



The Epidemiology of Substance Use Disorders in American Indians and Alaska Natives

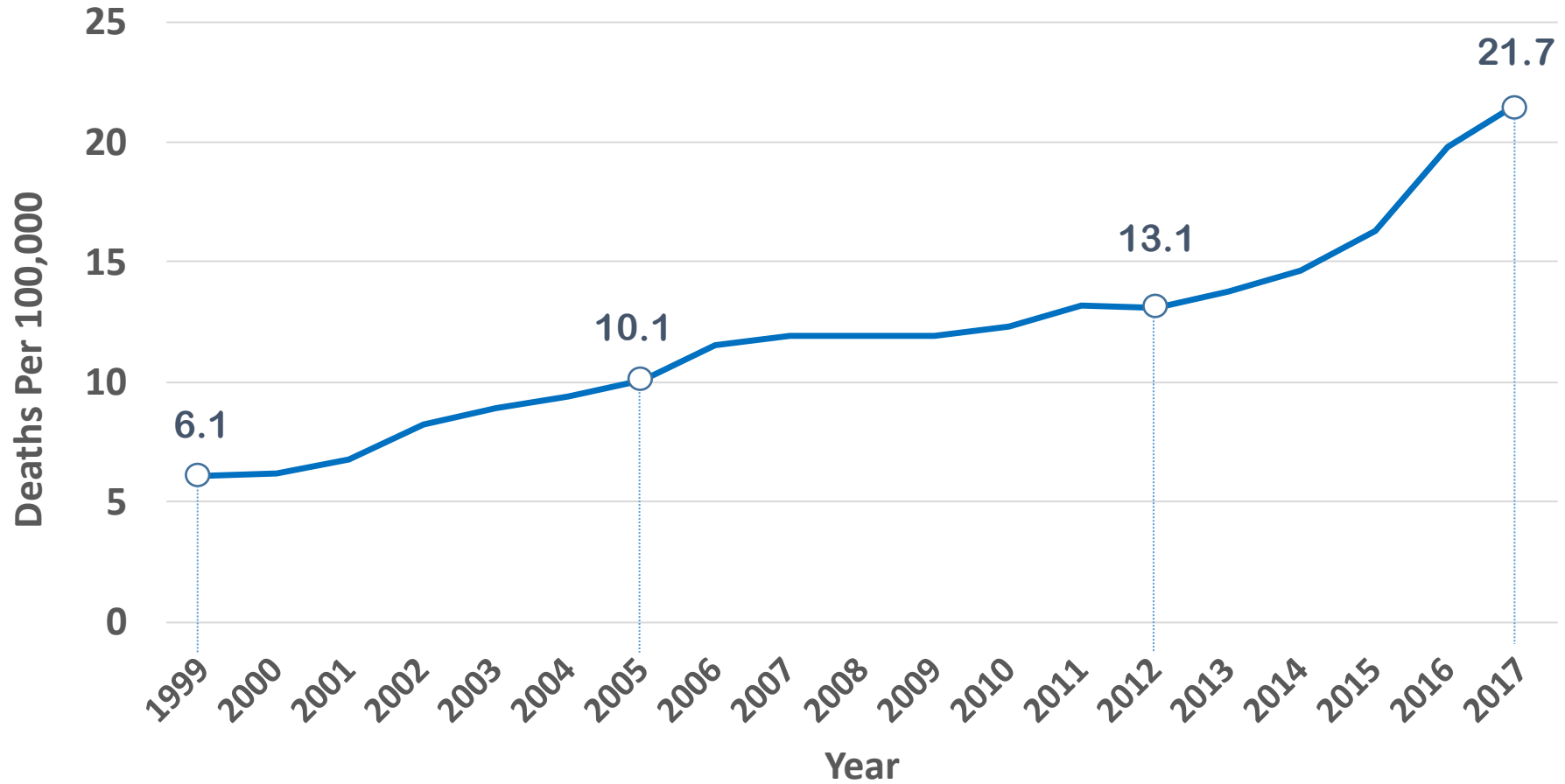
Heidi Lovejoy, MSc

Substance Use Epidemiologist
Northwest Portland Area Indian
Health Board (NPAIHB)

Yellowhawk Tribal Health Center
March 5th 2019



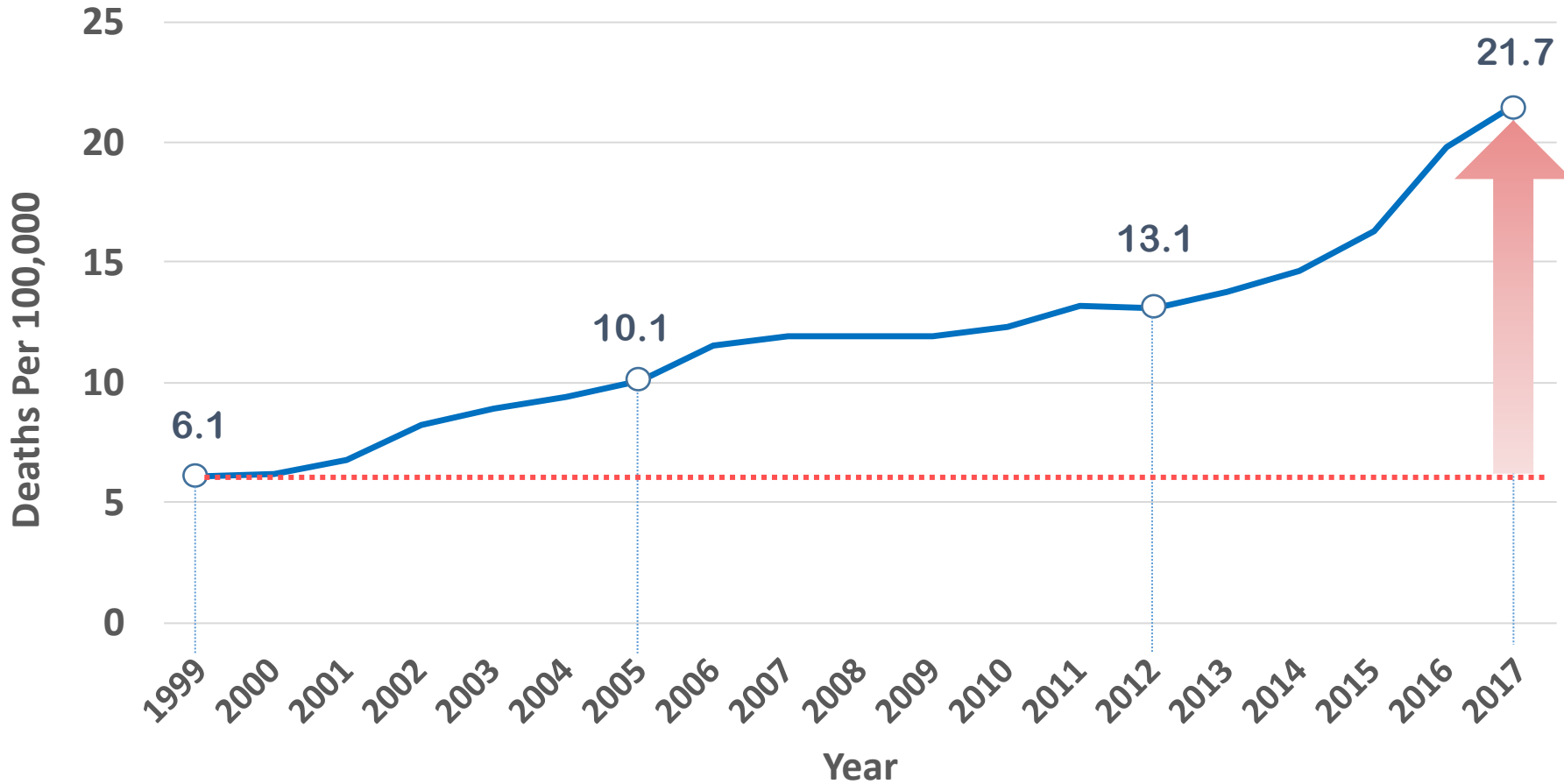
National Drug Overdose Deaths: Trend Since 1999



Age Adjusted Rates per CDC Wonder Data



National Drug Overdose Deaths: Trend Since 1999



3.6x
Increase

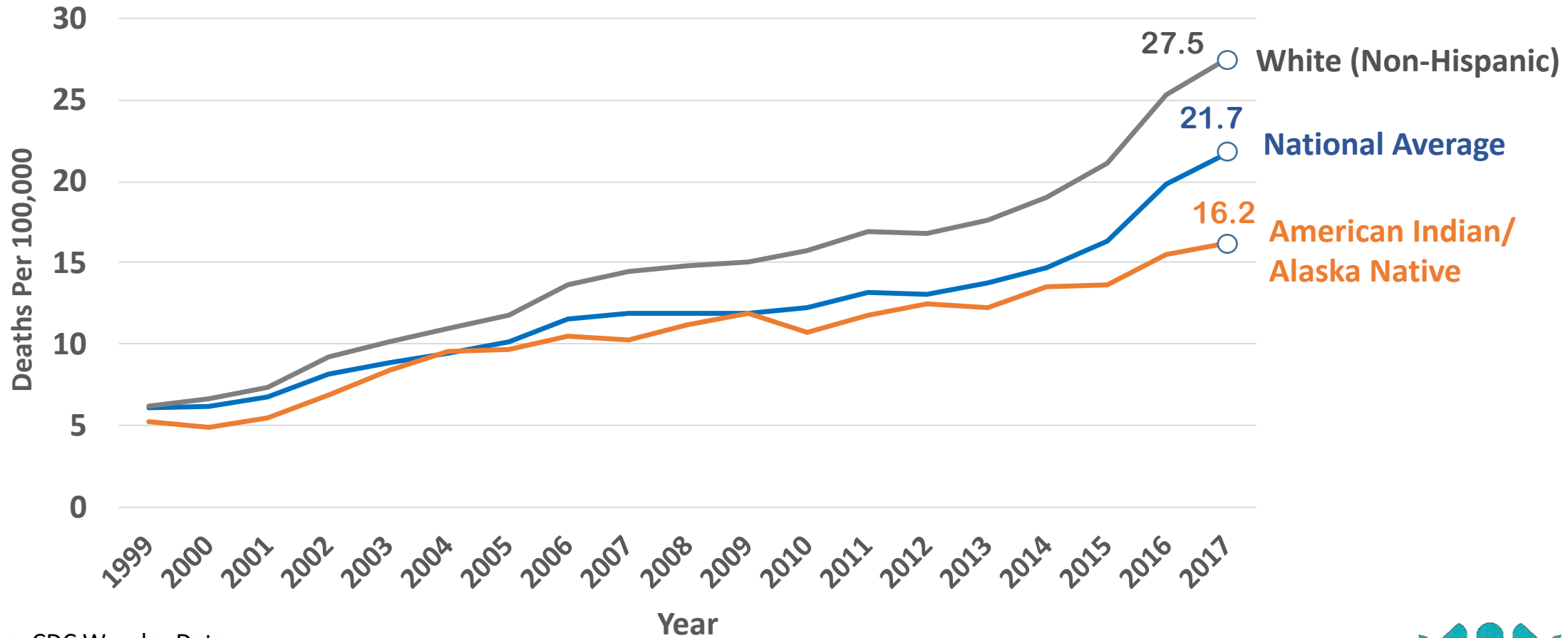


National
Public Health
Emergency
Declared
in 2017

Age Adjusted Rates per CDC Wonder Data



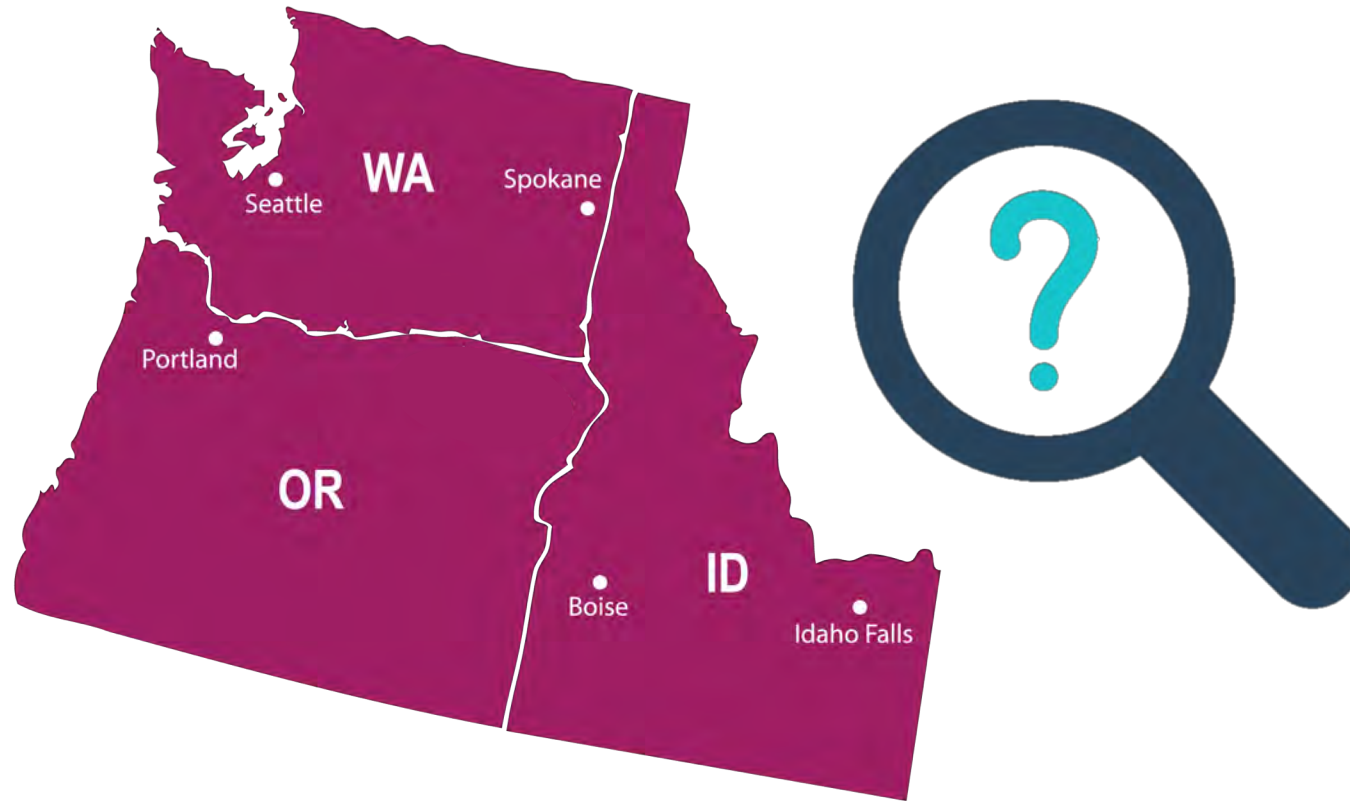
National Drug Overdose Deaths: By Race



Age Adjusted Rates per CDC Wonder Data

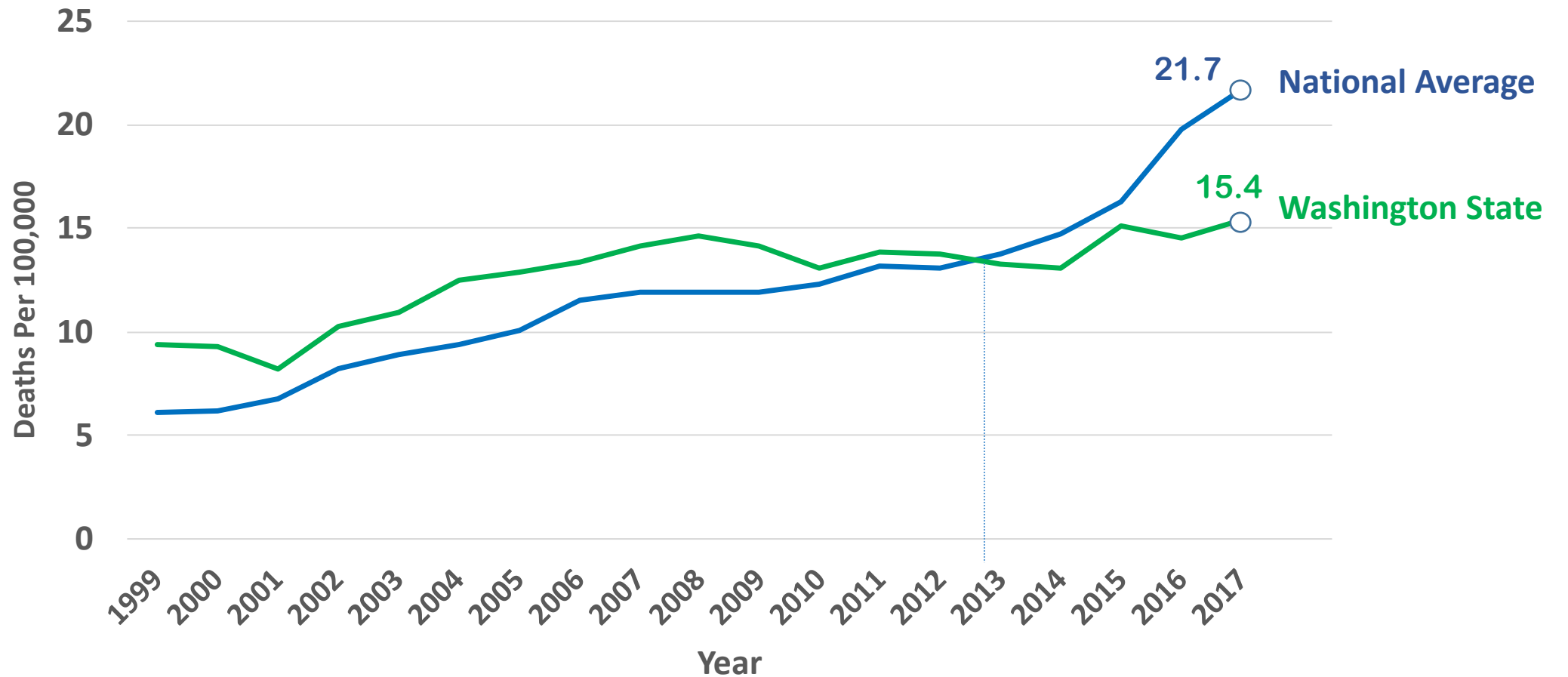


How Does the Northwest Compare?





Washington State Drug Overdose Deaths: Trend Since 1999

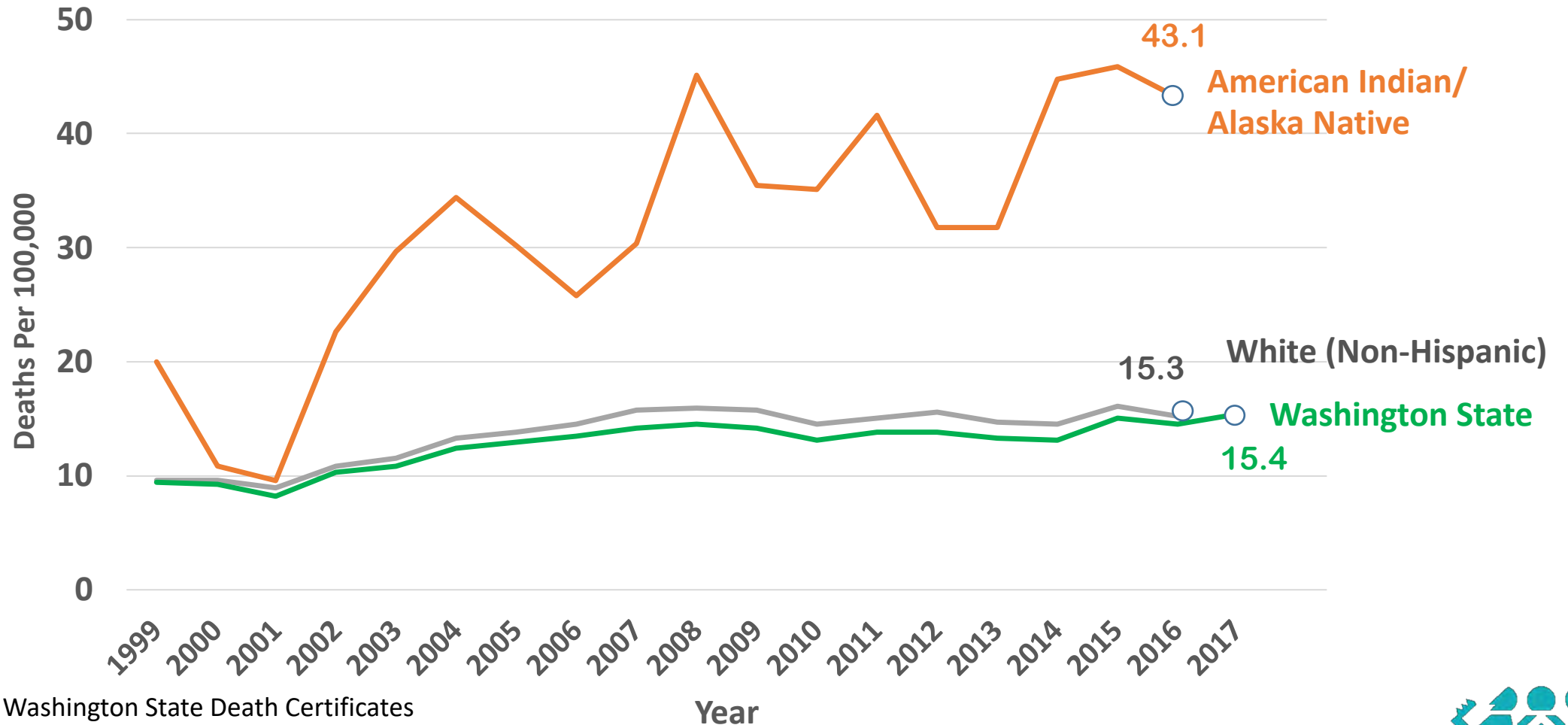


National Age Adjusted Rates per CDC Wonder Data, Washington Age Adjusted Rates per Washington State Death Certificates





Washington State Drug Overdose Deaths: By Race

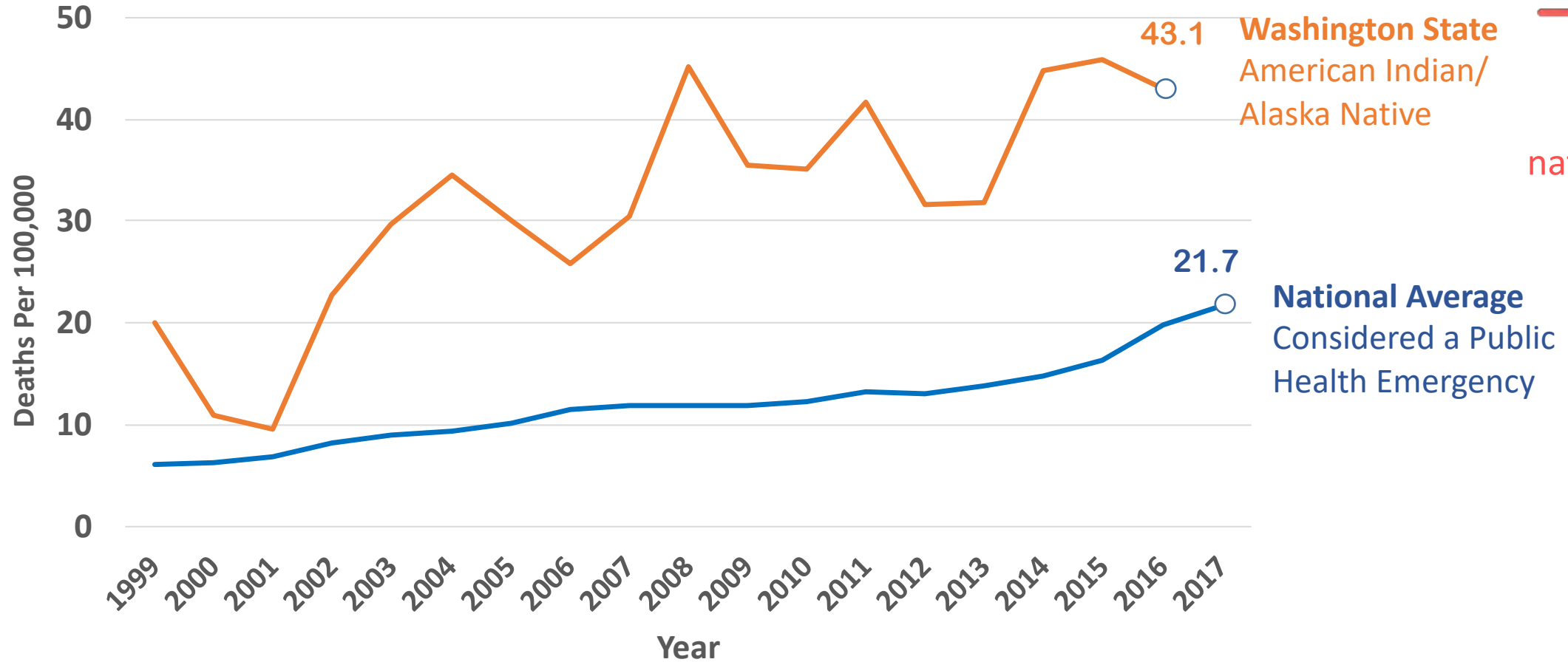



Age Adjusted Rates per Washington State Death Certificates






Washington State Drug Overdose Deaths: WA AI/AN vs National




2x
national rate


National Average
Considered a Public
Health Emergency

Age Adjusted Rates per Washington State Death Certificates, National per CDC WONDER

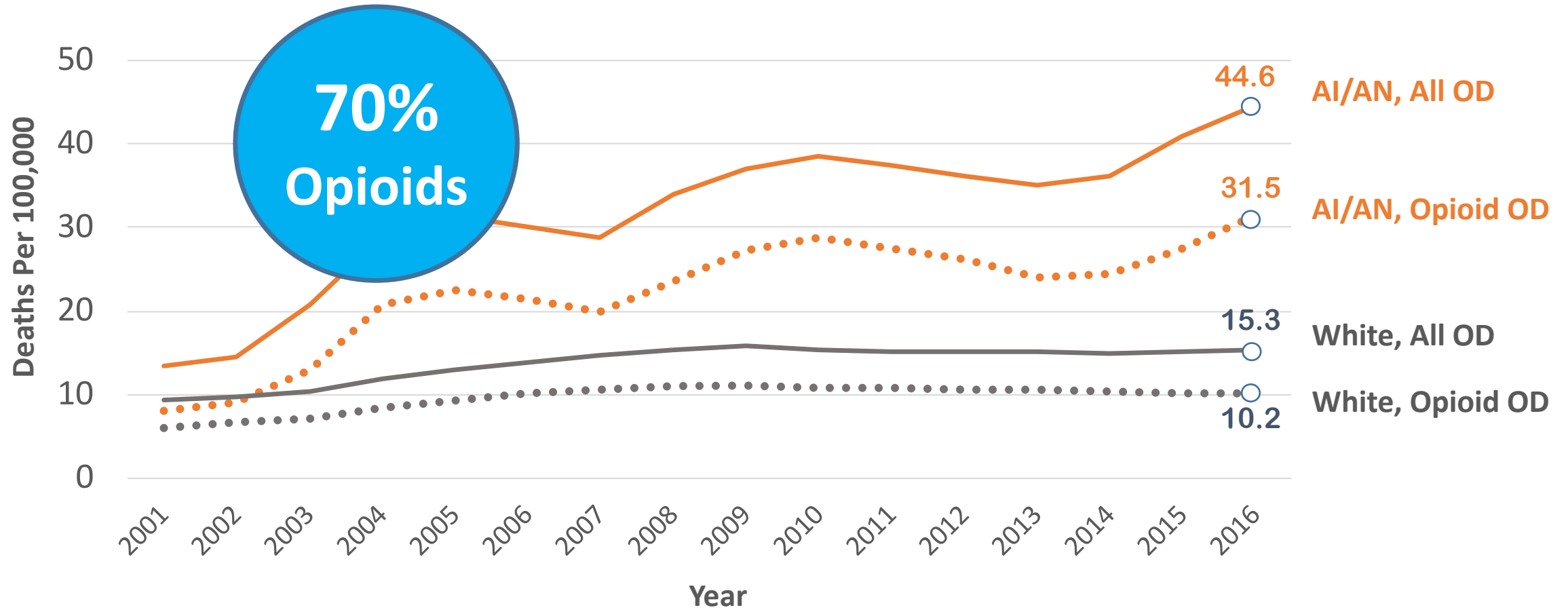


What Drugs are Involved?





Washington State Drug Overdose Deaths: What Drugs are Involved?

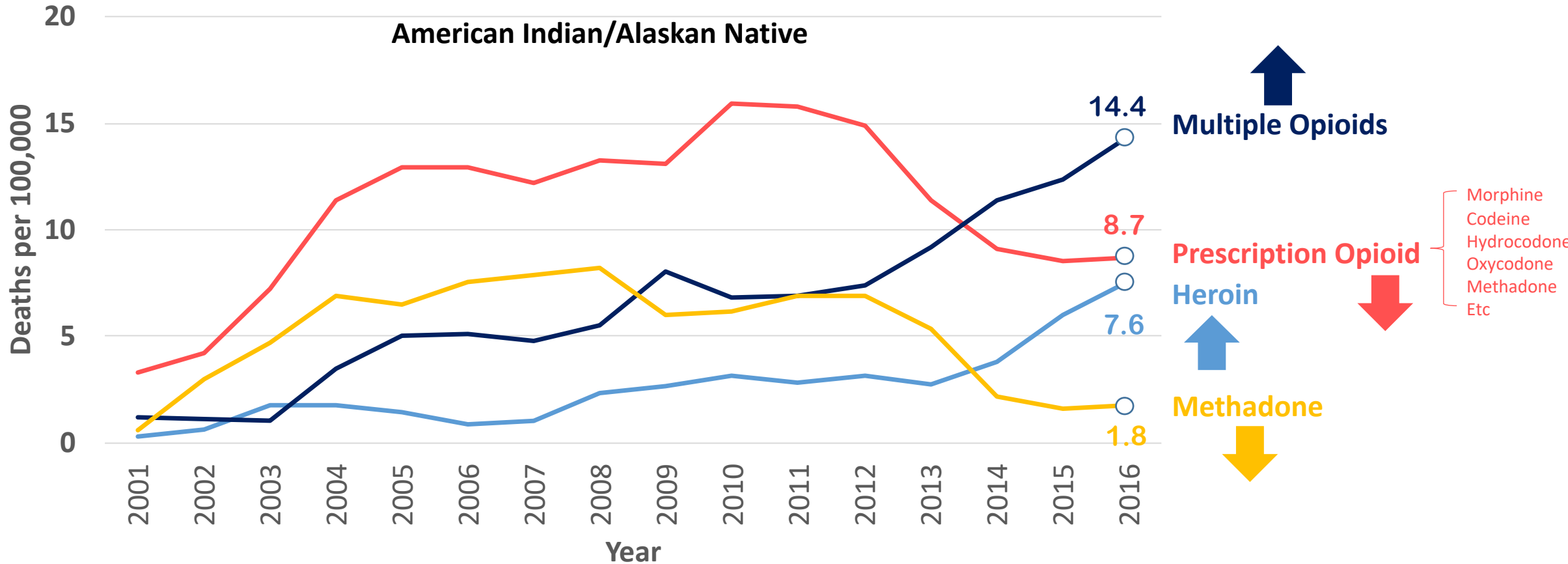


Age Adjusted Rates per Washington State Death Certificates, 3-Year Rolling Averages





Washington State Opioid Overdose Deaths: Which Opioids?

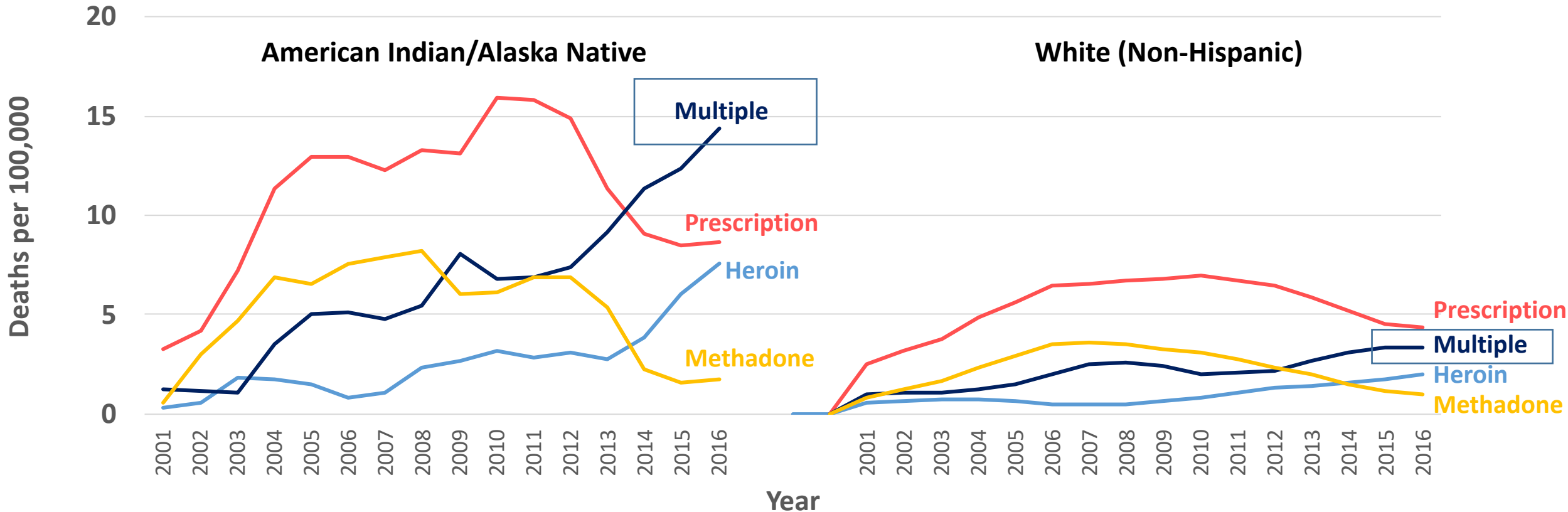


Age Adjusted Rates per Washington State Death Certificates, 3-Year Rolling Averages





Washington State Opioid Overdose Deaths: Which Opioids? AI/AN vs White

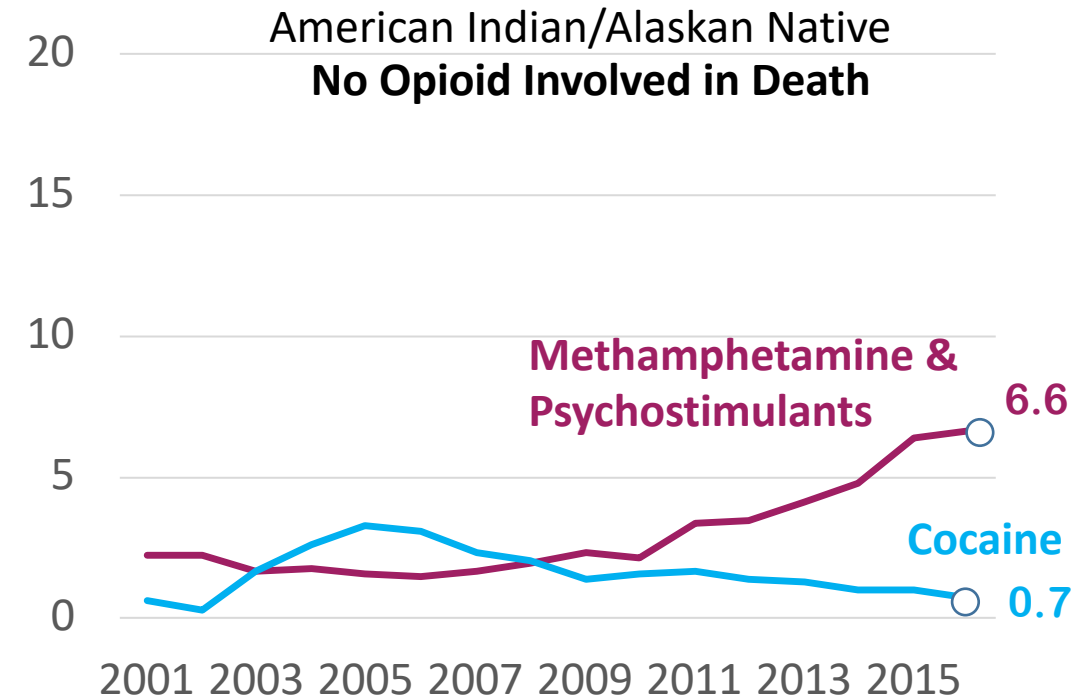


Age Adjusted Rates per Washington State Death Certificates, 3-Year Rolling Averages





Washington State Overdose Deaths: Other Drugs?

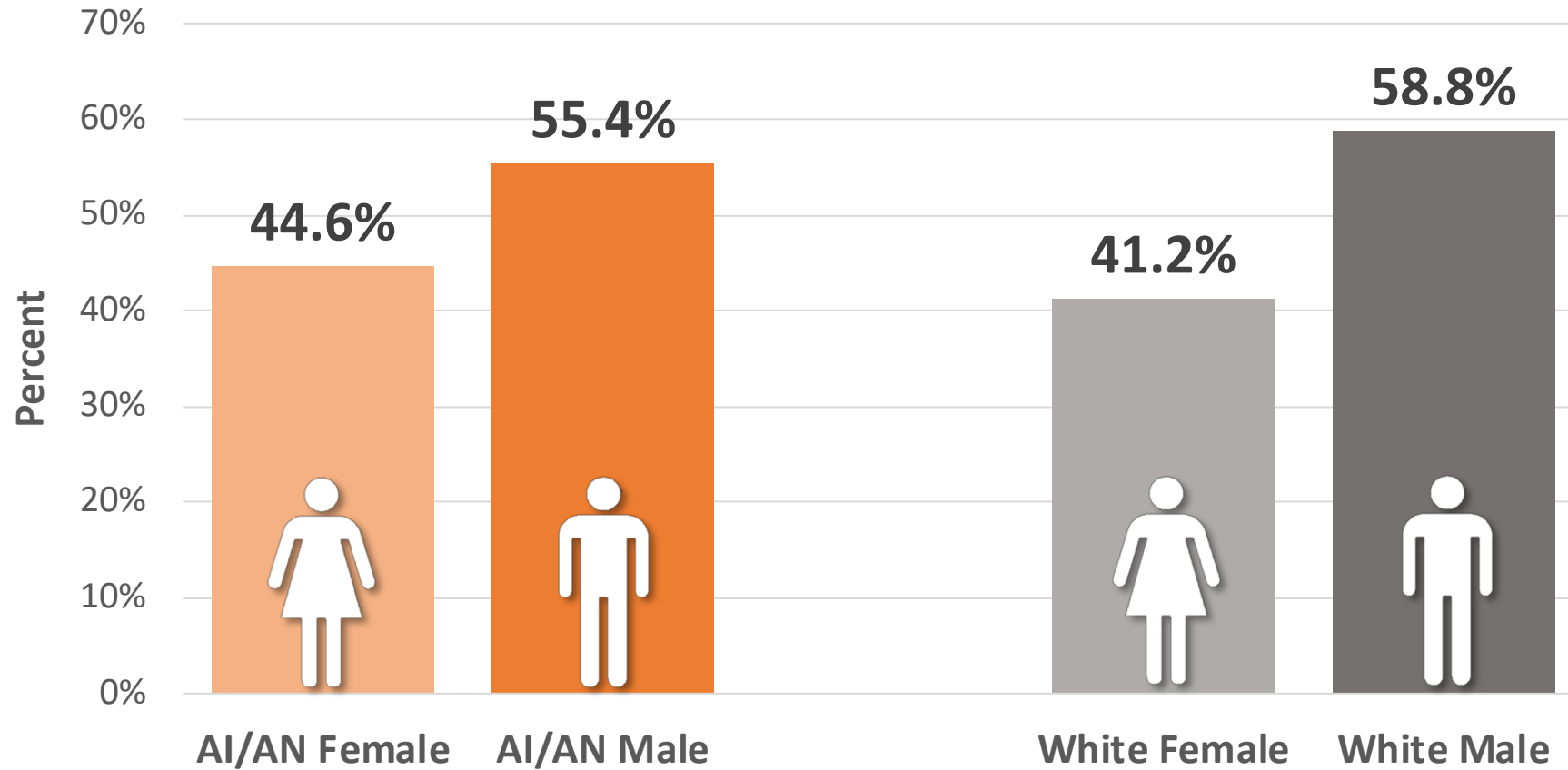


Age Adjusted Rates per Washington State Death Certificates, 3-Year Rolling Averages





Washington State Overdose Deaths: By Sex and Race

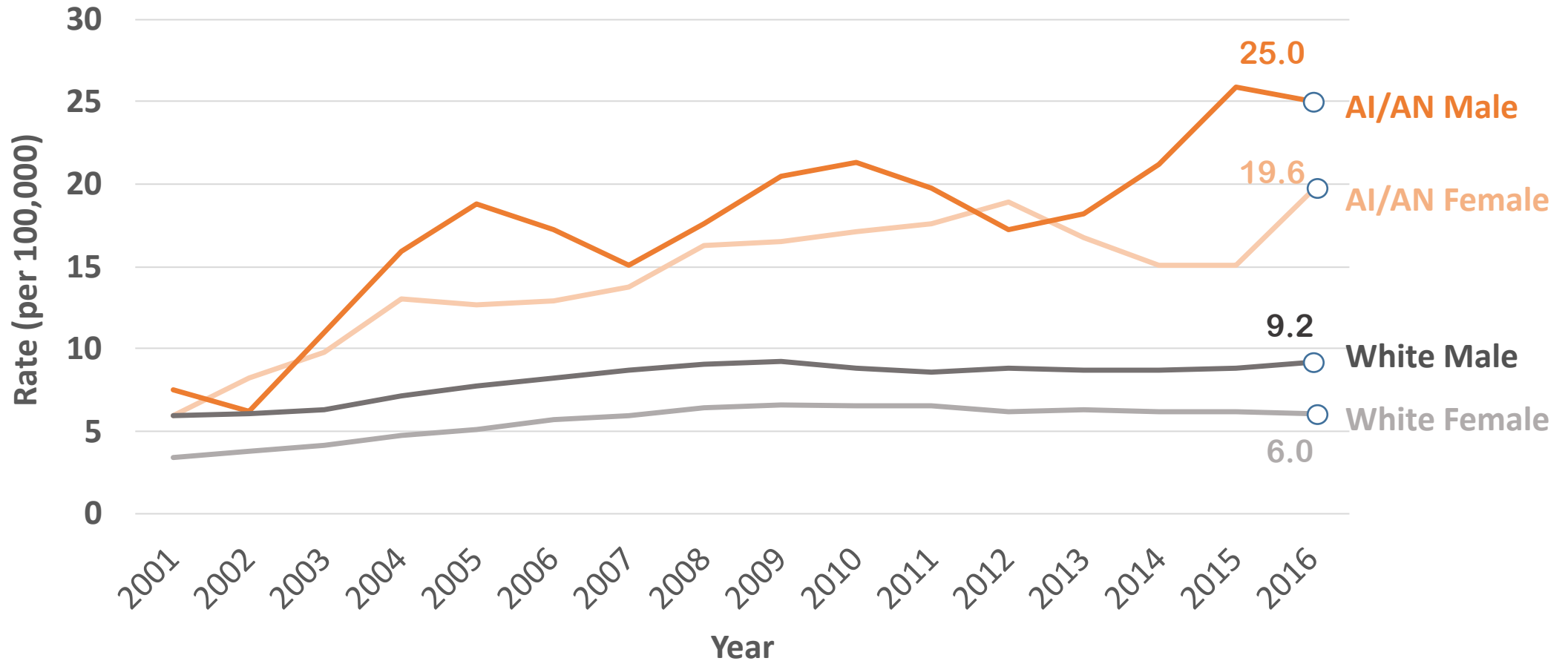


Percent of Deaths per Washington State Death Certificates, 1999-2016





Washington State Overdose Deaths: By Sex and Race Over Time

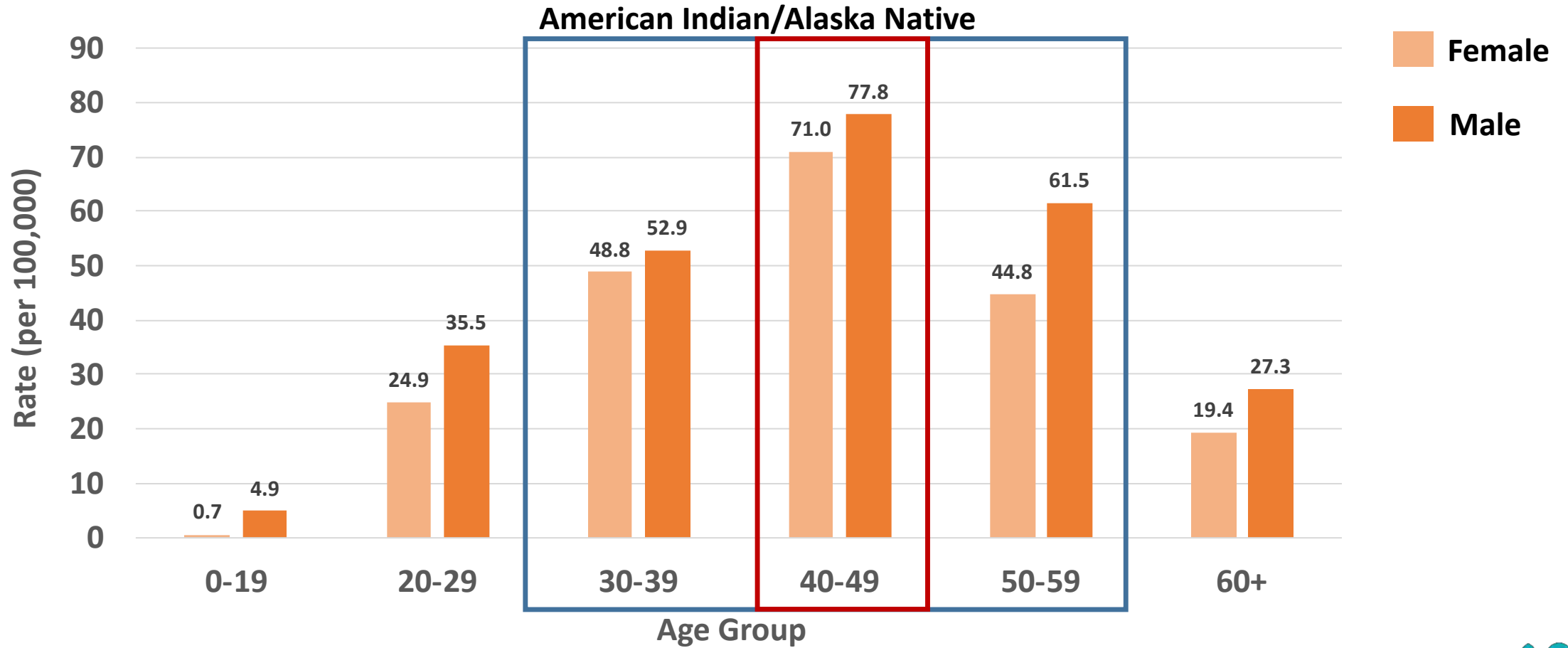


Age Adjusted Rates per Washington State Death Certificates, 3-Year Rolling Averages 1999-2016





Washington State Overdose Deaths: By Age and Sex

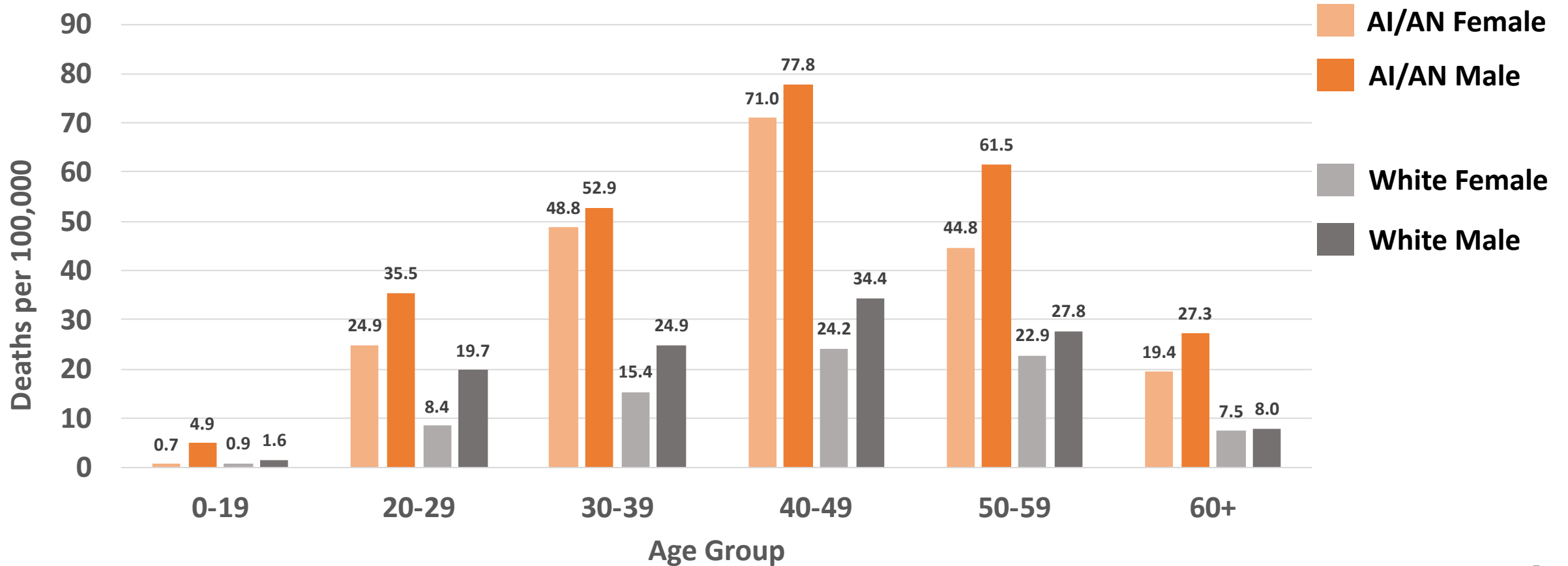


Age Adjusted Rates per Washington State Death Certificates, 1999-2016





Washington State Overdose Deaths: By Race, Age, and Sex

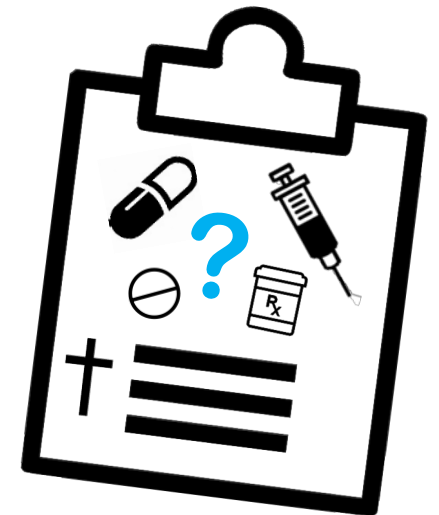


Age Adjusted Rates per Washington State Death Certificates, 1999-2016



Opioid and Overdose Epidemiology Data Challenges

- Racial misclassification
 - Many AI/AN are not classified as AI/AN in state data systems = **underrepresentation** of burden on AI/AN
- Limited access to behavioral health/treatment data
 - Hard to know prevalence of SUD or treatment for SUD
- Difficulty obtaining tribe-level data
 - Can only provide regional data
- Inconsistency in overdose cause of death reporting
 - What drug(s) actually involved?

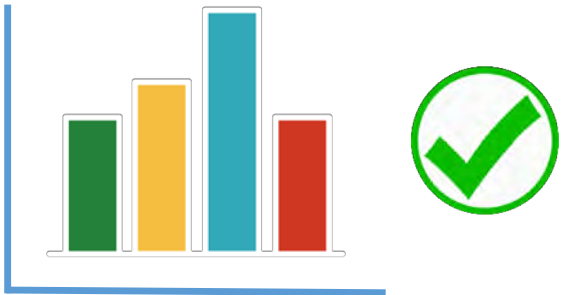
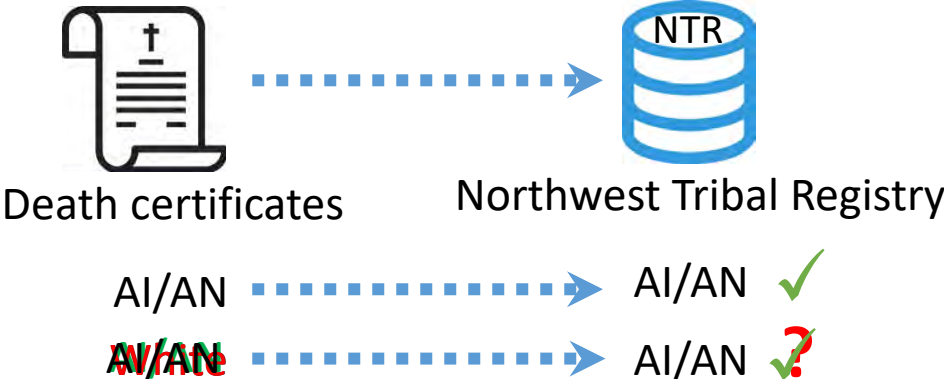


Racial Misclassification: What we do about it

✓ We fix race in the data

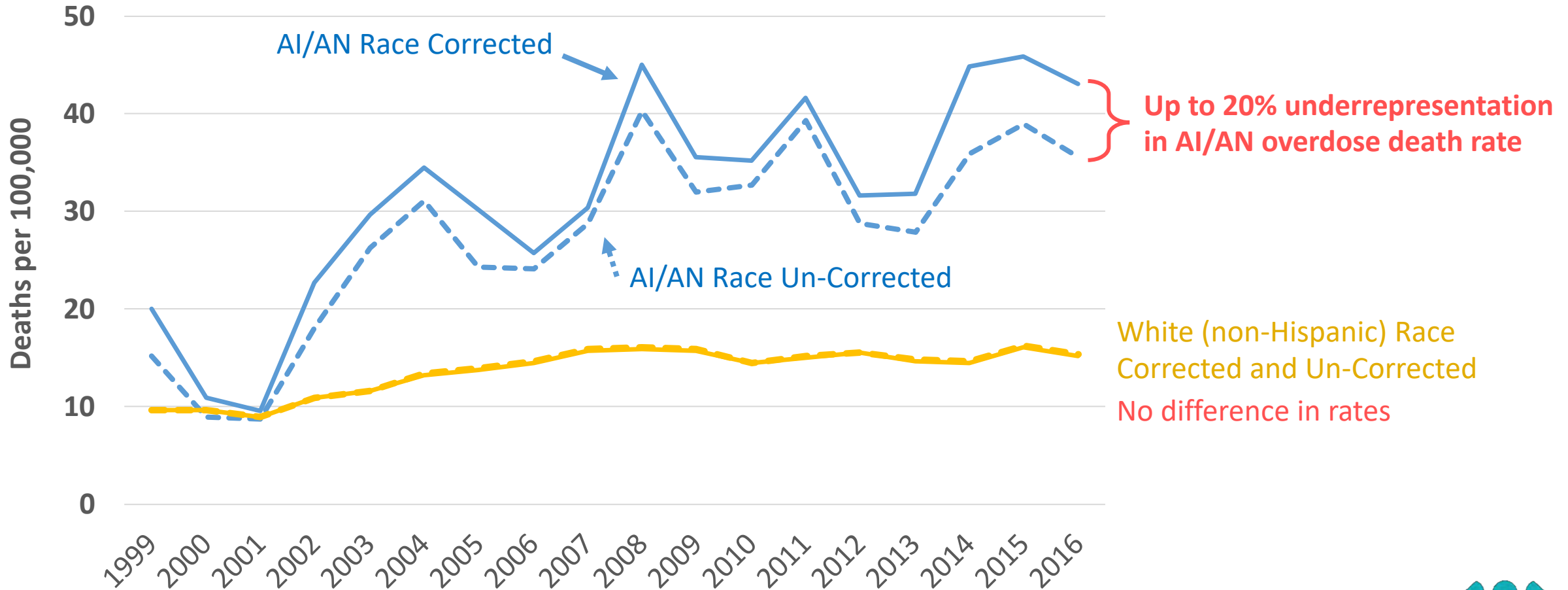
Process:

- 1. Obtain state data, like death certificates
- 2. Link data with the Northwest Tribal Registry
- 3. Check if AI/AN is indicated on one database but not the other
- 4. Correct racial classification
- 5. Do our own statistics with the corrected data





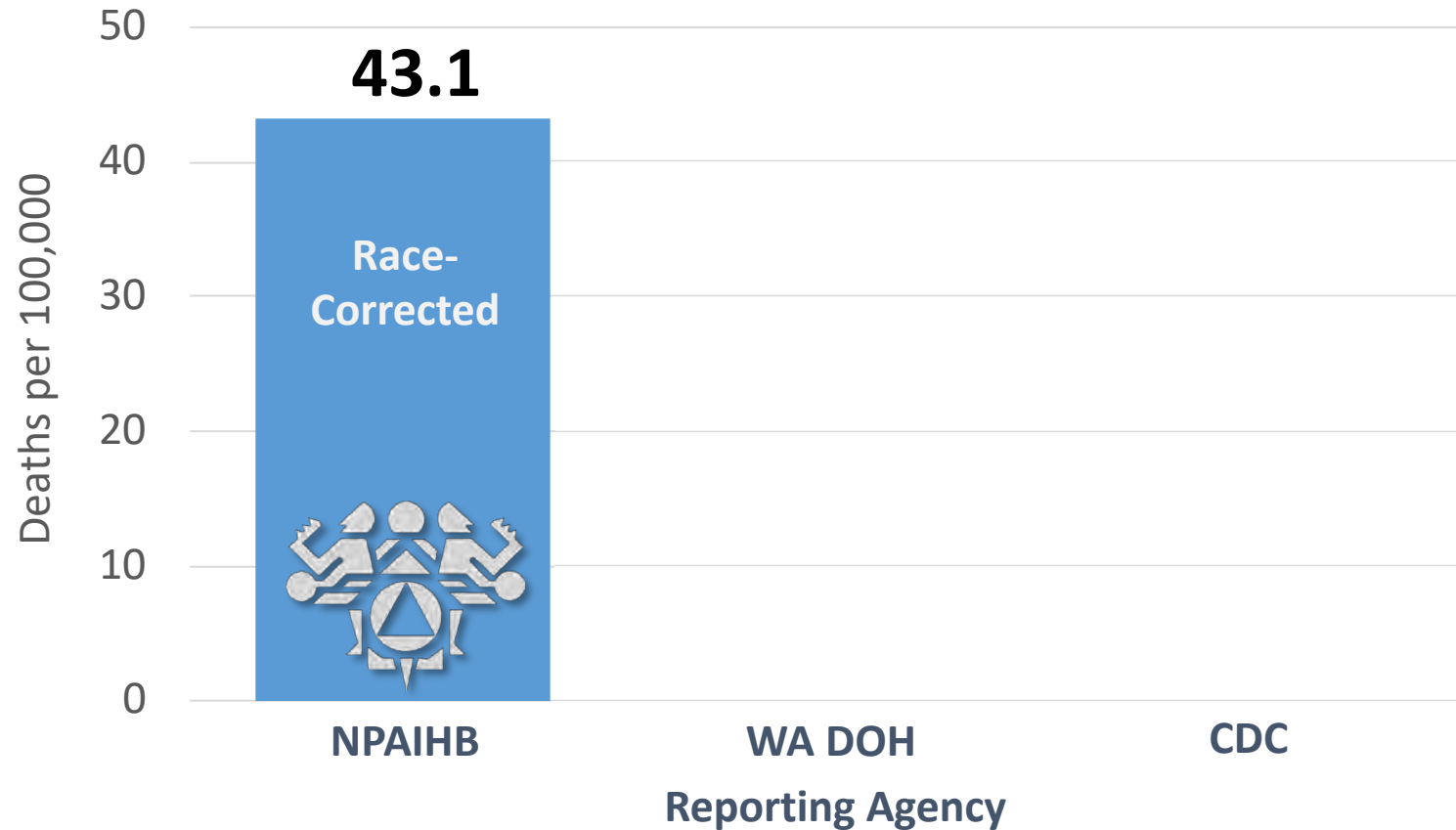
Washington State Drug Overdose Deaths: Race Corrected vs Race Un-Corrected





Washington State Drug Overdose Deaths: by Reporting Agency

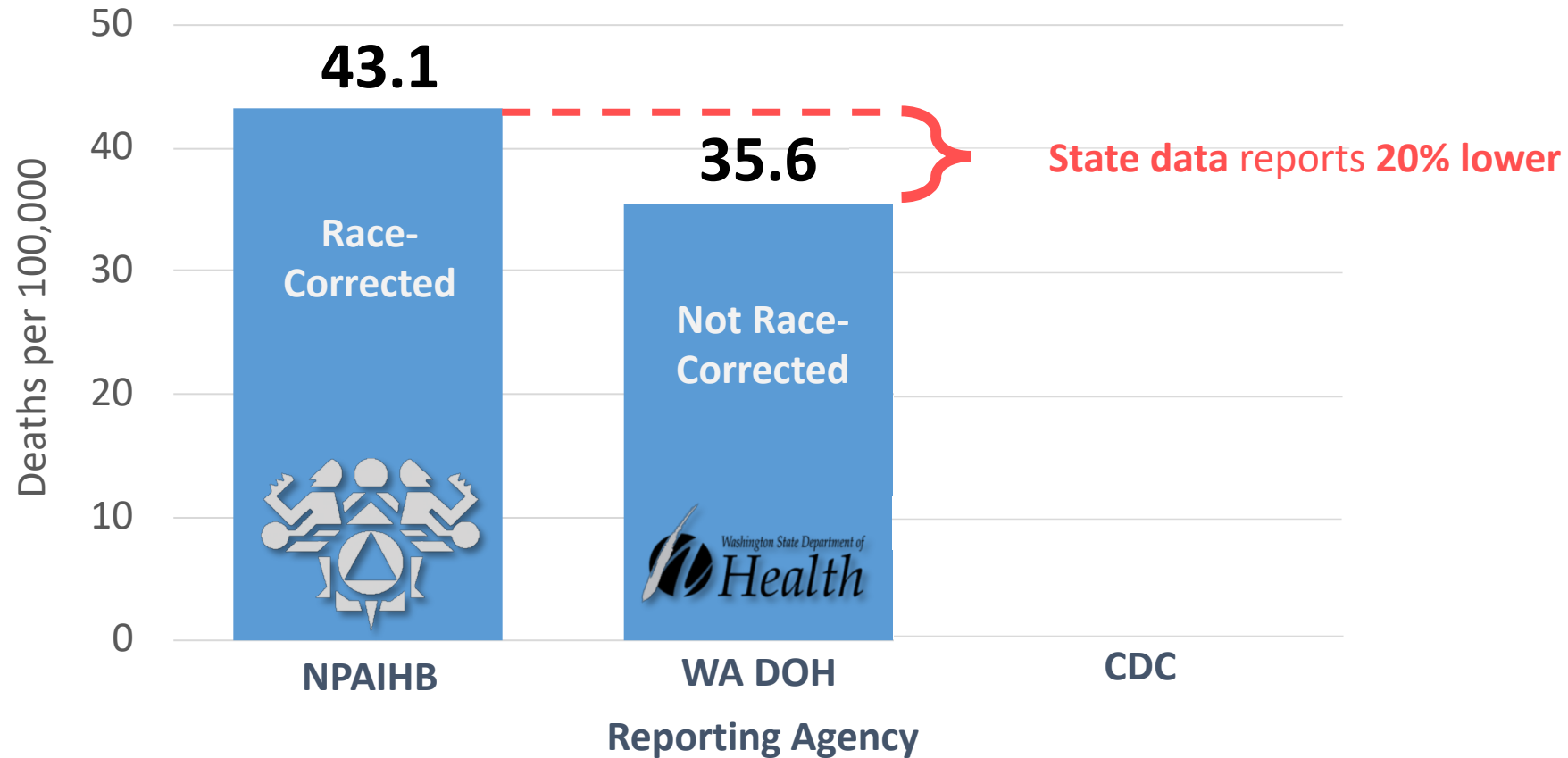
2016 AI/AN Drug Overdose Death Rate in Washington





Washington State Drug Overdose Deaths: by Reporting Agency

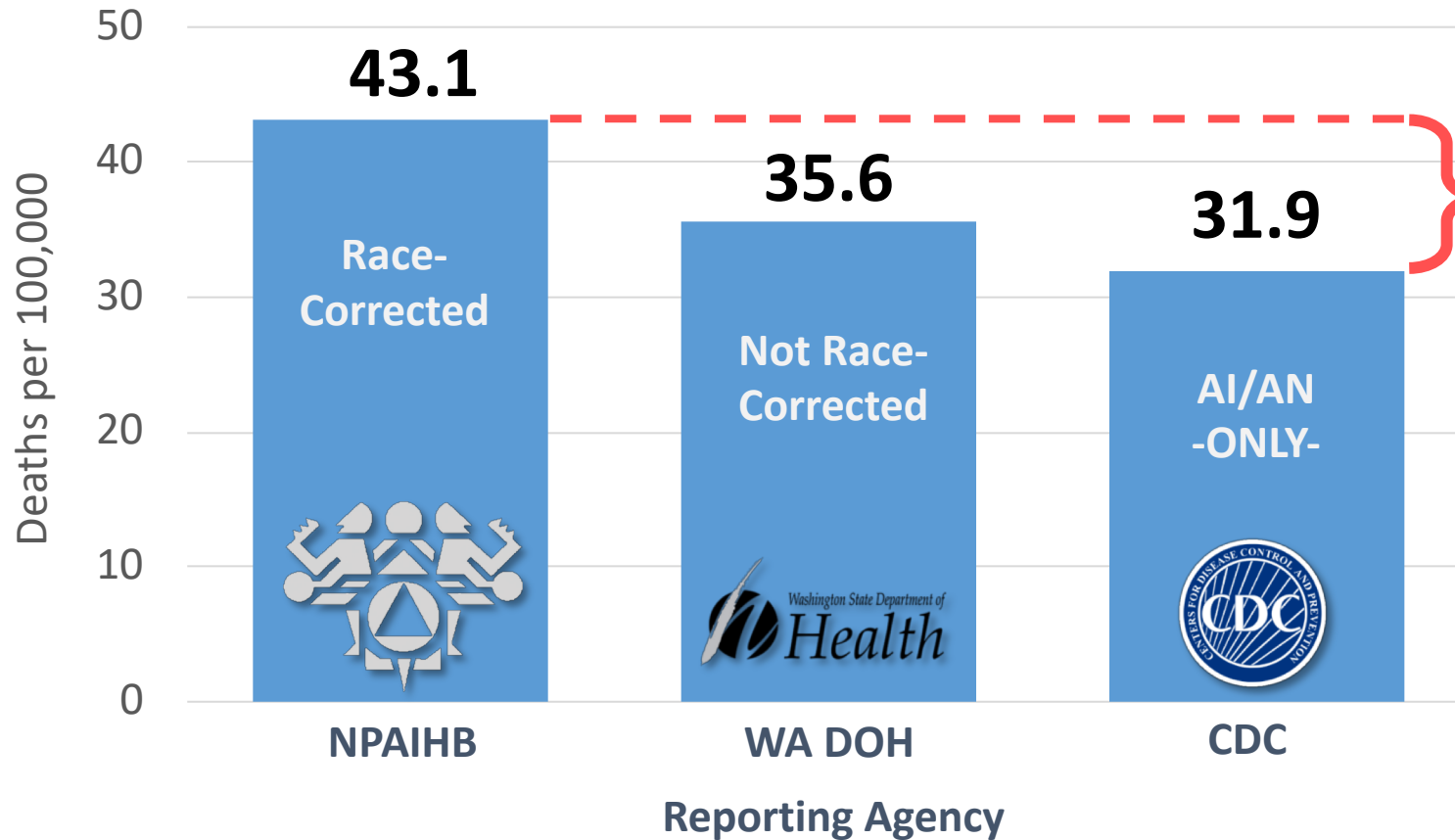
2016 AI/AN Drug Overdose Death Rate in Washington





Washington State Drug Overdose Deaths: by Reporting Agency

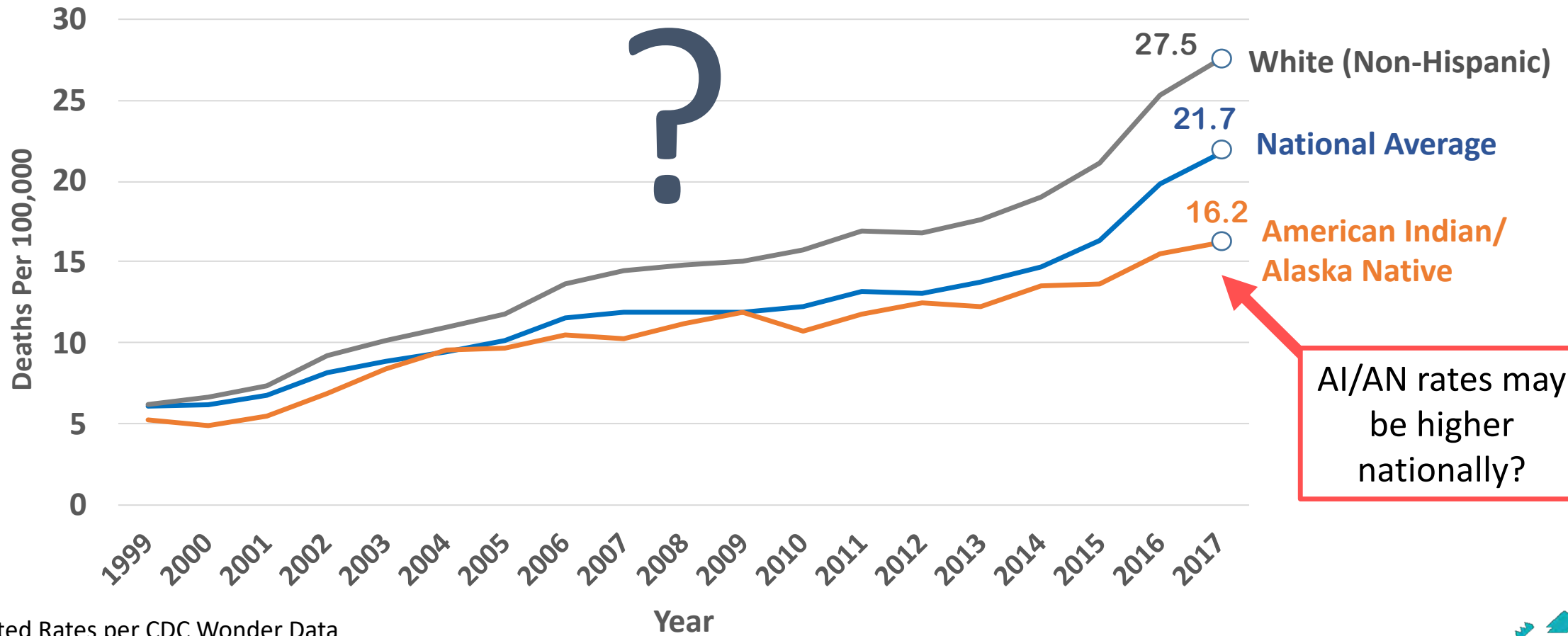
2016 AI/AN Drug Overdose Death Rate in Washington



National data reports 30% lower



National Drug Overdose Deaths: By Race



AI/AN rates may be higher nationally?

Age Adjusted Rates per CDC Wonder Data



Take Away Messages

- Deaths from drug overdoses are increasing
- Most overdose deaths involve opioids
- People aged 40-49 have the most overdose deaths
- Nationally, AI/AN have a lower overdose death rate than whites
- In Washington, AI/AN have the highest overdose death rate (3x whites)
- National and state statistics may significantly underestimate AI/AN statistics



Thank You!

Questions?

Heidi Lovejoy, MSc

Substance Use Epidemiologist

Northwest Portland Area Indian Health Board

HLovejoy@NPAIHB.org



Why use rates?

To compare across groups with different sized populations

Scenario:

Group A:
1,000 people

Group B:
100 people

50 people die of a disease in both groups.
Same **number** of deaths.

Group A:
 $50/1,000 = 5\%$ died.
Not good.

Group B:
 $50/100 = 50\%$ died.
Really bad!!

This is why we use rates – to compare across populations

