COVID-19 among American Indian and Alaska Native Persons in 23 Select States in the United States, January 31–July 3, 2020

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Morbidity and Mortality Weekly Report (*MMWR*)

CDC

COVID-19 Among American Indian and Alaska Native Persons — 23 States, January 31–July 3, 2020

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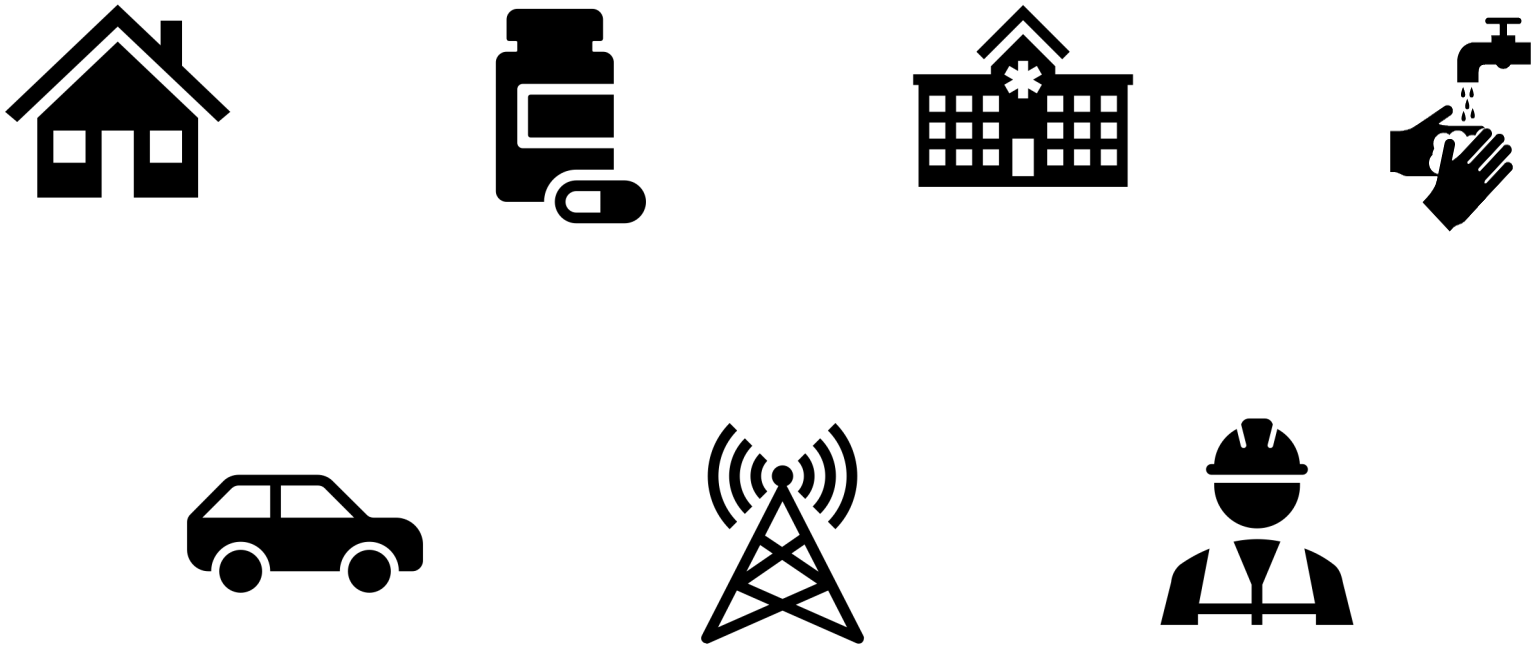
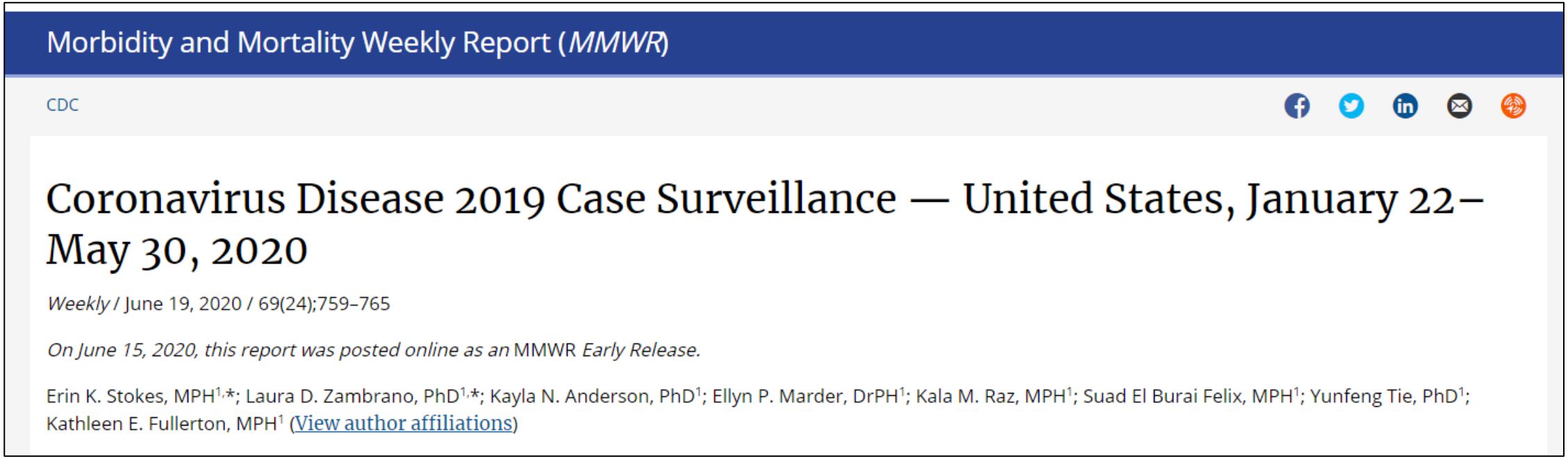
COVID-19 Health Disparities



COVID-19 among AI/AN Persons



Morbidity and Mortality Weekly Report (*MMWR*)

CDC

Coronavirus Disease 2019 Case Surveillance — United States, January 22–May 30, 2020

Weekly / June 19, 2020 / 69(24);759–765

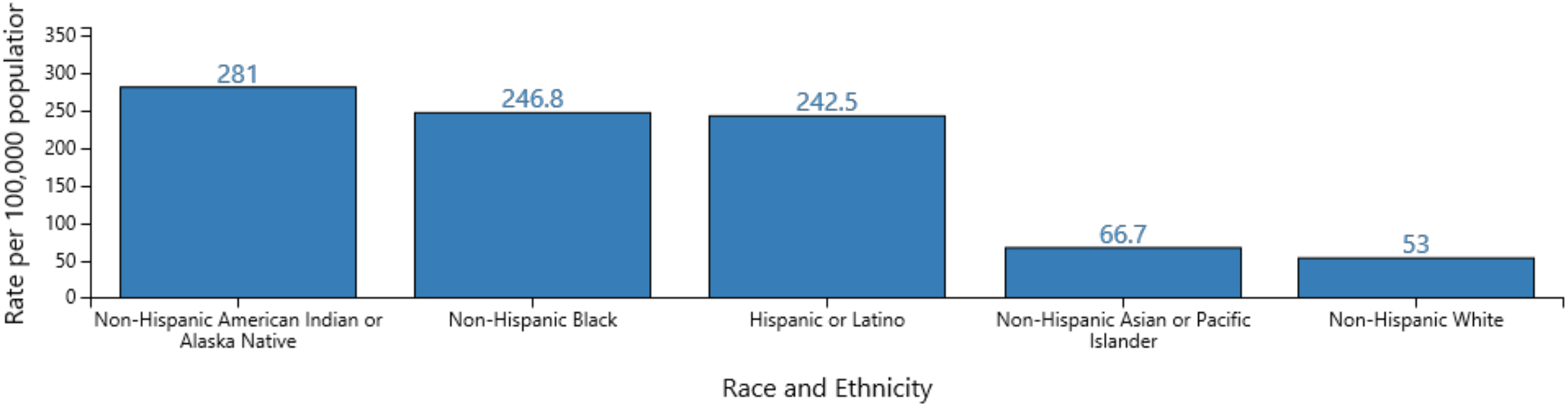
On June 15, 2020, this report was posted online as an MMWR *Early Release.*

Erin K. Stokes, MPH[1,*]; Laura D. Zambrano, PhD[1,*]; Kayla N. Anderson, PhD[1]; Ellyn P. Marder, DrPH[1]; Kala M. Raz, MPH[1]; Suad El Burai Felix, MPH[1]; Yunfeng Tie, PhD[1]; Kathleen E. Fullerton, MPH[1] (View author affiliations)

Although the non-Hispanic AI/AN population accounts for 0.7% of the United States population, 1.3% of cases with known race and ethnicity were non-Hispanic AI/AN.

AI/AN COVID-19 Hospitalizations

The age-adjusted hospitalization rate of non-Hispanic AI/AN persons 5.3 times that of non-Hispanic white persons*



Source: https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html

Objective

Assess the disproportionate impact of COVID-19 among the AI/AN population.

Methods

All laboratory-confirmed cases submitted to CDC January 22—July 3, 2020

↓

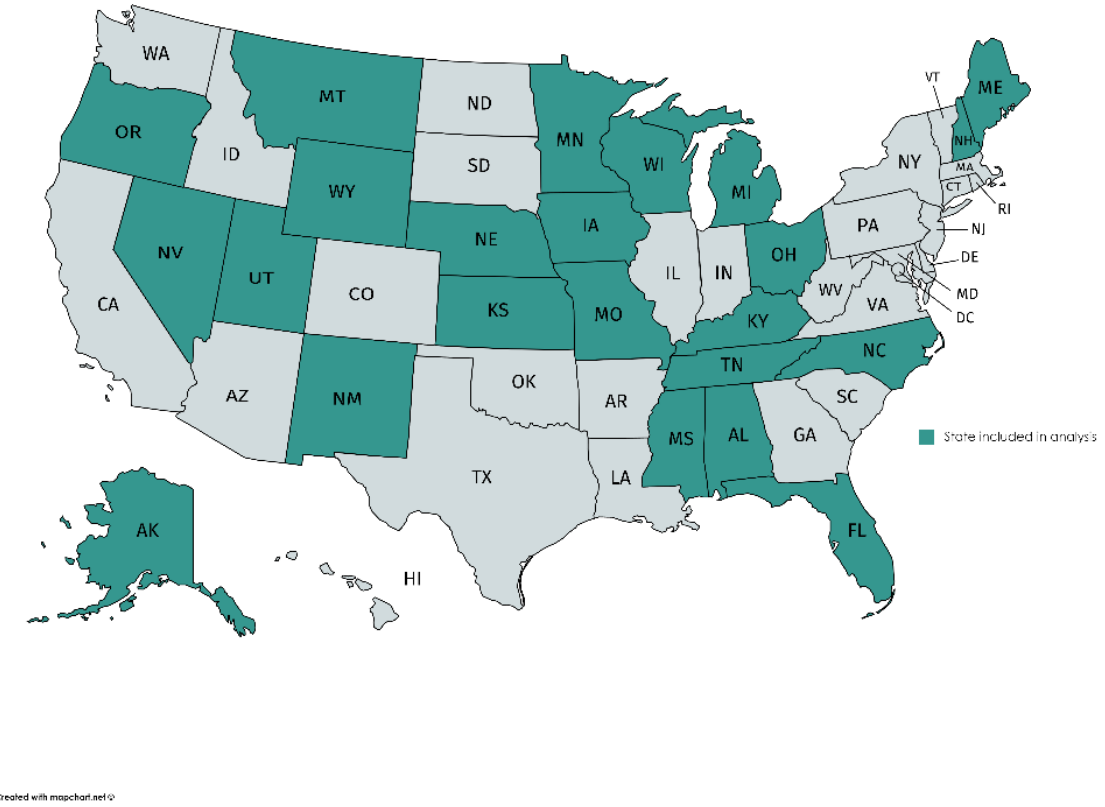
All laboratory-confirmed cases in 23 states with >70% complete race/ethnicity data and >5 cases among AI/AN and NHW

↓

Cases with complete race/ethnicity

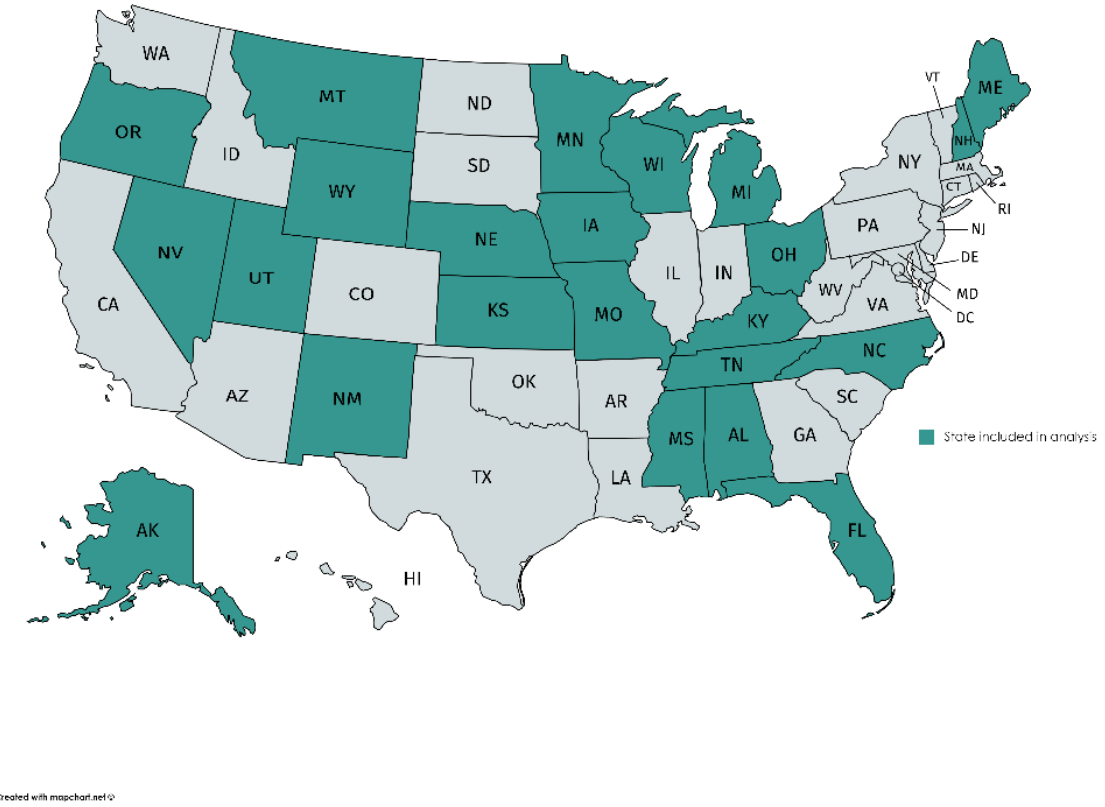
AI/AN alone or in combination with other races and ethnicities

Non-Hispanic White (single-race)

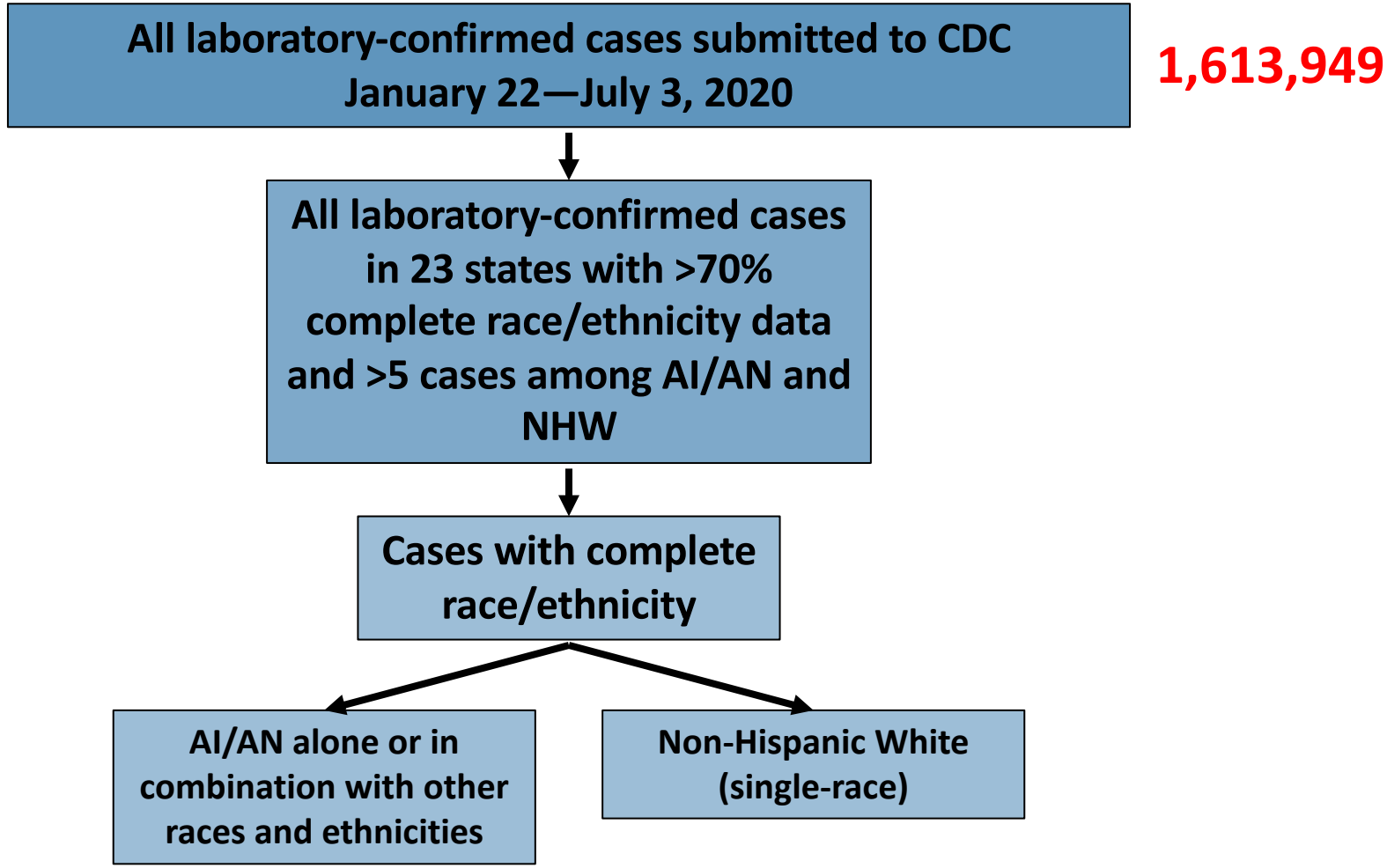


Methods

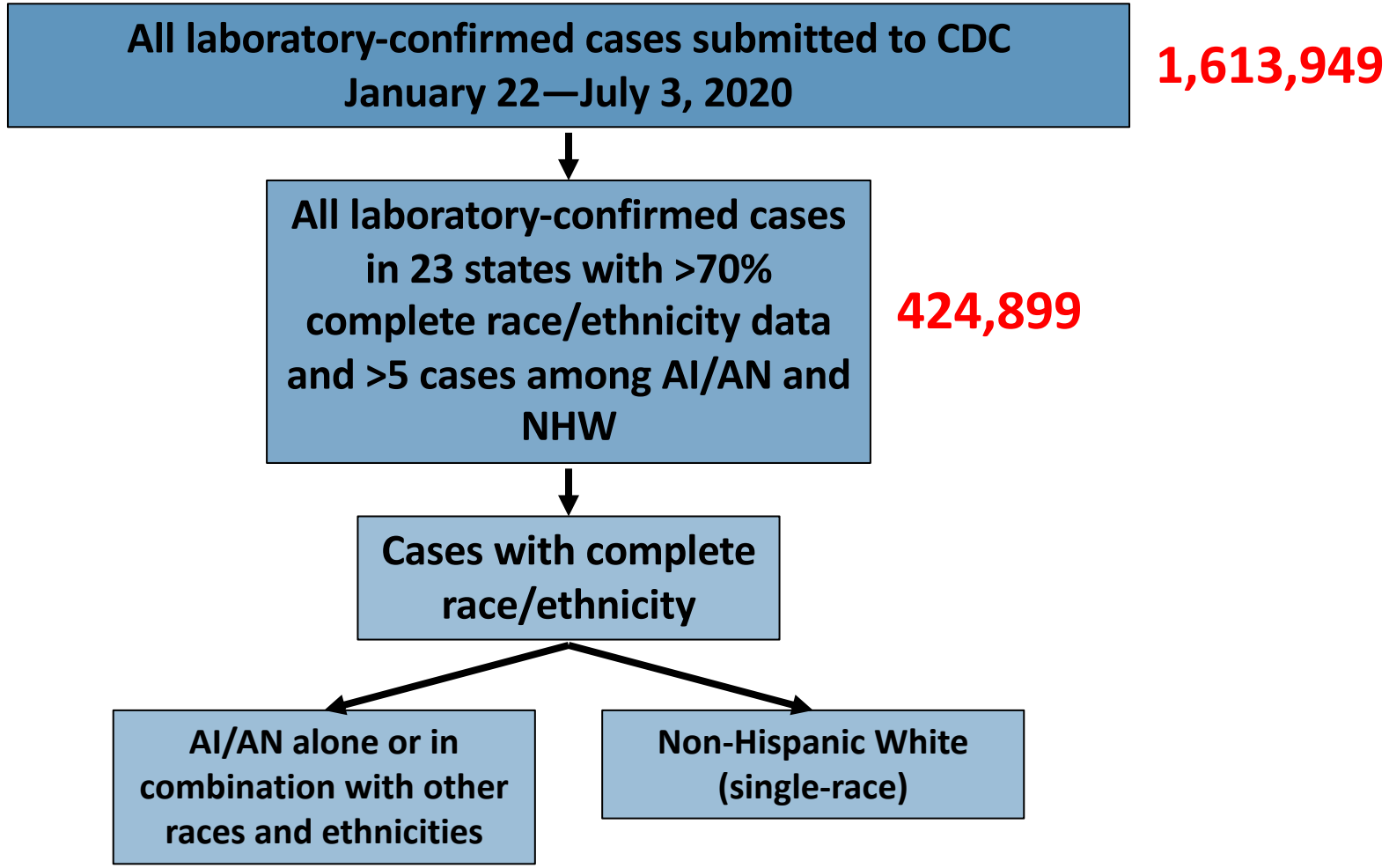
- **Denominators: National Center for Health Statistics postcensal bridged-race estimates**
- **Generalized estimating equations (GEE) Poisson regression models**
  - **Cumulative incidence per 100,000 population**
  - **Rate ratios**
  - **95% confidence intervals**
- **GEE models were used to account for non-independence (i.e., clustering) by state**



Results


All laboratory-confirmed cases submitted to CDC
January 22—July 3, 2020
1,613,949
All laboratory-confirmed cases in 23 states with >70% complete race/ethnicity data and >5 cases among AI/AN and NHW
Cases with complete race/ethnicity
AI/AN alone or in combination with other races and ethnicities
Non-Hispanic White (single-race)

Results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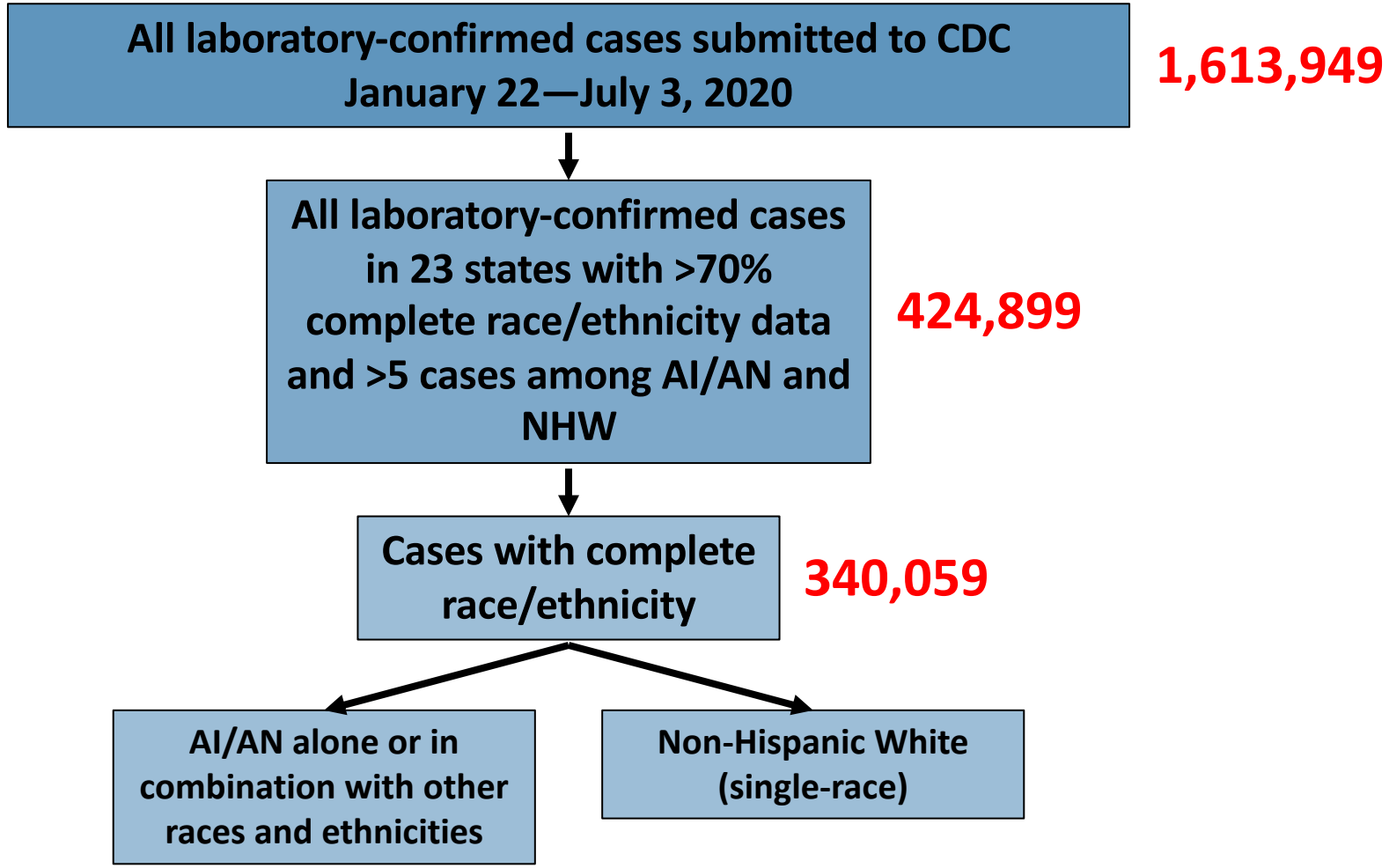
424,899
Cases with complete race/ethnicity
AI/AN alone or in combination with other races and ethnicities
Non-Hispanic White (single-race)

Results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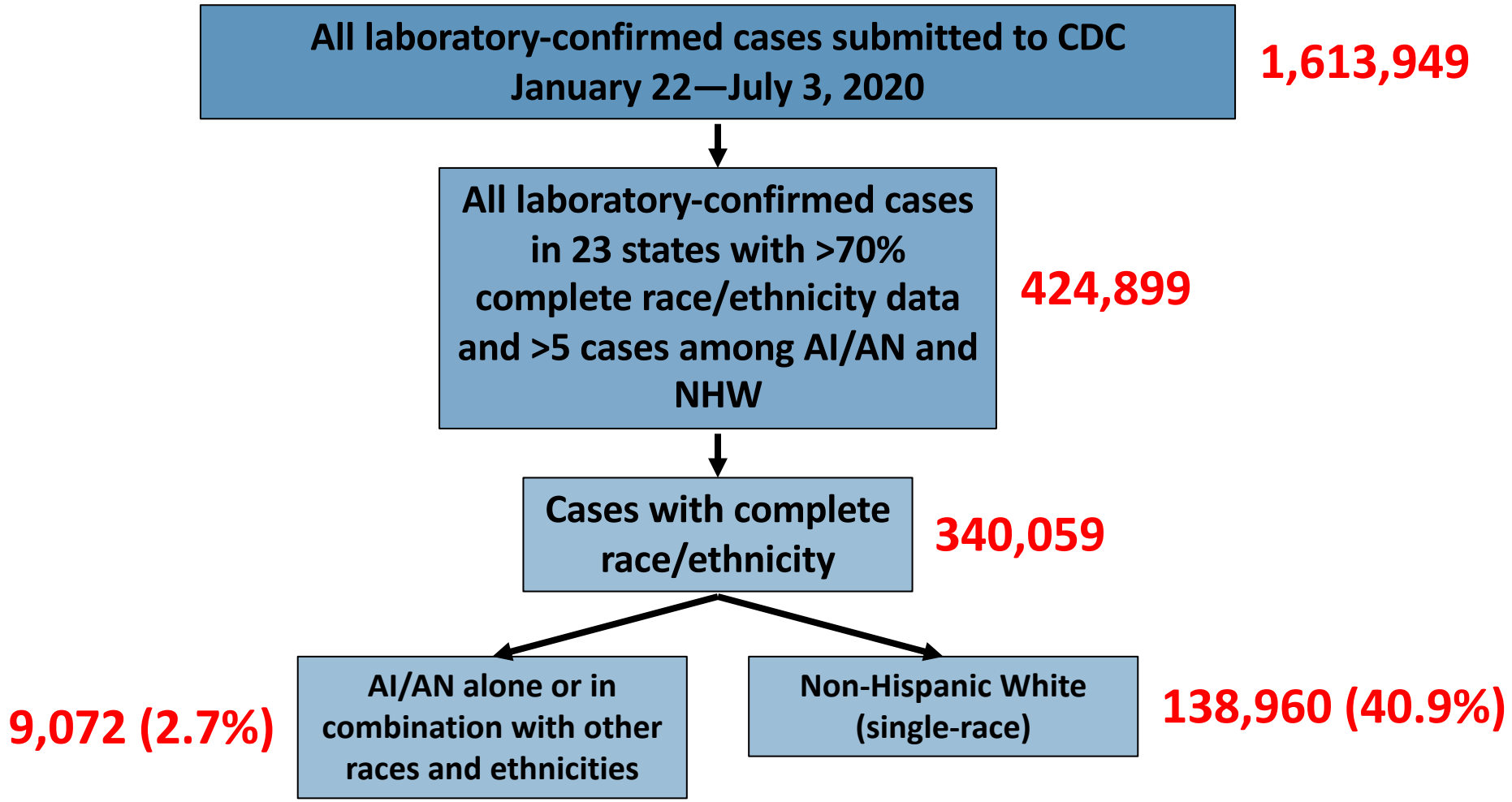
Cases with complete race/ethnicity
340,059
AI/AN alone or in combination with other races and ethnicities
Non-Hispanic White (single-race)

Results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All laboratory-confirmed cases in 23 states with >70% complete race/ethnicity data and >5 cases among AI/AN and NHW
424,899
Cases with complete race/ethnicity
340,059
AI/AN alone or in combination with other races and ethnicities
9,072 (2.7%)
Non-Hispanic White (single-race)
138,960 (40.9%)

Cases occurred among younger AI/AN persons than NHW persons

	American Indian and Alaska Native N = 9,072	Non-Hispanic White N =138,960
	No. (%)	No. (%)
Age (years)	9,071 Median: 40; IQR (26,56)	138,950 Median: 51; IQR (32, 67)
0–18	1,171 (12.9)	6,000 (4.3)
19–44	4,091 (45.1)	50,772 (36.5)
45–54	1,384 (15.3)	19,923 (14.3)
55–64	1,284 (14.2)	22,518 (16.2)
65+	1,141 (12.6)	39,737 (28.6)

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The cumulative incidence of COVID-19 among AI/AN persons was 3.5 times that of NHW persons

Race/ethnicity	Cumulative incidence per 100,000 (95% CI)	Rate Ratio (95% CI)
AI/AN	**594 (302, 1,740)**	**3.5 (95% CI: 1.2, 10.1)**
NHW	**169 (137,209)**	**Ref**

A disproportionate amount of detailed case data were missing or unknown among AI/AN cases

	AI/AN N = 9,072 No. (%)	NHW N =138,960 No. (%)
Symptoms known	**998 (11.0)**	**39,225 (28.2)**
Underlying health conditions known	**762 (8.4)**	**37,993 (27.3)**
Hospitalization status known	**2,197 (24.2)**	**109,638 (78.9)**
Intensive Care Unit admission status known	**855 (9.4)**	**37,150 (26.7)**
Death status known	**2,039 (22.4)**	**103,371 (74.4)**

Limitations

- **Passive surveillance**
- **Missing data**
- **Underestimates the true burden of COVID-19 among AI/AN persons:**
  - **Analysis restricted to 23 states**
  - **Misclassification of AI/AN race/ethnicity**
  - **NCHS bridged race estimates inflate Hispanic AI/AN population**

Conclusions

- **The AI/AN population in the 23 select states overall has been disproportionately impacted by the COVID-19 pandemic compared to the NHW population**
- **Younger age groups are particularly affected**
- **Complete case information is needed to appropriately guide the public health response to address the disproportionate impact of COVID-19 among the AI/AN population**

Recommendations

- **Providers, reporting laboratories, and local, state, federal, and tribal public health practitioners should collect and report self-reported race/ethnicity consistently and accurately, following the best practices for AI/AN data collection.**

- **Provide resources for adequate healthcare and public health infrastructure to support a culturally responsive public health effort that sustains the strengths of AI/AN communities**

Best Practices for American Indian and Alaska Native Data Collection

Current standard data collection practices by many federal, state, and local entities effectively omit or misclassify American Indian and Alaska Native (AI/AN) populations, both urban and rural. This is particularly concerning in the midst of the COVID-19 pandemic as these current standards of practice are resulting in a gross undercount of the impact COVID-19 has on Native people. Two major problems that are seen in data collection for Native populations include multiple descriptions of Native people found in data sources between federal, state, and local public entities and methodologies for collection, analysis, and presentation of data are inconsistent in available datasets.

To address these incomplete, inaccurate, and unreliable standard data collection and analysis practices, Urban Indian Health Institute (UIHI), a Tribal Epidemiology Center, has created best practices for methods to collect, analyze, and present data on AI/AN populations. The following data collection best practices recommendations are grounded in and stem from Indigenous values and practices.

Urban Indian Health Institute
A Division of the Seattle Indian Health Board

Our mission is to decolonize data, for indigenous people, by indigenous people.
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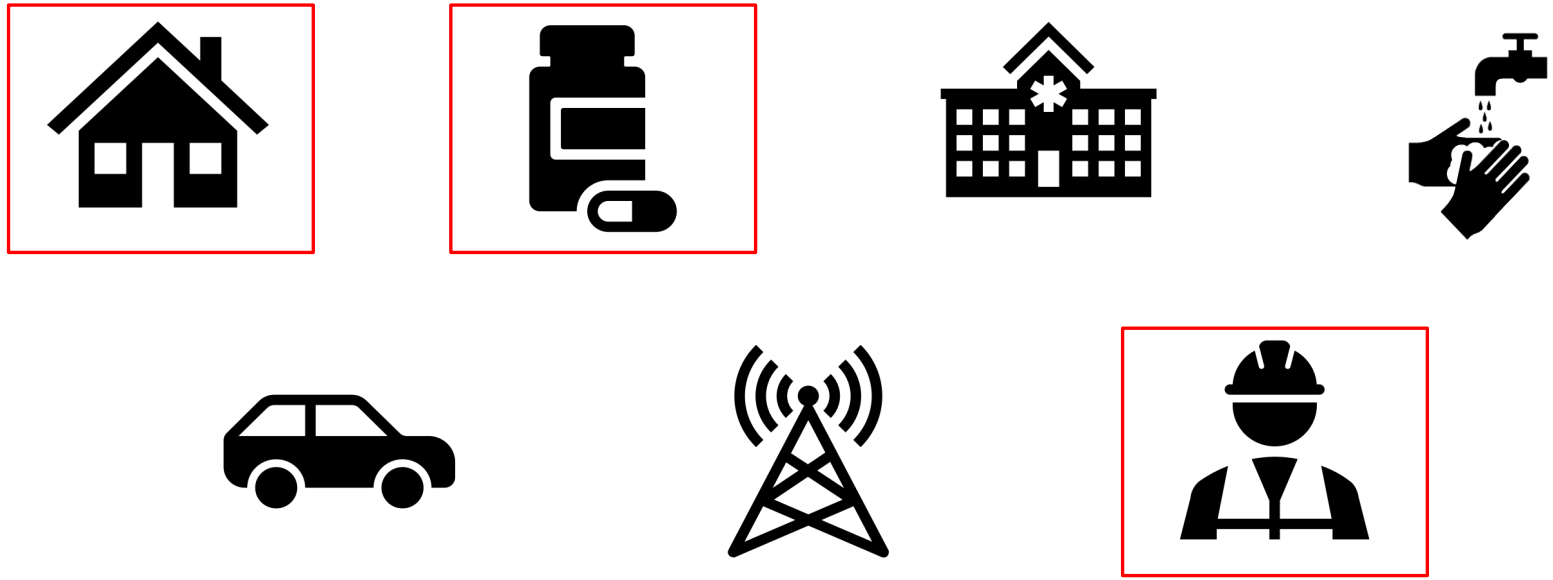
Considerations for COVID-19 Vaccine Distribution

Our findings suggest that that vulnerable populations for whom CDC guidance for physical distancing and home isolation is difficult or impossible to follow should be prioritized for COVID-19 vaccine