

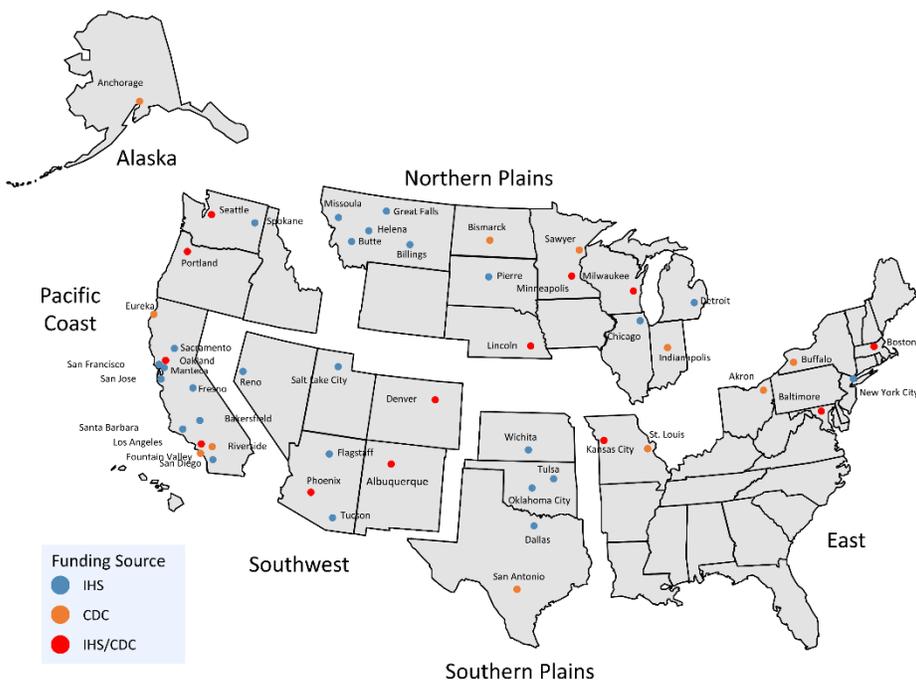
## Cancer Incidence Among American Indian and Alaska Native Populations in Urban Indian Health Organization Service Areas, 2008–2017

**Cancer incidence rates for American Indian and Alaska Native (AI/AN) populations living in select urban areas vary by geographic region. Rates in certain regions, such as Alaska and the Southern Plains, are higher in urban AI/AN compared with White populations.**

To meet the unique health needs of urban AI/AN populations, there are numerous programs located across the United States that are culturally grounded and focus on providing holistic care. Urban Indian Health Organizations (UIHOs) are a network of 72 independent health agencies that serve urban AI/AN people in 50 cities (spread across 133 counties), also known as UIHO service areas (Figure 1).<sup>1</sup> Many UIHOs are located in cities where AI/AN people originally lived, or where they migrated because of the Indian Relocation Act of 1956.<sup>2</sup>

Overall, 35% of AI/ANs (Hispanic and non-Hispanic) live in UIHO service areas. By region, 28% of AI/AN in Northern Plains live in UIHO service areas; 23% in Alaska; 31% in Southern Plains; 55% in Pacific Coast; 19% in East; and 45% in Southwest.

**Figure 1.** Urban Indian Health Organization Service Areas by Indian Health Service Region and Funding Source<sup>3</sup>



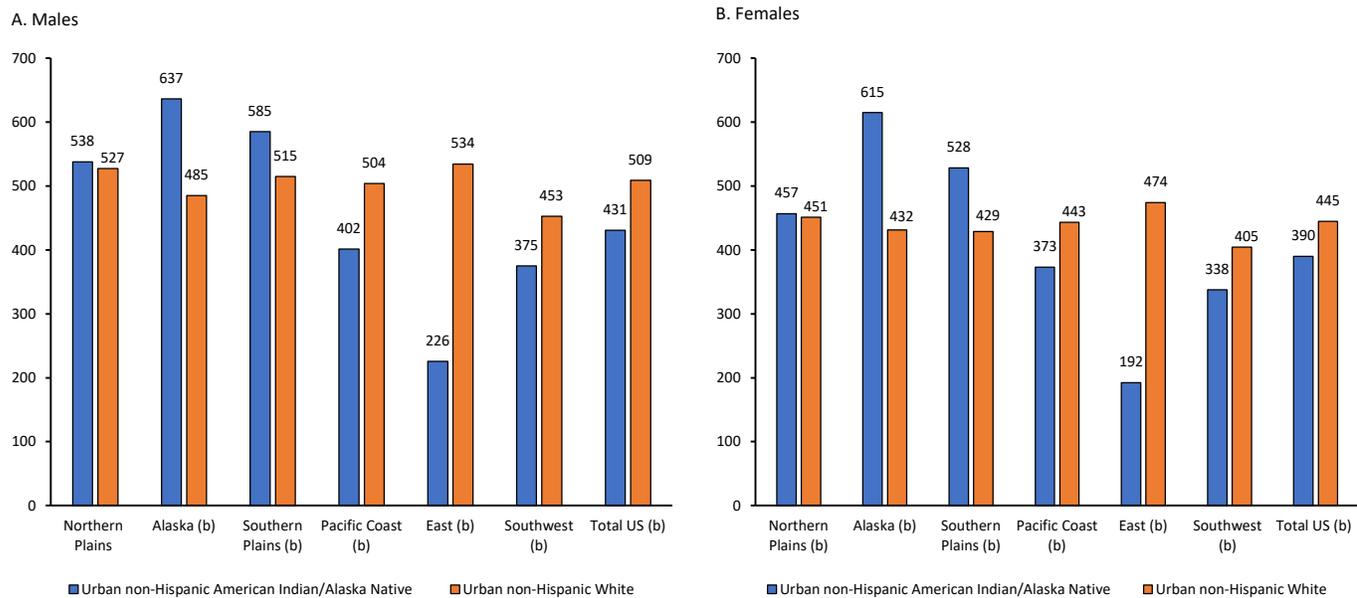
This data brief includes data about people who lived in counties in the following UIHO service areas—

- **Northern Plains:** Billings, Bismarck, Butte, Chicago, Detroit, Great Falls, Helena, Indianapolis, Lincoln, Milwaukee, Minneapolis, Missoula, Pierre/Sioux Falls, and Sawyer.
- **Alaska:** Anchorage.
- **Southern Plains:** Dallas, Oklahoma City, San Antonio, Tulsa, and Wichita.
- **Pacific Coast:** Bakersfield, Eureka, Fountain Valley, Fresno, Los Angeles, Manteca, Oakland, Portland, Riverside, Sacramento, San Diego, San Francisco, San Jose, Santa Barbara, Seattle, and Spokane.
- **East:** Akron, Baltimore, Boston, Buffalo, Kansas City, New York City, and St. Louis.
- **Southwest:** Albuquerque, Denver, Flagstaff, Phoenix, Reno, Salt Lake City, and Tucson.

## Rates by Sex and Region

This analysis includes people who lived in counties in a UIHO service area. For improved accuracy of racial classification, rates are restricted to AI/AN with non-Hispanic origin. Rates for non-Hispanic whites (NHW) are presented for comparison.

**Figure 2.** Age-Adjusted Incidence Rates<sup>a</sup> for All Cancer Sites Combined for Urban Non-Hispanic AI/AN and White Populations Living in UIHO Service Areas by Sex and IHS Region, 2008–2017.



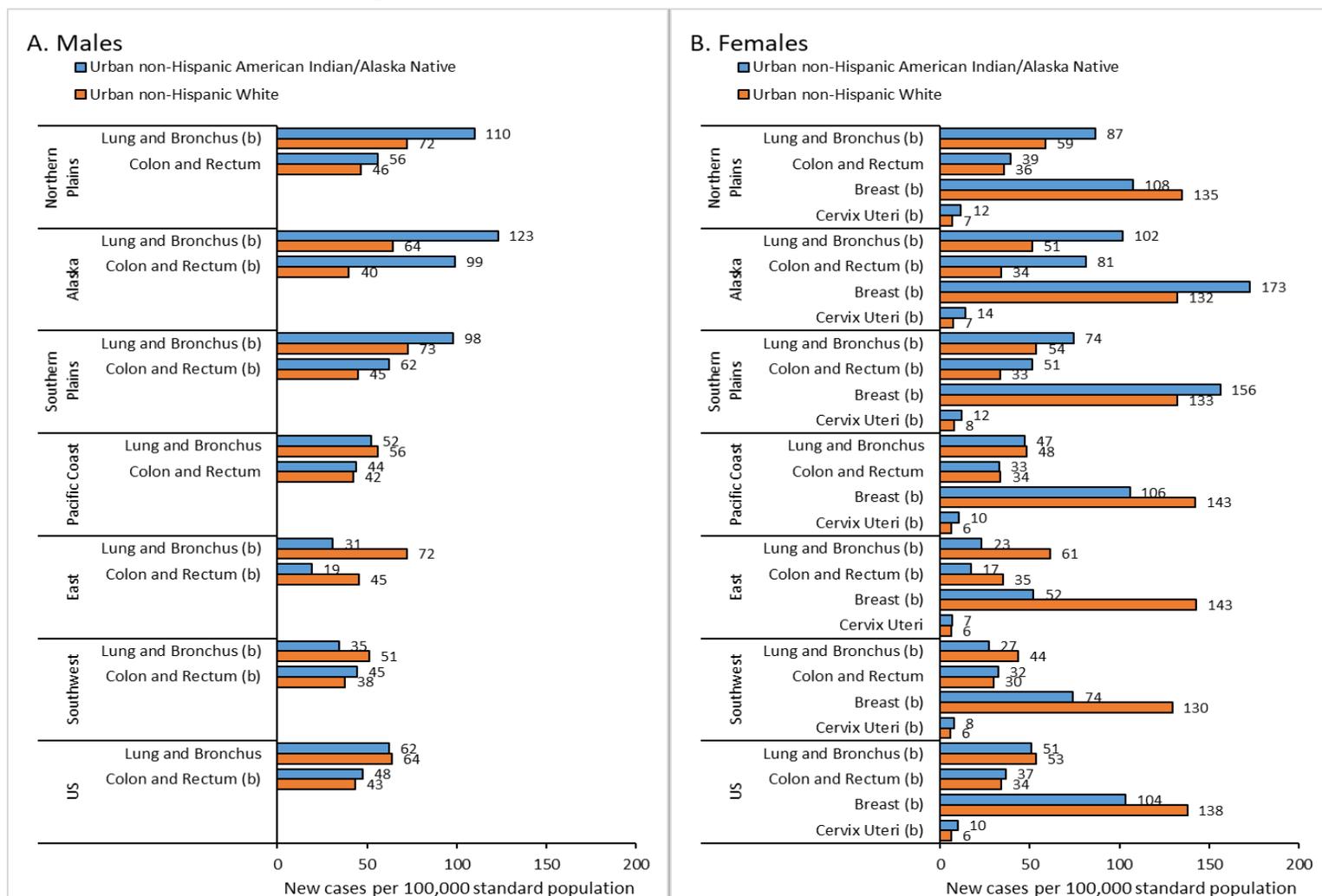
<sup>a</sup> Rates are per 100,000 population and age adjusted to the 2000 US standard population.

<sup>b</sup> Indicates age-adjusted rates in urban AI/AN population were significantly different than in urban NHW population.

The following cancer incidence rates were found for urban AI/AN populations by sex and region—

- Overall, cancer incidence rates were lower in urban AI/AN populations compared with urban NHW populations (431 vs. 509 in males; 390 vs. 445 in females). By region, rates were lower in the Pacific Coast (402 vs. 504 in males; 373 vs. 443 in females), East (226 vs. 534 in males; 192 vs. 474 in females), and Southwest (375 vs. 453 in males; 338 vs. 405 in females).
- In urban AI/AN populations for both sexes, cancer incidence rates varied by geographic region. The highest rates were in Alaska (637 in males; 615 in females), and the lowest rates were in the East (226 in males; 192 in females).
- Cancer incidence rates were significantly higher for both sexes in urban AI/AN populations compared with urban NHW populations in Alaska (637 vs. 485 in males; 615 vs. 432 in females) and the Southern Plains (585 vs. 515 in males; 528 vs. 429 in females).

**Figure 3.** Age-Adjusted Incidence Rates<sup>a</sup> for Screening-Amenable Cancers for Urban Non-Hispanic AI/AN and White Populations Living in UIHO Service Areas by Sex and IHS Region, 2008–2017.



<sup>a</sup>Rates are per 100,000 population and age adjusted to the 2000 US standard population.

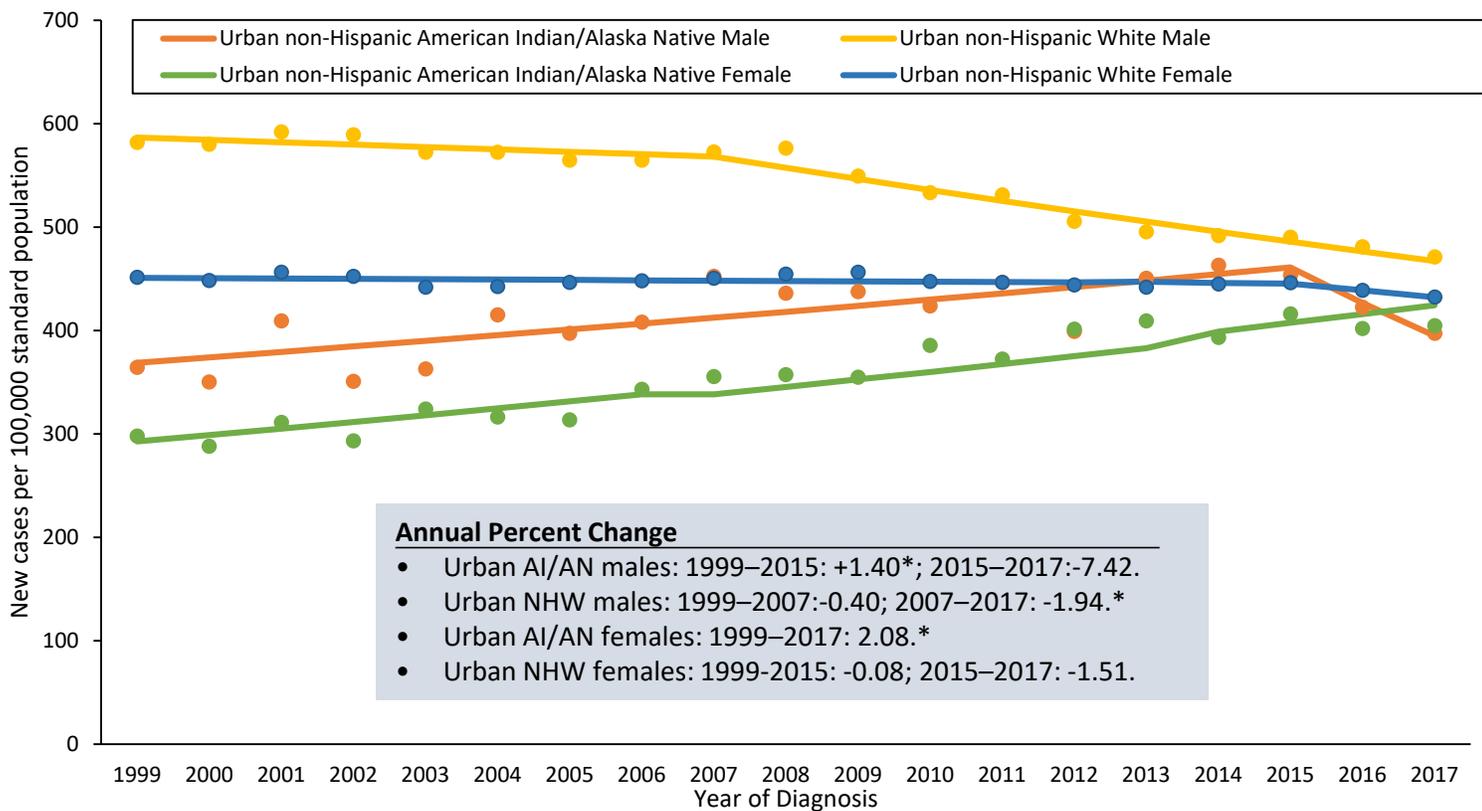
<sup>b</sup>Indicates age-adjusted rates in urban AI/AN population were significantly different than in urban NHW population.

The following incidence rates were found for screening amenable cancers (cancer sites that have a recommended screening test—female breast, cervical, colorectal, and lung and bronchus) for urban AI/AN populations by sex and region—

- Incidence rates of all screening-amenable cancers were higher in urban AI/AN populations compared with urban NHW populations in Alaska and the Southern Plains.
- In both urban AI/AN males and females, the highest incidence rates were found in Alaska for breast cancer among females (173) and lung cancer among males (123).
- Cervical cancer incidence rates were higher in urban AI/AN females compared with urban NHW females in every region except the East.
- Colorectal cancer incidence rates were higher for both sexes in urban AI/AN populations compared with urban NHW populations in the United States and in the Alaska, Southern Plains, and Southwest (males only) regions, but not different among females in the Northern Plains, Pacific Coast, and Southwest.
- Among males, incidence rates for urban AI/AN populations compared with urban NHW populations were significantly higher for lung cancer in the Alaska, Northern Plains, and Southern Plains regions, whereas, lung cancer rates were significantly lower in the East and Southwest regions.
- Lung cancer incidence rates were significantly higher among urban AI/AN females in the Alaska, Northern Plains, and Southern Plains regions, but overall AI/AN female lung cancer rates were lower in the East and Southwest regions in the United States compared with urban NHW females.

## Trends

**Figure 4.** Annual Age-Adjusted Cancer Incidence Rates<sup>a</sup> and Trends<sup>b</sup> for Urban Non-Hispanic AI/AN and White Populations Living in UIHO Service Areas by Sex, 1999–2017.



<sup>a</sup> Rates are per 100,000 population and age adjusted to the 2000 US standard population. Rates are indicated by a circle.

<sup>b</sup> Trends are indicated by a solid line. Trend lines and annual percent change were calculated using Joinpoint regression analysis.

\*The annual percent change is significantly different from zero (P<0.05).

The following cancer incidence trends were found for urban AI/AN populations—

- Cancer incidence rates for urban AI/AN males increased by 1.40% per year between 1999 and 2015. There was no significant change between 2015 and 2017.
- Cancer incidence rates for urban AI/AN females increased by 2.08% per year between 1999 and 2017.

## References

1. Indian Health Service. Urban Indian Health Program Profiles website. [www.uihi.org/urban-indian-health/urban-indian-health-organization-profiles](http://www.uihi.org/urban-indian-health/urban-indian-health-organization-profiles).
2. Straus T, Valentino D. Retribalization in urban Indian communities. *American Indian Culture and Research Journal*. 1998;22(4):103–115.
3. Urban Indian Health Institute. BRANCH: Building Resiliency and Action to Nurture Community Health. [www.uihi.org/projects/branch](http://www.uihi.org/projects/branch).

## Data Sources

Data in this brief come from [U.S. Cancer Statistics](http://www.cdc.gov/cancer/uscs), the official federal cancer statistics.

Data are from the [U.S. Cancer Statistics American Indian and Alaska Native Incidence Analytic Database—1998–2017](https://www.cdc.gov/cancer/uscs/aiad) (USCS AIAD) that met [quality criteria](#) for 2008–2017.

## More Information

[U.S. Cancer Statistics Data Visualizations Tool](#)  
[National Comprehensive Cancer Control Program](#)  
[Urban Indian Health Institute](#)

## Suggested Citation

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