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

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National Drug Overdose Deaths: Trend Since 1999

Age Adjusted Rates per CDC Wonder Data
National Drug Overdose Deaths: Trend Since 1999

Age Adjusted Rates per CDC Wonder Data

3.6x Increase
National Public Health Emergency Declared in 2017
### National Drug Overdose Deaths: By Race

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<thead>
<tr>
<th>Year</th>
<th>White (Non-Hispanic)</th>
<th>National Average</th>
<th>American Indian/Alaska Native</th>
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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

American Indian/Alaska Native: 43.1
White (Non-Hispanic): 15.3
Washington State: 15.4

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

Dead Deaths Per 100,000

Year


Deaths Per 100,000

Washington State:

American Indian/Alaska Native:

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

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What Drugs are Involved?
Washington State Drug Overdose Deaths: What Drugs are Involved?

70% Opioids

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

- Multiple Opioids
- Prescription Opioid
- Heroin
- Methadone
- Morphine
- Codeine
- Hydrocodone
- Oxycodone
- Methadone
- Etc
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

- **American Indian/Alaskan Native**
  - Cocaine: 0.7 (2001), 6.6 (2015)

Remove Opioids

- **American Indian/Alaskan Native**
  - Cocaine: 0.7 (2001), 0.7 (2015)
Washington State Overdose Deaths: By Sex and Race

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

- AI/AN Female: 44.6%
- AI/AN Male: 55.4%
- White Female: 41.2%
- White Male: 58.8%
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

Up to 20% underrepresentation in AI/AN overdose death rate

White (non-Hispanic) Race Corrected and Un-Corrected
No difference in rates
Washington State Drug Overdose Deaths: by Reporting Agency

2016 AI/AN Drug Overdose Death Rate in Washington

Deaths per 100,000

43.1

Race-Corrected

NPAIHB
WA DOH
CDC

Reporting Agency
Washington State Drug Overdose Deaths: by Reporting Agency

2016 AI/AN Drug Overdose Death Rate in Washington

- **Race-Corrected**
  - NPAIHB: 43.1
  - WA DOH: 35.6
  - State data reports 20% lower

- **Not Race-Corrected**

Reporting Agency:
- NPAIHB
- WA DOH
- CDC
2016 AI/AN Drug Overdose Death Rate in Washington:

- **Race-Corrected**
  - NPAIHB: 43.1
  - WA DOH: 35.6
  - CDC: 31.9

**National data reports 30% lower**

**Reporting Agency**
- NPAIHB
- WA DOH
- CDC
National Drug Overdose Deaths: By Race

Deaths Per 100,000

Year


White (Non-Hispanic) 27.5
National Average 21.7
American Indian/Alaska Native 16.2

AI/AN rates may be higher nationally?

Age Adjusted Rates per CDC Wonder Data

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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?

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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