

North Carolina Minority Health Facts

American Indians

Office of Minority Health and State Center for Health Statistics

August 1999

Population

North Carolina has the largest American Indian population east of the Mississippi and the fifth-largest American Indian population in the nation, according to the 1990 Census. In 1997, the U.S. Bureau of the Census estimated the number of American Indians living in North Carolina to be 95,398, an 18% increase from 1990.

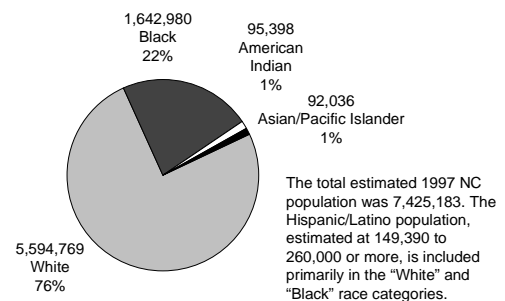
The Census Bureau estimated the 1997 median age of the state's American Indian population to be 27.8 years, while the median age for White North Carolinians was 36.6 years.

Although American Indians live in each of North Carolina's 100 counties, 80% of the population is concentrated in 11 counties, five of which are clustered in the southeastern part of the state. Fifty-one percent of North Carolina's Indian population lives in Robeson County, accounting for 39% of that county's total population.¹

Among the American Indian tribes in North Carolina are seven state-recognized tribes: the Eastern Band of the Cherokee, Coharie, Haliwa-Saponi, Lumbee, Meherrin, Waccamaw-Siouan, and the Indians of Person County. The Eastern Band of the Cherokee is the only tribe residing on a federal reservation and the only group served by the Indian Health Service of the U.S. Public Health Service.¹

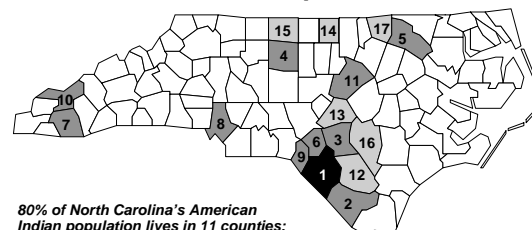
Due to the small numbers of births and deaths among American Indians in reservation counties (Graham, Jackson and Swain), most of the analyses in this report are not broken down into American Indians living on reservations and those not on reservations. For example, in the three-year span 1995-97, there was a total of 4,596 live births among American Indians in North Carolina, with only 8.6% (396) occurring in the three reservation counties. Similarly, there was a total of 1,369 American Indian deaths in the state during the same period with 10.1% (166) occurring in reservation counties. Only 9.6% (five) of the 52 reported American Indian infant deaths occurred in the reservation counties. Even after combining several years of data, these numbers are too small to provide meaningful rates or comparisons.

1997 NC Population Estimates by Race



1997 population estimates from U. S. Bureau of the Census, using official Census categories

NC American Indian Population Distribution



80% of North Carolina's American Indian population lives in 11 counties:

- | | |
|---|----------------|
| 1. Robeson County (51% of the total American Indian population) | 12. Bladen |
| 2. Columbus | 13. Harnett |
| 3. Cumberland | 14. Person |
| 4. Guilford | 15. Rockingham |
| 5. Halifax | 16. Sampson |
| 6. Hoke | 17. Warren |
| 7. Jackson | |
| 8. Mecklenburg | |
| 9. Scotland | |
| 10. Swain | |
| 11. Wake | |

Seventy-nine percent of the state's American Indian population lives in rural areas. The economic status of the North Carolina Indian population is well below that of the state's general population, according to the 1990 Census, when 24% of Indian families were living below the poverty level compared to 8.6% of Whites. More than 40% of American Indian families were living below 150% of the poverty level. Approximately 20% of Indian families were headed by females. Of those households, 54% lived in poverty, while 27% of families headed by White females lived in poverty. About three-fourths of the American Indian population had an educational level of high school or less, compared to 56% of Whites. An American Indian was 2.5 times as likely to be unemployed as a White person.

Like other minorities, American Indians in North Carolina, face a multitude of social and health issues. In North Carolina, as across the United States, American Indians have a shorter life expectancy than the population as a whole. They are more likely to have inadequate health care, poor nutrition, high infant and adult mortality rates, high adolescent pregnancy rates, and high incidences of living in sub-standard housing. Compared to African Americans and Whites, the state's American Indians also have higher death rates from diabetes and motor vehicle injuries.²

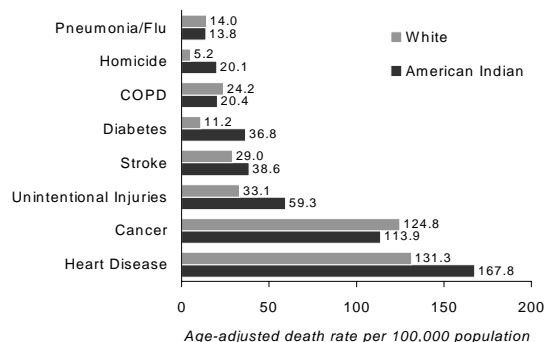
Leading Causes of Death for American Indian Females, 1995-97

| | Number | % of A.I. Female Deaths |
|--------------------------|--------|-------------------------|
| ■ Heart Disease | 235 | 31.3% |
| ■ Cancer | 125 | 16.7% |
| ■ Stroke | 56 | 7.5% |
| ■ Diabetes | 55 | 7.3% |
| ■ Unintentional Injuries | 46 | 6.1% |
| ■ Pneumonia, Influenza | 25 | 3.3% |
| ■ Lung disease (COPD) | 21 | 2.8% |

Leading Causes of Death for American Indian Males, 1995-97

| | Number | % of A.I. Male Deaths |
|--------------------------|--------|-----------------------|
| ■ Heart Disease | 226 | 25.4% |
| ■ Cancer | 162 | 18.2% |
| ■ Unintentional Injuries | 117 | 13.2% |
| ■ Stroke | 52 | 5.8% |
| ■ Homicide | 46 | 5.2% |
| ■ Diabetes | 39 | 4.4% |
| ■ Lung disease (COPD) | 36 | 4.0% |

Comparison of Death Rates N.C. American Indians & Whites, 1995-97



Mortality

Nationally, the life expectancy for American Indians continues to be shorter than for the general population. Between 1992 and 1994, the life expectancy at birth for U.S. American Indians and Alaska Natives was 71.1 years, compared to 75.5 years for all races and 76.3 years for Whites alone.³

Within each age group, death rates from diet-related diseases such as heart disease, arteriosclerosis (“hardening of the arteries”) and non-insulin-dependent diabetes mellitus are higher in American Indians than in Whites in North Carolina. Unintentional injuries are the leading cause of death for American Indian males ages 15 to 34; homicide is second. Although Indians in the state experience a lower overall level of cancer mortality than Whites, their rate of death from cervical cancer is higher.⁴

Chronic Disease

Over 8,000 hospitalizations occurred for American Indians in North Carolina in 1997. The top causes for hospitalization were pregnancy and childbirth, cardiovascular and circulatory diseases, respiratory diseases, diseases of the digestive system, and injuries and poisonings.

Although diabetes incidence data is not available for the population as a whole, a study of diabetes cases among the Eastern Band of Cherokee Indians in 1988 found the age-adjusted prevalence of diabetes in that population to be four times the rate for the general U.S. population.⁵ The consequences of diabetes include limb amputations, degeneration of the retina (which can cause blindness), hypertension and arteriosclerosis, and kidney disease.

Asthma is a far greater health issue for American Indians than for Whites. The 1997 asthma hospitalization rate (for all ages) was 222.2 per 100,000 for American Indians, 2.5 times the White rate of 88.1.

Leading Causes of Hospitalization for American Indians in NC, 1997

Percent of total A.I. Hospitalizations

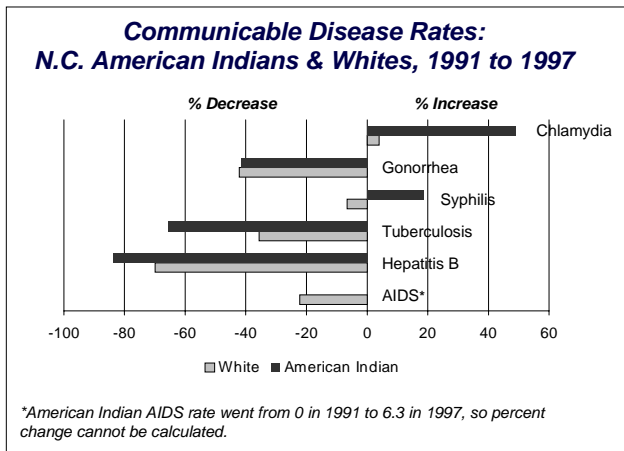
| | |
|---|-----|
| ■ Pregnancy & Childbirth | 22% |
| ■ Cardiovascular/circulatory diseases | 18% |
| <i>(Heart Disease 14%, Stroke 2%)</i> | |
| ■ Respiratory Diseases | 12% |
| <i>(Pneumonia 4%, Chronic Obstructive Pulmonary Disease 5%)</i> | |
| ■ Digestive System Diseases | 9% |
| ■ Injuries & Poisonings | 8% |
| ■ Genitourinary Diseases | 5% |
| ■ Cancer | 3% |
| ■ Infectious & Parasitic Diseases | 3% |

(Hospital discharge data exclude newborns and mental disorders)

Infectious Disease

In 1997, American Indians in North Carolina were 1.8 times as likely as Whites to be diagnosed with AIDS, 2.2 times as likely to have hepatitis B, 7.2 times as likely to test positive for syphilis, 5.5 times as likely to have gonorrhea, and 3 times as likely to have chlamydia.

Nationally, tuberculosis is a major health issue among American Indians, but North Carolina Indians were less likely than Whites to test positive for tuberculosis in 1997. The TB infection rate among the state's Native Americans dropped nearly 66% over 6 years, from 6.1 per 100,000 persons in 1991 to 2.1 in 1997. In the same time period, the hepatitis B rate for North Carolina Indians dropped 84% (from 25.5 to 4.2) and the gonorrhea rate dropped 41% (from 380.7 to 223.3). However, the chlamydia rate rose 49% and the syphilis rate went up 19% between 1991 and 1997. The AIDS rate also rose: no AIDS cases were reported among American Indians in 1991, but in 1997 American Indians in the state had a rate of 6.3 new cases per 100,000 persons.



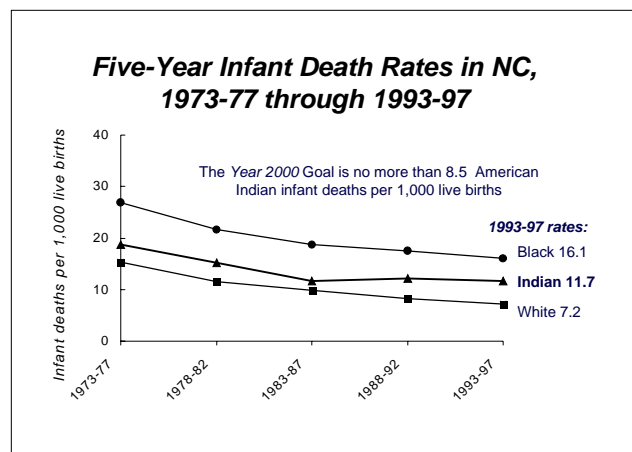
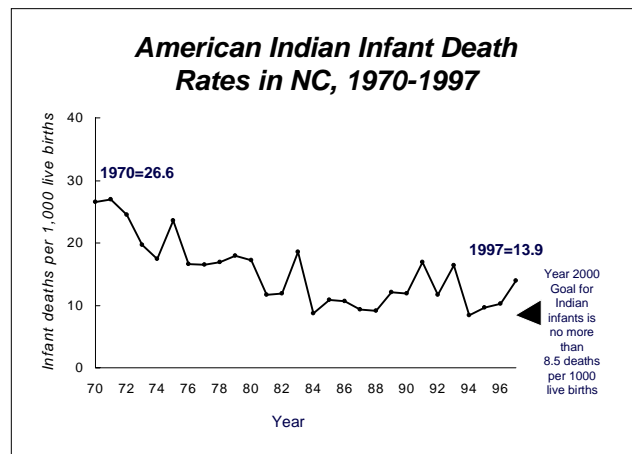
Maternal and Infant Health

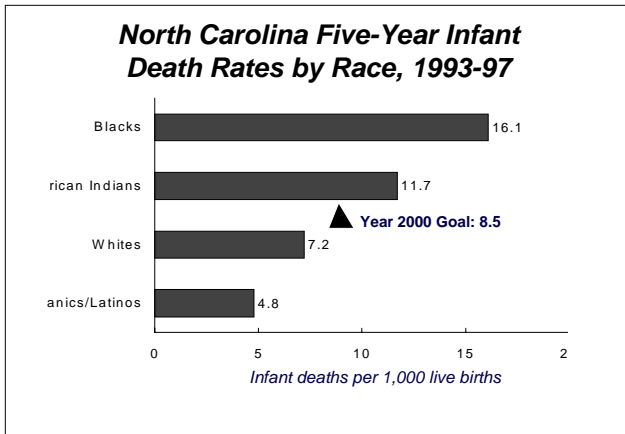
North Carolina continues to have one of the highest infant mortality rates in the nation. With a total of 22 deaths of babies under one year old, the infant death rate for American Indians in North Carolina in 1997 was 13.9 deaths per 1,000 live births, about half the 1970 rate (26.6 deaths per 1,000 live births), but far above the Year 2000 goal of no more than 8.5 infant deaths per 1,000 live births.

While higher than in 1996 (when it was 10.3), the 1997 American Indian infant death rate of 13.9 was lower than that for African Americans (15.6) but double that for Whites (6.9). However, annual comparisons are not reliable, as the infant death rate for American Indians tends to fluctuate markedly from year to year. By averaging the rates over five-year periods for all groups, a more balanced picture emerges. However, the basic pattern remains the same: American Indian infant mortality is higher than that of Whites.

The leading causes of North Carolina American Indian infant deaths in 1997 were infant prematurity/immaturity and respiratory conditions, which together caused nearly 60% of the deaths. Low birthweight (5 pounds 8 ounces or less) is the leading risk factor for infant mortality, and in 1997, almost 10% of the state's American Indian infants were low birthweight.

American Indian mothers appear to have a high incidence of maternal risk factors associated with infant mortality. Among North Carolina live births in 1997, three-fourths (74%) of Indian mothers had one or more of these maternal risk factors: age under 18 or over age 34; educational level less than 12th grade; unmarried; four or more pregnancies; a previous fetal death; or a previous live-born child who later died. Over one-fourth (28%) of American Indian mothers smoked during pregnancy. Over half (52%) were unmarried. Only 7 in 10 received prenatal care in the first trimester of their pregnancy – the Year 2000 goal is 9 in 10. The teen pregnancy rate was high for American Indians in 1997, with 97 pregnancies per 1,000 girls age 15-19, compared to 69 for Whites. However, American Indian women were less likely than other women to have high blood pressure during pregnancy.



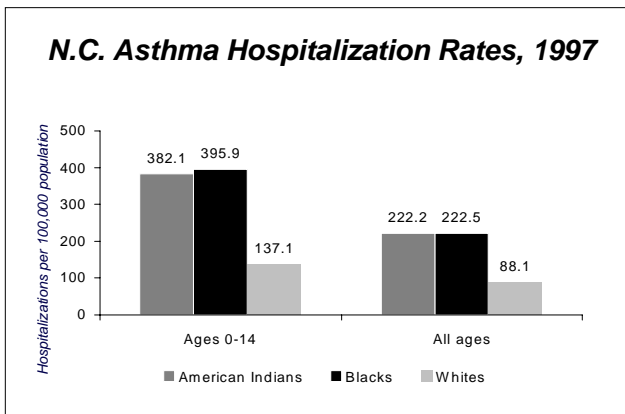


Child Health

While 31% of North Carolina’s children were minorities in 1997, 44% of child deaths (birth through age 17) occurred to minority children. Sixty-four percent of those minority childhood deaths were to infants under one year old.

Asthma is a particular problem for American Indian and African American children in North Carolina. The 1997 hospitalization rate for American Indian children ages birth through 14 years was about three times that for White children, 382.1 per 100,000 compared to 137.1 for Whites. For African American children, the rate was slightly higher, 395.9 per 100,000 children.

When North Carolina children were screened for high blood lead levels in 1996-1998, American Indian and African American children had a higher incidence of elevated levels of lead in their blood than did White children. About 5.6% of the American Indian children, 6.3% of African American children, and 2.8% of White children who were tested showed high blood lead levels. Lead poisoning can cause mental retardation, reduced growth and a variety of other health problems. Very high levels of lead in the blood can cause seizures, coma and even death. Sources of lead poisoning include dust and chips from old lead-based paint, the dust from older types of plastic window blinds, and contaminated soil, all of which are more prevalent in low-income housing areas.



Risk Factors and Prevention

While American Indians in North Carolina are experiencing higher rates of disease and death, in general, than Whites, many of the risk factors are modifiable. Changing lifestyle and behaviors and increasing access to health services can reduce the severity of, and potentially prevent, some major diseases and conditions.

Contributors to the racial/ethnic disparity in health status include:

- Lifestyle Behaviors
 - Diet
 - Lack of exercise/sedentary lifestyle
 - Obesity/Overweight
 - Alcohol or drug use
 - Sexual behaviors
- Access Barriers
 - Poverty
 - Inadequate/no health insurance
 - Cost of obtaining care
 - Lack of awareness
 - Low/no availability of care
 - Racial/personal history or experience
 - Transportation problems
- Racism
- Stress
- Environmental factors
- Cultural influences

| Major Concerns | Some Modifiable Risk Factors |
|---|--|
| Cancer | Tobacco use, diet, alcohol use |
| Diabetes | Obesity |
| Heart Disease/Stroke | High blood pressure, diet, lack of exercise, obesity, tobacco use |
| Infant Mortality | Late or no prenatal care, alcohol use, tobacco use, diet, adolescent pregnancy |
| Homicide/Suicide | Alcohol use, drugs, poor conflict resolution skills |
| Chemical Dependency | Alcohol, drug abuse, smoking |
| Unintentional Injury & Motor Vehicle Injury | Alcohol use, drugs, environmental hazards, seat belt & car seat use |
| HIV/AIDS | Substance abuse, sexual behaviors |

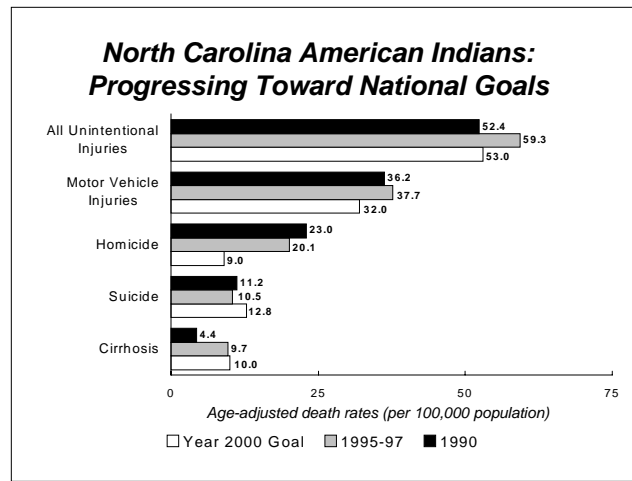
Sources: National Office of Minority Health Resource Center, Public Health Service, U.S. Department of Health and Human Services; and Division of Public Health, N.C. Department of Health and Human Services

Significant efforts have been made to improve minority health in North Carolina, but this issue has not been systematically addressed. Although progress has been made in reducing the health status gap between minorities and Whites, the disparities persist. Partnerships have been established among public health agencies, the state’s Indian tribes, and the Commission of Indian Affairs to address health issues.

Progress Toward National Goals

The Public Health Service of the U.S. Department of Health and Human Services is coordinating a nationwide process to formulate and monitor national disease prevention and health promotion objectives for the year 2000. This set of national targets was published in 1990 and updated in 1995-1996. The Year 2000 plan includes 31 objectives specifically targeting American Indians and Alaska Natives. Among these objectives are the following:

- Overweight** - reduce overweight to a prevalence of no more than 30% among American Indians and Alaska natives
- Tobacco Use** - Reduce cigarette smoking to a prevalence of no more than 20% among American Indians and Alaska Natives; Reduce smokeless tobacco use by American Indian and Alaska Natives youth to a prevalence of no more than 10%
- Alcohol/Motor Vehicle Deaths** - Reduce deaths among American Indian and Alaska Native men caused by alcohol-related motor vehicle crashes to no more than 35 per 100,000 persons
- Motor Vehicle Deaths** - Reduce deaths among American Indians and Alaska Natives caused by motor vehicle crashes to no more than 32 per 100,000 persons
- Cirrhosis** - Reduce cirrhosis deaths among American Indians and Alaska Natives to no more than 10 per 100,000 persons
- Unintentional Injuries** - Reduce deaths among American Indians and Alaska Natives caused by unintentional injuries to no more than 53 per 100,000 persons
- Diabetes** - Reduce diabetes-related deaths among American Indians and Alaska Natives to no more than 48 per 100,000 persons
- TB** - Reduce tuberculosis among American Indians and Alaska Natives to an incidence of no more than 5 cases per 100,000 persons
- Suicides** - Reduce suicides among American Indian and Alaska Native men to no more than 17 per 100,000 men
- Homicides** - Reduce homicides among American Indians and Alaska Natives in Reservation states to no more than 9 per 100,000 persons



- Health Promotion** – Increase to at least 50% the proportion of counties that have established culturally and linguistically appropriate community health promotion programs for racial and ethnic minority populations
- Data** – Identify and implement a national process to identify significant gaps in the nation’s disease prevention and health promotion data, including data for racial and ethnic minorities, people with low incomes, and people with disabilities, and establish mechanisms to meet these needs

Other Year 2000 objectives target improvements in dental health and infant health; reductions in childhood anemia, debilitating chronic diseases, and diabetes and diabetes-related diseases; increases in immunization and health screening rates; and reductions in hepatitis B and bacterial meningitis.

Challenges of Collecting Accurate Data

The U.S. Census has historically undercounted minority populations. The way in which the data are collected presents barriers to accurately presenting those populations. Accurate counts are essential for developing, adapting or expanding services to meet specific health needs and for developing culturally based programs.

Difficulties in computing rates of death and disease incidence due to specific causes, particularly age-adjusted rates, are encountered because of the relatively small numbers of cases, as well as the unreliability of overall population counts. Race and ethnicity items are sometimes left blank on hospital discharges and other records. Some national studies have shown that American Indian race is underreported on death certificates, resulting in underestimates of death rates.⁶

Note:

In this fact sheet, mortality (death) rates are age-adjusted and expressed as the number of deaths in a year per 100,000 population. Age-adjustment is a statistical technique for calculating the death rates of different populations as if they all had the age distribution of a single "standard" population (here, the 1940 U.S. population). Death rates adjusted to the same standard population can be directly compared to each other, with differences being due to factors other than age distribution.

FOOTNOTES:

1. NC Commission of Indian Affairs.
2. CHES Studies No.75. State Center for Health Statistics, NC DHHS.
3. 1997 Trends in Indian Health, US DHHS Indian Health Service.
4. Bell R.A et al, Dietary intake of Lumbee Indian women in Robeson County, North Carolina. *J Am Diet Assoc.* 1995;95:1426-1428.
5. Farrell MA et al. Prevalence of diabetes and its complications in the Eastern Band of Cherokee Indians. *Diabetes Care* 1993;16:253-256.
6. Sorlie PD et al. Validity of demographic characteristics on the death certificate. *Epidemiology* 1992; 3:181-184.

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