

Misclassification of American Indian/Alaska Native People in Oregon's Communicable Disease Data

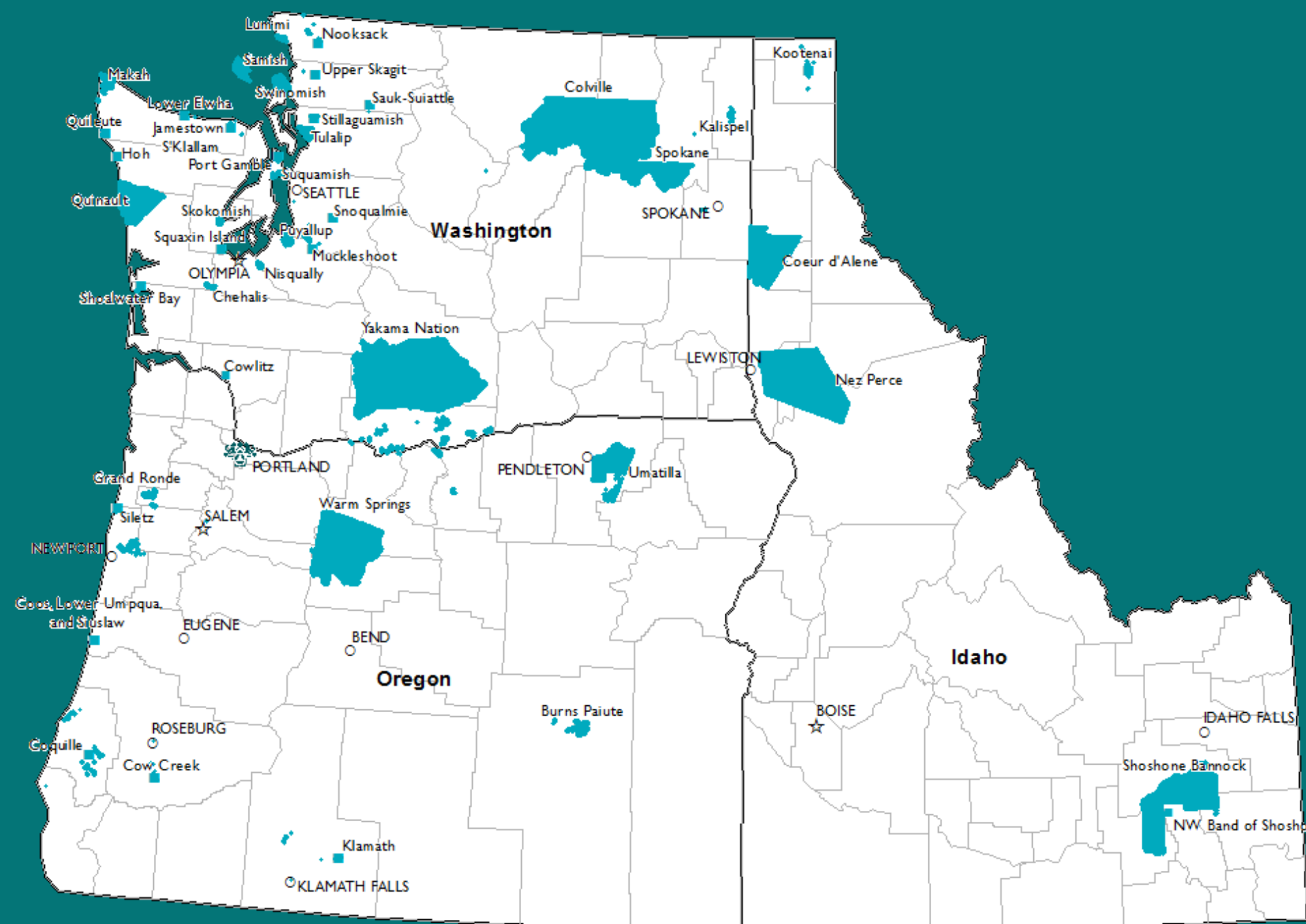
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BACKGROUND

- American Indian/Alaska Native (AI/AN) people experience disproportionately higher rates of sexually transmitted infections (STIs) including syphilis, gonorrhea, and chlamydia, compared to other populations.¹
- Misclassification in public health data harms AI/AN communities by obscuring the true burden of disease and affecting public health response efforts.



RESEARCH AIM

We assessed the impacts of AI/AN misclassification on STI and HIV data from the Oregon Public Health Epidemiologists' User System (ORPHEUS).

METHODS

We conducted a probabilistic linkage between the Northwest Tribal Registry (a demographic dataset of AI/AN patients that accessed care at Indian Health Service, Tribal, and Urban Indian clinics in Idaho, Oregon, and Washington) and ORPHEUS cases from 2014-2022. After conducting the linkage, the data was de-identified and the dataset was analyzed to assess the effect of AI/AN misclassification on counts and age-adjusted rates of gonorrhea, chlamydia, and HIV.

CITATIONS

1. Centers for Disease Control and Prevention. Sexually Transmitted Infections Surveillance 2023. Atlanta: US Department of Health and Human Services; 2024.

RESULTS

The linkage identified **1,534 misclassified STI and HIV cases** among AI/AN people between 2014 and 2022. Correcting AI/AN race resulted in a 25% increase in the chlamydia rate (297.5 to 382.3 per 100,000), 19% increase in the gonorrhea rate (132.1 to 159.2), and 18% increase in the HIV rate (5.6 to 6.7) in 2022.

Figure 1. Age-adjusted Chlamydia Incidence, Oregon State, 2022

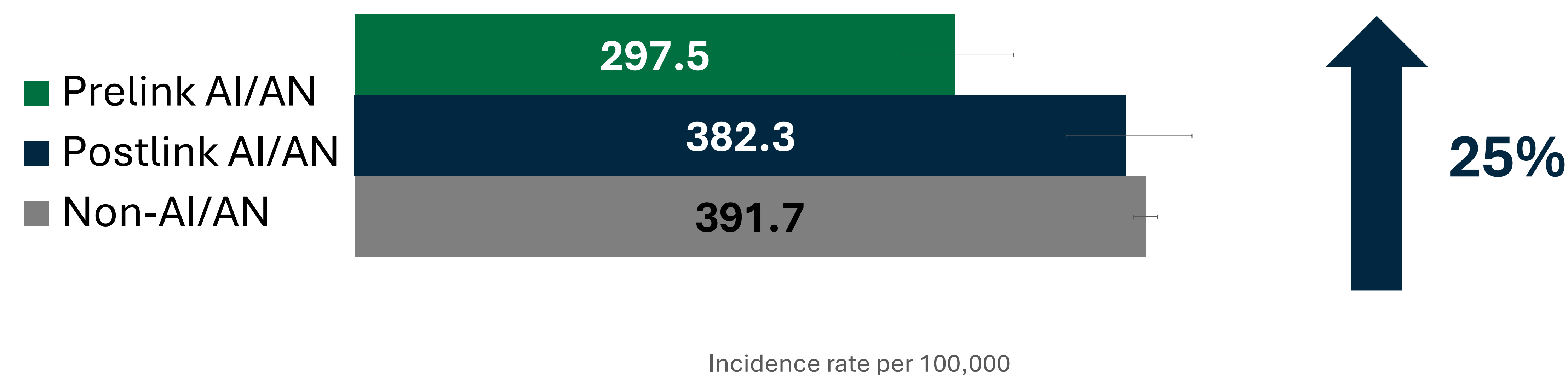


Figure 2. Age-adjusted Gonorrhea Incidence, Oregon State, 2022

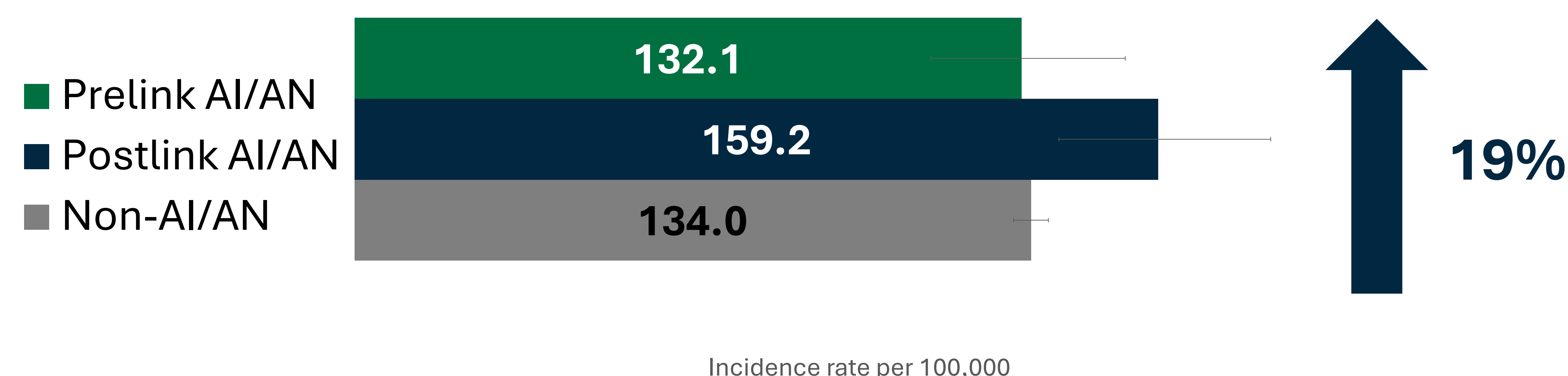
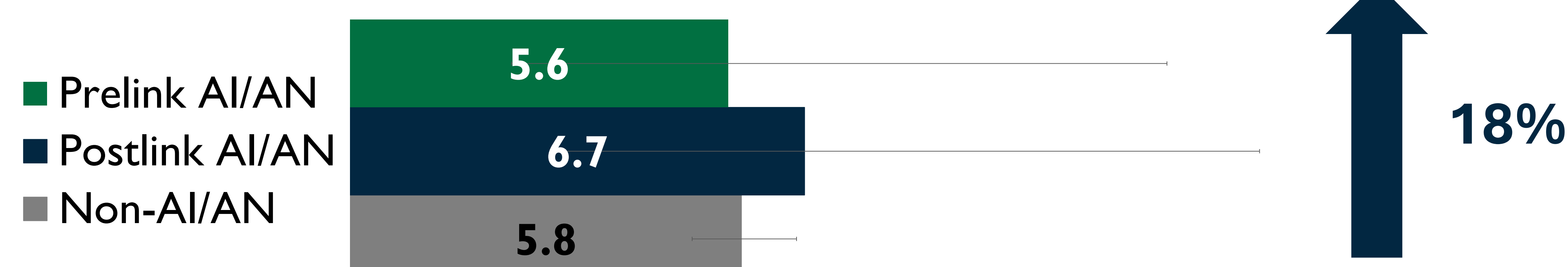


Figure 3. Age-adjusted HIV Incidence, Oregon State, 2022



DISCUSSION

- At least **one-fifth of gonorrhea, chlamydia, and HIV cases among AI/AN** were **undercounted** within ORPHEUS between 2014-2022.
- The linkage process resulted in **increases** in the **rate of chlamydia, gonorrhea, and HIV among AI/AN** people in 2022.
- One limitation of this analysis is the **inconsistency** of collecting **demographics for chlamydia cases** due to capacity constraints at local health departments.
- Another limitation and area for future research is to **explore syphilis cases**; age was unavailable in the dataset, so syphilis was excluded from the analysis.
- There is a continued need for:
 - Education and support for case investigators** when asking for race and ethnicity information.
 - Culturally-based prevention programs** focused on healthy sexuality; expanded STI screening, treatment, and prevention services.
 - Support for **culturally relevant training** and integrating tools for providing care to AI/AN people.

ACKNOWLEDGEMENTS

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