

Lung Cancer Incidence in the American Indian and Alaska Native Population, United States Purchased/Referred Care Delivery Areas*—2012–2016

Alaska Natives and American Indians in the Northern and Southern Plains experience disproportionately **higher lung cancer** incidence rates compared to non-Hispanic whites.

Lung cancer is the leading cause of cancer death among American Indian/Alaska Native (AI/AN) men and women.

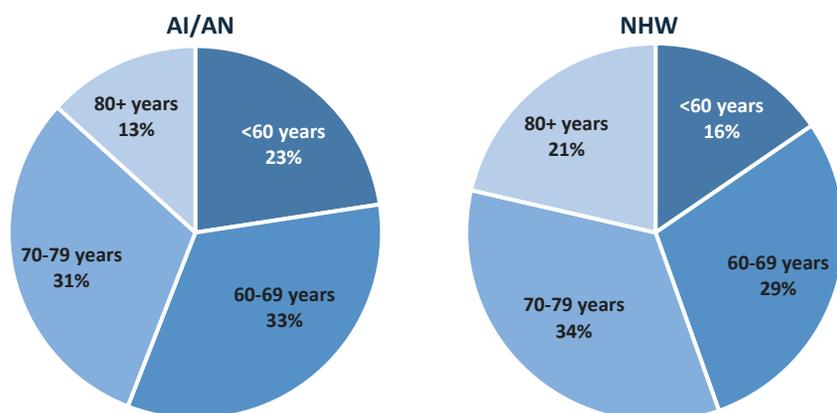
Most lung cancers are caused by cigarette smoking. The prevalence of cigarette smoking among AI/AN varies by geographic region, which impacts geographic variation in lung cancer incidence rates.

Some other risk factors for lung cancer include exposure to secondhand smoke, asbestos, and naturally occurring radon gas in homes. An [occupational history of uranium mining](#) is also a risk factor for lung cancer.

Differences by Age at Diagnosis

Lung cancer tends to be diagnosed at a younger age among AI/AN than among NHW. 23% of lung cancer cases among AI/AN were diagnosed before age 60 years compared with 16% among NHW.

Figure 1. Proportion of Lung Cancer Cases by Age at Diagnosis and Race, US PRCDA 2012–2016



To improve the accuracy of AI/AN cancer statistics, these data are restricted to Purchased/Referred Care Delivery Areas (PRCDA) counties that contain federally-recognized tribal lands or are adjacent to tribal lands. Race classification for the AI/AN population is more accurate in these [counties](#).

For improved accuracy of racial classification, AI/AN race was reported by central cancer registries after linkage with the Indian Health Service (IHS) patient registration database and then restricted to AI/AN with non-Hispanic origin.

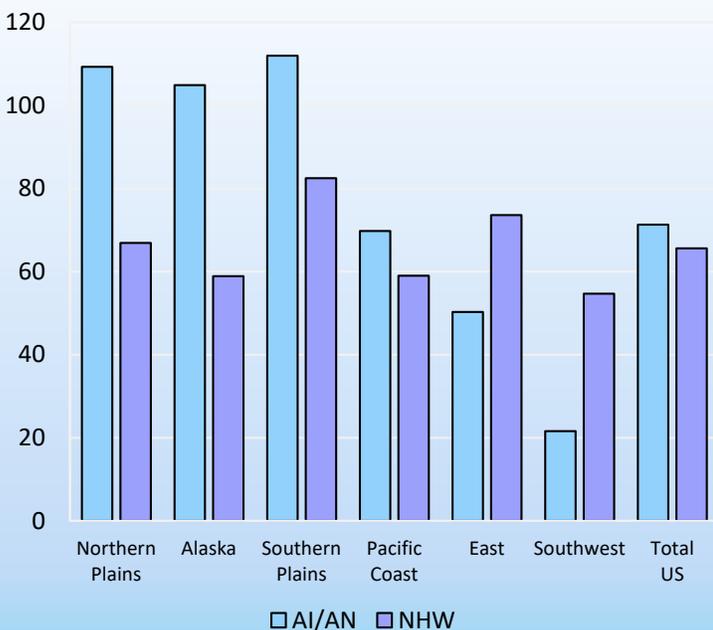
Data for non-Hispanic whites (NHW) are presented for comparison.

Differences by IHS Region

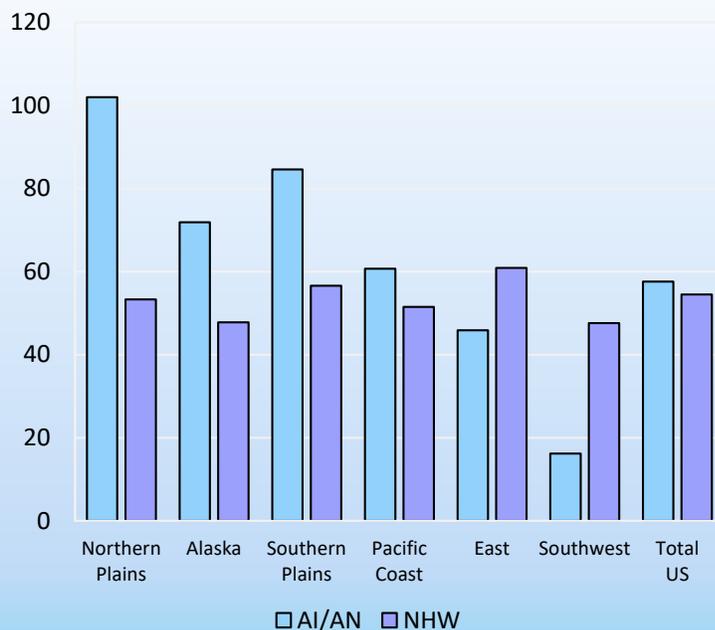
Among AI/AN males and females, lung cancer incidence rates were higher in the Northern Plains, Alaska, and Southern Plains than in other IHS regions and were lowest in the Southwest. Overall, AI/AN males and females had higher lung cancer incidence rates than NHW males and females. Compared to rates among NHW, lung cancer incidence rates were higher among AI/AN in the Northern Plains, Alaska, Southern Plains, and Pacific Coast regions but lower in the East and Southwest regions.

Figure 2. Lung Cancer Incidence Rates^a by Race, Sex, and IHS Region, US PRCDA 2012–2016

A. Males



B. Females



^a Rates are per 100,000 population and are age adjusted to the 2000 US standard population.

States that have at least one PRCDA-designated county by IHS region:

Alaska (Alaska), **Pacific Coast** (California, Idaho, Oregon, and Washington), **Southwest** (Arizona, Colorado, Nevada, New Mexico, and Utah), **Northern Plains** (Indiana, Iowa, Michigan, Minnesota, Montana, Nebraska, North Dakota, South Dakota, Wisconsin, and Wyoming), **Southern Plains** (Kansas, Oklahoma, and Texas), and **East** (Alabama, Connecticut, Florida, Louisiana, Massachusetts, Maine, Mississippi, New York, North Carolina, Pennsylvania, Rhode Island, and South Carolina).

Data Sources

Data are from the [U.S. Cancer Statistics American Indian and Alaska Native Incidence Analytic Database](https://www.cdc.gov/cancer/uscs/about/data-briefs/no14-lung-cancer-incidence-AIAN-PRCDA-2012-2016.htm) (USCS AIAD).

This database includes data from cancer registries participating in CDC's National Program of Cancer Registries or the National Cancer Institute's Surveillance, Epidemiology, and End Results program that have been linked with the Indian Health Service Patient Registration Database. These linkages address racial misclassification of the AI/AN population in the central cancer registries.

These data met [quality criteria](#) for 2012 to 2016.

More Information

Lung cancer www.cdc.gov/cancer/lung/

U.S. Cancer Statistics (USCS) www.cdc.gov/uscs

USCS AIAD www.cdc.gov/cancer/uscs/about/tools/AIAN-incidence-analytic-db.htm

Cancer Health Disparities Among American Indians and Alaska Natives www.cdc.gov/cancer/healthdisparities/aiian.htm

Suggested Citation

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