

# The Health of American Indian and Alaska Native Women

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**By a number of quantity and quality of life measurements, the health and well-being of many American Indian and Alaska Native women falls short of that reported for other women in the United States. Poor socioeconomic conditions, lack of education, cultural barriers, and other factors (some not easily measured) contribute to the enduring poor health status of this population—despite the availability of free health care for many. Free health care alone does not promise a healthy population, especially when the types of free health care are limited, inadequately funded, or have limited focus on preventive care. This paper attempts to pinpoint some of these issues as it relates to the health status of American Indian and Alaska Native women.**

Ethnicity, gender, and socioeconomic factors interact in complex ways to affect morbidity, mortality, and health behaviors. These interactions may be measured by such quantity of life measurements as life expectancy, mortality and morbidity, disease etiology, etc., while quality of life measurements provide information on the individual or group's standard of living, job satisfaction, health status, quality of housing, etc.<sup>1</sup>

Health measurements, however, are frequently limited to database reports of ill health. Perhaps this is because what constitutes good health is more difficult to define or measure than what defines illness or poor health.<sup>2</sup> Quality of life measurements may therefore be excluded in describing the health status of a population. When both measurements are used, the results can be more meaningful and more comprehensive, and hidden variables that affect health, such as poverty, education, gender, and race may also

become more visible. The inability to pay for medical care, for example, is but one factor underlying the inequities and disparities in the health status of many low-income families.

The following paper presents a discussion of Indian health historically, with a focus on the health status of Indian women in particular. The emphasis in this paper will be on "quantity of life measurements" that present the database picture of the health status of American Indian women. Issues of quality of life and socioeconomic status will be mentioned only briefly because their impact on health care and the health status of American Indian women is too complex for this limited discussion. The reader is forewarned, however, that quality of life issues profoundly affect the health status of American Indian women in ways that are often impossible to quantify.

## **American Indians: An Historical Perspective**

From the 1830s to the present, the role of the federal government in providing health care to American Indians has been maintained by means of moral obligation and special initiatives, but more so because of treaty obligations through which tribes negotiated for medical care or medical supplies in exchange for the lands they ceded to the US government. Although treaty agreement serves as one of the reasons for its origin, present day involvement of the federal government in Indian health care is not viewed as an entitlement. The extent and type of health care for American Indians has thus been largely dependent on Congressional largess and the ability of Indian communities to demonstrate the need for assistance.

Currently, the responsibility for providing health care to American Indians is held by the federal Indian Health Service (IHS), an agency that was once in the Bureau of Indian Affairs. Since its transfer to the US Public Health Services (USPHS) in the mid-1950s, IHS has been credited with lowering mortality

and morbidity attributed to infectious diseases, malnutrition, etc. Unfortunately, some of these improvements in health status have quickly been erased by a growing number of other more complicated and costly health problems, such as chronic diseases, disabilities, and mental health problems.<sup>3</sup>

Many factors, both political and personal (eg, lifestyle), hamper efforts to improve the health status of American Indians. For one, Indian health programs continue to be severely underfunded and/or funded piecemeal. Because federal responsibility for Indian Health is not viewed as an entitlement, this piecemeal approach by Congress has a long history. The Indian Vaccination Act passed in 1832,<sup>4</sup> for example, was among one of the first short-term initiatives that expanded eligibility for smallpox vaccinations to Indians who had previously been excluded. Proponents for expanding the coverage argued that such intervention would lessen the threat of future smallpox epidemics for non-Indian communities.<sup>5</sup> Since this appropriation for smallpox vaccines, other types of short-term or piecemeal funding targeted for one health problem or another have continued, including the present special year-to-year initiative on human immunodeficiency virus.

Today, American Indians and Alaska Natives, like many other ethnic people of color in the United States, constitute a disproportionate percentage of the poor. Most Indian reservations today are rural and many are isolated. A significant number of homes are in poor condition, some without indoor plumbing or potable water. Distances to the nearest health facility may range anywhere from 30 to 150 minutes, depending on road conditions.<sup>6</sup> With the exception of a few reservations, most do not have public transportation. As a result, American Indians have poorer health status than other minority populations on a number of health indicators, a situation that continues despite government efforts.

The health care provided to eligible

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American Indians by the IHS is free. Like all other health care providers, however, the IHS also employs third-party resources when patients have other coverage, ie, private insurance, Medicare, or Medicaid. When needed medical services are not available, the IHS contracts with nonfederal providers and health facilities to provide the care. Outside contracts are necessary because 76% of IHS hospitals (compared to 21% of US short-stay hospitals) have fewer than 50 beds,<sup>7</sup> and they are not equipped for surgical or delivery services.

Since the late 1960s, a number of Congressional enactments in the spirit of self-determination and self-governance have made it possible for tribal governments to enter into contracts with the IHS to permit tribal management of the federal health facilities on their reservations.<sup>3</sup> Thus on most Indian reservations today, there are tribal health programs, many of which focus on prevention of some of the leading health problems, such as diabetes, substance abuse, etc.

Health care resources for American Indians living in off-reservation communities have also increased since the late 1960s. These urban-based programs are managed by nonprofit organizations with the specific mission to provide health care to American Indians. The size and range of health services offered varies from modest programs offering only referral services to large comprehensive medical-dental centers. Most of these programs are supported by numerous sources, including income from third-party payments. Despite the availability of free health services, the quantity and quality of life measurements for American Indians indicate that the health of this population continues to lag behind that of the rest of the United States.<sup>3</sup>

Because of its role as the primary health care resource for American Indians, the IHS is also the primary source for health data on American Indians and Alaska Natives. American Indians who are not part of the IHS health database live outside the IHS service areas and/or use non-IHS health resources. It should be noted, however, that IHS users make up about 63% of the 1.9 million American Indian population.<sup>8</sup> In fiscal year 1993, the IHS user population was 1.2 million.<sup>9</sup>

### Demographics: American Indian and Alaska Native Women

According to the 1990 Census, 78% of the 1.9 million American Indians listed residence in an urban or an off-reservation community,<sup>10</sup> indicating a continuing rural to urban migration that began during World War II. Modern day emigration to and from the cities or towns continues to be motivated by economic concerns.

Of the 1.9 million American Indians identified in the recent census, 51% were female. Because it is a young population, the age pyramid for American Indians is inverted. The median age for Indian women is 23.3 compared to 21.1 for Indian men.<sup>8</sup> Early mortality and high birth rates are critical factors here. The Indian birth rate for 1989-1991 was 28.1 births per 1,000, 68% higher than the 16.7 births per 1,000 for the United States, all races, in 1990.<sup>7</sup>

The life expectancy at birth for Indian women in 1990-1992 was 77.6 compared to 78.9 for US women, all races. When the three IHS regions that have problems with states underreporting Indian race on death certificates are excluded, the life expectancy for Indian women in the remaining regions drops to 72.8. Life expectancy therefore varies from one IHS area to another. The 1990-1992 life expectancy ranged from 68.6 for Indian women in the Aberdeen area to 80.6 for Indian women in California.<sup>9</sup> Although Indian women have a lower life expectancy than that of other women, Indian women live longer than Indian men and men of other racial groups. The life expectancy for Indian men is 69.4 compared to 72.0 for US men, all races.<sup>9</sup>

The 1990 Census reported that more Indian women than Indian men are likely to be divorced, separated, or widowed.<sup>8</sup> Table 1 summarizes this information by gender.

Although it has been customary for Indian households to include extended families, the demographics are changing as a result of rural to urban migration because urban lifestyles favor nuclear, not extended, family households. With the increased dependency on wage labor, the need for a large extended family for subsistence has lessened. In addition, a growing number of households are headed by women: 41% of the 93,367 Indian households in the 1990 Census.

Table 1: Marital Status of American Indians and Alaska Natives by Sex<sup>8</sup>

Status	Female (%) N=143,411	Male (%) N=133,029
Single	37	45
Married	40	43
Separated or divorced	13	9
Widow	10	3

Of those households headed by women, 63% had dependents under 18 years of age. On the other hand, 54% of the 16,165 American Indians and Alaska Natives who live alone are female.<sup>8</sup>

In the 1990 Census, 5,648 American Indians and Alaska Natives over age 25 reported completing high school or equivalency. Although there was only a slight difference in the rate of high school graduates among both Indian men and women, there was a gender difference among those over age 25 who had obtained bachelor's degrees: 59% of women compared to 41% of men.<sup>8</sup> The reasons for this difference are not clear.

Despite efforts to improve the economic situation for most Indian communities, poverty remains endemic. According to the 1990 Census, 47.3% of Indian family incomes are below the 1989 poverty level.<sup>8</sup> Table 2 compares sex difference in income.

The mean annual income for Indian women employed in 1989 was \$14,800, about \$3,000 less than that for employed Indian men (\$17,832).<sup>8</sup> A significant percentage of Indian men and women, however, have mean annual incomes under \$5,000 because most are employed in unskilled jobs that are temporary or part time and that pay minimum wages. Indian women tend to be employed in all salary levels except the highest. Although many are employed in low-

Table 2: Income of American Indians and Alaska Natives by Sex<sup>8</sup>

Income	Female (%) N=30,953	Male (%) N=52,636
\$0-5000	29	42
5000-9999	25	22
10000-14999	16	15
15000-24999	18	13
25000-49999	11	6
50000+	1	2

paying jobs, Indian women often remain employed at the same job for longer periods of time and therefore are more likely to have more stable incomes than Indian men.

Moreover, dollars earned from reservation jobs do not go to support the local economy but rather to merchants in nearby off-reservation towns or cities. Because of an overwhelming bureaucracy and extremely complex legal issues, few businesses are owned by American Indians on the reservations. The primary employer on most Indian reservations is the federal government, and these are primarily service jobs. The unemployment situation therefore drives many younger American Indians to urban areas for work. Table 3 provides a summary of employment status by gender and age group.

**Table 3: Employment Status of American Indians and Alaska Natives Age 16-54 by Sex<sup>8</sup>**

Status	Female (%) N=124,796	Male (%) N=116,866
Employed	38	44
Unemployed	11	18
Not in labor force	51	38

The average unemployment rate on most Indian reservations is 45%, although in some communities the rate can be as high as 90%.<sup>10</sup> In many communities, the unemployment rates have changed little over the last five decades.

Another factor that affects the ability of women to work is disability. Altman<sup>11</sup> examined work, activity, and functional limitations for Indian women of employment age in data obtained from the 1987 *National Medical Expenditure Survey* (see Table 4).

**Table 4: Types of Work Limitation Reported by Indian Women by Age, 1987<sup>11</sup>**  
(N=72,594)

Limitations	18-44 (%)	45-64 (%)	65+ (%)
Work limitations*	11	31	48
Activity limitations**	19	46	68
Functional limitations***	13	37	58

\*The inability to perform normal work role.

\*\*The inability to perform activities of daily living.

\*\*\*The limitation of physical functioning.

**Table 5: Leading Causes of Death of American Indians and Alaska Natives by Sex (1990-1992)<sup>7</sup>**

Causes	Female (%) N=8,070	Male (%) N=11,359
Disease of the heart	22	23
Malignant neoplasms	18	13
Accidents	9	19
Diabetes mellitus	6	3
Cerebrovascular disease	6	3
Chronic liver disease & cirrhosis	5	4
All other causes	34	35

The data presented show that a significant percentage of the 72,594 women have some type of limitation, especially activity limitation. Whether these limitations are due to disability or chronic health problems is difficult to ascertain.

#### Quantity of Life Indicators

As indicated in Table 5, heart disease is the leading cause of death for both American Indian men and women.<sup>7</sup>

Many of the leading causes of death could be prevented through lifestyle changes, such as low-fat, high-fiber diets, increased exercise, smoking cessation, and decreased use of alcohol. As mentioned elsewhere, tribal communities are addressing these concerns, but the impact of these interventions has not been examined or explored.

Accidents play a major role in the mortality of Indian children under age five. Many of the deaths are caused by automobile accidents or other trauma associated with falls, etc.<sup>7</sup> As the table shows, Indian men are more likely to die at younger ages than Indian women. The high mortality rate for men is most often linked to motor vehicle accidents, especially alcohol-related accidents.<sup>7,9</sup> Similar causes also contribute to accidental deaths for women, which are the third leading cause of death for Indian women.<sup>7</sup> The rate of alcohol-related deaths for Indian women age 15 to 34 is 12 times the national rate. After age 45, the problem of alcohol-related mortality decreases for Indian women.

Although significant improvements have been made in the American Indian infant mortality rate, the problem of high

infant mortality continues, especially for the postneonatal period. While the average neonatal mortality rate for the nine IHS Areas was 4.3 per 1,000 births compared to 5.6 per 1,000 births for the United States, all races, the rate for Aberdeen IHS Area was 6.9 per 1,000. Similarly, while the postneonatal mortality rate for nine IHS Areas in 1990-92 was 5.1 per 1,000 compared to 3.3 per 1,000 for the United States, all races in 1991, the mortality rate in Aberdeen was 8.9 per 1,000. Of the nine IHS Areas, Albuquerque had the lowest postneonatal mortality rate, 3.5 per 1,000 births.<sup>9</sup>

The leading causes of infant mortality (under age one) include sudden infant death syndrome (SIDS), congenital anomalies, accidents, respiratory distress syndrome, and complications of pregnancy.<sup>9</sup> SIDS is the number one killer of Indian infants and is associated with low birthweight, maternal smoking during pregnancy, poverty, teen pregnancy, and inadequate prenatal care.<sup>12</sup>

Hospitalization data also provide information on the health status of Indian women. Within the IHS facilities, Indian women are hospitalized most often for obstetric care, but also use outpatient services for preventive care.<sup>7</sup> The top five reasons for outpatient care for Indian women in 1992 included supplementary classification (for health maintenance, etc); respiratory system diseases; nervous system and sense organ diseases; complications of pregnancy; and endocrine, nutritional, and metabolic disorders.<sup>7</sup>

Early detection and changing personal habits can prevent many of these health conditions for Indian women, but making lifestyle changes is very difficult.<sup>13,14</sup>

**Table 6: Mortality Rates of American Indians by Age and Sex<sup>7</sup>**

Age	Female (%)	Male (%)
-5	7.2	6.5
5-14	1.2	1.4
15-24	3.8	8.7
25-34	5.1	10.2
35-44	7.1	10.1
45-54	9.4	10.4
55-64	13.9	14.0
65-74	18.5	16.3
75-84	19.5	14.3
85+	14.2	8.0

**Table 7: Reasons for Hospitalization of Indian Women, 1992<sup>7</sup>**

Reasons	%
Obstetric & complication of pregnancy & puerperium	34.1
Respiratory system diseases	10.5
Digestive system diseases	9.8
Genitourinary system diseases	7.0
Injuries/poisonings	6.8
Circulatory system diseases	5.3
Ill-defined conditions	5.1
Endocrine, nutritional & metabolic disorders	3.6
Supplementary conditions	2.8
Mental disorders	2.4
All others	12.6

For example, for many Indian families, fried potatoes and bread may be the family meal three times a day because they cannot afford fresh vegetables or fruits or do not have grocery stores nearby that carry them.

A sedentary lifestyle has many consequences, including obesity.<sup>15</sup> Lefkowitz and Underwood noted that 25% of adult Indian men and women who participated in the *National Medical Expenditure Survey* were at 120% of ideal weight.<sup>16</sup> Associated with obesity are other common chronic health problems such as diabetes, heart disease, cancer, etc.

The *1987 National Medical Expenditure Survey* is especially informative because it included a large sample (885,000), a cross-section of American Indians and Alaska Natives, and sought health data that was not based on hospital admissions or clinic visits.

The survey included questions on health practice. Seventy-eight percent of Indian women, compared to 91% of non-Indian women, reported recent breast examination.<sup>16</sup> Interestingly, both Indian and non-Indian women with more than a 12th grade education were more likely to have had breast examinations. However, once Indian women pass childbearing age, breast examinations decline.

Indian women were also more likely to have had breast examinations than mammograms. Among women age 40 to 49, only 18% of the Indian women had had mammograms compared to 45% of US women, all races.<sup>16</sup> Older Indian women were also less likely to have had mammo-

grams. A reason for low rates of mammography may be that, until recently, a majority of the IHS facilities did not have the necessary equipment.

Indian women were also more likely to have had recent pap tests than breast examinations or mammograms, but the frequency was not as high as for non-Indian women. For example, 83% of the Indian women in the *1987 National Medical Expenditure Survey* received pap tests compared to 91% of US women, all races.<sup>16</sup> Among the 60 or older age group, 64% of Indian women reported having had pap tests compared to 83% of women, all races.<sup>16</sup> Pap tests may be done more frequently than mammograms because they are part of routine obstetric care, whereas mammographies are more likely to be recommended for postmenopausal women. Unfortunately, once an Indian woman is no longer bearing children, her visits to the physician are often only for acute illnesses, not for health maintenance.

In the *1987 National Medical Expenditure Survey*, more Indian than non-Indian women also were current smokers: 28% compared to 25%, respectively.<sup>16</sup> The geographic distribution of lung cancer mortality among Indian women showed considerable variation; smoking rates were higher among Indian women in the Northern Plains than in other geographic areas, such as the Southwest.<sup>17</sup> Leonard et al noted that lung cancer mortality for Indian women rose from lower than the national rates for 1968-1972 to rates of 2.5 (Alaska) and 1.5 (North Dakota, South Dakota, Montana, Michigan, Minnesota, Wisconsin) times the United States, all races, rates in 1983-1987.<sup>18</sup>

Although not much is known about smoking patterns and cultural attitudes about smoking, one study conducted among 592 Indian patients (66% of whom were women) in urban Indian clinics revealed a median cigarette consumption of 11 per day compared to 20 per day in the general population. Women who were former smokers reported that they did not use smoking cessation programs, but rather quit "cold."<sup>19</sup>

### Chronic Health Problems

The *1987 National Medical Expenditure Survey* also reported no differences between Indians and non-Indians in the rates for cardiovascular diseases, emphy-

**Table 8: Age-adjusted Prevalence for Selected Chronic Conditions for Native and White Women, 1986-1990<sup>20</sup>**

Conditions	Native Women (%)	White Women (%)
Hypertension	13.82	10.96
Chronic bronchitis	7.76	6.23
Asthma	6.02	4.30
Diabetes	5.04	2.36

sema, hypertension, rheumatism, and arthritis. Age/sex-adjusted rates for both groups, however, showed that American Indians had more than twice the rate of diabetes of non-Indians. Between 1990 and 1992, the age-adjusted diabetes mortality rate for nine IHS Areas was 39.4 per 1,000, or about 234% higher than the general US population rate of 11.8 per 1,000 in 1991. The age-adjusted mortality for diabetes ranges from 13.4 per 1,000 in Alaska IHS Area to 64.6 per 1,000 in the Tucson IHS Area.<sup>20</sup>

Another chronic health problem that was significantly higher for American Indians was gall bladder disease. The *1987 National Medical Expenditure Survey* reported the age-adjusted gall bladder disease for Indian women was 10.7% compared to 3.8% for Indian men and 3.8% for US women, all races.<sup>20</sup> Data from the Centers for Disease Control also support these findings, especially some of the chronic diseases.<sup>21</sup> The age-adjusted prevalence rates for the four chronic diseases indicated that compared to white women, American Indian women experience higher rates of these illnesses, particularly diabetes.<sup>21</sup>

### Summary

Interactions between ethnicity, gender, and socioeconomic factors affect the morbidity, mortality, and health behaviors of individuals. Moreover, the patterns of health and disease of a population have everything to do with individual lifestyles and the extent to which they are affected by socioeconomic circumstances.<sup>22</sup>

Although a majority of American Indian and Alaska Native women have access to free health care, many still exhibit numerous health problems that could be prevented with such measures as improved standard of living and

lifestyle changes. In order to address the lifestyle changes, however, we must know more about those Indian women who manage to keep themselves and their families healthy in spite of poverty and limited resources. Unfortunately, information on these women and their families is scarce. ■

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