

# Cancer Facts

# American Indians/Alaska Natives and Cancer



We are among the estimated 4.5 million people who are classified as American Indian and Alaska Natives. (1) As a group we comprise 1.5 percent of the total U.S. population but are scattered over 560 federal and over 100 State recognized tribes, of which each has its own unique culture. (2) Not surprisingly, there are great diversities within our communities with regard to political, social, cultural, and spiritual beliefs and customs.

While we continue to live on designated lands or reservations, over the past three decades, many of us

have increasingly relocated from rural communities and reservations into urban centers. Our "invisible" population now makes up more than half of all American Indians and Alaska Natives living in the United States.<sup>(3)</sup>

There are well-documented differences that exist between urban American Indians and Alaska Natives and the rest of the population in terms of access to our healthcare, our health risk behaviors, threats to our health, and our health outcomes.<sup>(3)</sup>

As American Indians and Alaska Natives, we also suffer from greater health disparities compared with the general population. These disparities include higher rates of tobacco use, infant mortality, delayed prenatal care, violence, attempted suicide, and deaths due to diabetes, accidents and chronic liver disease. (4-7) Because of our higher mortality, as a group we are younger than the rest of the U.S. population.

Likewise, as American Indians and Alaska Natives and US citizens we continue to be among the poorest, with 1 in 4 living below the poverty level compared with 1 in 10 of the non-Hispanic/Latino whites in the general United States population.<sup>(8)</sup>

### **Access**

- Skin cancer is relatively rare in American Indians, but when it does occur, it often has an atypical presentation leading to delays in diagnosis and treatment and a higher mortality rate. (9)
- When compared to a non-Hispanic/Latino white population, American Indian/Alaska Native populations were less likely to earn a high school diploma and more likely to live in poverty.
- Between 1999-2004, American Indian/Alaska Native men from the Northern Plains region and American Indian/Alaska Native women from Alaska and the Northern and Southern Plains regions had higher cancer incidence rates than non-Hispanic/Latino white men and woman in the same areas.<sup>(10)</sup>
- Watson et al reported that the lifetime American Indians/ Alaska Natives risk of dying of bladder cancer is low (11.9 per 100,000) compared with that for non-Hispanic/Latino whites (40.5 per 100,000). However, the American Indians/Alaska Natives risk of dying, relative to the risk of ever being diagnosed with bladder cancer, is disproportionately high.<sup>(11)</sup>

### Screening

- American Indians/Alaska Natives have a high incidence rate
  of HPV, and also more likely to have HPV caused by high-risk
  oncogenic serotypes not covered by the new HPV vaccine.
  They are also less likely to receive PAP smears, which
  contributes to their having the highest cervical cancer
  mortality of any population in the United States. (12)
- The highest proportion of men receiving no treatment for prostate cancer was observed in Native Americans (40%) when compare to non-Hispanic/Latino whites (25%). (13)
- Screening rates for breast, colorectal, prostate, and cervical cancers were lower among American Indians/Alaska Natives than non-Hispanic/Latino whites. (10)
- Of the American Indian/Alaska Native women population aged 18 and over in California, 91% have had at least one Pap test, and 83% reported a Pap test within the past three years. (14)
- More than 68% of American Indian/Alaska Native women aged 40 and over in California had a mammogram within the past two years, however, only 1 in 10 American Indian/Alaska Native women 40 years and older, reported never having a mammogram. (14)







 Hispanic/Latinos and American Indians/Alaska Natives are the least likely ethnic groups to have a college education, most likely to have family incomes below 200% of the poverty level, and most likely to have no health insurance coverage, all of which are factors associated with low rates of cancer screening. (15)

### **Patient/Provider Communication**

- There are 217 known Native American languages spoken today. Most, if not all do not include a word for "cancer." (16)
- In the Navajo language, the word for cancer translates as the sore that does not heal. This psychological sense of hopelessness reflects a cultural perspective that impedes cancer detection in its early, more treatable stages. (17)
- American Indians/Alaska Natives are underrepresented in clinical trials. LaVallie et al. reported the factors that increase the willingness to participate were: having a lead researcher of Native descent, having a study physician with experience treating American Indians/Alaska Natives, personal experience with the cancer being studied, family support for participation, and belief/hope that the study would result in new treatments.<sup>(18)</sup>

### **Disparities**

- Cervical cancer mortality is particularly high among American Indians who reside in the Northern Plains and Southwest regions of the United States. (19)
- Espey et al. reported lung and colorectal cancer incidence rates were highest in the Northern Plains and Alaska and were significantly elevated in comparison with non-Hispanic/Latinos whites. (9)
- Although American Indian/Alaska Native children have a lower incidence of acute lymphoblastic leukemia (ALL), Hispanic and American Indian/Alaska Native children with ALL have poorer survival rates than non-Hispanic/Latinos white and Asian/Pacific Islander children. (20)
- American Indian/Alaskan Native women were less likely to be diagnosed with breast cancer compared to the general United States population. (9)
- Breast and cervical cancer incidence rates among Alaska Natives are similar to non-Hispanic/Latino white rates, whereas rates for cancer of the uterus and ovary are significantly less compared to non-Hispanic/Latino whites. Thirty-five year trends show increasing rates in breast cancer and decreasing rates of cervical cancer. (21)





- While cancer is the third leading cause of death for American Indians/Alaska Natives of all ages, it is the second leading cause of death among American Indians and Alaska Natives over the age of 45. (13,22)
- In 2005, 32% of American Indian adults smoked, more than any other ethnic group. However, these smoking rates vary by region and state. They are highest in Alaska (45.1%) and Northern Plains (44.2%) and lowest in the Southwest. (15)

## **Outcomes**

- Lung cancer is the second most common cancer occurring in American Indian and Alaska Native men (51.40 cases per 100,000), behind prostate cancer (60.66 per 100,000). (23,24)
- Espey et al. reported mortality rates were highest in Alaska and the Northern Plains due to cancer of the lung, colorectum, liver, stomach, gallbladder, and kidney. (10)
- American Indians/Alaska Natives have a higher incidence of kidney, stomach, liver, cervix, and gallbladder cancers compared to the non-Hispanic/Latino white populations.<sup>(9)</sup>
- Nearly 10% of American Indian/Alaska Native men and 15% of American Indian/Alaska Native women in California, age 40 and over, report being diagnosed with some type of cancer. (14)
- The most frequently diagnosed cancers among Alaskan Native men were prostate (20%), lung (19%), and colorectal cancer (17%). (24)
- The most frequently diagnosed cancers, accounting for over a half (57%) of all cancers diagnosed in Alaska Natives for the years 1999-2003 were: colon/rectum, lung, breast, and prostate. (25)
- Cancer cases in the Alaska Native population increased dramically from 1994 to 2003. These cancers constitute 45% of approximately 6,000 diagnosed cases in the past 35 years. (25)





- From 1993-2002, only 24% of Alaskan Native men and 42% of Alaskan Native women were diagnosed while the cancer was still localized. (25)
- American Indian/Alaska Native men and women have higher incidence rates for stomach and liver cancer. American Indian/Alaska Native men and women also have higher mortality rates for stomach and liver cancer. (26,27)
- American Indians have the highest rate of gallbladder cancer of any ethnic group, and this incidence is highest among American Indians living in New Mexico. (28)
- The most common types of cancer for American Indians/Alaska Natives are cancer of the breast (28%), colon and rectum (13%), and lung (10%).
- American Indians and Alaska Native youths aged 12-17 had the highest smoking rates compared with other racial groups. However, this data may be difficult to interpret since surveys typically do not separate ceremonial tobacco use from habitual actual misuse. (15)
- Although Alaskan Native children overall have lower cancer incidence than other ethnic groups, they have 43.8 times the risk of hepatocellular carcinoma, largely because of there elevated rates of hepatitis B. (29)
- American Indians and Alaskan Natives have the highest percentage of distant stage lung, breast, prostate, and colorectal cancer at diagnosis compared to non-Hispanic/Latino whites. (31)

# **References**

- American Indian/Alaska Native Profile. CDC Office of Minority Health. Updated 2007. Available at: <a href="http://www.cdc.gov/omhd/populations/AIAN/AIAN.htm.">http://www.cdc.gov/omhd/populations/AIAN/AIAN.htm.</a> Accessed February 2008.
- 2. The American Indian and Alaska Native Population: 2000 Census Brief. Updated 2002. Available at: <a href="http://www.census.gov/prod/2002pubs/c2kbr01-15.pdf">http://www.census.gov/prod/2002pubs/c2kbr01-15.pdf</a>. Accessed February 2008.

- Urban Indian Health Institute. Reported Health and Health-Influencing Behaviors among Urban American Indians and Alaska Natives: An Analysis of Data Collected by the Behavioral Risk Factor Surveillance System. Seattle, WA, 2008.
- 4. Castor ML, Smyser MS, Taualii MM, Park A, Lawson S, Forquera RA. A Nationwide Population-Based Study Identifying Health Disparities between American Indians/Alaska Natives and the General Populations Living in Select Urban Counties. *American Journal of Public Health*, 2006;96(8):1478-84.
- 5. Urban Indian Health Institute. *Urban American Indian and Alaska Native Youth: An Analysis of Select National Data Sources.* Seattle, WA, 2007.
- 6. Grossman DC, Kreiger JW, Sugarman RJ, Forquera RA. Health Status of Urban American Indians and Alaska Natives. A Population-based Study. *Journal of the American Medical Association*. 845-50.1994;271(11).
- Saylors K, Daliparthy N. Native Women, Violence, Sustance Abuse and HIV Risk. *J of Psychoactive Drugs*. 2005;37(3). 273-80
- 8. US Census Bureau. *American Community Survey Reports:* The American Community-American Indians and Alaska Natives. 2004 Washington DC, 2007.
- 9. Byrd-Miles K, Toombs EL, Peck GL. Skin Cancer in Individuals of African, Asian, Latin-American, and American-Indian Descent: Differences in Incidence, Clinical Presentation, and Survival Compared to Caucasians. *J Drugs Dermatol*. 2007;6(1):10-16.
- 10. Espey DK, Wu XC, Swan J, et al. Annual Report to the Nation Finds Cancer Death Rate Decline Doubling. *Cancer*. 2007; 110(10):2119-52.
- 11. Watson RA, Sidor M. Bladder Cancer in Native Americans and Alaskan Natives. *Urology*. 2008.doi:10.1016/j.urology. 2007:12.087.
- 12. Bell MC, Schmidt-Grimminger D, Patrick S, Ryschon T, Linz L, Chauhan SC. There is a High Prevalence of Human Papillomavirus Infection in American Indian Women of the Northern Plains. *Gynecol Oncol*. 2007;107(2):236-41.
- 13. Racial/Ethnic Patterns of Prostate Cancer. National Cancer Institute SEER program. 2007. Availlable at: <a href="http://seer.cancer.gov/publications/prostate/racialethnic.html">http://seer.cancer.gov/publications/prostate/racialethnic.html</a>. Accessed February 2008.

- 14. Satter DE, Le TM, Gatchell M, Seals BF, Burhansstipanov L, Randall LL. American Indian and Alaska Native Cancer Fact Sheet. *UCLA Center for Health Policy Research*. 2004.
- 15. Swan J, Breen N, Burhansstipanov L, Satter DE, Davis WW, McNeel T, Snipp MC. Cancer Screening and Risk Factor Rates among American Indians. *Am J Public Health*. 2006;96(2):346-50.
- 16. American Indians/Native Alaskans and Lung Disease Fact Sheet. American Lung Association. Updated 2006. Available at: <a href="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?"http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?"http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?"http://www.lungusa.org/site/pp.asp?c="http://www.lungusa.org/site/pp.asp?"http://www.lungusa.org/site/pp.asp?
- 17. Robinson F, Sandoval N, Baldwin J, Sanderson PR. Breast Cancer Education for Native American Women: Creating Culturally Relevant Communications. *Clin J Oncol Nurs*. 2005;9(6):689-92.
- 18. LaVallie DL, Wolf FM, Jacobsen C, Buchwald D. Barriers to Cancer Clinical Trial Participation among Native Elders. *Ethn Dis.* 2008;18(2):210-17.
- 19. Leman RF, Espey D, Cobb N. Invasive Cervical Cancer among American Indian Women in the Northern Plains, 1994-1998: Incidence, Mortality, and Missed Opportunities. *Public Health Rep.* 2005;120(3):283-87.
- 20. Kadan-Lottick NS, Ness KK, Bhatia S, Gurney JG. Survival Variability by Race and Ethnicity in Childhood Acute Lymphoblastic Leukemia. *JAMA*. 2003;290(15):2061-63.
- 21. Kelly JJ, Day GE, Lanier AP, Murphy N. Women's Cancers among Alaska Natives: [corrected] 1969-2003. *Alaska Med.* 2007;49(2):55-61.
- American Indians/Alaskan Natives Data and Statistics. Indian Health Services. 2004. Available at: <a href="http://www.ihsgov/MedicalPrograms/PortlandInjury/data\_resources.cfm">http://www.ihsgov/MedicalPrograms/PortlandInjury/data\_resources.cfm</a>. Accessed 2008.
- 23. Paltoo DN, Chu KC. Patterns of Cancer Incidence among American Indians/Alaska Natives, United States, 1992-1999. Public Health Rep. 2004;443-51.

24. Willsie SK, Foreman MG.
Disparities in Lung Cancer:
Focus on Asian Americans
and Pacific Islanders,
American Indians and
Alaska Natives, and
Hispanics and Latinos. *Clin Chest Med.* 2006;27(3):44152,vi.



- 25. Kelly JJ, Lanier AP, Alberts S, Wiggins CL. Differences in Cancer Incidence among Indians in Alaska and New Mexico and U.S. Whites, 1993-2002. *Cancer Epidemiol Biomarkers Prev.* 2006;15(8):1515-19.
- 26. Lanier AP, Kelly JJ, Maxwell J, McEvoy T, Homan C. Cancer in Alaska Natives 1969-2003. Office of Alaska Native Health Research and Alaska Native Epidemiology Center, Alaska Native Tribal Health Consortium. 2006.
- 27. Healthcare Quality Report 2006. Agency for Healthcare Research and Quality. National. Updated 2007. Available at: <a href="http://www.ahrq.gov/QUAL/nhqr06/nhqr06.htm">http://www.ahrq.gov/QUAL/nhqr06/nhqr06.htm</a>. Accessed March 2008.
- 28. Cancer and American Indians/Alaska Natives. The Office of Minority Health. Updated January 2008. Available at: <a href="http://www.omhrc.gov/templates/content.aspx?ID=3023">http://www.omhrc.gov/templates/content.aspx?ID=3023</a>. Accessed March 2008.
- 29. Barakat J, Dunkelberg JC, Ma TY. Changing Patterns of Gallbladder Carcinoma in New Mexico. *Cancer*. 2006;106(2):434-40.
- 30. Lanier AP, Holck P, Ehrsam Day G, Key C. Childhood cancer among Alaska Natives. *Pediatrics*. 2003;112(5):e396.
- 31. Clegg LX, Li FP, Hankey BF, Chu K, Edwards BK. Cancer Survival among U.S. Whites and Minorities: A SEER (Surveillance, Epidemiology, and End Results) Program Population Based Study. *Arch Intern Med.* 2002;162:1985-93.