

National Indian Health Board

Data Seminar

National Tribal Health Conference Oklahoma City, OK

September 17, 2018





Data to improve Indian Health

Outline of the Seminar

- 1. Visualizing Data sets
- 2. Population
- Health Insurance Status
- Health Status
- 5. Grant writing, Health Planning and Advocacy (at the end)
- 6. Review of the Appendix





Existing Data Sets with American Indians / Alaska Natives (AIAN)

US Census

Decennial Enumeration, Count of All Residents

Annual Population Estimates based on Births, Deaths, Immigration

Annual American Community (ACS) Survey, 16,000 households, 64,000

- 1 year and 5 year versions:
- 1 year covers fewer geographies and has higher error rate,
- 5-year covers nearly all geographies (including counties and metro areas)
 and has lower error rate
- 5-year can underestimate changes as it pools over the 5 years
 - Example underestimates increase in insurance coverage change 2013 to 2017





CDC (Centers for Disease Control and Prevention)

- Often American Indians and Alaska Natives' data is not reported
 - BRFSS Behavioral Risk Factor Survey-has American Indian and Alaska Native data
 - Some larger studies and prevention efforts do include <u>Indian Data</u> (see next slide)
 - Opioids recent expansion, but a long recognized issue (pain meds)

CMS (Centers for Medicare and Medicaid)

- Medicare, enrollment, expenditures, chronic conditions reporting
- Medicaid, more difficult since States collect the data and then send it to (CMS)
- Can compare administrative (claims and payments)data to US Census including ACS estimates
- MSIS, Statistical Information System (now Transformed or T-MSIS)
- Rural Health Strategy, a new focus on rural America.





<u>Tribal EpiCenters</u> –reports by Areas of IHS

Racial Misclassification Studies

Community Health Profiles

Regional (Area) Reports

State Data Sources:

Medicaid Agencies an important source of data since it is more up-to-date than CMS data sets. Examples Arizona, Washington, Oklahoma, Oregon.

Departments of Health. In states with large AIAN populations often have Indian specific data that is not available elsewhere.

Universities and Non-Profits: Examples

Robert Wood Johnson County level health ranking

University of Washington, **Institute for Health Metrics and Evaluation**



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Indian Data, from Indian Country and CDC Working Together 2016.

Stilwell, OK... has the lowest life expectancy in the country — just 56.3 years.

That means folks there are expected to die 22.5 years — an entire generation — earlier than the comparable national average of 78.8 years Sept 14, 2018... Washington Post.



Some of the health and socioeconomic disparities that face American Indians and Alaska Natives include:

- American Indians and Alaska Natives born today have a life expectancy that is 4.4 years less than all US races (73.7 years to 78.1 years, respectively).
- American Indians and Alaska Natives have the second highest infant mortality rate after non-Hispanic blacks.
- American Indians and Alaska Natives have the highest prevalence of diabetes in the United States, more than twice the prevalence of diabetes among non-Hispanic whites.
- American Indians and Alaska Natives have higher infectious disease death rates than non-Hispanic whites.
 - Some of the greatest infectious disease death rate disparities are found in remote and isolated regions of the United States, including Alaska, the Northern Plains, and Southwest regions. Remoteness, isolation, lack of adequate sanitation, and other factors contribute to these disparities.
 - Incidence rates of 14 of 26 notifiable infectious diseases were higher for American Indians and Alaska Natives compared to non-Hispanic whites.
- American Indian and Alaska Native youth and adults have the highest prevalence of commercial cigarette smoking among all racial or ethnic groups in the United States.
 - Cigarette smoking varies widely by region, with lower prevalence in the Southwest and higher prevalence in the Northern Plains and Alaska.
 - American Indians and Alaska Natives have the lowest rate of cigarette smoking quit attempts among all racial or ethnic groups in the United States.
- American Indian and Alaska Native adults are 50% more likely to have obesity than non-Hispanic white adults.

- American Indians and Alaska Natives have the highest percentage of current heavy alcohol users compared to other racial and ethnic groups in the United States.
- The suicide rate among American Indian and Alaska Native adolescents and young adults ages 15 to 34 is 1.5 times higher than the national average for that age group.
- Motor vehicle crashes are a leading cause of unintentional injury for American Indians and Alaska Natives ages 1 to 44. American Indian and Alaska Native adults are 1.5 times more likely to die in a crash than white or black Americans.
- More than 26% of American Indians and Alaska Natives lived in poverty in 2015, the highest rate of any racial group. For the nation as a whole, the poverty rate was 14.7%.
- The American Indian and Alaska Native high school graduation rate is 67%, the lowest of any racial or ethnic group across all US schools.

Despite historical and other traumas, American Indians and Alaska Natives—and much of their cultures, languages, and practices—have survived. During the 20th and 21st centuries, American Indians and Alaska Natives rebuilt their nations, adapted to cultural and economic pressures and opportunities, overcame adverse and destructive policies, and today are a growing, dynamic and resurgent part of the United States.



Data Sets:

US Census

- American Community Survey
 - 1 year,
 - 5 year,
 - Small 'n' of American Indians and Alaska Natives

Vital Statistics

- Mortality
- Life Expectancy
- Cause of Death
 - Misclassification results in a bias with American Indian and Alaska Native underreported

Administrative Data

- Expenditures
- Scorecards, Benchmarks, Reports
- GPRA, Government Reporting and Results Act





Data Visualizations

- 1. What is a data visualization?
- 2. How are they created?
- 3. Where does the data come from?
- 4. Examples of Visualizations from the US Census Am. Community Survey.
- 5. How can viewer also manipulate the data?
- 6. How are visualizations shared?





Data Visualizations

- •It is now possible to easily produce and provide data in a visual format that allows the viewer to further analyze the data online (or download).
- Software now allows you to visualize data by simply dragging and dropping data elements. I use Tableau software for this presentation.
- •It is important to note that the viewing of the data is typically online, not in written reports, although data presentations can be downloaded.





Digital Data Brief examples

Population

State and County (1 yr and 5 yr ACS estimates)

Medicaid

Medicare

Health Status

Mortality

- Liver disease
- Drug Use
- Infectious Diseases (TB, HIV, HCV,)

Disease Prevalence-Diabetes





AIAN Population





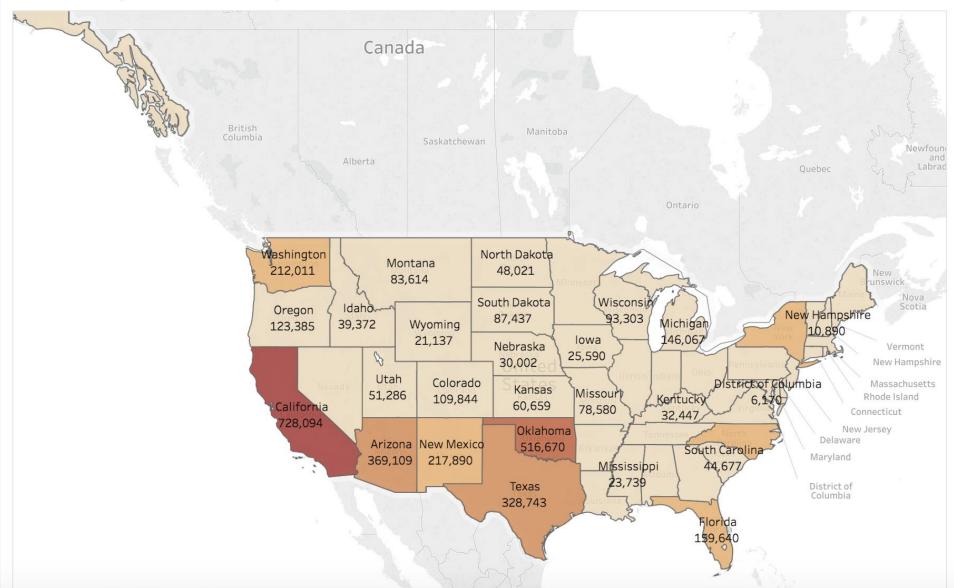
American Indian and Alaska Native Population

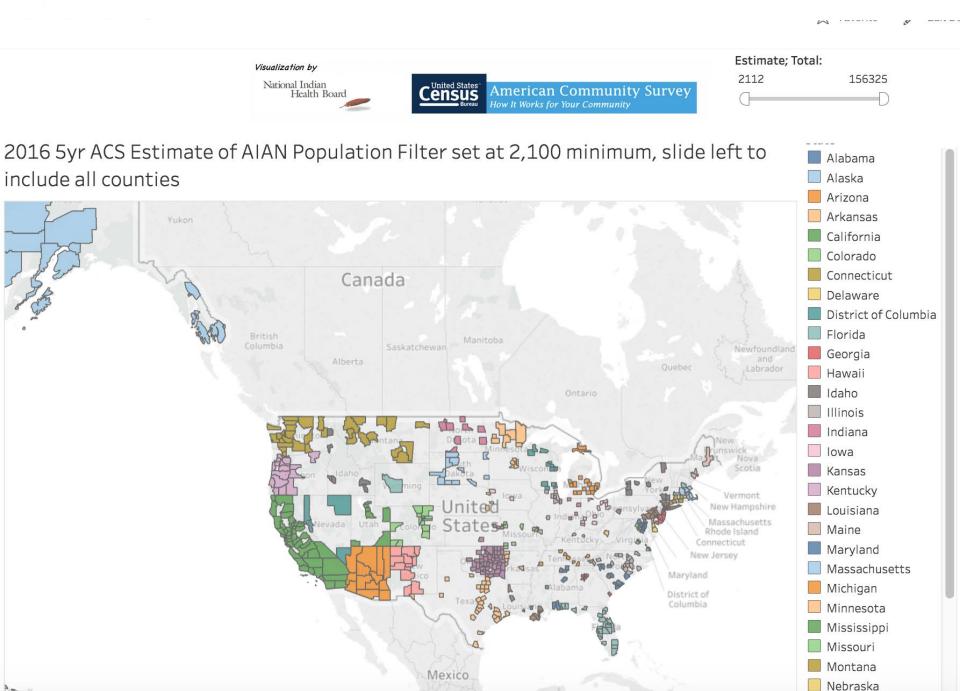






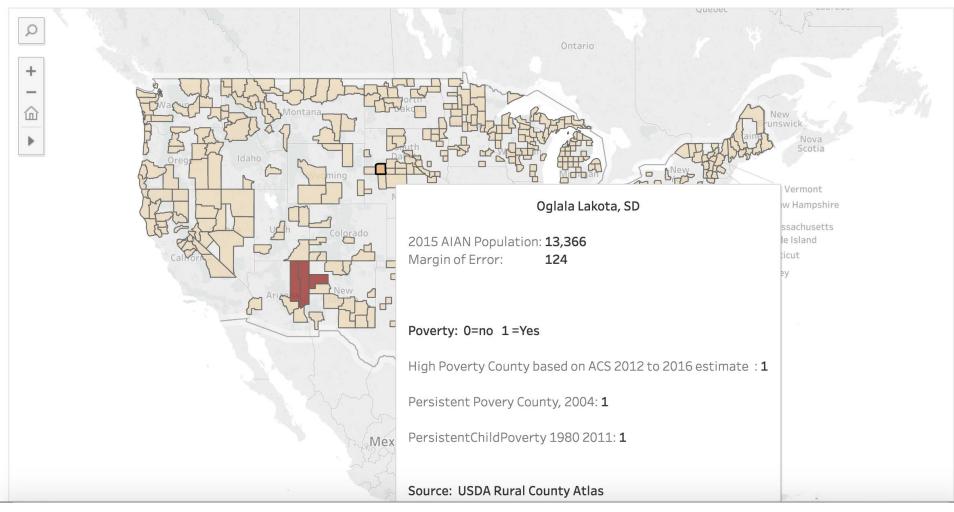
2016 ACS 5-yr Estimate of Population with Error Rate





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Are Rural Counties where 1.8 Million AIANs reside high poverty Counties?







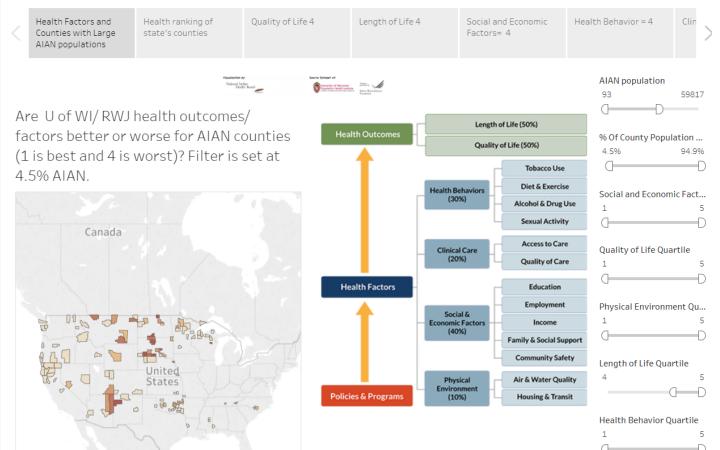
Health Insurance Status

MEDICAID AND MEDICARE
UNINSURED





A close look at Health Outcomes / Factors in Counties with Indian Population over 4.5%



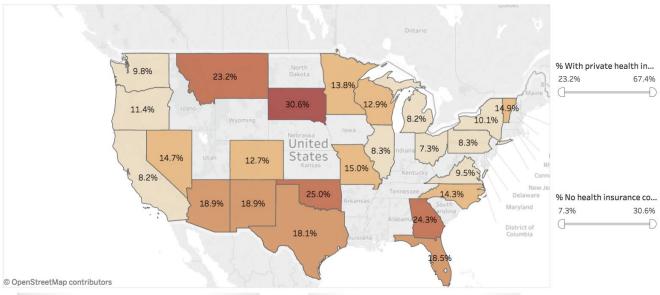


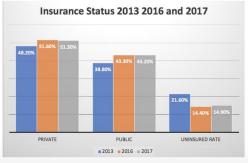


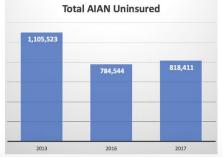


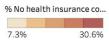


2017 American Community Survey Estimate of AIAN Population, Civilian Uninsured, and Private and Public Coverage (Sept 13, 2018 Data Release) 2017 Uninsured Rate





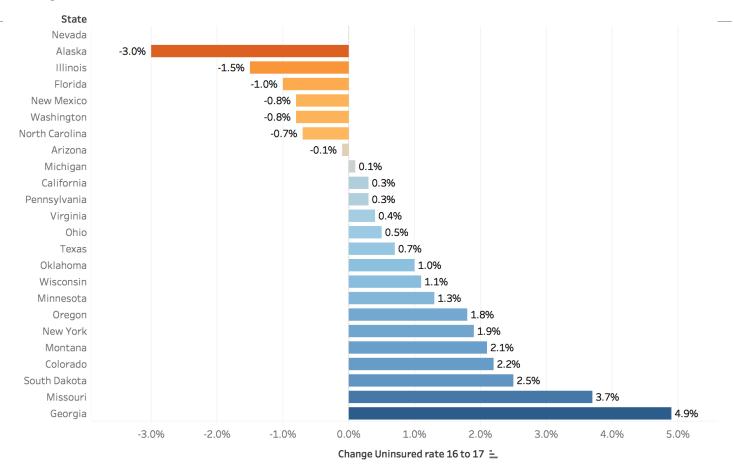








Change in rate of Uninsured 2016 to 2016







Visualization by
National Indian
Health Board

Census

American Community Survey

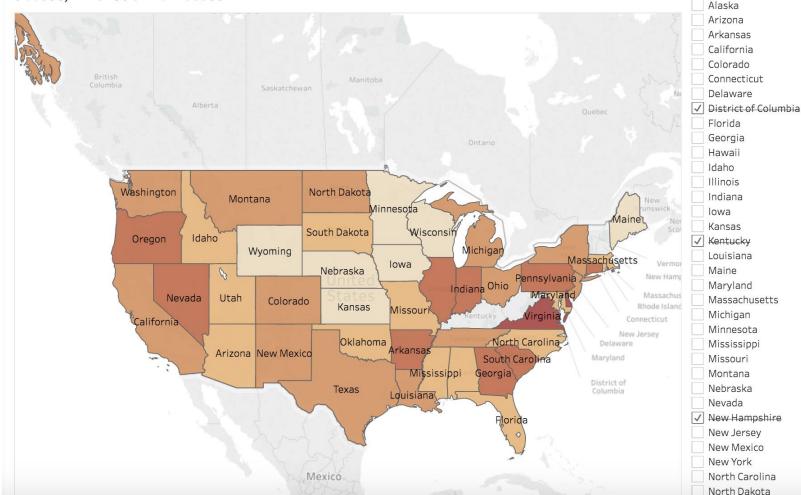
Now It Works for Your Community

State 2016

(All)

Alabama

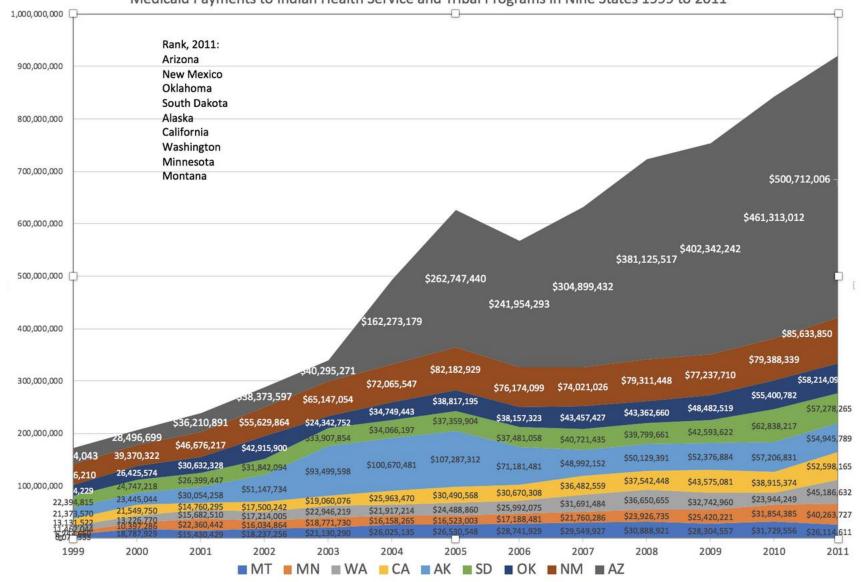
AIAN Medicaid Enrollment ACS 1-yr estimates 2010 to 2016 set for Total; with IHS access, without IHS Access











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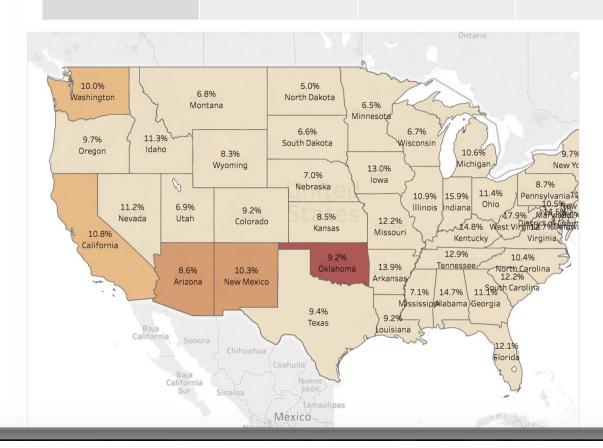
AIANs 65 years and older by IHS and Medicare Status 2016

What % of AIANs are 65 and older and do they have Medicare?

How many AIANs aer there with Access to IHS and how many of them have Medicare?

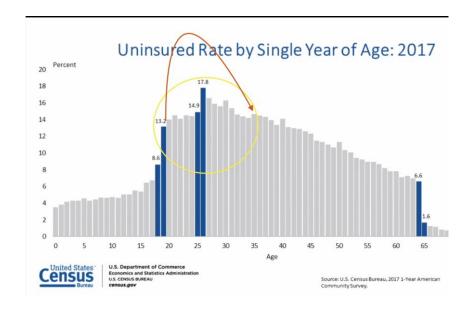
What % of ALL AIANs are 65 and older and what % with IHS access are 65 and older?

121,000 of 126,000 65 and older with IHS have Medicare

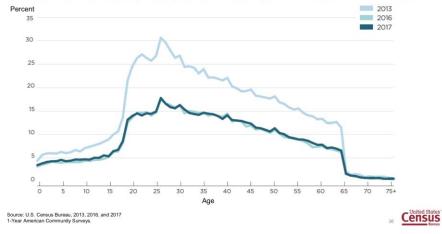








Uninsured Rate by Single Year of Age: 2013, 2016, and 2017

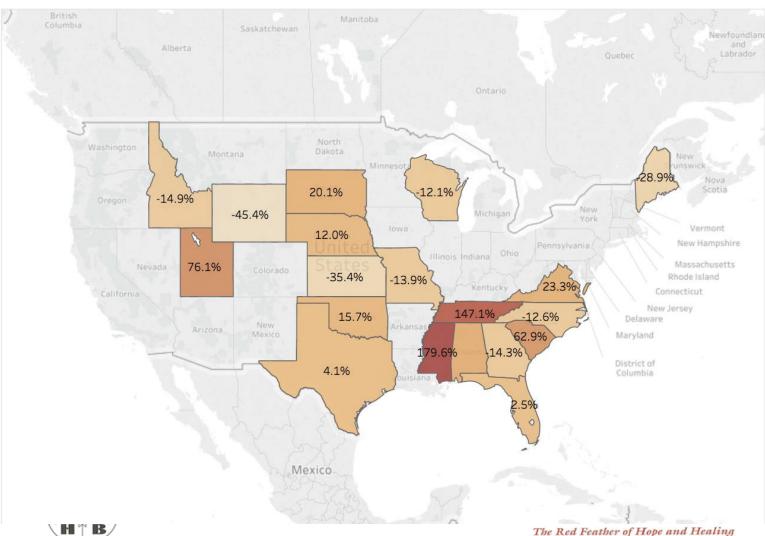




National Indian



19 to 35 year old AIANs Medicaid Enrollment in States that did not Expand Medicaid: Increase in Medicaid 2012 to 2016



Medicaid Expansion?

(AII)

✓ no yes

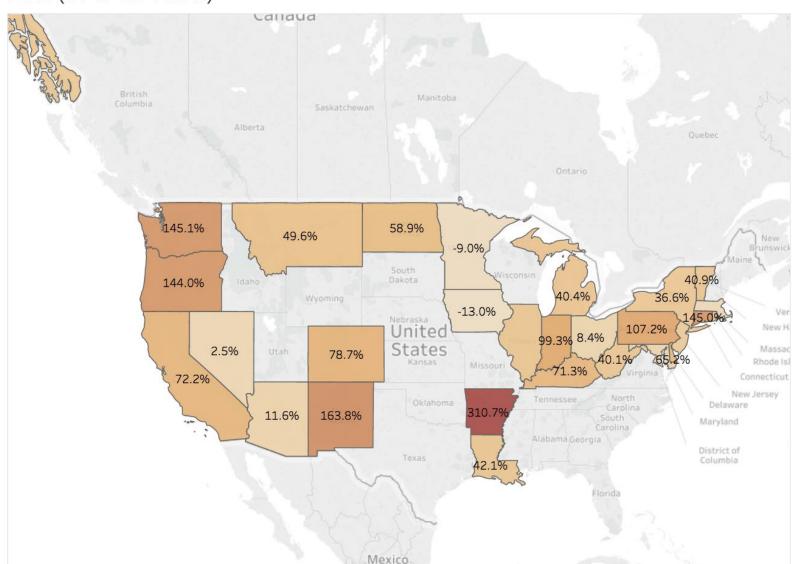
% Change Medicaid 12-16

-45.4%

179.6%



19 to 35 year old AIANs in Medicaid Expansion States: Increase in Medicaid 2012 to 2016 (VT is US 40.9%)



Medicaid Expansion?

(AII)

no

✓ yes

% Change Medicaid 12-16

-13.0% 310.7%



Health Status: Mortality, Life Expectancy,

CAUSE OF DEATHS: DRUG USE AND ALCOHOL CHRONIC CONDITIONS, DIABETES



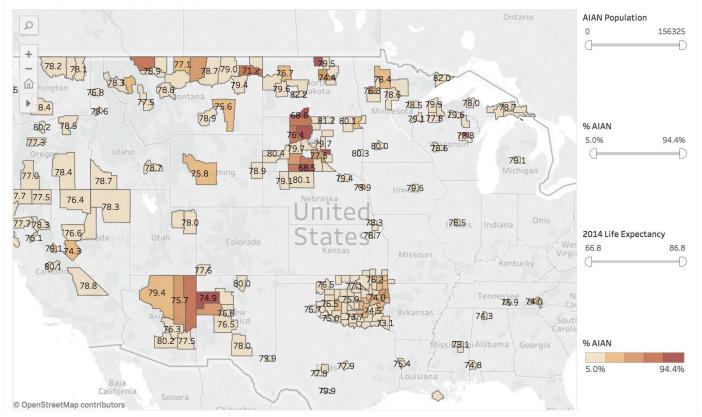
State 1980 to 2014 Mortality AIAN population (AII) ✓ Alabama ✓ Arizona Arkansas ✓ California ✓ Colorado \$\mathbb{I}_{\times} Connecticut Delaware District of Colum... Florida Georgia New Hawaii ✓ Idaho North Dakota Illinois Indiana County: **Sioux** ✓ Iowa Ve 2014 Life Expectancy: 68 ✓ Kansas New F % change Mortality 1980 to 2014: 3.0% Kentucky RWJ Health Factors Quartile 1: Massa ✓ Louisiana Rhode Is Maine Connecticut County Population: 4,431 Maryland New Jersey 2016 County AIAN Population: 3,771 Massachusetts Delaware % of County AIAN: 85.1% ✓ Michigan ryland ✓ Minnesota Life Expectancy, (95% confidence interval) Life expectancy, 1980* 73.75 (73.73, 73.77) - Split 1: 66.01 2014 Life Expectancy Life expectancy, 1985* 74.72 (74.71, 74.74) - Split 1: 66.58 Life expectancy, 1990* 75.39 (75.38, 75.41) - Split 1: **66.5** 67.00 86.00 Life expectancy, 1995* 75.86 (75.85, 75.88) - Split 1: 66.43 Life expectancy, 2000* 76.94 (76.92, 76.95) - Split 1: 67.39 Life expectancy, 2005* 77.65 (77.61, 77.68) - Split 1: 67.37 % of County AIAN Life expectancy, 2010* 78.82 (78.81, 78.84) - Split 1: 68.34 0.0% 95.0% Mexico ATTR(% of County AIAN) © OpenStreetMap contributors 0.0% 88.0%







US life expectancy 1980 to 2014 with % Change. US 2014 life expectancy is 79.08 years old (all races). US Counties with filter set at minimum 5% of population American Indians and Alaska Natives.



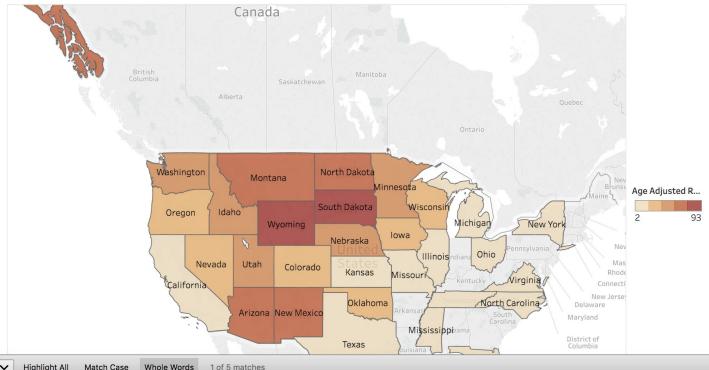




CDC 2015 US Alcohol Death Rate is 9.1 per 100,000



Alcohol-Induced Cause of Death: Death Rates for American Indians and Alaska Natives 1999-2016





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Visualization by

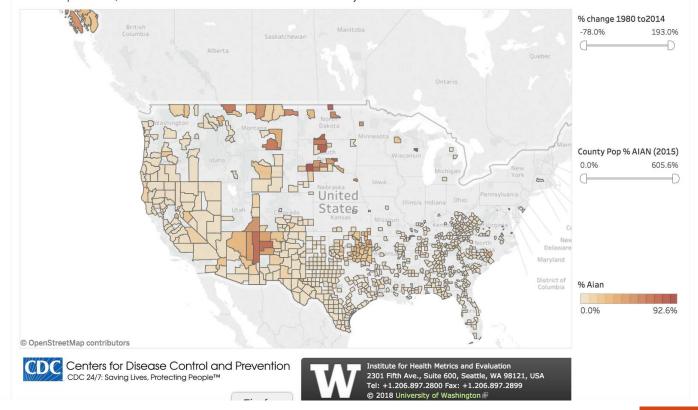


IHME | W UNIVERSITY of WASHINGTON

Institute for Health Metrics and Evaluation (IHME). US Health Map Data Visualization. Seattle, WA: IHME, University of Washington, 2018. Available from http://www.healthdata.org/data-visualization/us-healthmap. Accessed June 19, 2018.

Mortality Rate, 2014 192.7 21.0

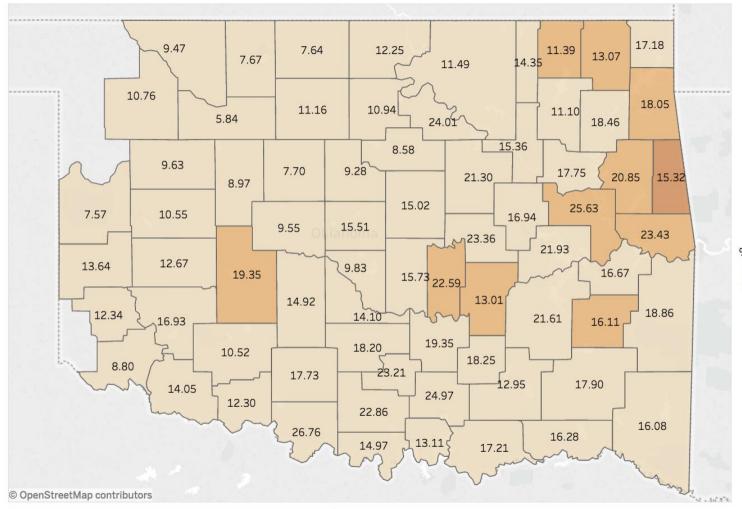
Are deaths from Cirrhosis and LIver Disease higher in Counties with large AIAN populations? Mortality Rates for Cirrhosis and Liver Disease All Races (Filter set at 21 deaths per 100,000 Twice National rate 10.7 in 2016)





1. IHME 2014 Drug Use Mortality Rate (for all races, US avg 10.37) by County for CHSDA Counties with 2015 AIAN Alone and In Combination Population and % of County Population





% of County Pop AIAN

0.02% 85.51%

United States Substance Use Disorders and 03/2018 Intentional Injuries Mortality Rates by County 1980-2014









Institute for Health Metrics and Evaluation (IHME). US Health Map. Seattle, WA: IHME, University of Washington, 2016. Available from http://vizhub.healthdata.org/subnational/usa.

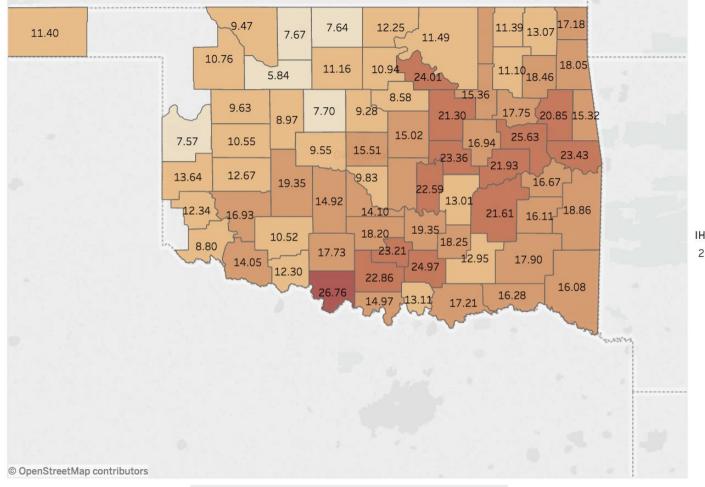
■ IHME | **W** UNIVERSITY of WASHINGTON

Source Dataset at:

IHME 2014 Drug Use Mortality Rate (for all races, US avg 10.37) by County for CHSDA Counties with 2015 AIAN Alone and In Combination Population and % of County Population

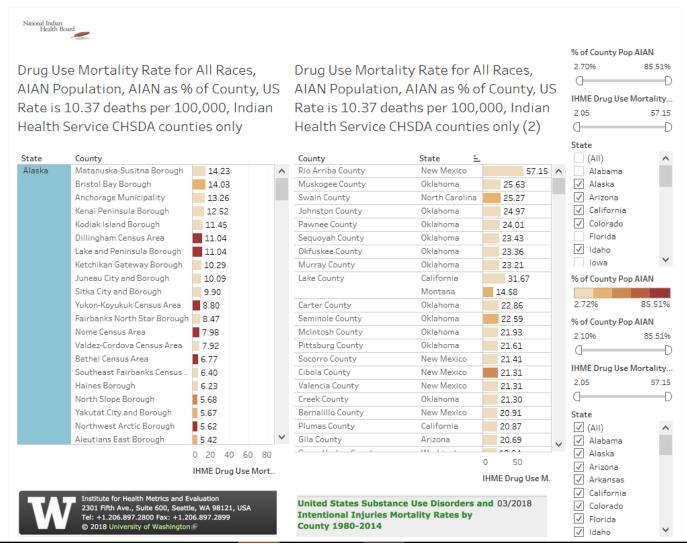
Downloaded by Ed Fox, Access date: July, 2018.

IHME Drug Use Mortality Rate...
2.05 40.00



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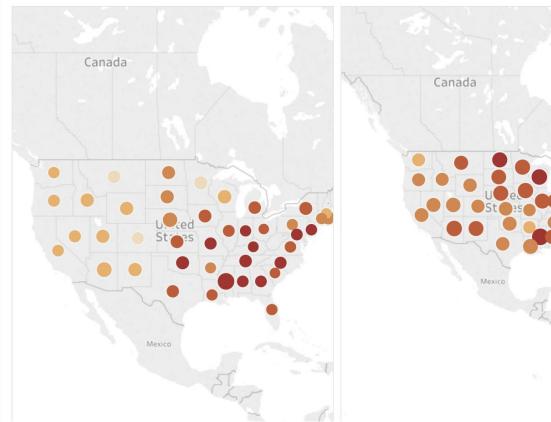
Diabetes Prevalence 2007 to 2015 for AIANs under 65 years old



Diabetes Prevalence 2007 to 2015 Medicare AIANs 65 and older



55.84







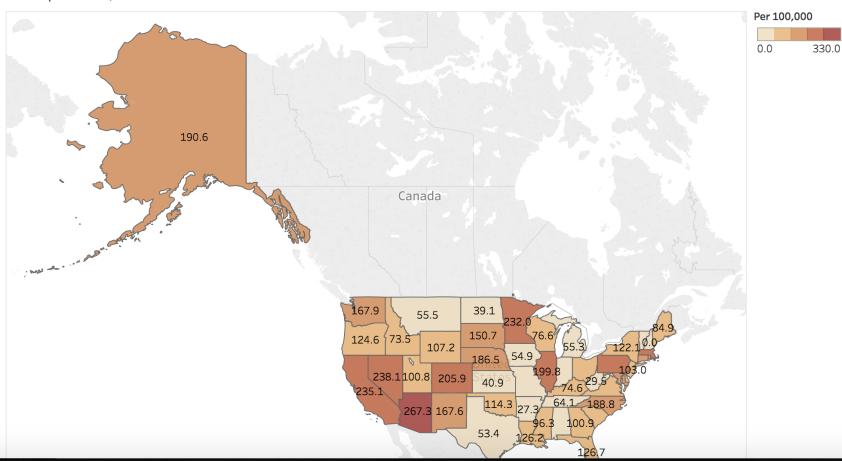




Per 100,000

1,019

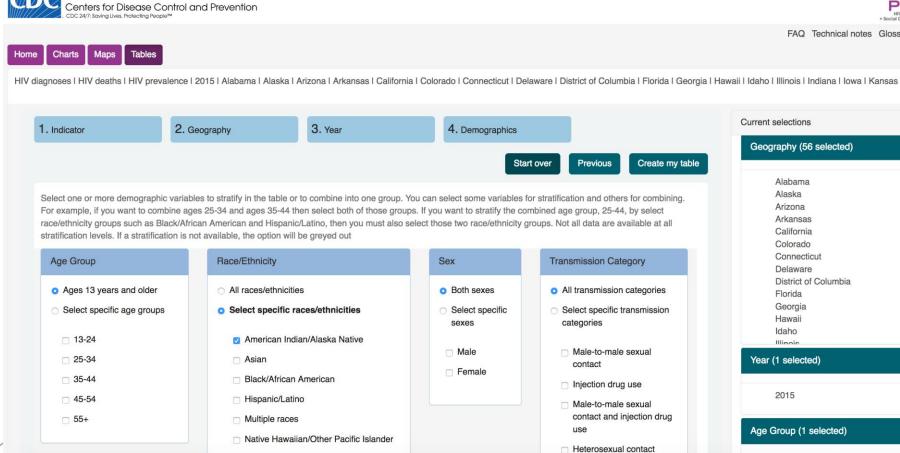
 American Indians and Alaska Natives HIV Prevalence and HIV Diagnosis, 2015 Cases and Rate per 100,000



The Red Feather of Hope and Healing







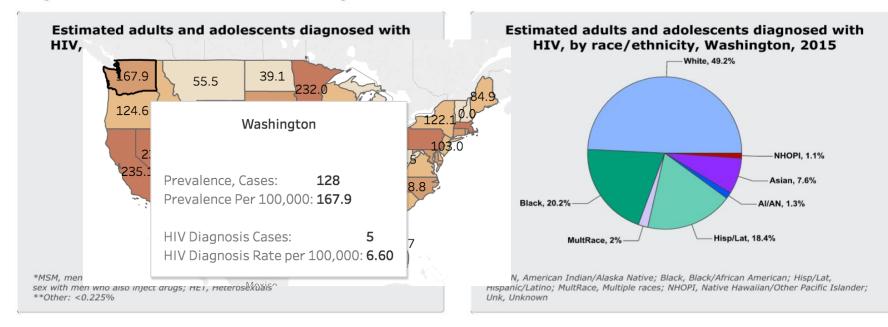


Washington – State Health Profile

HIV/AIDS Epidemic

In 2015, an estimated 39,393 people in the United States were diagnosed with HIV, the virus that causes AIDS. About 1 in 7 people with HIV in the United States do not know that they are infected.

In 2015, an estimated 445 adults and adolescents were diagnosed with HIV in Washington. Washington ranked 24th among the 50 states in the number of HIV diagnoses in 2015.



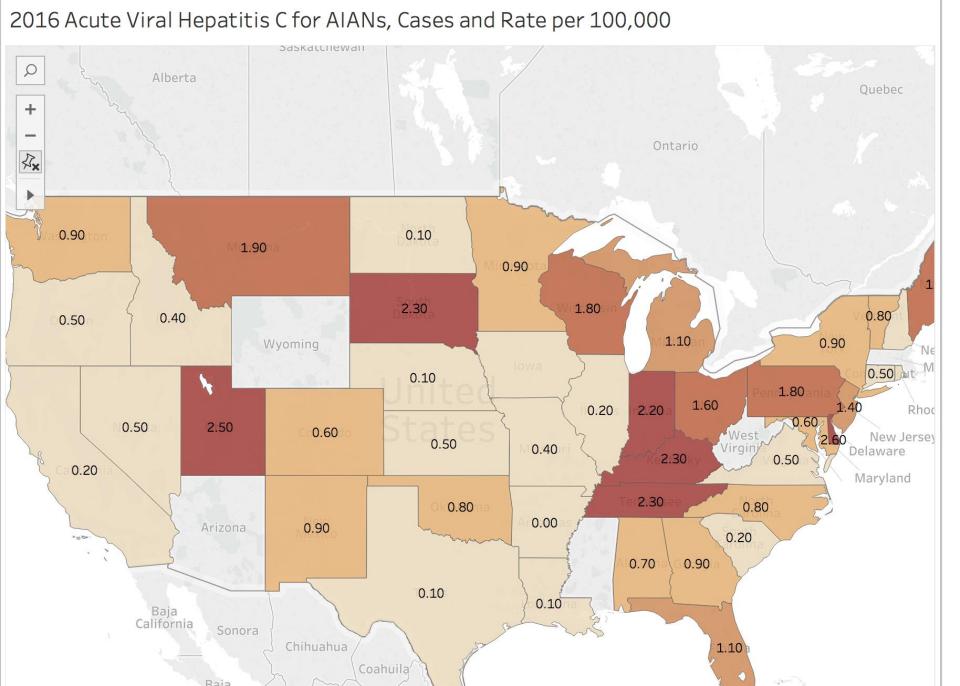




Centers for Disease Control and Prevention FAQ Technical notes Glossar HIV diagnoses | HIV deaths | HIV prevalence | 2015 | Alabama | Arkansas | California | Colorado | Connecticut | Delaware | District of Columbia | Florida | Georgia | Hawaii | Idaho | Illinois | Indiana | Iowa | Kansas | Kentucky | Louisiana | Maine | Maryland Current selections 2. Geography 3. Year 1. Indicator 4. Demographics Geography (56 selected) Start over Alabama FICASCIIIANC A SCICCIIVII Alaska O Disease O Social Determinants of Health Arizona Arkansas Select one or more indicators. California * County data are available for indicators marked with an asterisk Colorado Connecticut ☐ HIV □ ТВ STD Delaware District of Columbia Footnote(s) ☐ Primary and Secondary Syphilis * Tuberculosis * Florida Georgia ☐ Early Latent Syphilis * HIV diagnoses * Hawaii Congenital Syphilis * Idaho HIV deaths ■ Viral Hepatitis □ Chlamydia * ✓ HIV prevalence * Year (1 selected) Gonorrhea * AIDS diagnoses Acute Viral Hepatitis C AIDS deaths Acute Viral Hepatitis B 2015 AIDS prevalence Hepatitis A Linkage to HIV care Age Group (1 selected) Receipt of HIV medical care HIV viral suppression Ages 13 years and older ☐ Diagnosed infection among persons living with HIV infection Estimated HIV incidence Race/Ethnicity (1 selected) Estimated HIV prevalence (undiagnosed and diagnosed) American Indian/Alaska Native



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Planning, Grantwriting

First, do what only you can do best: "Describe your situation"

Secondly, put your situation into context

We often know a lot about our own situation, but the 'reader' or grant 'reviewer' may understand better if you help put your situation into context.

Compare your state to other states

Compare your county to other counties

Compare your health program to other health programs.





Examples, Opioids

Describe the situation at your tribe, in your county and your state.

For all grants you can include data on where your county ranks on RWJ measures.

Opioid Deaths

Drug and Alcohol Deaths

Prescribing Practices





New CMS initiative.

Is you community in a rural area? How rural is it?

We have maps of counties, by rural classifications.

What do you know about the health status of the community / or your county?





Appendix: Digital Data Briefs

VISUALIZATIONS: CATEGORIZE





County Population

<u>CHSDA, Contract Health Service Delivery Area (Counties designated part of a Tribe's CHSDA).</u>

County Population 2016 (with some tribal affiliation information)

State Population with comparison of Alone to Alone and In Combination

State, by Age Categories 2010 to 2016

Public Use Micro Area

Under 25 years old American Indians and Alaska Natives

Young Adults 19 to 35 Medicaid Status

Rural(non-Metro) population

Do American Indians and Alaska Natives live in Rural Counties? 25% Do.





<u>Uninsured</u>

<u>Uninsured 2010 to 2016, total, with IHS, and</u> without IHS access

Do American Indians and Alaska Natives live in counties with High rates of Uninsured (2018 estimates)?

<u>Uninsured American Indians and Alaska</u> <u>Natives 2008 to 2016</u>

Health Insurance Exchange

Number under 300% of the Federal Poverty
Level

HealthCare.gov enrollment 2018

Private Insurance Coverage





Medicare

Medicare and AIANs (state level)

Medicare and IHS Access for 65 years and older

American Indian and Alaska Natives

Medicare and Diabetes Prevalence 2012 and 2015

Medicare and Diabetes

<u>Medicare and Diabetes for American Indians</u> <u>and Alaska Natives under 65 and 65 and older</u>

Medicaid

2016 Medicaid Coverage

Medicaid Coverage 2010 to 2016 with and without IHS access

Medicaid under 139 and 139 to 300%





Food Security

Food Scarcity Map

Employment

375 Metro Areas employment and unemployment rate

County level Unemployment

Workforce Participation

Poverty and Income

<u>Poverty Level</u>

<u>Income Distribution of American Indians and</u>
<u>Alaska Natives with ability to select categories</u>





Location of Facilities

IHS annual facilities list

Essential Community Providers

<u>Veteran's Access to VA and to IHS</u> <u>programs</u>

American Indian and Alaska Native Veteran

Population and Access to VA, Access to IHS

State data on access to VA / IHS





<u>Substance Use Disorder</u>, Drug Use Mortality, Suicide

Drug and Alcohol Deaths 2012 to 2016

Prescribing Opioids and Drug Use Mortality

Drug Use Mortality, CHSDA counties

<u>Suicides, County level, American Indian and</u> <u>Alaska Natives</u>

<u>Suicides, State level, American Indian and</u> <u>Alaska Natives</u>





Data Project

Questions?

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202 945-7061



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