4
Endocrine, nutritional, & metabolic disorders	115,005	43,568	71,437	4.6	5.5	4.2
All other	713,985	265,576	448,409	28.7	33.5	26.5

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

1997 Trends in Indian Health

Chart 5.25

Leading Causes of Ambulatory Medical Visits: Ages 45 to 54 Years, Indian Health Service and Tribal Direct and Contract Facilities, FY 1995

In FY 1995, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities for ages 45 to 54 years was supplementary classification conditions. This was followed by endocrine, nutritional, and metabolic disorders.

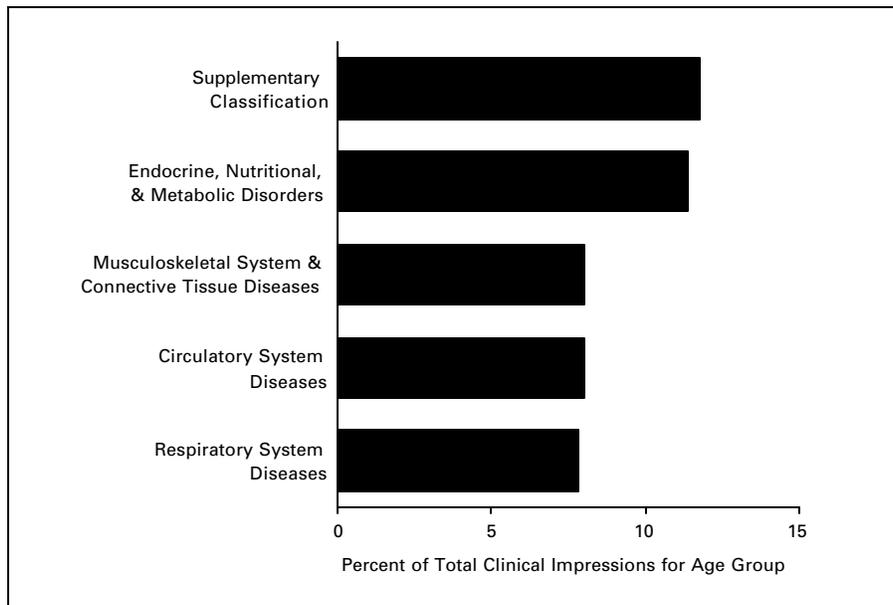


Table 5.25

Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 45 to 54 Years of Age

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

Diagnostic Category	Number of Clinical Impressions			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	1,071,268	378,215	693,053	100.0	35.3	64.7
Supplementary classification	126,009	39,531	86,478	11.8	10.5	12.5
Endocrine, nutritional, & metabolic disorders	122,119	45,117	77,002	11.4	11.9	11.1
Musculoskeletal system diseases	86,064	27,767	58,297	8.0	7.3	8.4
Circulatory system diseases	85,432	40,808	44,624	8.0	10.8	6.4
Respiratory system diseases	84,084	24,743	59,341	7.8	6.5	8.6
Nervous system & sense organ diseases	75,399	28,502	46,897	7.0	7.5	6.8
Symptoms, signs, & ill-defined conditions	55,470	18,382	37,088	5.2	4.9	5.4
Mental disorders	51,510	18,855	32,655	4.8	5.0	4.7
Genitourinary system diseases	47,225	8,626	38,599	4.4	2.3	5.6
Skin and subcutaneous tissue diseases	40,767	15,782	24,985	3.8	4.2	3.6
All other	297,189	110,102	187,087	27.7	29.1	27.0

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

Chart 5.26

Leading Causes of Ambulatory Medical Visits: Ages 55 to 64 Years, Indian Health Service and Tribal Direct and Contract Facilities, FY 1995

In FY 1995, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities for ages 55 to 64 years was endocrine, nutritional, and metabolic disorders. This was followed by circulatory system diseases.

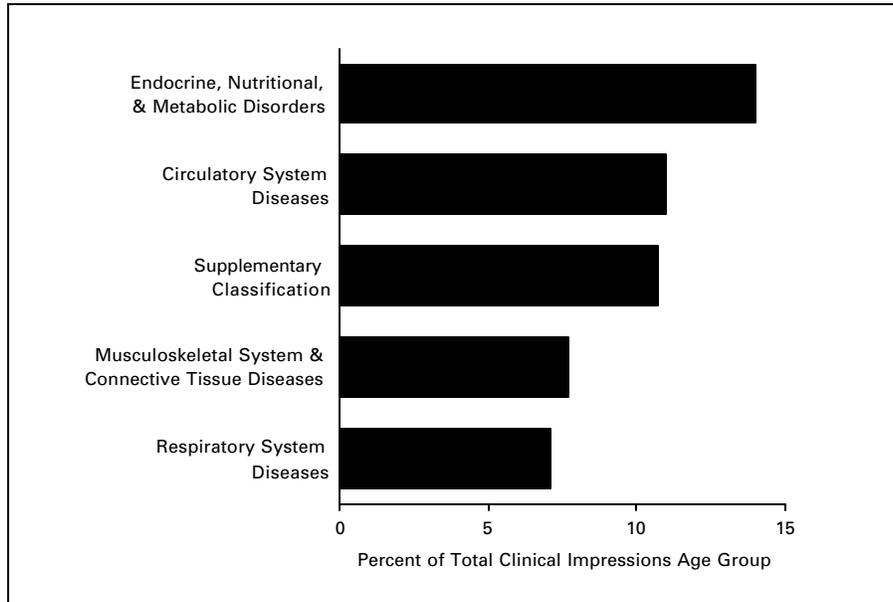


Table 5.26

Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 55 to 64 Years of Age

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

Diagnostic Category	Number of Clinical Impressions			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	879,458	325,652	553,806	100.0	37.0	63.0
Endocrine, nutritional, & metabolic disorders	123,125	43,454	79,671	14.0	13.3	14.4
Circulatory system diseases	97,097	45,246	51,851	11.0	13.9	9.4
Supplementary classification	93,793	31,529	62,264	10.7	9.7	11.2
Musculoskeletal system diseases	67,460	22,416	45,044	7.7	6.9	8.1
Respiratory system diseases	62,193	20,308	41,885	7.1	6.2	7.6
Nervous system & sense organ diseases	60,856	23,579	37,277	6.9	7.2	6.7
Symptoms, signs, & ill-defined conditions	43,244	15,777	27,467	4.9	4.8	5.0
Genitourinary system diseases	35,373	8,847	26,526	4.0	2.7	4.8
Skin and subcutaneous tissue diseases	31,175	12,565	18,610	3.5	3.9	3.4
Digestive system diseases	26,426	10,960	15,466	3.0	3.4	2.8
All other	238,716	90,971	147,745	27.1	27.9	26.7

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

1997 Trends in Indian Health

Chart 5.27

Leading Causes of Ambulatory Medical Visits: Ages 65+ Years, Indian Health Service and Tribal Direct and Contract Facilities, FY 1995

In FY 1995, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities for ages 65 and over was circulatory system diseases. This was followed by endocrine, nutritional, and metabolic disorders.

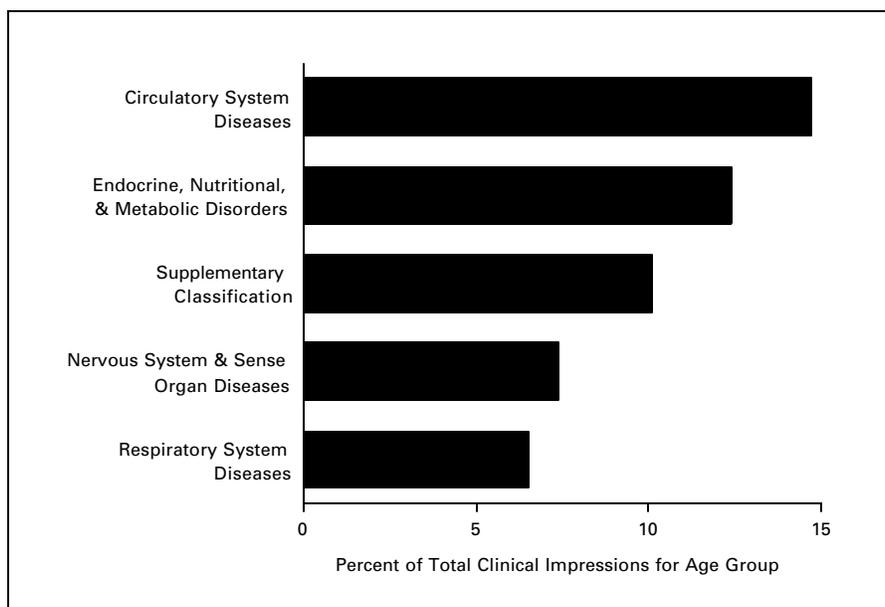


Table 5.27

Ten Leading Causes of Ambulatory Medical Clinical Impressions for Patients 65 Years Old and Older

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

Diagnostic Category	Number of Clinical Impressions			Percent Distribution		
	Combined	Male	Female	Combined	Male	Female
All categories	991,617	379,090	612,527	100.0	38.2	61.8
Circulatory system diseases	145,298	60,254	85,044	14.7	15.9	13.9
Endocrine, nutritional, & metabolic disorders	123,321	43,194	80,127	12.4	11.4	13.1
Supplementary classification	100,367	36,839	63,528	10.1	9.7	10.4
Nervous system & sense organ diseases	73,759	29,979	43,780	7.4	7.9	7.1
Respiratory system diseases	64,231	26,618	37,613	6.5	7.0	6.1
Musculoskeletal system diseases	62,533	20,083	42,450	6.3	5.3	6.9
Symptoms, signs, & ill-defined conditions	49,879	19,394	30,485	5.0	5.1	5.0
Genitourinary system diseases	37,230	12,313	24,917	3.8	3.2	4.1
Skin and subcutaneous tissue diseases	33,946	13,955	19,991	3.4	3.7	3.3
Digestive system diseases	27,565	11,125	16,440	2.8	2.9	2.7
All other	273,488	105,336	168,152	27.6	27.8	27.5

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

Part 5—Patient Care Statistics

Chart 5.28

Leading Causes of Ambulatory Medical Visits, Indian Health Service and Tribal Direct and Contract Facilities, FY 1995

In FY 1995, the leading cause of ambulatory medical visits in Indian Health Service and Tribal direct and contract facilities was supplementary classification conditions. This was followed by respiratory system diseases.

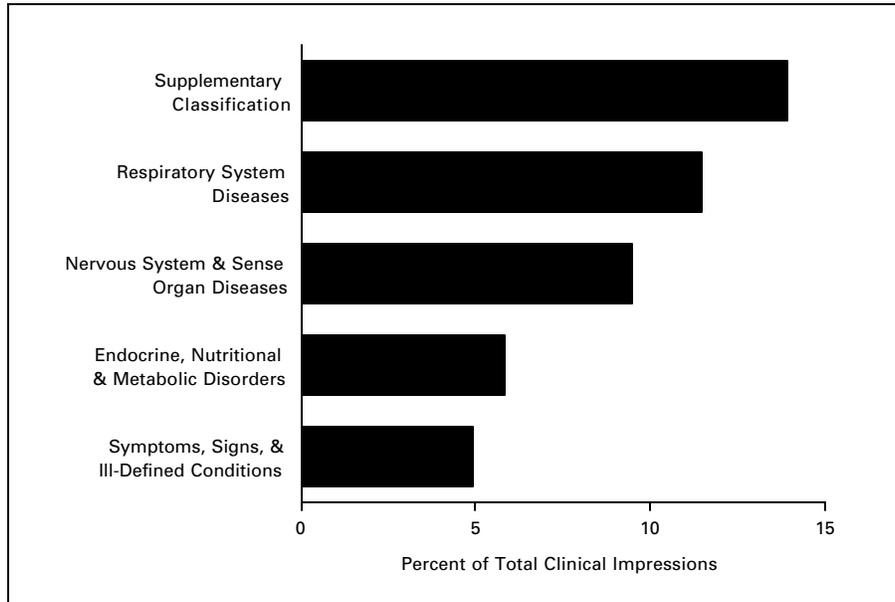


Table 5.28

Ten Leading Causes of Ambulatory Medical Clinical Impressions

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

Diagnostic Category	Number of Clinical Impressions			Percent Distribution		
	Combined	Direct	Contract	Combined	Direct	Contract
All categories	8,818,829	8,486,175	332,654	100.0	96.2	3.8
Supplementary classification	1,225,770	1,194,190	31,580	13.9	14.1	9.5
Respiratory system diseases	1,016,541	982,043	34,498	11.5	11.6	10.4
Nervous system & sense organ diseases	834,320	794,366	39,954	9.5	9.4	12.0
Endocrine, nutritional, & metabolic disorders	512,678	501,322	11,356	5.8	5.9	3.4
Symptoms, signs, & ill-defined conditions	431,014	401,071	29,943	4.9	4.7	9.0
Musculoskeletal system diseases	430,571	403,542	27,029	4.9	4.8	8.1
Complications of pregnancy, childbirth, & the puerperium	428,859	420,259	8,600	4.9	5.0	2.6
Skin and subcutaneous tissue diseases	420,622	407,619	13,003	4.8	4.8	3.9
Injury & poisoning	417,036	372,210	44,826	4.7	4.4	13.5
Circulatory system diseases	411,301	394,746	16,555	4.7	4.7	5.0
All other	2,690,117	2,614,807	75,310	30.5	30.8	22.6

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A



1997 Trends in Indian Health

Chart 5.29

Leading Causes of Ambulatory Medical Visits for Males, Indian Health Service and Tribal Direct and Contract Facilities, FY 1995

For Indian males, the leading cause of ambulatory medical visits (FY 1995) in Indian Health Service and Tribal direct and contract facilities was supplementary classification conditions. This was followed by respiratory system diseases.

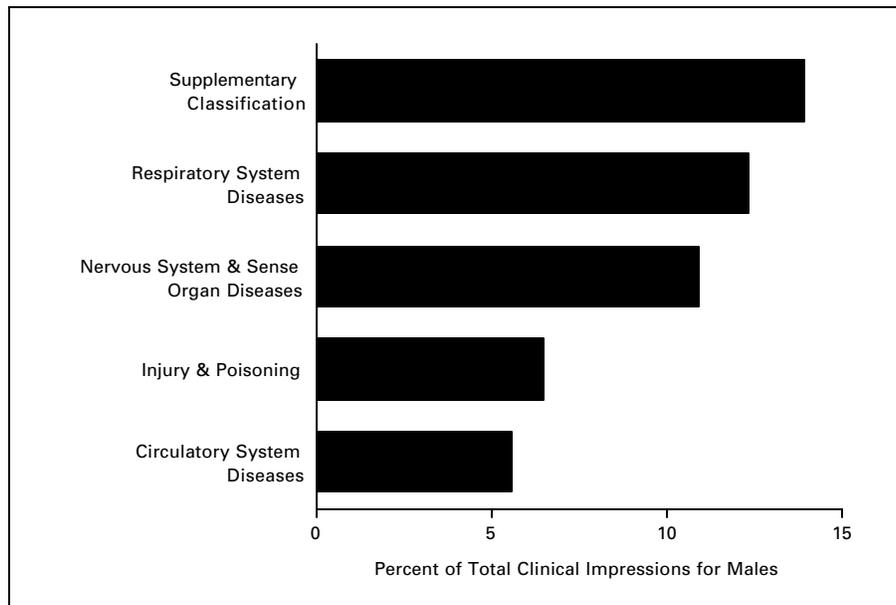


Chart 5.30

Leading Causes of Ambulatory Medical Visits for Females, Indian Health Service and Tribal Direct and Contract Facilities, FY 1995

For Indian females, the leading cause of ambulatory medical visits (FY 1995) in Indian Health Service and Tribal direct and contract facilities was supplementary classification conditions. This was followed by respiratory system diseases.

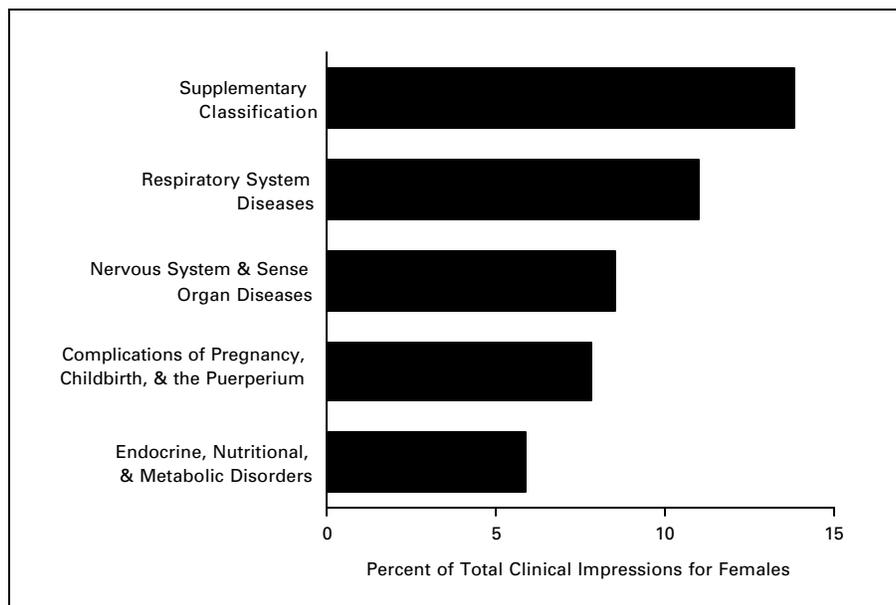


Table 5.29

Number of Ambulatory Medical Clinical Impressions for Leading Major Categories by Sex

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

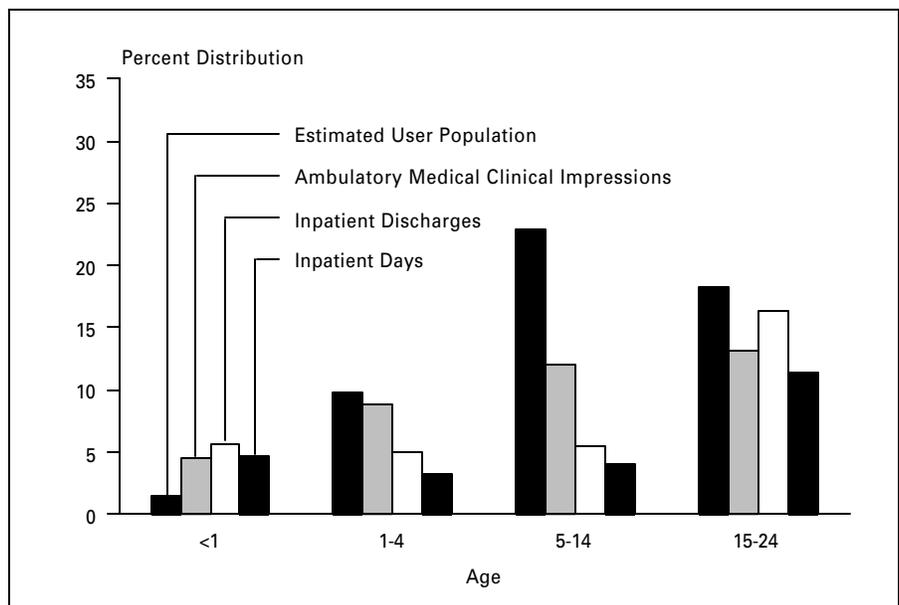
Male		Female	
Category	Number of Clinical Impressions	Category	Number of Clinical Impressions
All categories	3,348,192	All categories	5,470,637
Supplementary classification	465,540	Supplementary classification	760,230
Respiratory system diseases	411,920	Respiratory system diseases	604,621
Nervous system & sense organ diseases	364,953	Nervous system & sense organ diseases	469,367
Injury & poisoning	220,929	Complications of pregnancy, childbirth, & the puerperium	428,859
Circulatory system diseases	190,155	Endocrine, nutritional, & metabolic disorders	325,964
Endocrine, nutritional, & metabolic disorders	186,714	Musculoskeletal system diseases	276,775
Skin and subcutaneous tissue diseases	180,799	Symptoms, signs, & ill-defined conditions	271,190
Symptoms, signs, & ill-defined conditions	159,824	Genitourinary system diseases	265,750
Mental disorders	158,578	Skin and subcutaneous tissue diseases	239,823
Musculoskeletal system diseases	153,796	Circulatory system diseases	221,146
All other	854,984	All other	1,606,912

SOURCE: Direct: Annual Report 1C
Contract: Annual Report 3A

Chart 5.31

Percent Distributions for Population and Patient Care Workloads, Ages Under 25, FY 1995

Indian children under 1 year of age comprise 1.5 percent of the Indian Health Service user population but have 4.5 percent of the ambulatory medical clinical impressions, 5.7 percent of the inpatient discharges, and 4.7 percent of the inpatient days.



1997 Trends in Indian Health

Chart 5.32

Percent Distributions for Population and Patient Care Workloads, Ages Over 24, FY 1995

Indian adults over age 64 comprise 5.7 percent of the Indian Health Service user population but have 11.2 percent of the ambulatory medical clinical impressions, 15.1 percent of the inpatient discharges, and 22.1 percent of the inpatient days.

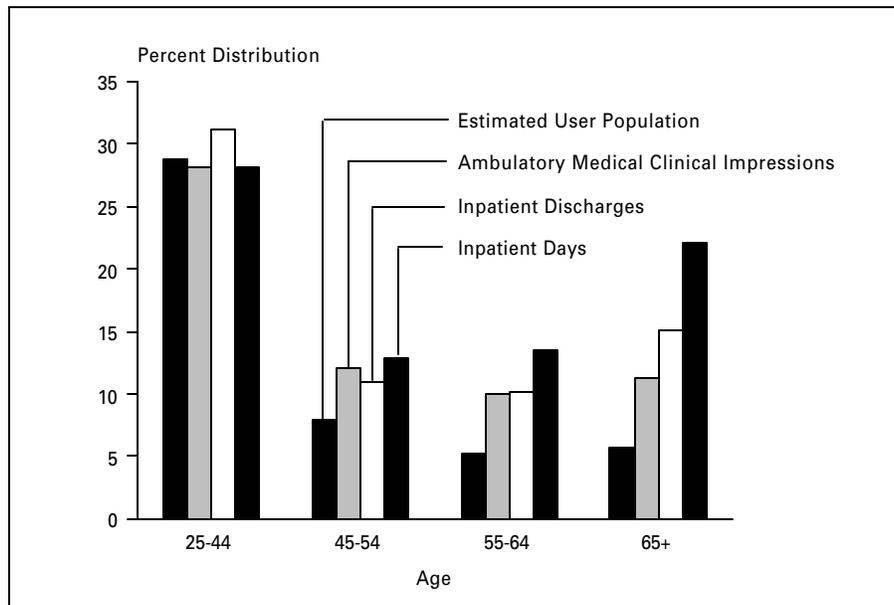


Table 5.31

Percent Distributions for Estimated User Population, Ambulatory Medical Clinical Impressions, and Inpatient Discharges and Days, FY 1995

Percent Distribution	Age								
	All Ages	Under 1 year	1-4 years	5-14 years	15-24 years	25-44 years	45-54 years	55-64 years	65 years & over
Estimated user population	100.0	1.5	9.8	22.9	18.2	28.8	7.9	5.2	5.7
Ambulatory medical clinical impressions	100.0	4.5	8.9	12.0	13.1	28.2	12.0	10.0	11.2
Inpatient discharges	100.0	5.7	5.1	5.5	16.3	31.1	10.9	10.2	15.1
Inpatient days	100.0	4.7	3.3	4.0	11.4	28.1	12.9	13.5	22.1

Chart 5.33

Percent Distribution of Ambulatory Medical Visits by Type of Provider, Indian Health Service and Tribal Direct Facilities, FY 1996

For 44 percent of ambulatory medical visits to Indian Health Service and Tribal direct facilities in FY 1996, the patient was seen by a physician. For 15 percent, the primary provider was a pharmacist.

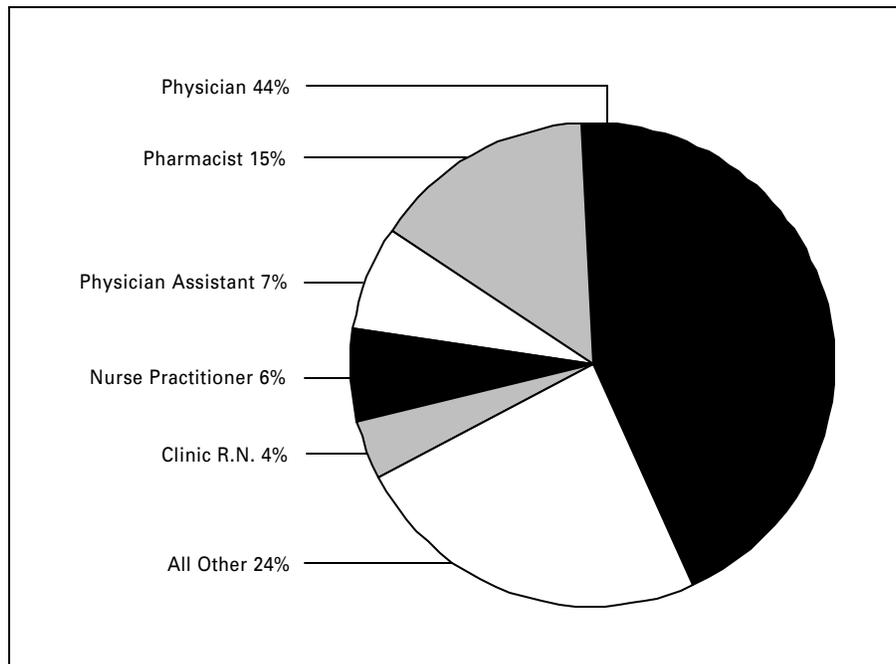


Table 5.33

Number of Ambulatory Medical Visits by Type of Provider

Indian Health Service and Tribal Direct Facilities, FY 1996

Type of Provider	Number of Ambulatory Medical Visits	Percent of Total
Total, All Providers	6,342,316	100.0
Primary Care Providers	4,020,879	63.4
Physician	2,758,971	43.5
Physician Assistant	470,948	7.4
Nurse Practitioner	408,279	6.4
Contract Physician	172,395	2.7
Tribal Physician	72,090	1.1
Nurse Midwife	63,841	1.0
All Other	74,355	1.2
Other Providers	2,321,437	36.6
Pharmacist	973,390	15.3
Clinic R.N.	264,205	4.2
Optometrist	194,595	3.1
Public Health Nurse	111,772	1.8
Licensed Practical Nurse	84,857	1.3
Physical Therapist	68,202	1.1
All Other	624,416	9.8

SOURCE: APC Data System (Report 1A)



1997 Trends in Indian Health

Chart 5.34

Trend in Average Daily Patient Load, IHS and Tribal Direct and Contract Hospitals

IHS services shifted away from inpatient care as demonstrated by the decline in average daily patient load (ADPL) between 1980 and 1995. However, the Tribal portion of total ADPL increased from 1 to 18 percent during that time period.

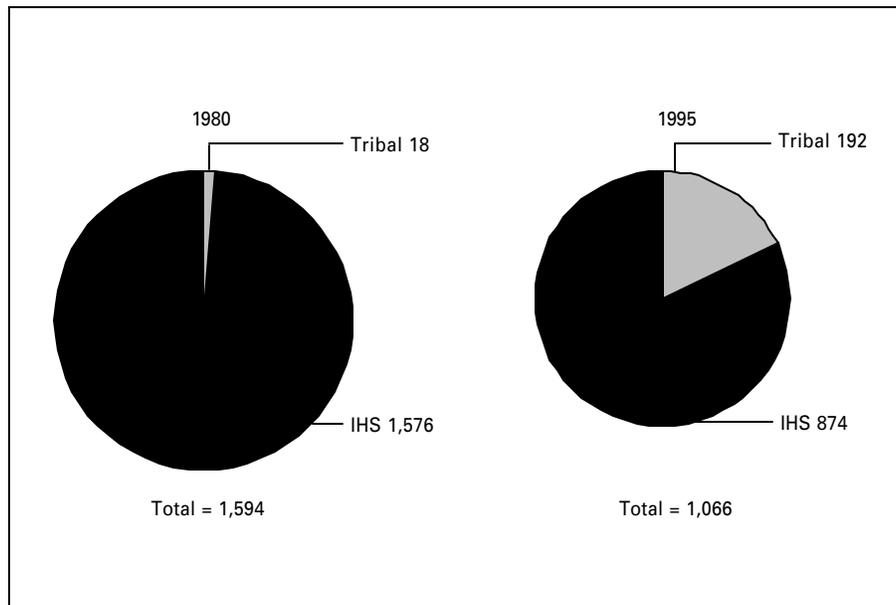


Chart 5.35

Trend in Number of Ambulatory Medical Visits, IHS and Tribal Direct and Contract Facilities

While inpatient services declined, ambulatory medical services increased 69 percent between 1980 and 1995. Also, the Tribal portion of total ambulatory medical visits increased from 8 to 34 percent during that time period.

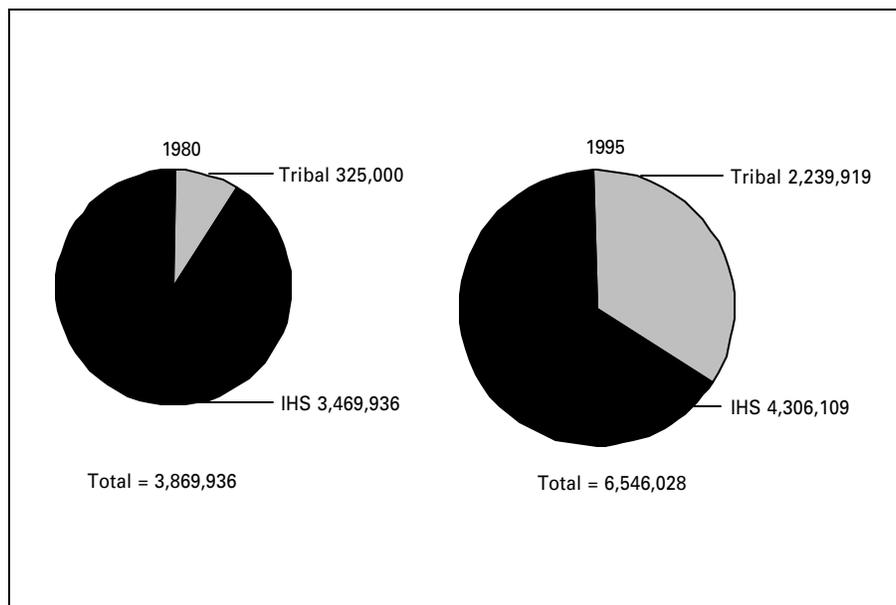


Chart 5.36

Trend in Preventive Ambulatory Medical Visits, IHS and Tribal Direct and Contract Facilities

IHS services related to preventive care have increased 87 percent since 1980. In 1995, the largest single category of preventive clinical impressions was prenatal care, 18 percent of the preventive total. These are conservative estimates since preventive activities also occur during visits reported for other causes.

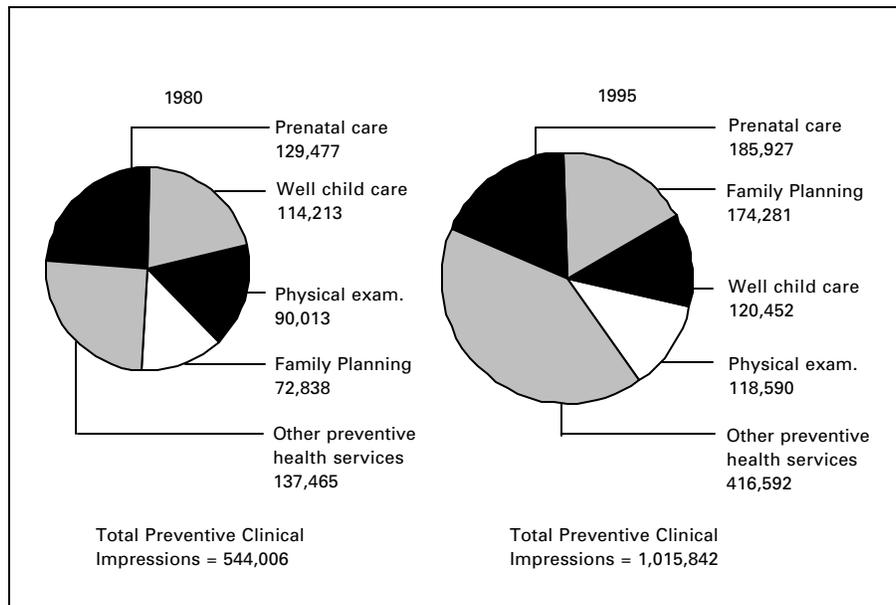
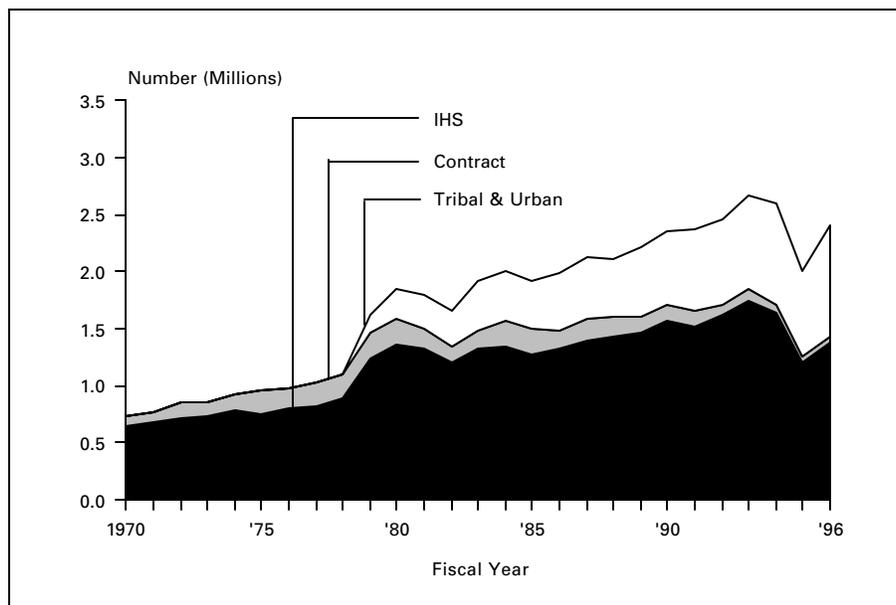


Chart 5.37

Dental Services Provided

The number of direct and contract dental services provided by Indian Health Service, Tribal, and Urban Programs has increased 226 percent since FY 1970. In FY 1996, about 2.4 million dental services were provided.



1997 Trends in Indian Health

Chart 5.38

Dental Services Provided by Tribal/Urban Programs

The number of dental services provided by Tribal and Urban Programs has increased over 500 percent since FY 1979. In FY 1996, they comprised 41 percent of the total dental services provided, as compared to 10 percent in FY 1979.

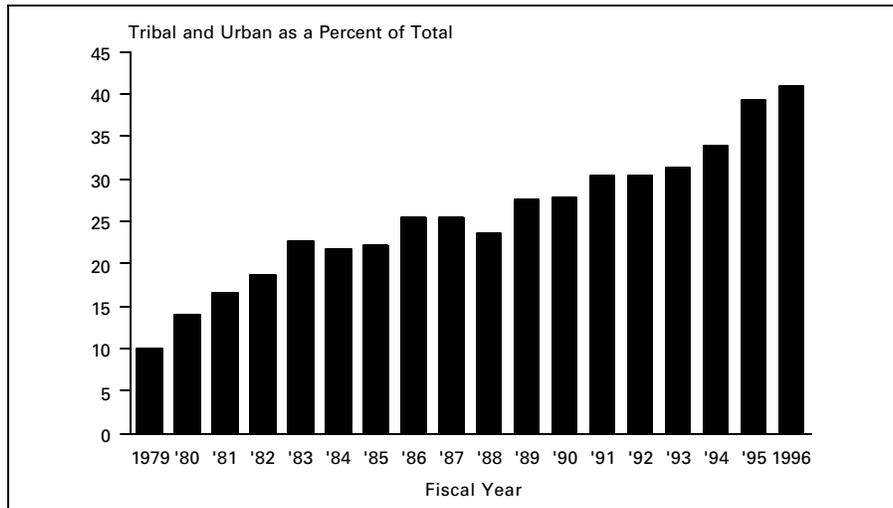


Table 5.37

Number of Dental Services Provided

IHS, Contract, Tribal and Urban Programs, Fiscal Years 1955-1996

Fiscal Year	Number of Services Provided			Tribal & Urban	% Contract of Total	% Tribal & Urban of Total	% Increase of Total Since 1955
	Total	IHS Direct	Contract ¹				
1996	2,400,646	1,383,870	36,171	980,605	1.5	40.8	1,333.7
1995	2,058,032	1,261,787	49,827	746,418	2.4	39.3	1,043.4
1994	2,643,757	1,686,892	64,483	892,382	2.4	33.8	1,368.8
1993	2,675,525	1,742,936	97,897	834,692	3.7	31.2	1,386.4
1992	2,458,811	1,618,679	92,447	747,685	3.8	30.4	1,266.0
1991	2,369,484	1,516,233	133,253	719,998	5.6	30.4	1,216.4
1990	2,362,228	1,563,934	139,425	658,869	5.9	27.9	1,212.3
1989	2,207,082	1,466,812	132,918	607,352	6.0	27.5	1,126.2
1988	2,106,741	1,415,815	194,784	496,142	9.2	23.6	1,070.4
1987	2,130,690	1,397,262	191,639	541,789	9.0	25.4	1,083.7
1986	1,984,522	1,322,794	155,939	505,789	7.9	25.5	1,002.5
1985	1,914,820	1,276,623	210,508	427,689	11.0	22.3	963.8
1984	2,011,326	1,348,599	224,918	437,809	11.2	21.8	1,017.4
1983	1,907,336	1,325,187	149,741	432,408	7.9	22.7	959.6
1982	1,666,263	1,202,422	153,030	311,341	9.2	18.6	825.7
1981	1,801,982	1,319,913	182,880	299,189	10.1	16.6	901.1
1980	1,833,206	1,357,809	216,574	258,823	11.8	14.1	918.4
1979 ²	1,618,383	1,239,108	215,997	163,278	13.3	10.1	799.1
1978 ²	1,099,019	885,019	214,000	—	19.5	—	510.6
1977	1,037,640	823,328	214,312	—	20.7	—	476.5
1976	975,647	798,709	176,938	—	18.1	—	442.0
1975	946,722	745,831	200,891	—	21.2	—	426.0
1974	927,701	775,747	151,954	—	16.4	—	415.4
1973	863,057	728,909	134,148	—	15.5	—	379.5
1972	844,724	718,176	126,548	—	15.0	—	369.3
1971	776,168	684,612	91,556	—	11.8	—	331.2
1970	737,206	646,580	90,626	—	12.3	—	309.6
1969	703,232	634,479	68,753	—	9.8	—	290.7
1968	681,745	613,084	68,661	—	10.1	—	278.7
1967	626,458	545,509	80,949	—	12.9	—	248.0
1966 ²	570,779	502,710	60,069	—	11.9	—	217.1
1965	572,079	495,006	77,073	—	13.5	—	217.8
1964	525,010	462,981	62,029	—	11.8	—	191.7
1963	453,906	398,452	55,454	—	12.2	—	152.2
1962	421,597	364,988	56,609	—	13.4	—	134.2
1961	403,528	348,776	54,752	—	13.6	—	124.2
1960 ²	364,423	307,248	57,175	—	15.7	—	102.5
1959	328,613	283,206	45,407	—	13.8	—	82.6
1958	282,372	282,372	—	—	—	—	56.9
1957	249,048	249,048	—	—	—	—	38.4
1956	219,353	219,353	—	—	—	—	21.9
1955	180,000	180,000	—	—	—	—	—

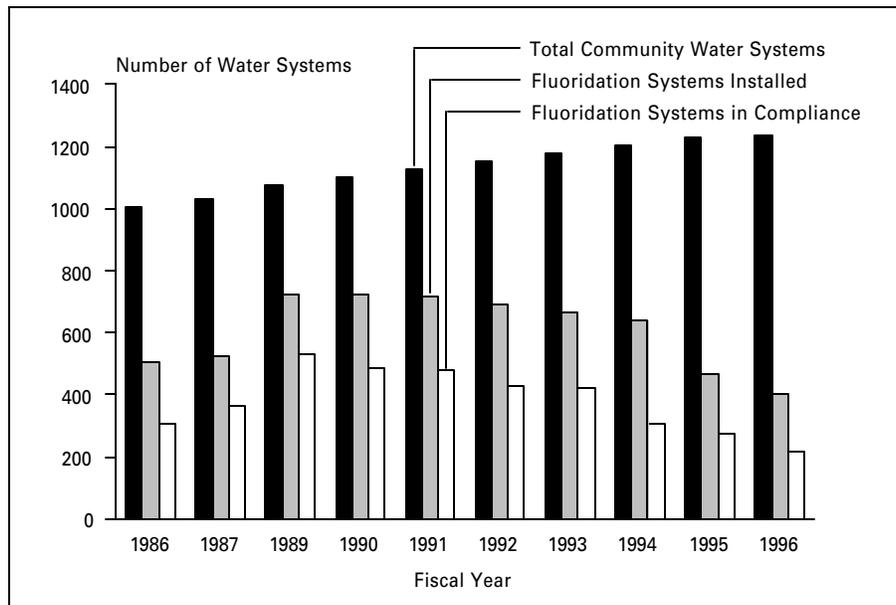
¹Beginning with FY 1979, this category excludes contract services purchased from the private sector by Tribes.

²Data systems were modified in 1960, 1966, and 1978. In 1978 the IHS began to use the dental services coding list adopted by the American Dental Association (ADA). The ADA list identifies individual clinical services. Previously the IHS had reported specified clinical services combined into major dental service groupings. Excluded from the 1978 count are diagnostic and adjunctive services. Excluded from the clinical counts since 1979 are diagnostic services other than examinations, revisits, and nonclinical adjunctive services.

Chart 5.39

Trend in Community Water Systems Monitoring Fluoridation

Steady progress in maintaining at least minimally acceptable levels of fluoride in community water systems has occurred since FY 1986. There are 1,235 community water systems on reservations serving American Indian and Alaska Native people. In FY 1996, 404 water systems delivered fluoride for the entire year; of those systems, 215 were in compliance. A water system is considered to be in compliance for the year if the monthly water sample is in the optimal fluoride range. Optimally fluoridated systems provide the dental benefits of this cost-effective public health measure to over 30 percent of the Indian population. Increasing the number of optimally fluoridated water systems is a high priority for the IHS Dental and Office of Environmental Health and Engineering Programs.



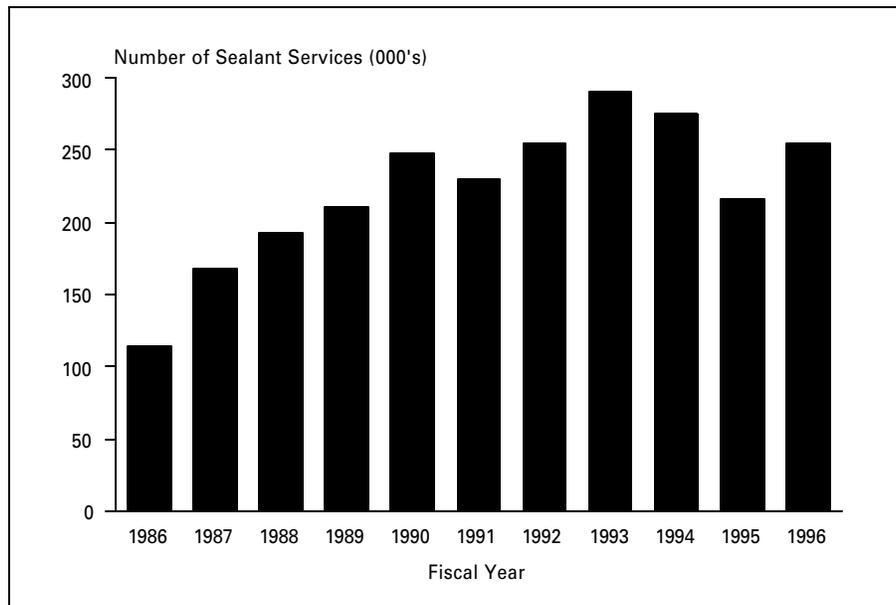


1997 Trends in Indian Health

Chart 5.40

Annual Preventive Sealant Usage in IHS and Tribal Dental Programs, Fiscal Years 1986-1996

Since FY 1986, there has been a dramatic increase in dental sealant usage. The FY 1996 level is more than double that of FY 1986.





Part 6— Community Health Statistics

Chart 6.1

*Age-Adjusted Drug-Related
Death Rates*

The age-adjusted drug-related death rate for American Indians and Alaska Natives increased from 3.4 deaths per 100,000 population in 1979-1981 to 5.3 in 1992-1994. When the 1992-1994 rate is adjusted for miscoding of Indian race on death certificates, it increases to 6.0. This is 18 percent higher than the U.S. All Races rate of 5.1 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/unadjusted trend line would rise in value, but the rate of change would probably remain the same.

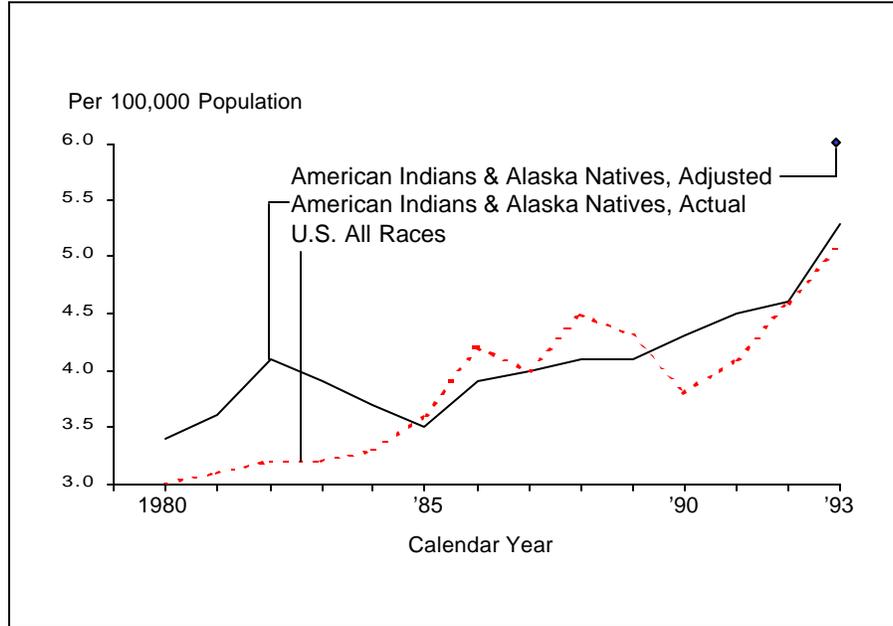


Table 6.1

Drug-Related Deaths and Death Rates

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1980-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S. White Rate	Ratio of American Indian and Alaska Native to:					
	Number	Rate			U.S. All Races	U.S. White				
(1994)	75	85 (adj)								
1992-1994 (1993)	52	62 (adj)	5.3	6.0 (adj)	5.1	4.8	1.0	1.2 (adj)	1.1	1.3 (adj)
1991-1993 (1992)	57	67 (adj)	4.6		4.6	4.4	1.0		1.0	
1990-1992 (1991)	50		4.5		4.1	3.9	1.1		1.2	
1989-1991 (1990)	48		4.3		3.8	3.6	1.1		1.2	
1988-1990 (1989)	45		4.1		4.3	4.0	1.0		1.0	
1987-1989 (1988)	36		4.1		4.5	4.1	0.9		1.0	
1986-1988 (1987)	45		4.0		4.0	3.7	1.0		1.1	
1985-1987 (1986)	36		3.9		4.2	3.9	0.9		1.0	
1984-1986 (1985)	34		3.5		3.6	3.4	1.0		1.0	
1983-1985 (1984)	27		3.7		3.3	3.1	1.1		1.2	
1982-1984 (1983)	40		3.9		3.2	3.1	1.2		1.3	
1981-1983 (1982)	30		4.1		3.2	3.0	1.3		1.4	
1980-1982 (1981)	28		3.6		3.1	3.0	1.2		1.2	
1979-1981 (1980)	25		3.4		3.0	3.0	1.1		1.1	
(1979)	27									

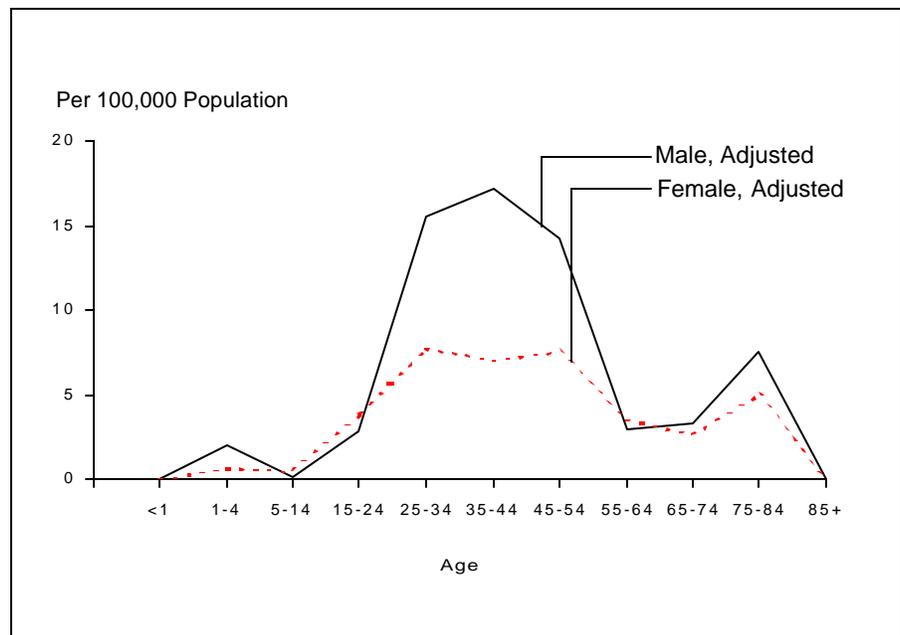
Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

NOTE American Indian and Alaska Native rates are for the 3-year periods specified. Numbers of deaths for the Indian population and rates for U.S. populations are for the single year specified.

Chart 6.2

Drug-Related Death Rates by Age and Sex, American Indians and Alaska Natives (1992-1994)

The age-specific drug-related death rate (1992-1994) for Indian males was above 14.0 (14.2 to 17.1) for age groups 25 to 54 years. The highest age-specific rates for Indian females (7.0 to 7.7) occurred in the same age groups. These Indian rates have been adjusted for miscoding of Indian race on death certificates.



Part 6— Community Health Statistics

Table 6.2

Drug-Related Death Rates by Age and Sex

American Indians and Alaska Natives, IHS Service Area, 1992-1994, and U.S. All Races and White Populations, 1993 (Rate per 100,000 Population)

Age Group	American Indian and Alaska Native					
	Both Sexes		Male		Female	
	Actual	Adj ¹	Actual	Adj ¹	Actual	Adj ¹
Under 1 year	—	—	—	—	—	—
1-4 years	0.8	1.4	1.1	2.1	0.6	0.6
5-14 years	0.4	0.4	0.2	0.2	0.5	0.5
15-24 years	2.9	3.3	2.5	2.8	3.2	3.8
25-34 years	9.5	11.5	13.3	15.5	5.9	7.7
35-44 years	10.1	11.9	14.6	17.1	5.9	7.0
45-54 years	10.1	10.7	12.9	14.2	7.5	7.5
55-64 years	3.3	3.3	3.0	3.0	3.5	3.5
65-74 years	2.9	2.9	3.3	3.3	2.6	2.6
75-84 years	4.5	6.0	3.7	7.5	5.0	5.0
85 years +	—	—	—	—	—	—

Age Group	U.S. All Races		
	Both Sexes	Male	Female
Under 1 year	1.2	0.5	0.9
1-4 years	0.2	0.2	0.2
5-14 years	0.1	0.2	0.1
15-24 years	3.0	1.7	2.4
25-34 years	12.1	4.3	8.2
35-44 years	19.5	6.7	13.1
45-54 years	7.7	4.0	6.6
55-64 years	3.5	3.2	3.3
65-74 years	2.5	2.5	2.5
75-84 years	3.0	2.9	2.9
85+ years	6.4	5.1	5.4

Age Group	U.S. White		
	Both Sexes	Male	Female
Under 1 year	0.7	0.9	0.5
1-4 years	0.2	0.2	0.2
5-14 years	0.1	0.1	0.2
15-24 years	2.3	2.9	1.7
25-34 years	7.9	11.8	3.9
35-44 years	11.8	17.4	6.1
45-54 years	5.9	7.4	4.5
55-64 years	3.3	3.2	3.4
65-74 years	2.5	2.5	2.6
75-84 years	3.0	3.0	3.0
85+ years	5.3	6.2	4.9

¹ Adjusted to compensate for miscoding of Indian race on death certificates.

NOTE — Represents zero.

Chart 6.3

Alcohol-Related Discharge Rates (First-Listed Diagnosis)

In FY 1995, the total alcohol-related discharge rate (first diagnosis) for IHS and Tribal direct and contract general hospitals was 31.0 per 10,000 user population ages 15 years and older. This is 1.6 times the CY 1995 rate of 19.3 for U.S. general short-stay hospitals.

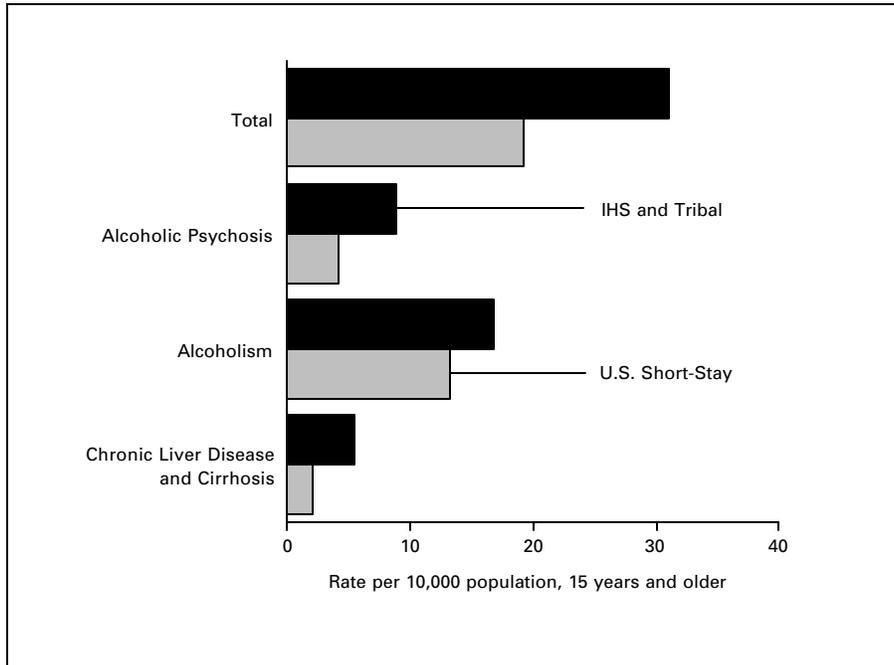


Table 6.3

Number and Rate for Discharges with a First-Listed Diagnosis of Alcoholism for Persons 15 Years Old and Older

IHS and Tribal Direct and Contract General Hospitals, FY 1995, and U.S. General Short-Stay Hospitals, CY 1995

First Listed Diagnosis	IHS and Tribal Hospitals		U.S. General Short-Stay Hospitals	
	Number	Rate	Number (thousands)	Rate
Total	2,547	31.0	393	19.3
Alcoholic psychosis (ICD-9-CM 291)	719	8.8	84	4.1
Alcoholism (ICD-9-CM 303, 305.0)	1,378	16.8	268	13.2
Chronic liver disease and cirrhosis, specified as alcoholic (ICD-9-CM 571.0-571.3)	450	5.5	41	2.0

NOTE: Rate is number of discharges per 10,000 user population ages 15 years and older.
 SOURCE: U.S. - National Center for Health Statistics, DHHS, unpublished data.
 IHS - Annual Reports 2C and 3I.

1997 Trends in Indian Health

Chart 6.4

Hospitalizations for Injuries and Poisonings

Since FY 1987, the number of discharges for injuries and poisonings from IHS and Tribal direct and contract general hospitals has decreased 29 percent. In FY 1995, there were 7,722 discharges.

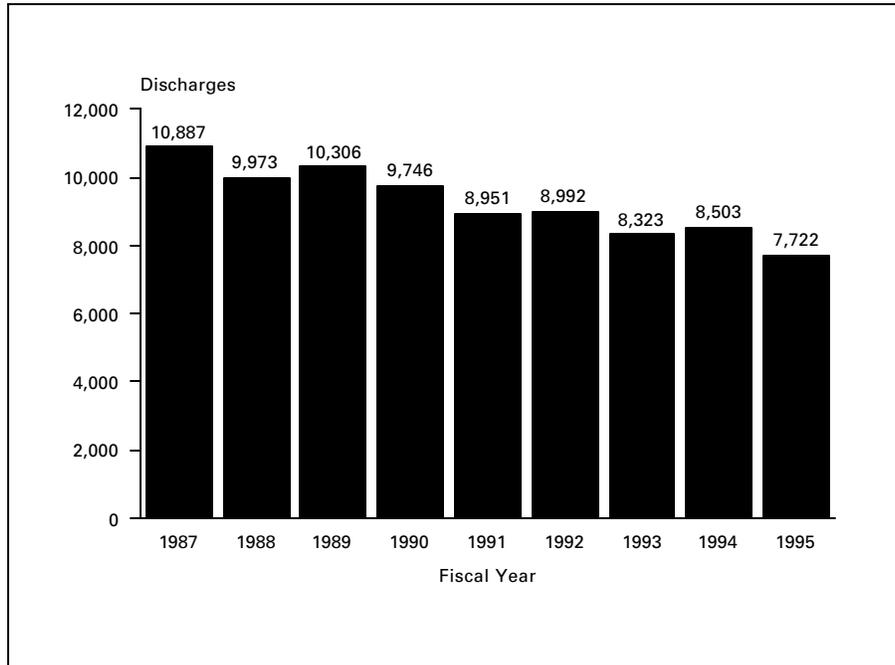
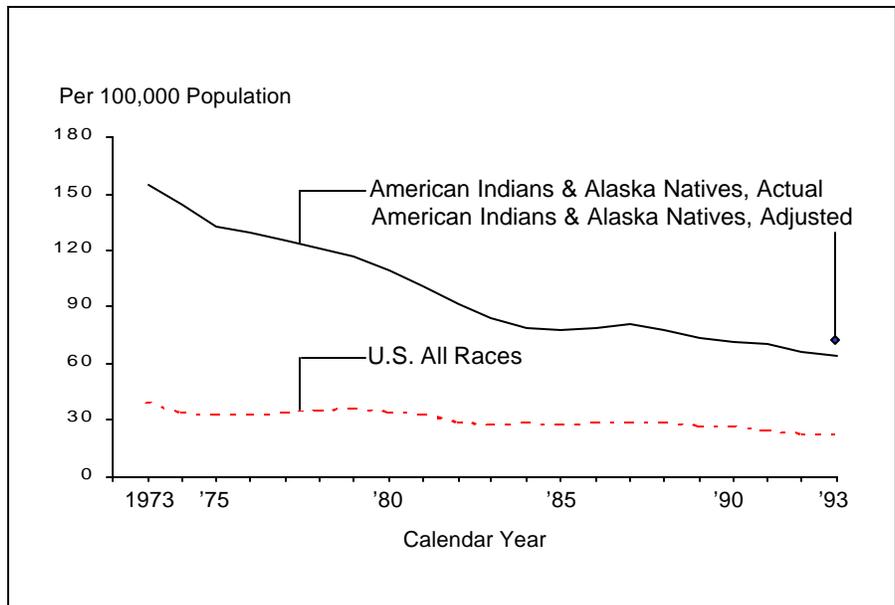


Chart 6.5

Age-Adjusted Motor Vehicle Death Rates for Males

The age-adjusted motor vehicle death rate for American Indian and Alaska Native males has decreased 59 percent since 1972-1974. When the 1992-1994 rate is adjusted for miscoding of Indian race on death certificates, it increases from 63.4 to 72.5. This is 3.2 times the U.S. All Races rate of 22.4 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/ unadjusted trend line would rise in value, but the rate of change would probably remain the same.



Part 6— Community Health Statistics

Table 6.5

Motor Vehicle Deaths and Death Rates for Males

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S White Rate	Ratio of American Indian and Alaska Native to:					
	Number	Rate			U.S. All Races	U.S. White				
(1994)	373	424 (adj)								
1992-1994 (1993)	367	423 (adj)	63.4	72.5 (adj)	22.4	22.5	2.8	3.2 (adj)	2.8	3.2 (adj)
1991-1993 (1992)	382	443 (adj)	66.3		22.3	22.2	3.0			
1990-1992 (1991)	393		69.7		24.4	24.4	2.9			
1989-1991 (1990)	399		71.1		26.3	26.3	2.7			
1988-1990 (1989)	381		73.7		26.8	26.8	2.8			
1987-1989 (1988)	410		77.4		28.3	28.5	2.7			
1986-1988 (1987)	423		80.6		28.1	28.4	2.9			
1985-1987 (1986)	395		79.2		28.5	28.7	2.8			
1984-1986 (1985)	354		77.4		27.3	27.6	2.8			
1983-1985 (1984)	351		78.7		28.0	28.4	2.8			
1982-1984 (1983)	358		84.1		27.4	27.8	3.1			
1981-1983 (1982)	362		90.9		28.7	29.3	3.2			3.1
1980-1982 (1981)	405		100.2		32.7	33.4	3.1			3.0
1979-1981 (1980)	429		109.9		34.3	34.8	3.2			3.2
1978-1980 (1979)	448		117.0		35.8	36.2	3.3			3.2
1977-1979 (1978)	431		120.8		35.1	35.2	3.4			3.4
1976-1978 (1977)	416		125.0		33.3	33.2	3.8			3.8
1975-1977 (1976)	413		129.2		32.1	31.8	4.0			4.1
1974-1976 (1975)	419		131.9		32.2	31.7	4.1			4.2
1973-1975 (1974)	357		144.4		33.2	32.8	4.3			4.4
1972-1974 (1973)	443		154.8		39.3	38.4	3.9			4.0
(1972)	399									
1954-1956 (1955)	NA		NA		38.4	37.8	NA			NA

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

NOTE NA denotes data not available.

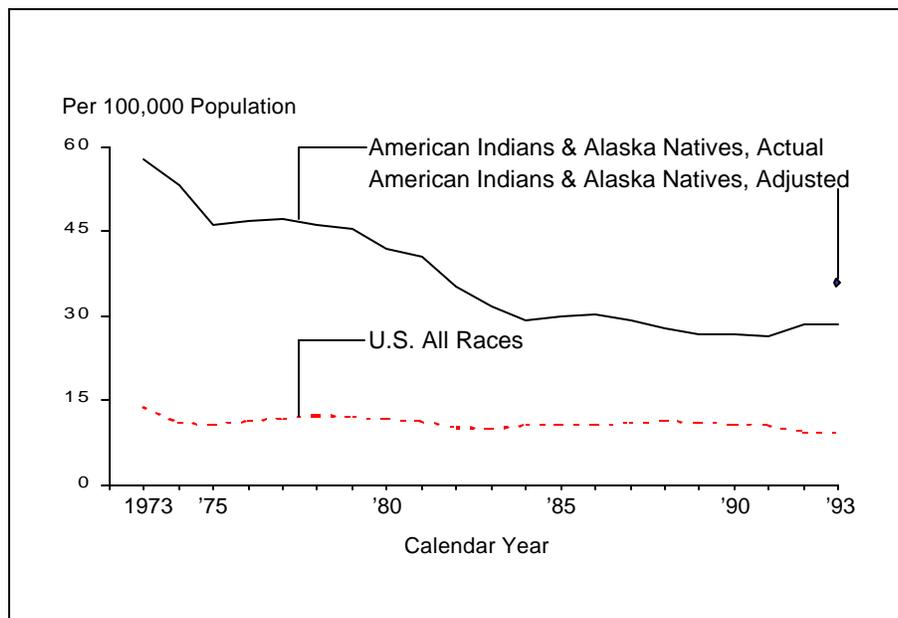


1997 Trends in Indian Health

Chart 6.6

*Age-Adjusted Motor Vehicle
Death Rates for Females*

The age-adjusted motor vehicle death rate for American Indian and Alaska Native females has decreased 51 percent since 1972-1974. When the 1992-1994 rate is adjusted for miscoding of Indian race on death certificates, it increases from 28.5 to 35.2. This is 3.7 times the U.S. All Races rate of 9.5 for 1993. If all the past Indian rates were similarly adjusted for miscoding, the actual/unadjusted trend line would rise in value, but the rate of change would probably remain the same.



Part 6— Community Health Statistics

Table 6.6

Motor Vehicle Deaths and Death Rates for Females

American Indians and Alaska Natives, IHS Service Area, and U.S. All Races and White Populations, 1955-1993 (Age-Adjusted Rate per 100,000 Population)

Calendar Year(s)	American Indian and Alaska Native		U.S. All Races Rate	U.S White Rate	Ratio of American Indian and Alaska Native to:					
	Number	Rate			U.S. All Races	U.S. White				
(1994)	179	218 (adj)								
1992-1994 (1993)	201	249 (adj)	28.5	35.2 (adj)	9.5	9.8	3.0	3.7 (adj)	2.9	3.6 (adj)
1991-1993 (1992)	156	197 (adj)	28.7		9.5	9.6	3.0		3.0	
1990-1992 (1991)	165		26.6		10.5	10.8	2.5		2.5	
1989-1991 (1990)	149		26.9		10.7	11.0	2.5		2.4	
1988-1990 (1989)	155		26.8		11.2	11.5	2.4		2.3	
1987-1989 (1988)	155		27.7		11.3	11.6	2.5		2.4	
1986-1988 (1987)	151		29.2		11.0	11.4	2.7		2.6	
1985-1987 (1986)	171		30.2		10.6	11.0	2.8		2.7	
1984-1986 (1985)	154		30.0		10.5	10.8	2.9		2.8	
1983-1985 (1984)	134		29.3		10.5	10.9	2.8		2.7	
1982-1984 (1983)	140		31.6		10.0	10.3	3.2		3.1	
1981-1983 (1982)	168		35.1		10.1	10.5	3.5		3.3	
1980-1982 (1981)	165		40.6		11.3	11.7	3.6		3.5	
1979-1981 (1980)	193		42.0		11.8	12.3	3.6		3.4	
1978-1980 (1979)	168		45.4		12.1	12.6	3.8		3.6	
1977-1979 (1978)	175		46.0		12.3	12.6	3.7		3.7	
1976-1978 (1977)	177		47.3		11.9	12.2	4.0		3.9	
1975-1977 (1976)	156		47.0		11.3	11.5	4.2		4.1	
1974-1976 (1975)	151		46.2		10.8	10.9	4.3		4.2	
1973-1975 (1974)	138		53.0		10.9	11.0	4.9		4.8	
1972-1974 (1973)	184		57.8		14.0	14.0	4.1		4.1	
(1972)	158									
1954-1956 (1955)	NA		NA		11.6	11.4	NA		NA	

Adj - specifies a number, rate, or ratio of rates adjusted to compensate for miscoding of Indian race on death certificates.

NOTE NA denotes data not available.



1997 Trends in Indian Health

Chart 6.7

*Indian Health Service
Nutrition and Dietetics —
Trend in Patient/Client
Contacts by Nutrition
Function*

The number of patient/client contacts reported by the nutrition and dietetics program has decreased 38 percent since FY 1993. It is not clear what the trend is for actual workload. This is because program resources remained essentially the same during this period, but there was a decrease in the number of staff using the reporting system due to Self-Governance.

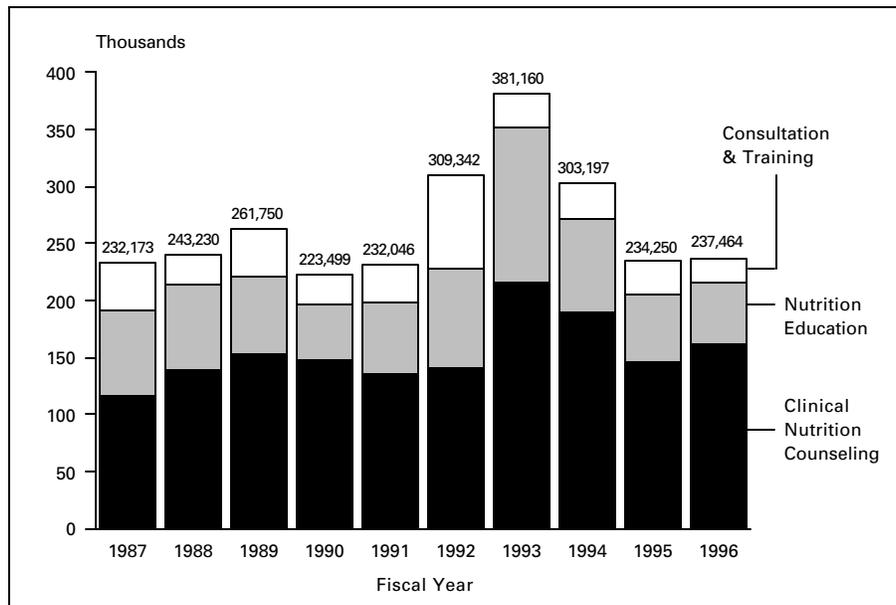


Chart 6.8

*Indian Health Service
Nutrition and Dietetics —
Percent of Contacts by
Setting, FY 1996*

The Indian Health Service nutrition and dietetics program reported over 237,000 patient/client contacts during FY 1996. The majority of the contacts were in the hospital or ambulatory clinic (73 percent).

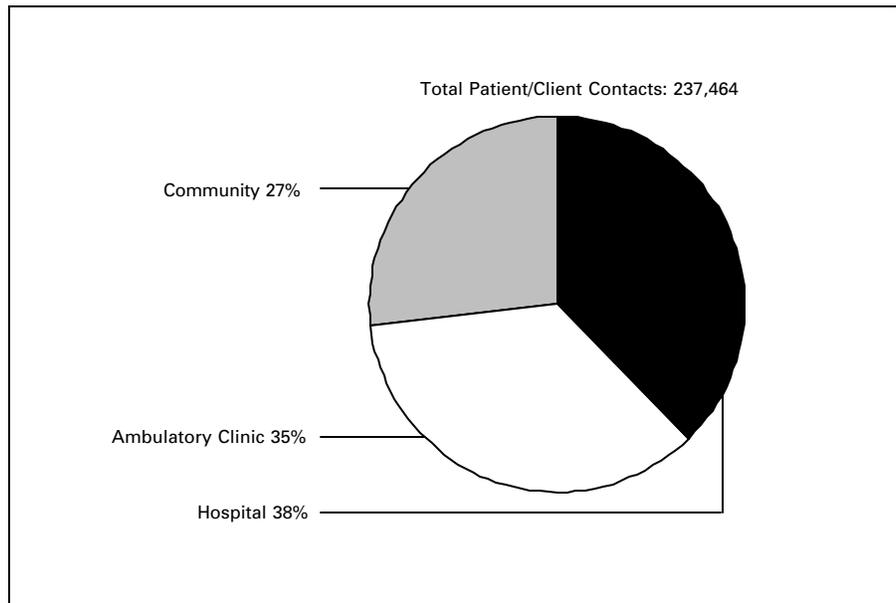


Chart 6.9

*Indian Health Service
Nutrition and Dietetics —
Percent of Contacts by
Nutrition Function,
FY 1996*

Over two-thirds (68 percent) of the nutrition and dietetics program contacts reported during FY 1996 were for clinical nutrition counseling and nearly one-quarter (23 percent) were for health promotion.

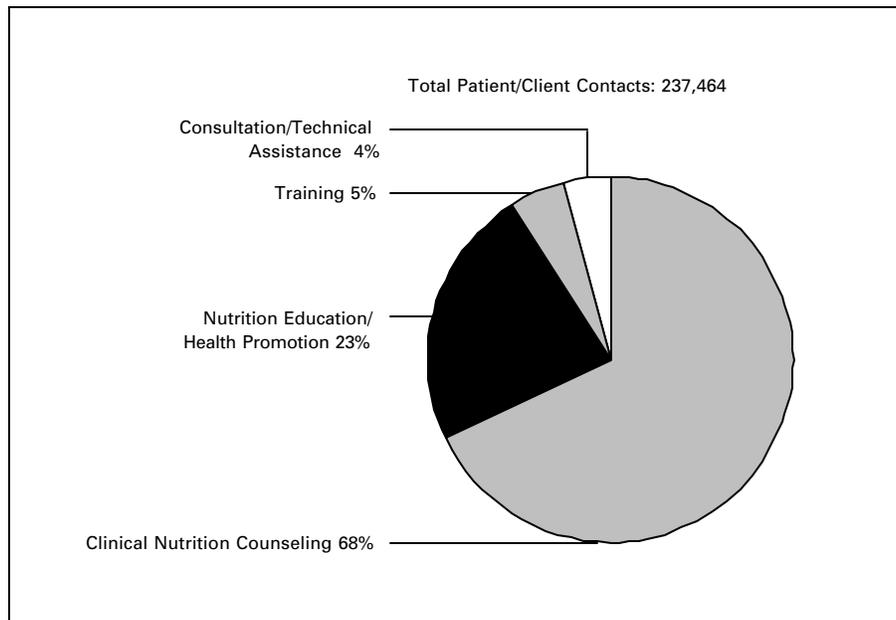


Table 6.8

*Nutrition and Dietetics
Patient/Client Contacts*

By Setting and Function,
FY 1996

	Patient/Client Contacts ¹	
	Number	Percent Distribution
Setting		
Total Patient/Client Contacts	237,464	100.0
Hospital	89,644	37.8
Ambulatory Clinic	84,288	35.5
Community	63,532	26.8
Nutrition Function		
Total Patient/Client Contacts	237,464	100.0
Clinical Nutrition Counseling	162,448	68.4
Nutrition Education/Health Promotion	53,791	22.7
Training for IHS and Tribal Staff	10,954	4.6
Consultation/Technical Assistance	10,271	4.3

¹ Excludes activities that are not direct patient/client services and activities associated with program planning, administration, evaluation, and continuing education.

1997 Trends in Indian Health

Chart 6.10

Leading Clinical Nutrition Patient/Client Contacts, FY 1996

Of the clinical nutrition counseling contacts reported during FY 1996, the majority were for general nutrition counseling (52 percent), consistent with the U.S. Dietary Guidelines, and diabetes nutrition counseling (26 percent).

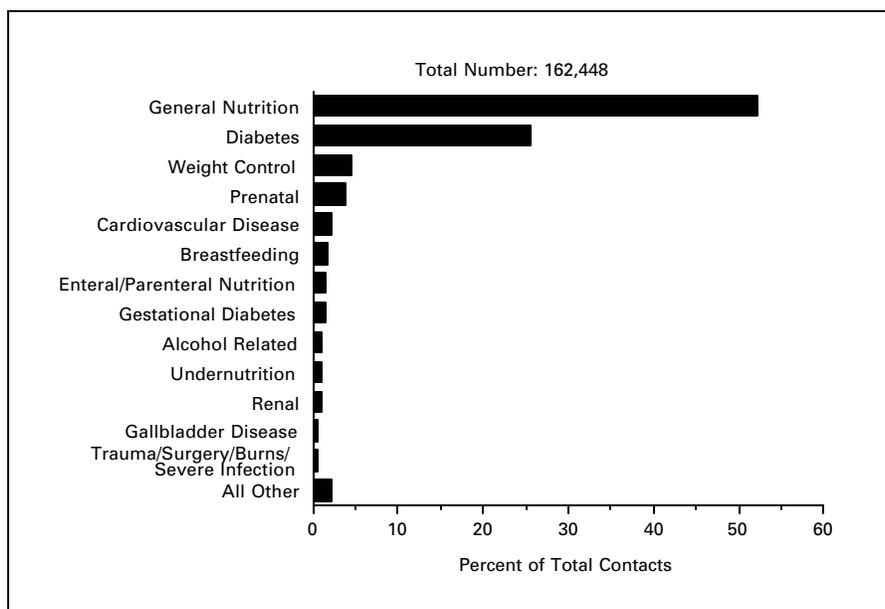


Table 6.10

Leading Clinical Nutrition Patient/Client Contacts, FY 1996

Purpose	Number	Percent Distribution
Total Contacts ¹	162,448	100.0
General Nutrition	84,988	52.3
Diabetes	41,628	25.6
Weight Control	7,172	4.4
Prenatal	6,280	3.9
Cardiovascular Disease	3,364	2.1
Breastfeeding	2,540	1.6
Enteral/Parenteral Nutrition	2,320	1.4
Gestational Diabetes	2,300	1.4
Alcohol Related	1,868	1.1
Undernutrition	1,840	1.1
Renal	1,488	0.9
Gallbladder Disease	968	0.6
Trauma/Surgery/Burn/ Severe Infection	880	0.5
Hypertension	688	0.4
Anemia	612	0.4
All Other	3,512	2.2

¹ Excludes activities that are not direct patient/client services and activities associated with program planning, administration, evaluation, and continuing education.

NOTE: Percentages do not sum to 100.0 due to rounding.

Chart 6.11

Indian Health Service Public Health Nursing—Percent of Visits by Program Area, FY 1996

There were nearly 693,000 public health nursing visits recorded in the Headquarters reports for FY 1996. The most frequent program areas dealt with during these visits were health promotion/disease prevention (32 percent of the visits), morbidity (23 percent), and child health (9 percent).

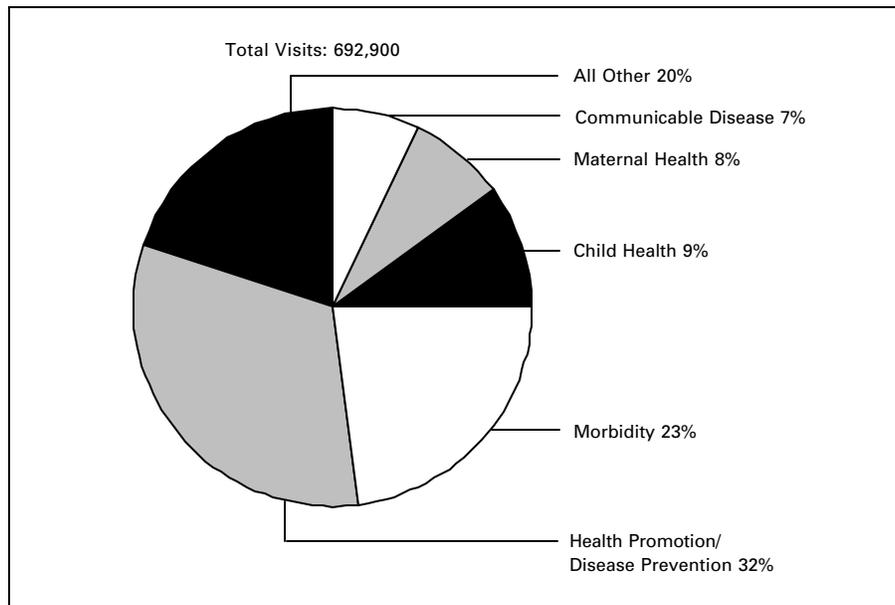


Table 6.11

IHS Public Health Nursing Visits by Program Area, FY 1996

Program Area	Number of Visits ¹	Percent Distribution
Total Visits	692,900	100.0
Health Promotion/Disease Prevention	221,566	32.0
Morbidity	159,943	23.1
Child Health	65,375	9.4
Maternal Health	58,390	8.4
Communicable Disease	44,795	6.5
School Health	21,896	3.2
Mental Health	13,785	2.0
Accidents/Trauma	6,824	1.0
General	100,326	14.5

¹ This is an unduplicated count of visits. If a visit involves more than 1 family member seen at the same time for the same reason, it is counted as 1 visit.

NOTE: Percentages do not sum to 100.0 due to rounding.

SOURCE: Indian Health Service, Public Health Nursing Report No. 3, Fiscal Year 1996.

1997 Trends in Indian Health

Chart 6.12

*Indian Health Service
Public Health Nursing—
Percent of PHN Time by
Type of Activity, FY 1996*

In FY 1996, 54 percent of public health nursing time was devoted to patient service in the home, while 32 percent was spent on patient service outside the home.

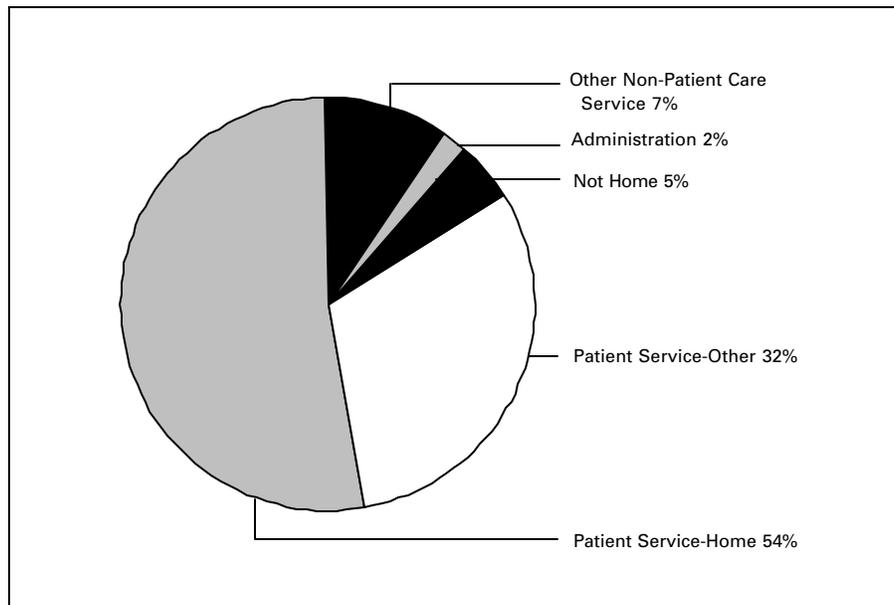


Table 6.12

*IHS Public Health Nursing
Time Worked by Type of
Activity, FY 1996*

Type of Activity	Number of Hours	Percent Distribution
Total Hours	430,709	100.0
Patient Service-Home	233,937	54.3
Patient Service-Other	136,286	31.6
Not Home	20,901	4.9
Administration	6,261	1.5
Register/Record Maintenance	4,856	1.1
Coordinating	4,091	0.9
Program Management	3,840	0.9
Education Received	3,219	0.7
Client Classes	2,262	0.5
Community Development	2,006	0.5
Education Provided	1,437	0.3
Technical Assistance Provided	1,121	0.3
School	924	0.2
Supervision Provided	252	0.1
Supervision Received	207	0.0
Discharge Planning/Hospital Rounds	165	0.0
Interpreting	153	0.0
Technical Assistance Received	144	0.0
Clinic	0	0.0
Other	8,647	2.0

NOTE: Percentages do not sum to 100.0 due to rounding.
SOURCE: Indian Health Service, Public Health Nursing Report No. 2, Fiscal Year 1996.

Chart 6.13

*Indian Health Service
Public Health Nursing—
Percent Visits by Age
and Sex, FY 1996*

For the public health nursing program in FY 1996, female visits outnumbered male visits by over 60 percent. Eleven percent of all visits pertained to males under 5 years of age and 7 percent pertained to males ages 65 and over. The corresponding percentages for females were both 11.

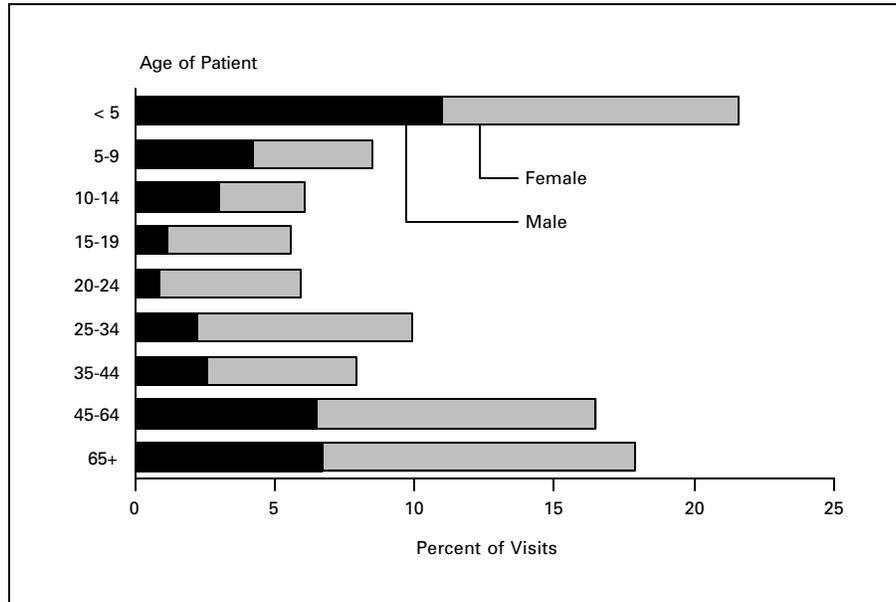


Table 6.13

*IHS Public Health Nursing
Visits by Age and Sex of
Patients, FY 1996*

Age Group	Number of Visits ¹		Percent Distribution		Ratio Female to Male
	Male	Female	Male	Female	
All Ages	263,485	423,553	38.4	61.6	1.6
Under 5 years	75,464	73,129	11.0	10.6	1.0
5 to 9 years	29,019	29,481	4.2	4.3	1.0
10 to 14 years	20,705	21,251	3.0	3.1	1.0
15 to 19 years	7,992	30,043	1.2	4.4	3.7
20 to 24 years	6,217	34,074	0.9	5.0	5.6
25 to 34 years	15,180	52,611	2.2	7.7	3.5
35 to 44 years	17,838	36,505	2.6	5.3	2.0
45 to 64 years	44,657	68,747	6.5	10.0	1.5
65 years +	46,129	77,217	6.7	11.2	1.7
Unspecified Age	284	495	0.0	0.1	1.1

¹ The same visit is counted more than once if it involved more than 1 family member, e.g., 2 children in the same family, both for child health, but different ages and gender.

NOTE: Excludes 5,862 visits with gender not reported. Male and female percentages do not sum to their totals due to rounding.

SOURCE: Indian Health Service, Public Health Nursing Report No. 19, Fiscal Year 1996.

1997 Trends in Indian Health

Chart 6.14

*Indian Health Service
Public Health Nursing—
Visits by Age, FY 1996
versus 1990 Census*

22 percent of public health nursing visits in FY 1996 pertained to children under 5 years of age and 18 percent pertained to adults over the age of 64. Based on the 1990 Census, these 2 age groups comprised much smaller proportions of the Indian population—12 percent and 6 percent, respectively.

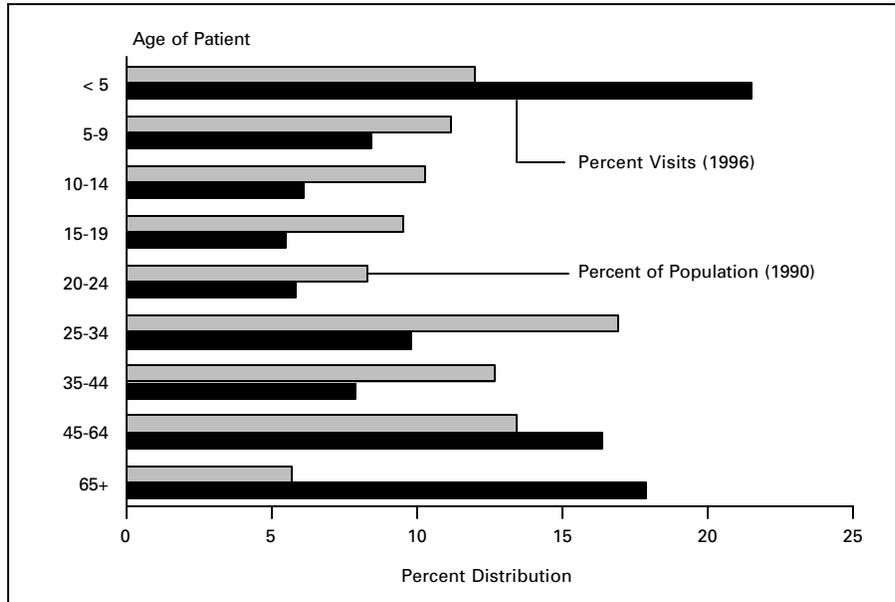


Table 6.14

*IHS Public Health Nursing
Visits by Age of Patients*

FY 1996 Visits Compared
with 1990 Census Data

Age Group	PHN Visits		1990 Census Percent Distribution ²	Ratio PHN Visit Distribution to 1990 Census
	Number ¹	Percent Distribution		
All Ages	692,900	100.0	100.0	
Under 5 years	148,833	21.5	12.0	1.8
5 to 9 years	58,526	8.4	11.2	0.8
10 to 14 years	41,981	6.1	10.3	0.6
15 to 19 years	38,084	5.5	9.5	0.6
20 to 24 years	40,348	5.8	8.3	0.7
25 to 34 years	67,888	9.8	16.9	0.6
35 to 44 years	54,410	7.9	12.7	0.6
45 to 64 years	113,632	16.4	13.4	1.2
65 years +	123,865	17.9	5.7	3.1
Unspecified Age	5,333	0.8	—	—

¹ The same visit is counted more than once if it involved more than 1 family member, e.g., 2 children in the same family, both for child health, but different ages and gender.
² Based on data contained in the 1990 Census modified age, race, and sex file for American Indians and Alaska Natives residing in the IHS service area using 1996 IHS service area boundaries.

NOTE: Percentages do not sum to 100.0 due to rounding.
 SOURCE: Indian Health Service, Public Health Nursing Report No. 14, Fiscal Year 1996.

Chart 6.15

Distribution of CHR Client Contacts by Setting, FY 1996

The community health representatives (CHR) program reported nearly 3.9 million client contacts in FY 1996. Most of these contacts took place in the community (43 percent), followed by home (24 percent).

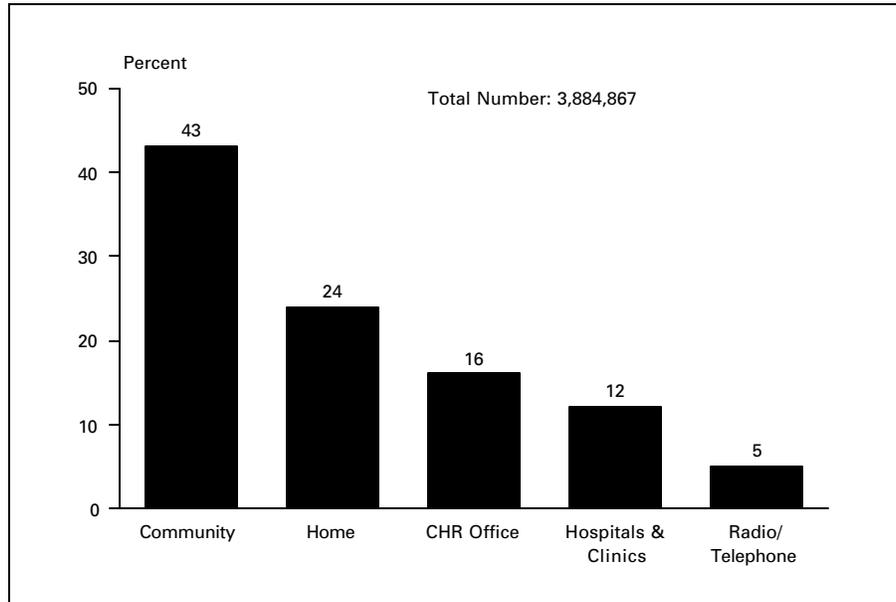


Table 6.15

Community Health Representative Client Contacts by Setting, FY 1996

	Client Contacts	
	Number	Percent Distribution
Total Client Contacts ¹	3,884,867 ²	100.0
Community	1,673,152	43.1
Home	947,675	24.4
CHR Office	604,848	15.6
Hospitals and Clinics	454,608	11.7
Radio/Telephone	178,668	4.6

¹ Estimated data based on CHR client contact reports completed during 12 sample reporting weeks during October 1, 1995 to September 30, 1996 and inflated to represent all weeks during FY 1996.

² Total includes 25,916 client contacts (0.6 percent of total contacts) with setting not reported.

1997 Trends in Indian Health

Chart 6.16

*CHR Client Contacts—
Trend in Leading
Detailed Activities,
Fiscal Years 1991-1996*

The two leading detailed activities for CHR contacts in FY 1996 were health education (24 percent) and case management (19 percent). In FY 1991, the top two were patient and medical supplies transportation (16 percent) and health education (15 percent).

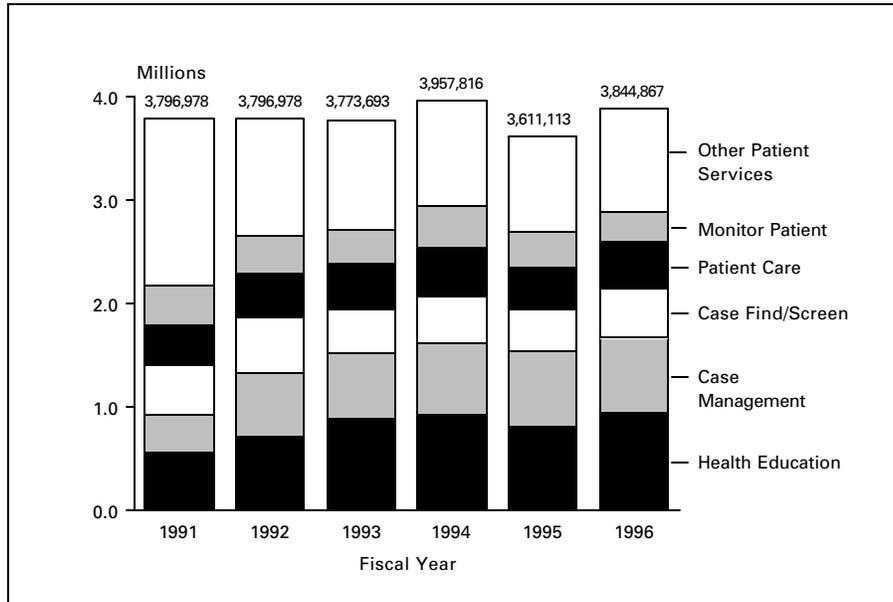


Table 6.16

*Community Health
Representative Client
Contacts for Leading
Detailed Activities,
Fiscal Years 1991-1996*

Detailed Activity	1991	1992	1993	1994	1995	1996
Total Client Contacts ¹	3,796,978	3,773,693 ²	4,139,300 ²	3,957,816 ²	3,611,113 ²	3,884,867 ²
Percent Distribution						
Total Client Contacts ³	100.0	100.0	100.0	100.0	100.0	100.0
Health Education	14.9	18.7	23.4	23.3	22.4	24.2
Case Management	9.7	16.4	17.0	17.9	20.3	18.7
Case Finding and Screening	12.4	14.3	11.2	11.2	11.0	12.4
Provide Patient Care	10.3	11.0	11.5	12.0	11.5	11.4
Monitor Patient	9.9	9.7	8.9	10.3	9.4	7.7
Transport Patient	16.2 ³	12.2	10.5	8.9	8.6	7.6
Provide Environmental Services	8.5	5.7	5.4	4.7	5.9	5.0
Interpret/Translate for Patient	2.6	1.1	1.2	0.9	1.0	3.0
Provide Homemaker Services	1.2	2.2	2.6	1.7	1.5	1.1
Provide Emergency Care	0.5	0.6	0.5	0.8	0.4	0.3
Provide Other Patient Services ⁴	13.8 ⁵	8.1	7.8	8.3	8.0	8.5

¹ Estimated data based on CHR client contact reports completed during 12 sample reporting weeks between October 1 and September 30 and inflated to represent all weeks during each fiscal year.

² Total includes activity unspecified, not shown separately. Percent distribution based on number of client contacts with activity specified.

³ Includes the delivery of medical supplies to patients in 1991.

⁴ Includes client contacts with activity not reported.

⁵ Includes the provision of patient clerical services in 1991.

NOTE: The reduction of CHR services from FY 1993 to FY 1994 reflects the transfer of resources to Tribes as part of the Self-Governance activity. Most Self-Governance Tribes elected not to use the national CHR program reporting system.

Chart 6.17

Leading Health Problems for CHR Client Contacts, FY 1996

The two leading health problems for CHR contacts in FY 1996 were health promotion/disease prevention (20 percent) and diabetes (17 percent).

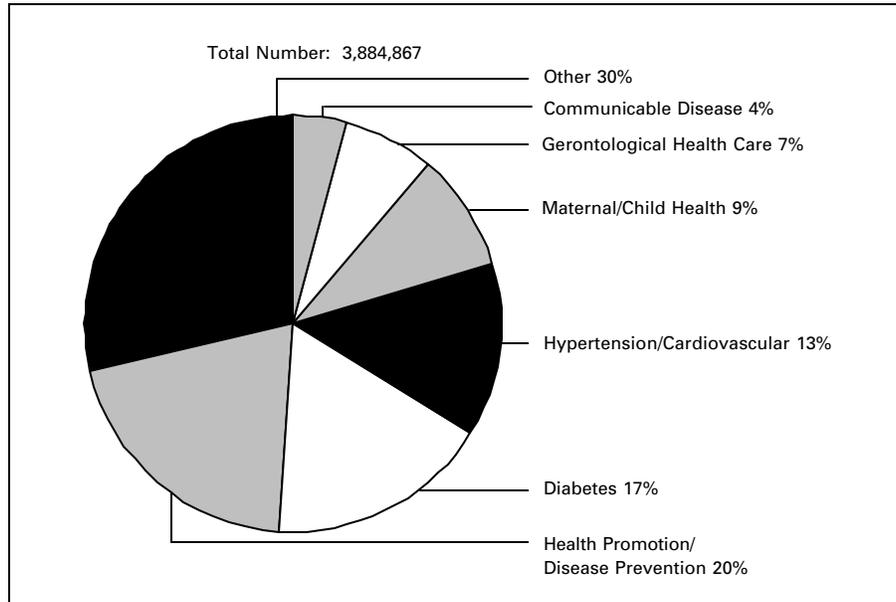


Table 6.17

Community Health Representative Client Contacts for Leading Health Problems, FY 1996

Health Program	Number	Percent Distribution
Total Client Contacts ¹	3,884,867 ²	100.0
Health Promotion/Disease Prevention	787,353	20.3
Diabetes	667,559	17.2
Hypertension/Cardiovascular Disease	485,679	12.5
Maternal/Child Health	351,941	9.1
Gerontological Health Care	262,601	6.8
Communicable Disease	162,504	4.2
Community Injury Control	99,324	2.6
Alcohol/Substance Abuse	90,158	2.3
Dental	77,828	2.0
Cancer	75,351	1.9
Mental Health	36,050	0.9
HIV/AIDS/ARC ³	16,483	0.4
Other General Medical	585,418	15.1

¹ Estimated data based on CHR client contact reports completed during 12 sample reporting weeks between October 1, 1995 and September 30, 1996 and inflated to represent all weeks during FY 1996.

² Total includes 186,618 client contacts (4.8 percent) with health problem not specified.

³ Human immunodeficiency virus infection, acquired immunodeficiency syndrome (AIDS), and AIDS-related condition.



1997 Trends in Indian Health

Chart 6.18

Leading Types of CHR Incoming Client Referrals, FY 1996

The CHR program reported receiving nearly 1.2 million referrals in FY 1996. Family/self/community referrals comprised 33 percent of the total, while 29 percent came from fellow CHRs.

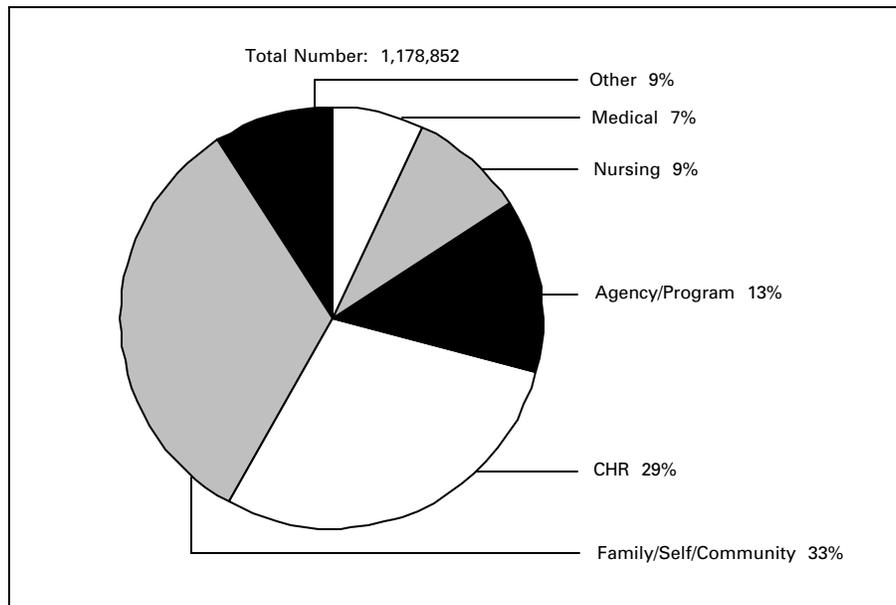


Chart 6.19

Leading Types of CHR Outgoing Client Referrals, FY 1996

The CHR program reported making nearly 953,000 referrals in FY 1996. CHR to CHR referrals made up 51 percent of outgoing CHR referrals, while family/self/community received 27 percent of these referrals, and medical professionals received 9 percent.

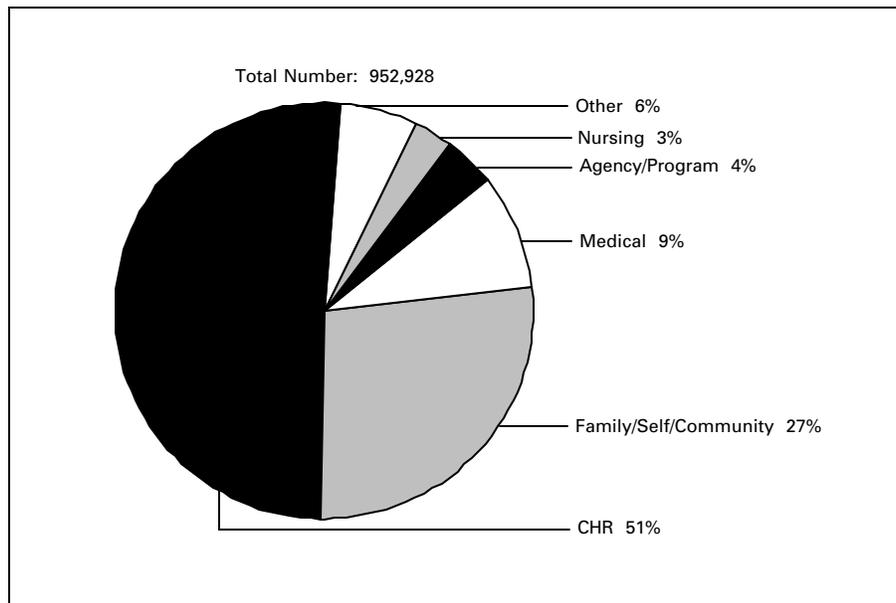


Chart 6.20

Types of Indian Homes Provided with Sanitation Facilities by Indian Health Service through 1996

Since 1960, nearly 209,000 Indian homes were funded by Indian Health Service for the provision of sanitation facilities.

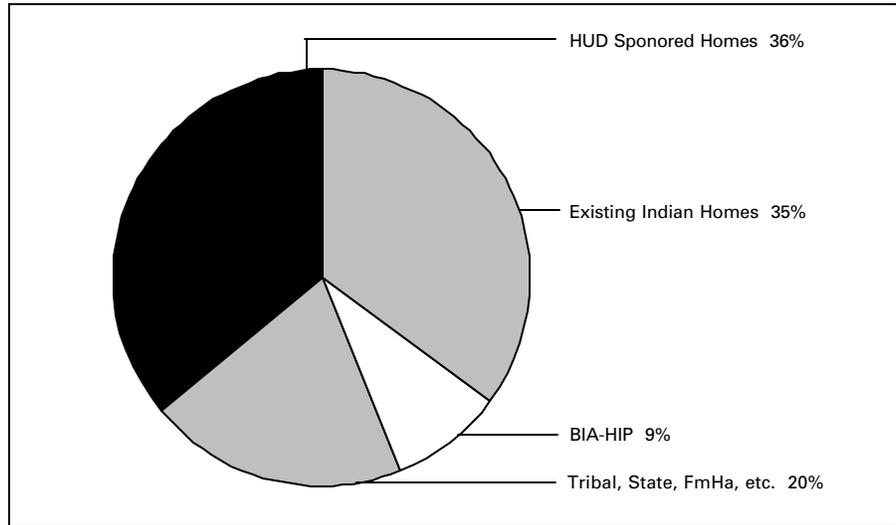


Table 6.20

Indian Homes Provided with Sanitation Facilities by Indian Health Service, Fiscal Years 1960-1996

Fiscal Year	Total First Service	First Service & Upgrade	Existing First Service	HUD First Service	HIP First Service	Tribal & Other	Total Upgrade
Total	208,689	319,311	72,588	75,837	18,402	41,862	110,622
1996	6,709	16,213	2,665	1,626	381	2,037	9,504
1995	5,273	11,043	1,526	965	468	2,314	5,770
1994	6,058	15,705	1,340	2,334	256	2,128	9,647
1993	5,549	13,934	1,241	1,375	313	2,620	8,385
1992	4,493	13,805	1,308	1,173	291	1,721	9,312
1991	7,556	13,030	1,912	2,082	662	2,900	5,474
1990	4,820	7,944	536	1,982	493	1,809	3,124
1989	7,141	10,562	1,720	1,799	606	3,016	3,421
1988	5,696	9,521	2,154	1,604	570	1,368	3,825
1987	4,996	7,228	134	3,024	366	1,472	2,232
1986	4,972	7,946	320	2,090	565	1,997	2,974
1985	3,996	7,760	132	1,774	510	1,580	3,764
1984	3,471	7,396	104	1,220	629	1,518	3,925
1983	4,992	10,445	1,863	1,082	1,227	820	5,453
1982	8,263	9,855	763	5,647	529	1,324	1,592
1981	6,254	9,045	679	3,956	497	1,122	2,791
1980	6,424	9,138	603	4,191	601	1,029	2,714
1979	6,954	8,354	1,147	3,855	658	1,294	1,400
1978	3,117	3,421	442	1,106	790	779	304
1977	14,017	22,014	5,777	4,919	1,412	1,909	7,997
1976	7,373	9,827	654	4,590	726	1,403	2,454
1975	5,899	8,370	1,520	2,419	839	1,121	2,471
1974	6,092	8,033	2,505	1,961	565	1,061	1,941
1973	7,601	9,168	2,626	3,349	1,066	560	1,567
1972	8,632	10,901	2,378	4,773	691	790	2,269
1971	5,101	6,847	863	2,961	726	551	1,746
1970	6,629	7,578	1,951	3,743	617	318	949
1969	6,294	7,087	3,974	1,416	445	459	793
1968	4,807	5,032	3,514	697	455	141	225
1967	3,953	5,051	3,042	616	114	181	1,098
1966	4,134	4,400	2,580	953	101	500	266
1965	4,036	4,481	3,625	340	71	0	445
1964	6,056	6,372	5,750	164	142	0	316
1963	5,323	5,733	5,293	0	20	10	410
1962	3,408	3,436	3,357	51	0	0	28
1961	2,600	2,636	2,590	0	0	10	36
1960	60	60	60	0	0	0	0

NOTE: Data for the later years represent estimates of services to be provided.

1997 Trends in Indian Health

Chart 6.21

Contributions to Indian Health Service Sanitation Facilities Projects, FY 1996

Contributions to Indian Health Service sanitation facilities projects are received from numerous sources. In FY 1996, 45 percent of the contributions were associated with the local government category. Tribes contributed 32 percent of the funds for these cooperative projects, followed by HUD infrastructure with 20 percent.

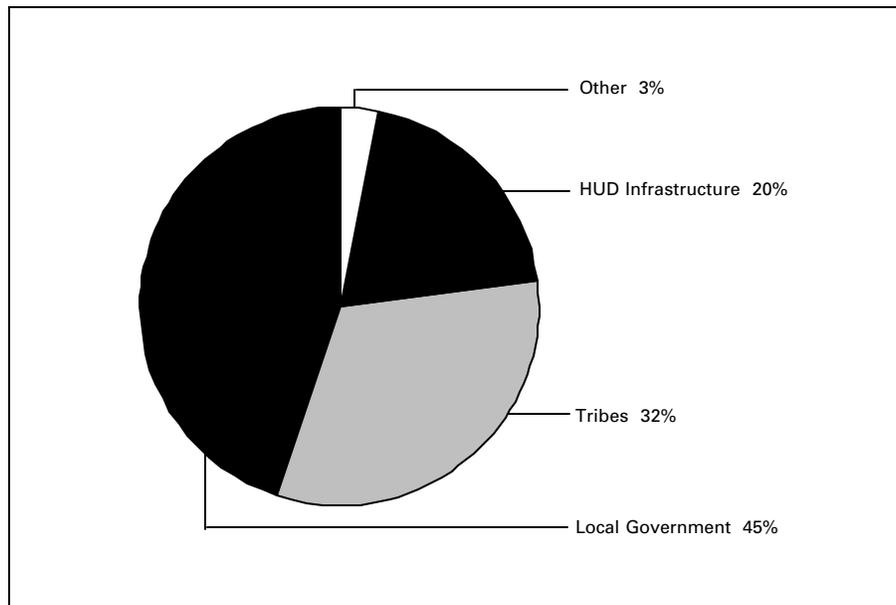


Table 6.21

*P.L. 86-121 Program—
Summary of Cash
Contributions Received
by Contributor, FY 1996*

Contributor	Contributions	Percent
Total	\$39,246,084	100.0
Local Government	17,618,712	44.9
Tribes ¹	12,450,040	31.7
Department of Housing and Urban Development (HUD) Infrastructure	7,832,263	20.0
Navajo-Hopi Indian Relocation Commission (NHIRC)	950,000	2.4
Housing Authorities	249,625	0.6
State Government	105,908	0.3
Nonprofit Organizations	39,536	0.1

¹ Includes EPA and HUD Community Development Block Grant funds that were contributed by Tribes.

Chart 6.22

*Sanitation Facilities
Deficiencies, FY 1997 —
Costs*

The FY 1997 sanitation facility deficiency of \$716 million to serve existing American Indian and Alaska Native homes and communities represents the cost to provide first service sanitation facilities, to upgrade existing facilities, to provide solid waste facilities, and to provide assistance to operation and maintenance organizations.

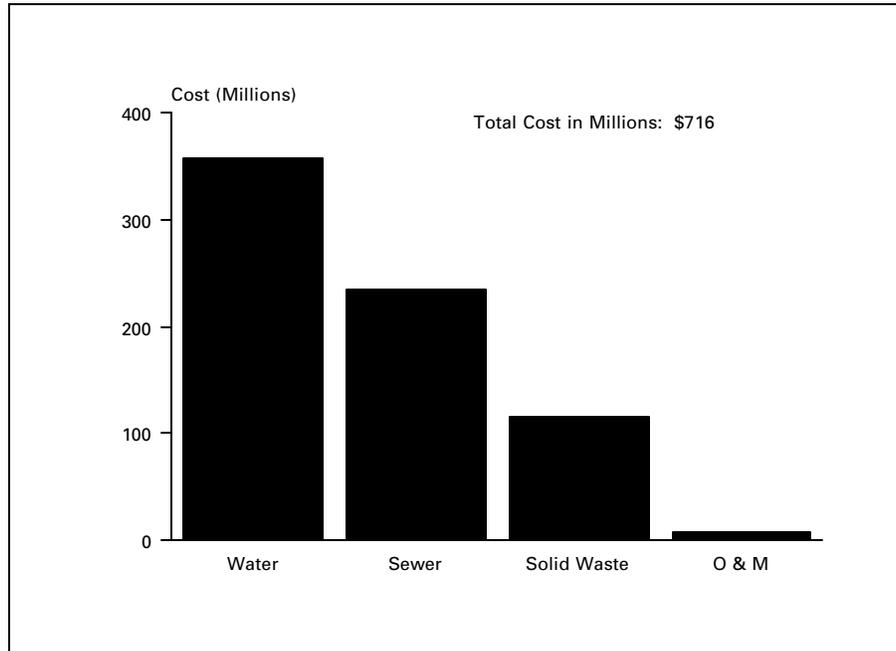
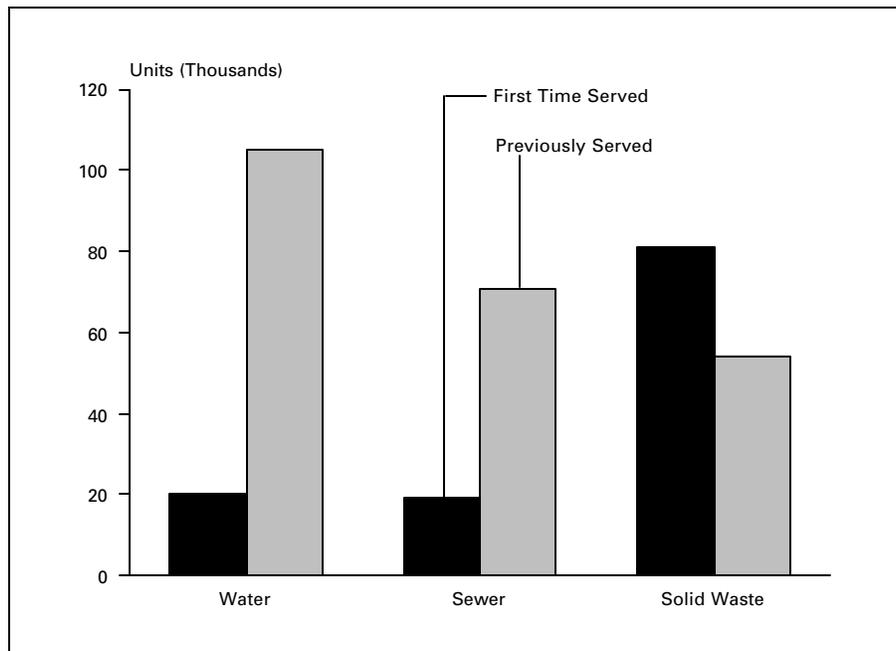


Chart 6.23

*Sanitation Facilities
Deficiencies, FY 1997 —
Units*

The sanitation facility deficiency for American Indian and Alaska Native homes and communities is categorized into requirements for water, sewer, assistance to establish and equip organizations to operate and maintain the facilities, and solid waste disposal systems. Units are the total number of homes.



1997 Trends in Indian Health

Table 6.22

Sanitation Facilities Deficiency Summary, FY 1997

	Total Deficiency: \$716,287,704 ¹							
	Water		Sewer		Solid Waste		Operation and Maintenance	
	Units	Cost (thousands)	Units	Cost (thousands)	Units	Cost (thousands)	Units	Cost (thousands)
Total	125,246	\$358,136	89,971	\$234,499	135,726	\$116,215	28,924	\$7,438
1st Service	20,239		18,592		81,358			
Previous Service	105,007		71,379		54,368			

¹ Cost estimates are for projects in current IHS funding plan. Additional projects totaling approximately \$1,063 million, mostly for the provision of piped water and sewer to 2-5 percent of existing American Indian and Alaska Native homes and communities, are not considered economically feasible at this time.

Chart 6.24

*Indian Health Service
Health Education—
Percent of Provider Hours
by Location, FY 1996*

Health education providers spent the majority of their time in the office (50 percent of total provider hours) followed by hospital/clinic (14 percent) and Tribal worksite (12 percent).

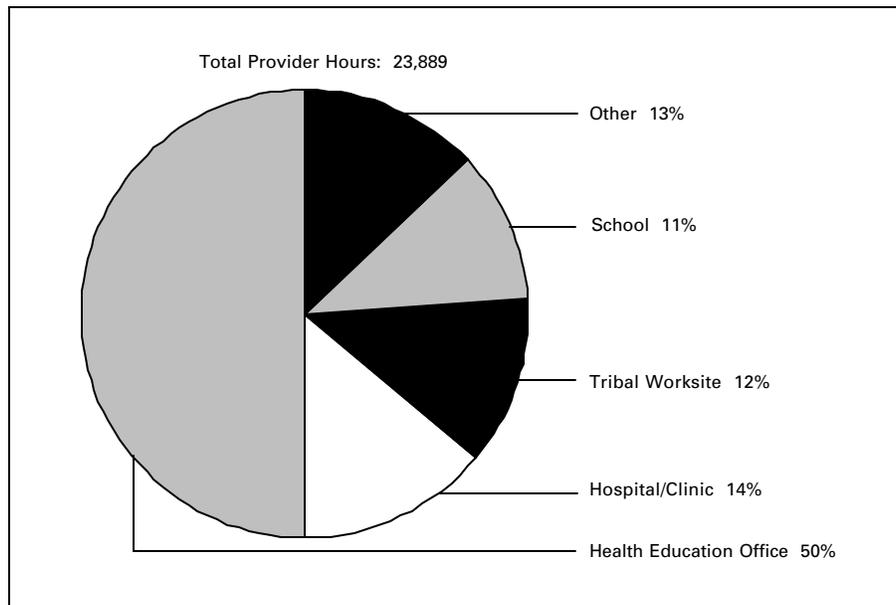


Table 6.24

*IHS Health Education
Provider Hours by
Location, FY 1996*

Location	Number of Hours	Percent Distribution
Total Hours	23,889	100.0
Health Education Office	11,955	50.0
Hospital/Clinic	3,349	14.0
Tribal Worksite	2,749	11.5
School	2,558	10.7
Home	258	1.1
Recreation Center	252	1.1
Roadside	100	0.4
Other	2,668	11.2



1997 Trends in Indian Health

Chart 6.25

*Indian Health Service
Health Education —
Percent of Clients Served
by Location, FY 1996*

Thirty percent of health education clients were served at a school location and 23 percent at a Tribal worksite. Another quarter of the clients were either seen in the hospital/clinic (15 percent) or the health education office (11 percent).

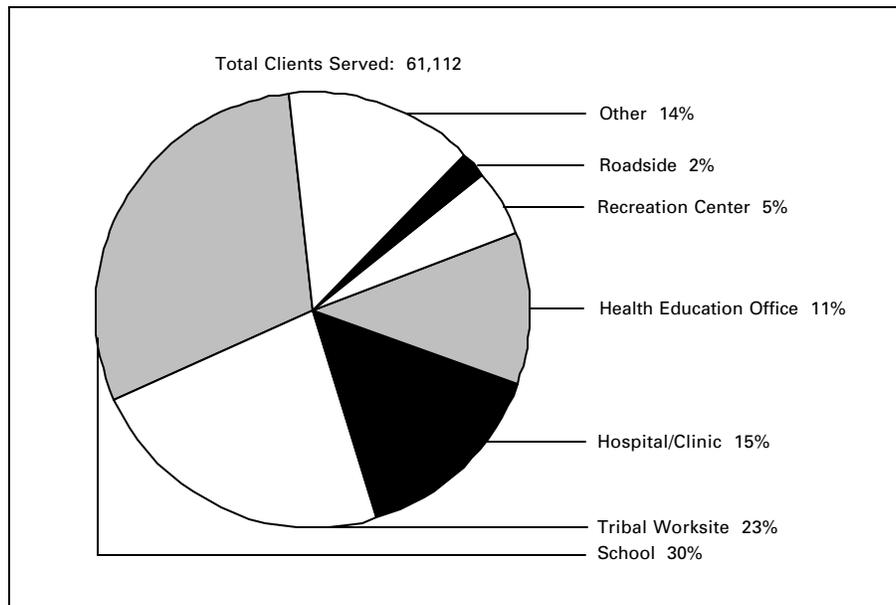


Table 6.25

*Indian Health Service
Health Education Clients
Served by Location,
FY 1996*

Location	Number of Clients	Percent Distribution
Total Clients	61,112	100.0
School	18,175	29.7
Tribal Worksite	13,986	22.9
Hospital/Clinic	9,256	15.1
Health Education Office	6,877	11.3
Recreation Center	3,023	4.9
Roadside	1,253	2.1
Home	264	0.4
Other	8,278	13.5

Chart 6.26

*Indian Health Service
Health Education—
Percent of Provider
Hours by Task Function,
FY 1996*

Health education providers devoted 24 percent of their time to support services and 22 percent to design education objectives/materials. The next most common function was implementing/teaching at 18 percent.

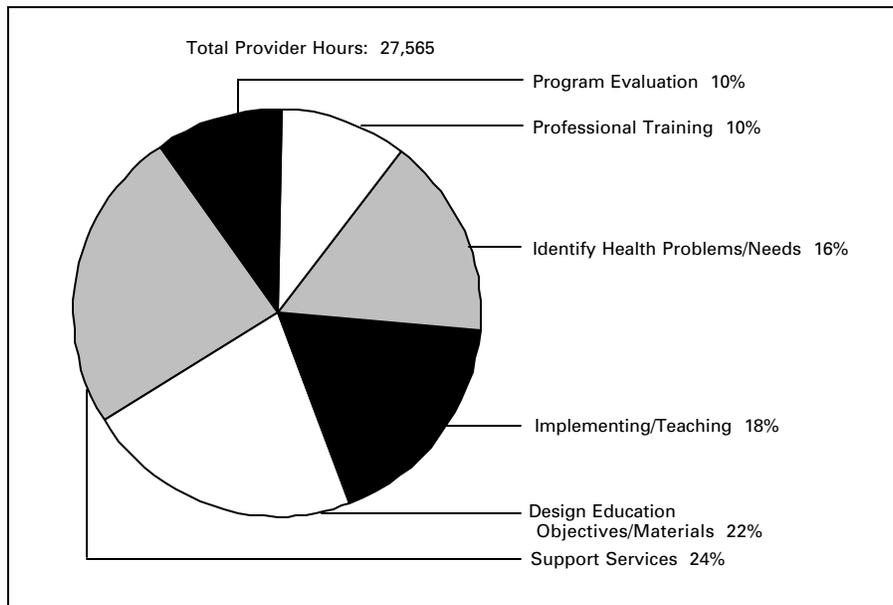


Table 6.26

*Indian Health Service
Health Education Provider
Hours by Task Function,
FY 1996*

Task	Number of Hours	Percent Distribution
Total Hours	27,565	100.0
Support Services	6,483	23.5
Design Education Objectives/Materials	6,070	22.0
Implementing/Teaching	5,100	18.5
Identify Health Problems/Needs	4,320	15.7
Professional Training	2,868	10.4
Program Evaluation	2,724	9.9



1997 Trends in Indian Health

Chart 6.27

*Indian Health Service
Health Education —
Percent of Clients Served
by Task Function, FY 1996*

Over 80 percent of health education clients received services in one of two functional areas—implementing/teaching (69 percent) or design education objectives/materials (13 percent).

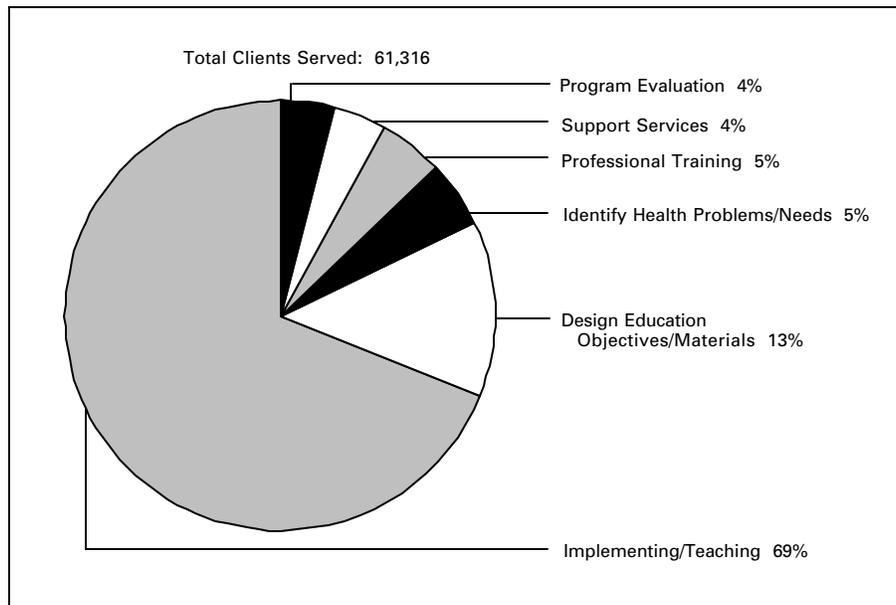


Table 6.27

*Indian Health Service
Health Education Clients
Served by Task Function,
FY 1996*

Task	Number of Clients	Percent Distribution
Total Clients	61,316	100.0
Implementing/Teaching	42,484	69.3
Design Education Objectives/Materials	8,312	13.6
Identify Health Problems/Needs	3,042	5.0
Professional Training	2,838	4.6
Support Services	2,416	3.9
Program Evaluation	2,224	3.6

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 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
Suicide	E950-E959
Homicide and legal intervention	E960-E978
All other external causes	E980-E999

1997 Trends in Indian Health

List of 61 Selected Causes of Infant Death (1979-Present)

Cause of death	ICD-9 Codes
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
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

Glossary of ICD—9 Codes

List of 61 Selected Causes of Infant Death (1979-Present)

Cause of death	ICD-9 Codes
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



1997 Trends in Indian Health

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



Method Used to Rank Leading Sites of Cancer Deaths

Site of Cancer Death

ICD-9 Codes

The causes designated by the symbol # were ranked to designate the leading sites of cancer deaths.

Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	.140-208
Malignant neoplasms of lip, oral cavity, and pharynx	.140-149
# Of lip	.140
# Of tongue	.141
# Of pharynx	.146-149.0
Of other and ill-defined sites within the lip, oral cavity, and pharynx	.142-145,149.1-149.9
Malignant neoplasms of digestive organs and peritoneum	.150-159
# Of esophagus	.150
# Of stomach	.151
# Of small intestine, including duodenum	.152
# Of colon	.153
Hepatic and splenic flexures and transverse colon	.153.0-153.1,153.7
Descending colon	.153.2
Sigmoid colon	.153.3
# Cecum, appendix, and ascending colon	.153.4-153.6
Other and colon, unspecified	.153.8-153.9
# Of rectum, rectosigmoid junction, and anus	.154
# Of liver and intrahepatic bile ducts	.155
Liver, primary	.155.0
Intrahepatic bile ducts	.155.1
Liver, not specified as primary or secondary	.155.2
# Of gallbladder and extrahepatic bile ducts	.156
# Of pancreas	.157
Of retroperitoneum, peritoneum, and other and ill-defined sites within the digestive organs and peritoneum	.158-159
Malignant neoplasms of respiratory and intrathoracic organs	.160-165
# Of larynx	.161
# Of trachea, bronchus, and lung	.162
Of all other and ill-defined sites within the respiratory system and intrathoracic organs	.160,163-165
Malignant neoplasms of bone, connective tissue, skin, and breast	.170-175
# Of bone and articular cartilage	.170
# Of connective and other soft tissue	.171
# Melanoma of skin	.172
Other malignant neoplasms of skin	.173
# Of female breast	.174
# Of male breast	.175



Site of Cancer Death

ICD-9 Codes

The causes designated by the symbol # were ranked to designate the leading sites of cancer deaths.

Malignant neoplasms of genital organs179-187

- # Of cervix uteri180
 - Of other parts of uterus179,181-182
- # Of ovary and other uterine adnexa183
 - Of other and unspecified female genital organs184
- # Of prostate185
- # Of testis186
- # Of penis and other male genital organs187

Malignant neoplasms of urinary organs188-189

- # Of bladder188
- # Of kidney and other and unspecified urinary organs189

Malignant neoplasms of other and unspecified sites190-199

- # Of eye190
- # Of brain191
 - Of other and unspecified parts of nervous system.192
- # Of thyroid gland and other endocrine glands and related structures193-194
 - Of all other and unspecified sites195-199

Malignant neoplasms of lymphatic and hematopoietic tissues200-208

- # Lymphosarcoma and reticulosarcoma200
- # Hodgkin's disease201
 - Other malignant neoplasms of lymphoid and histiocytic tissue202
- # Multiple myeloma and immunoproliferative neoplasms203
- # Leukemia204-208
 - Lymphoid leukemia204
 - Myeloid leukemia205
 - Monocytic leukemia206
 - Other and unspecified leukemia207-208



Index to Charts and Tables

(Numbers refer to chart and table numbers)

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Accidents, motor vehicle	6.5, 6.6	4.19, 6.5, 6.6			
Accidents, firearms	4.27, 4.28	4.27, 4.28			
Accomplishments, program	4.54	4.54			
Accreditation	1.7, 1.8	1.7, 1.8			
Acquired Immune Deficiency Syndrome	4.49, 4.50	4.49, 4.50			
Alcoholism	4.29, 4.30 6.3	4.29, 4.30 6.3			
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Cancer	4.33-4.40	4.33-4.39			
Cardiovascular diseases	4.11	4.11			
Cerebrovascular diseases	4.46, 4.47	4.46, 4.47			
Chronic liver disease and cirrhosis	4.31, 4.32	4.31, 4.32			
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D					
Dental services	5.37, 5.38	5.37			
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Dental, preventive sealant	5.40				
Diabetes	4.42, 4.43	4.42, 4.43			
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Gastrointestinal diseases	4.28	4.48			
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H					
Health education	6.24-6.27	6.24-6.27			
Homicide, all causes	4.23, 4.24	4.23, 4.24			
Homicide, firearms	4.27, 4.28	4.27, 4.28			
Heart diseases	4.11, 4.44 4.45	4.11, 4.44 4.45			
Hospital admissions	5.4	5.4			
Hospital average daily patient load	5.5, 5.34	5.5			
Hospital beds	5.18	5.18			
Hospital discharges, injuries and poisonings	6.4				
Hospital discharge rates	5.17	5.17			
Hospital discharge rates, alcohol-related	6.3	6.3			
Hospital workload, by patient age	5.31, 5.32	5.31			
Human immunodeficiency virus	4.49, 4.50	4.49, 4.50			
I					
Income	2.7	2.7			
Infant mortality, rates	3.8, 3.9	3.8, 3.9			
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Injury and poisoning	4.17-4.28, 6.4	4.17-4.28			
Inpatient admissions	5.4	5.4			
Inpatient average daily patient load	5.5, 5.34	5.5			
Inpatient beds	5.18	5.18			
Inpatient discharges, injuries and poisonings	6.4				
Inpatient discharge rates	5.17	5.17			
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Inpatient workload, by patient age	5.31, 5.32	5.31			



	<u>Chart</u>	<u>Table</u>		<u>Chart</u>	<u>Table</u>
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Laboratory services	1.8, 1.9	1.8, 1.9			
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Mortality rates, all causes	4.53	4.51			
Mortality rates, selected causes	4.11	4.11			
Mortality rates, specific causes	<i>(see cause name)</i>				
Mortality, leading causes	4.1-4.10	4.1-4.9			
N					
Neonatal mortality	3.9	3.9			
Neonatal mortality, leading causes	3.11	3.10			
Nursing, community/public	6.11-6.14	6.11-6.14			
Nutrition and dietetics	6.7-6.10	6.8, 6.10			
O					
Organizational structure	1.1-1.4				
Outpatient visits	5.19, 5.35	5.19			
Outpatient visits, leading causes	5.20-5.30	5.20-5.29			
Outpatient visits, by patient age	5.31, 5.32	5.31			
Outpatient visits, preventive	5.36				
Outpatient visits, by type of provider	5.33	5.33			
P					
Pharmacy services	1.10-1.12	1.10-1.12			
Population, service	2.1, 2.2	2.1			
Population, by age and sex	2.3	2.3			
Population, by age	2.4	2.4			
Postneonatal mortality	3.9	3.9			
Postneonatal mortality, leading causes	3.12	3.10			
Poverty level	2.7	2.5			
Public health nursing	6.11-6.14	6.11-6.14			
S					
Sanitation facilities	6.20-6.23	6.20-6.22			
Socio-economic factors	2.5-2.7	2.5			
Suicide, all methods	4.21, 4.22	4.21, 4.22			
Suicide, firearms	4.27, 4.28	4.27, 4.28			
T					
Tuberculosis	4.41	4.41			
U					
Unemployment	2.6	2.6			
Urban programs	2.8, 5.3	2.8, 5.3			
Y					
Years of Potential Life Lost	4.52	4.51			