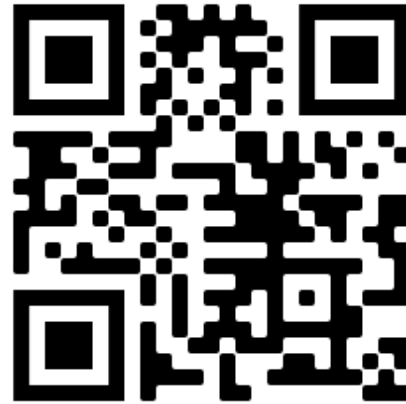


COVID-19 Disparities and Vaccine Hesitancy: Moving Toward Health Equity

PART I

SW Consortium

To receive credit for this session as Diversity, Equity & Inclusion Hours:



Applies only to members of The
UArizona College of Medicine -
Tucson

- Go to: <https://signup.com/go/rDDMwiv>
- Sign up for the session that corresponds with today's date (phone number is not required)



COVID-19 Disparities and Vaccine Hesitancy: Moving Toward Health Equity

PART II

March 9th, 2021 1:00 – 2:30 pm MST

Panelists

- Valerie Madera-Garcia, MPH - University of Arizona
- Francisco Lucio, JD - University of Arizona
- Gayle Dine'Chacon, MD - University of New Mexico
- Amira del Pino-Jones, MD - University of Colorado
- Ricardo Correa, MD - University of Arizona

Moderator: Anayansi Lombardero, PhD - University of Nevada Reno

Introduction

Anayansi Lombardero, Ph.D.
University of Nevada Reno
School of Medicine



University of Nevada, Reno
School of Medicine

COVID-19 in the Southwest Region

Valerie Madera Garcia, MPH
University of Arizona



COVID-19 National Data

27,127,858

Total Cases

7,951

**Cases per
100,000
people**

470,110

Total Deaths

COVID-19 Cases, Hospitalizations, and Deaths, by Race/Ethnicity

Rate ratios compared to White, Non-Hispanic persons	American Indian or Alaska Native, Non-Hispanic persons	Asian, Non-Hispanic persons	Black or African American, Non-Hispanic persons	Hispanic or Latino persons
Cases ¹	1.8x	0.6x	1.4x	1.7x
Hospitalization ²	4.0x	1.2x	3.7x	4.1x
Death ³	2.6x	1.1x	2.8x	2.8x

Race and ethnicity are risk markers for other underlying conditions that affect health, including socioeconomic status, access to health care, and exposure to the virus related to occupation, e.g., among frontline, essential, and critical infrastructure workers.

How to Slow the Spread of COVID-19



Wear a mask



Stay 6 feet apart



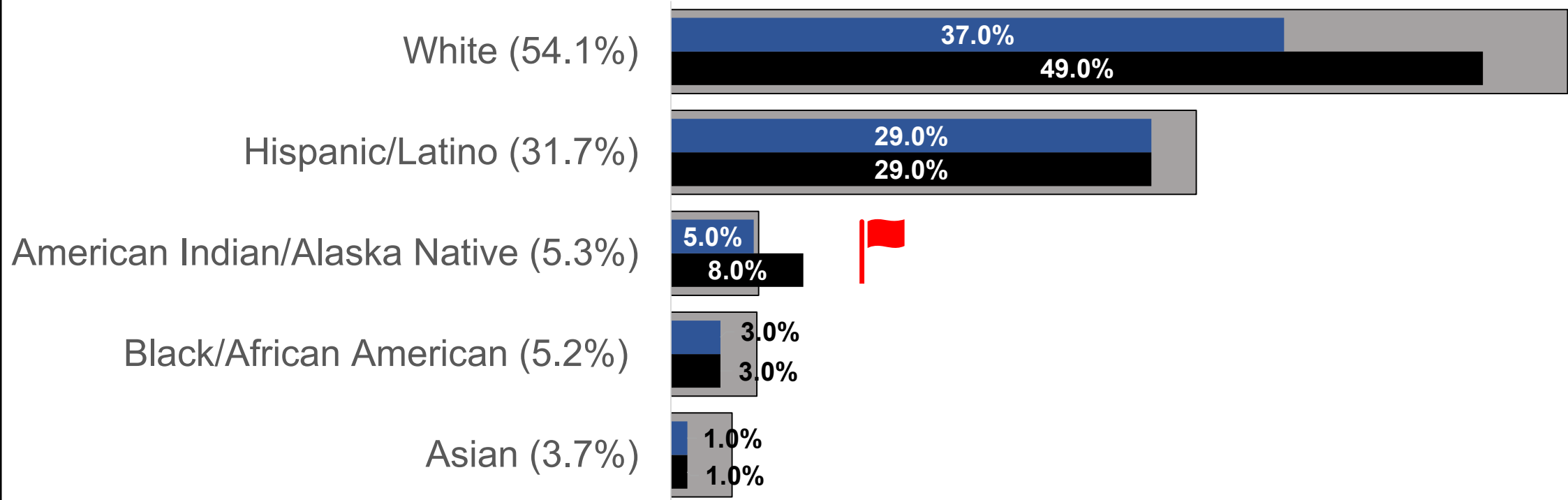
Wash your hands



References on back

cdc.gov/coronavirus

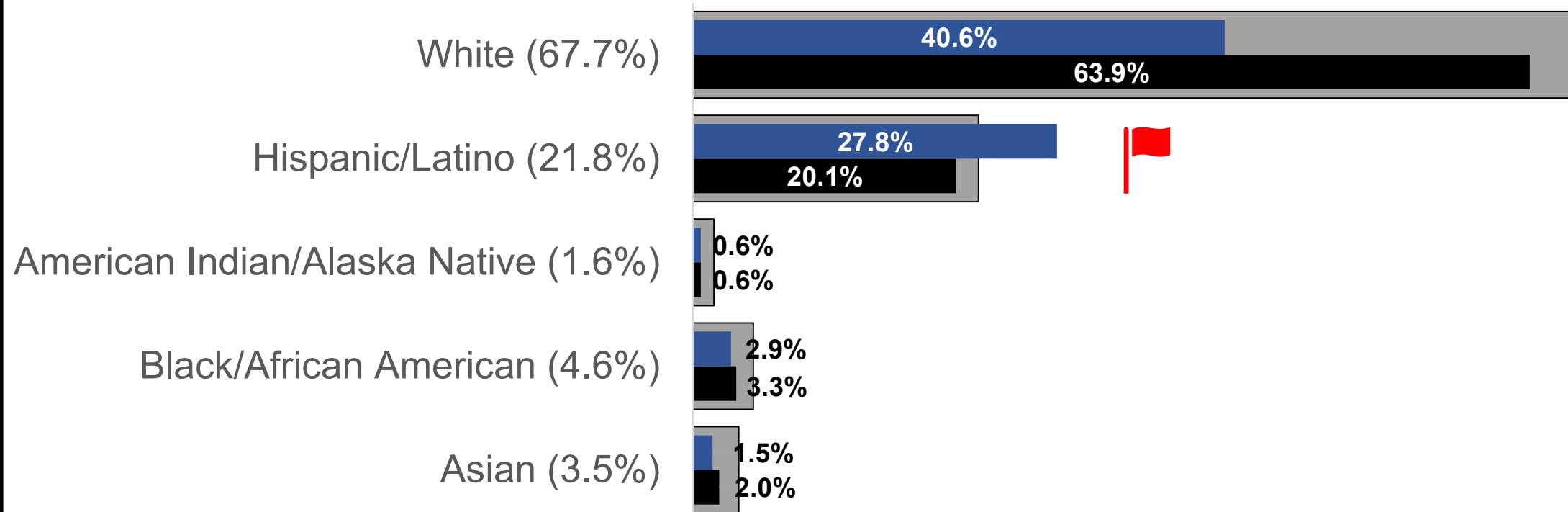
■ 2010 U.S. Census ■ Cases ■ Deaths



Arizona

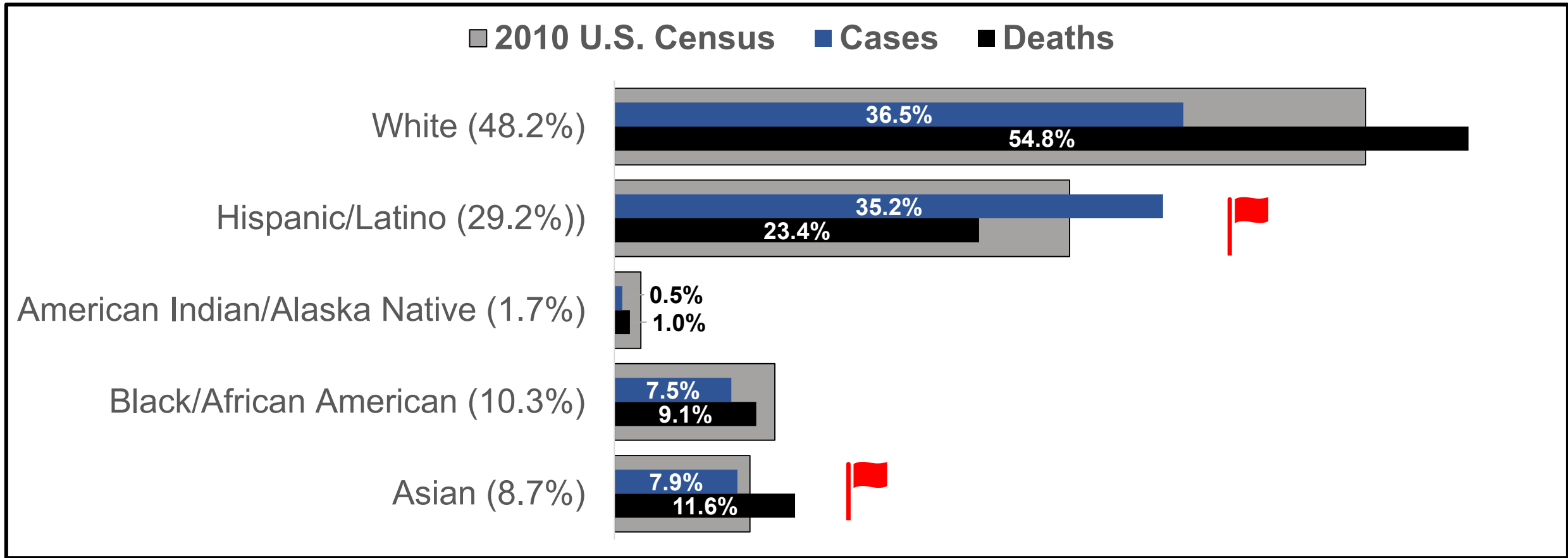
February 10, 2021

■ 2010 U.S. Census ■ Cases ■ Deaths



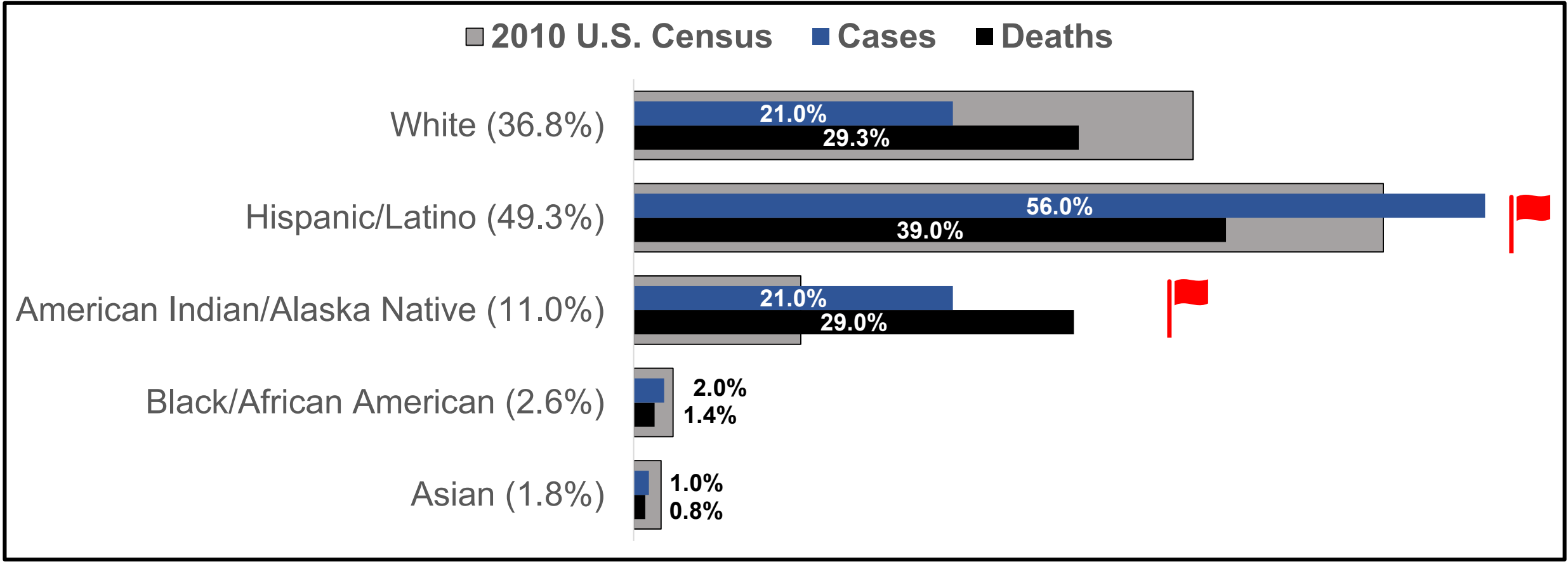
Colorado

February 10, 2021



Nevada

February 10, 2021



New Mexico

February 10, 2021

COVID-19 Vaccination Data

46,390,270

**Total Doses
Administered**

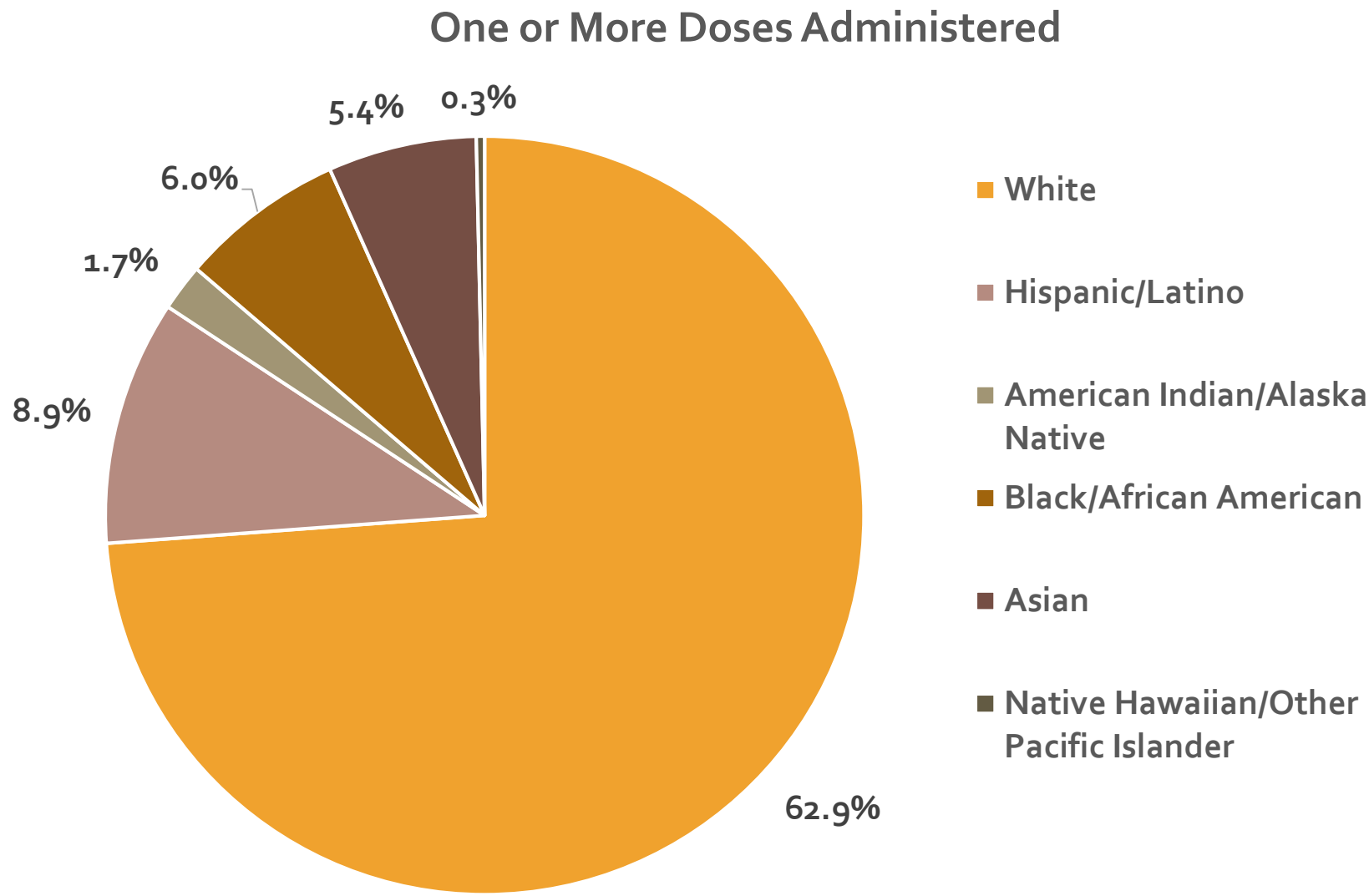
34,723,964

**Number of People
Receiving 1 or
More Doses**

11,188,782

**Number of People
Receiving 2 Doses**

Vaccination Data by Race/Ethnicity



Systemic Racism and Vaccine Hesitancy

Francisco Lucio, JD
University of Arizona

Systemic/ Structural Racism

- A system in which public policies, institutional practices, cultural representations, and other norms work in various, often reinforcing ways to perpetuate racial group inequity.
- It identifies dimensions of our history and culture that have allowed privileges associated with “whiteness” and disadvantages associated with “color” to endure and adapt over time.
- Structural racism is not something that a few people or institutions choose to practice. Instead, it has been a feature of the social, economic and political systems in which we all exist.

Systemic Racism

Policy

- War on Drugs

Legal

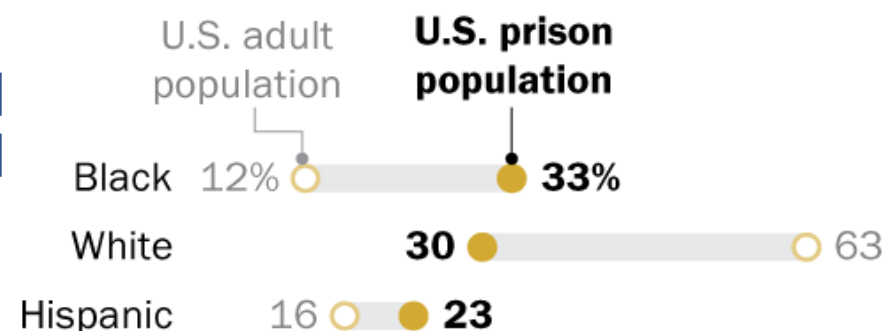
- Mandatory Minimum Sentences
- 3 Strikes Laws

Enforcement

- Broken Windows Policing
- Stop and Frisk
- Black and white Americans sell and use drugs at similar rates, but Black Americans are **2.7xs** more likely to be arrested for drug related offenses

Blacks, Hispanics make up larger shares of prisoners than of U.S. population

U.S. adult population and U.S. prison population by race and Hispanic origin, 2018



Notes: Blacks and whites include those who report being only one race and are non-Hispanic. Hispanics are of any race. Prison population is defined as inmates sentenced to more than a year in state or federal prison.

Source: U.S. Census Bureau, Bureau of Justice Statistics.

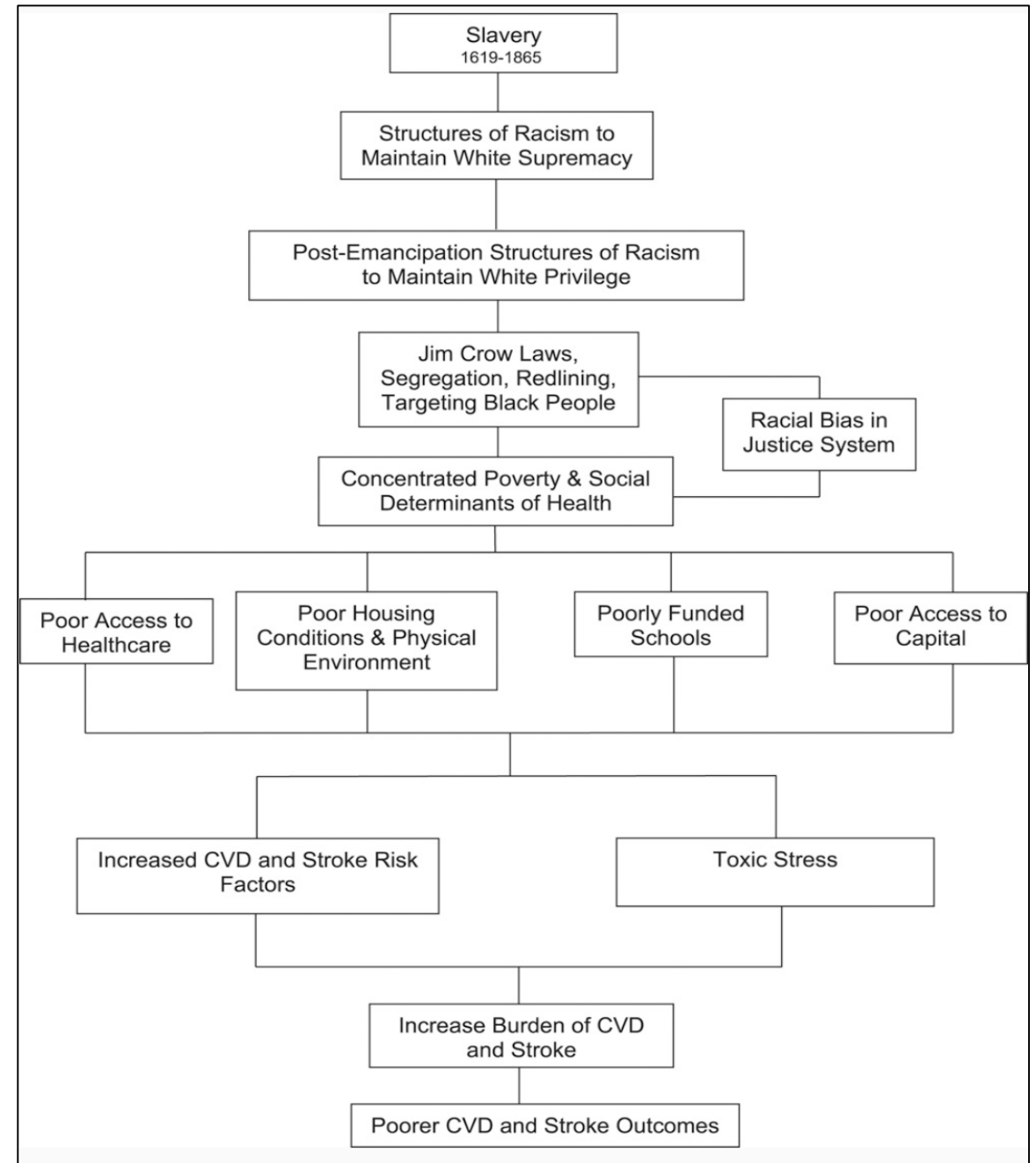
PEW RESEARCH CENTER

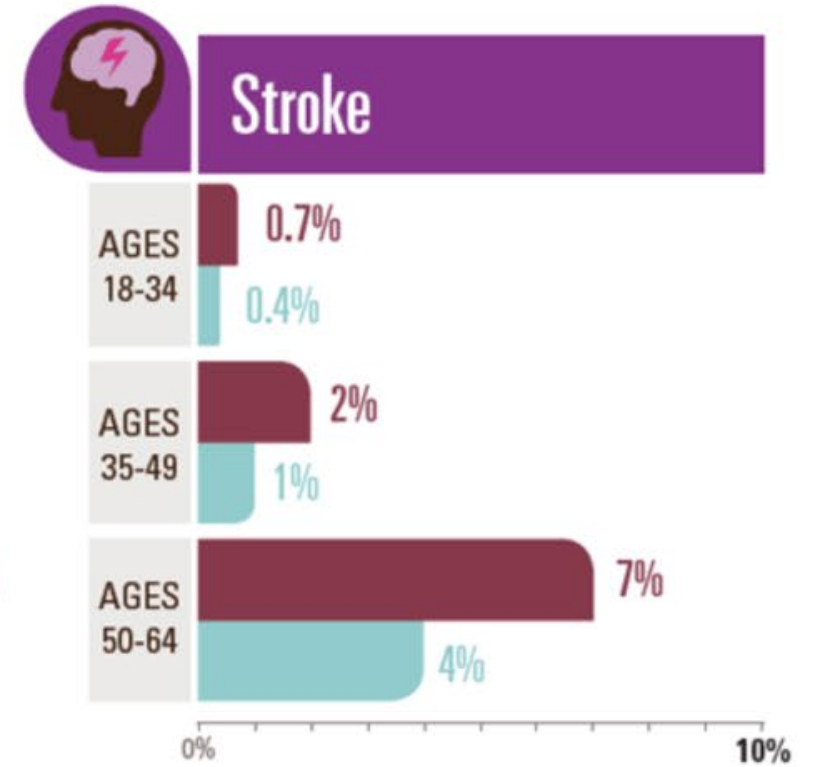
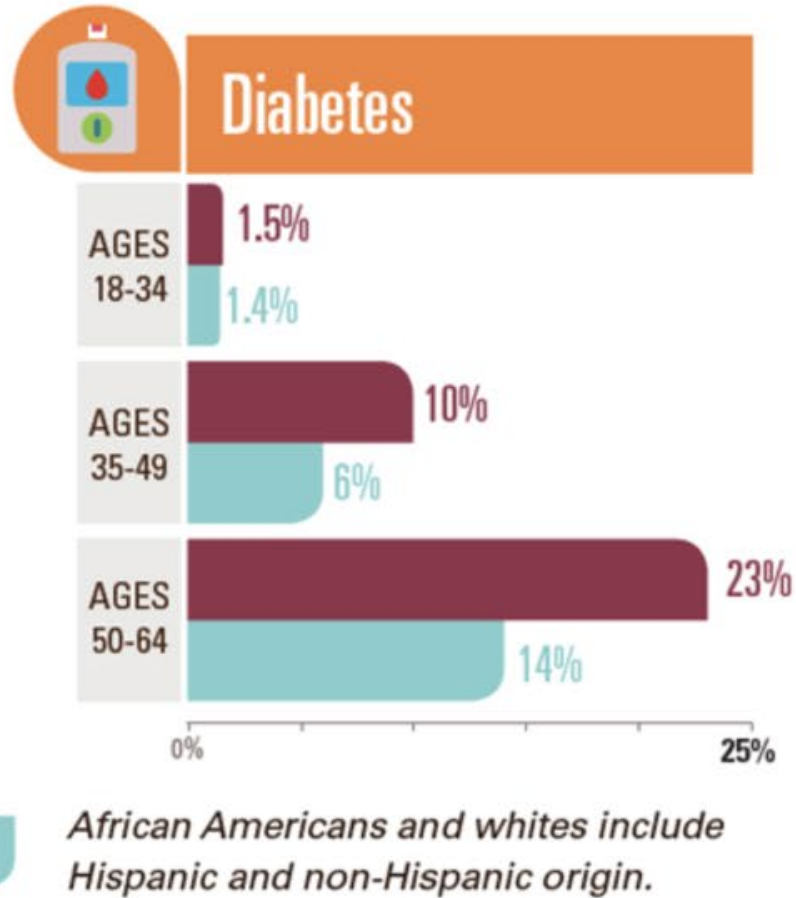
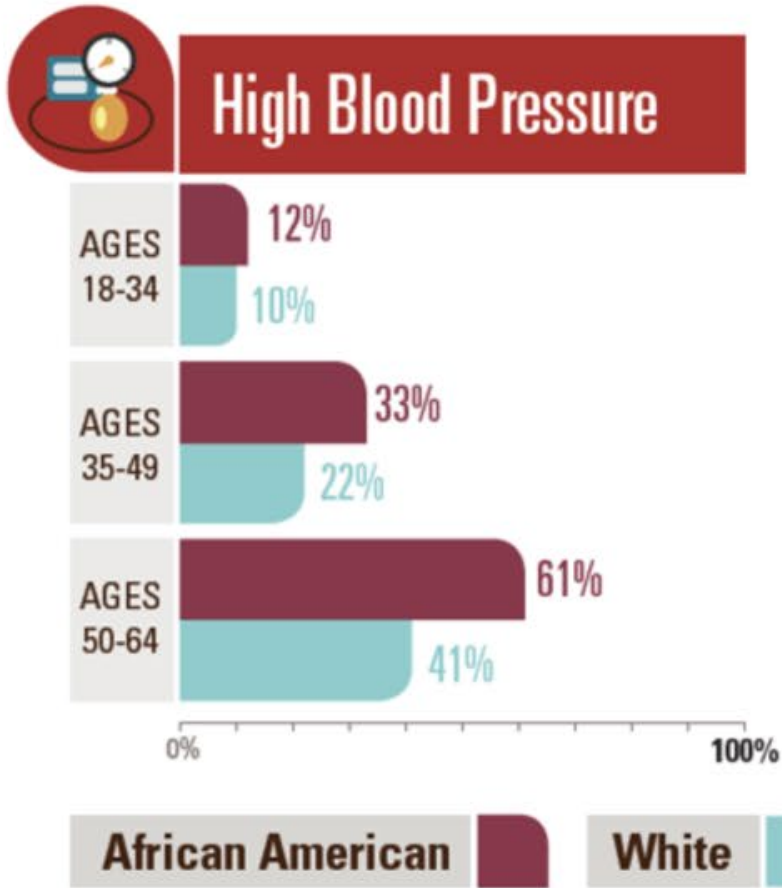
Systemic Racism: Health

“Sickness is not just an isolated event, nor an unfortunate brush with nature. It is a form of communication – the language of the organs – through which nature, society and culture speak simultaneously. The individual body should be seen as the most immediate, the proximate terrain where social truths and social contradictions are played out.”

- Nancy Scheper-Hughes and Margaret M. Lock-

Systemic Racism: Health





SOURCE: Behavioral Risk Factor Surveillance System, 2015.

Systemic Racism: Health Disparities

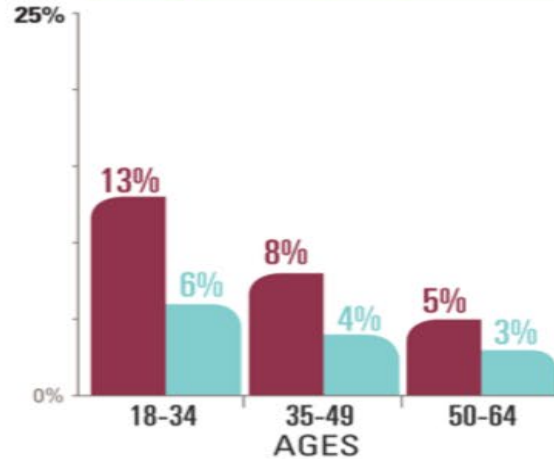
Systemic Racism: Social Factors

Some social factors and health risks affect African Americans at younger ages.

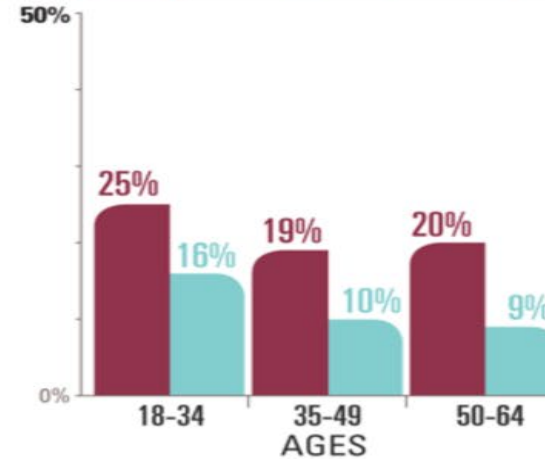
African American

White

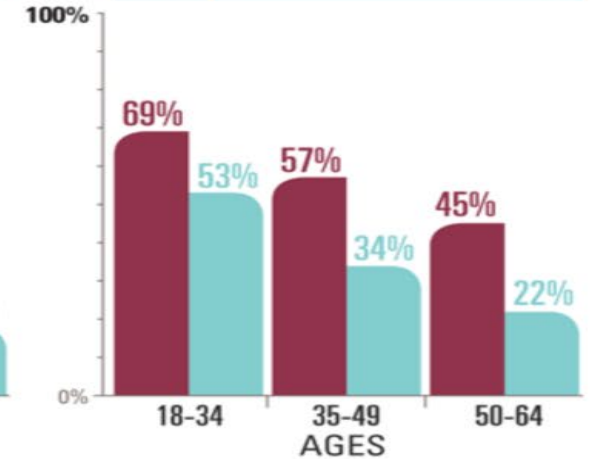
Unemployment



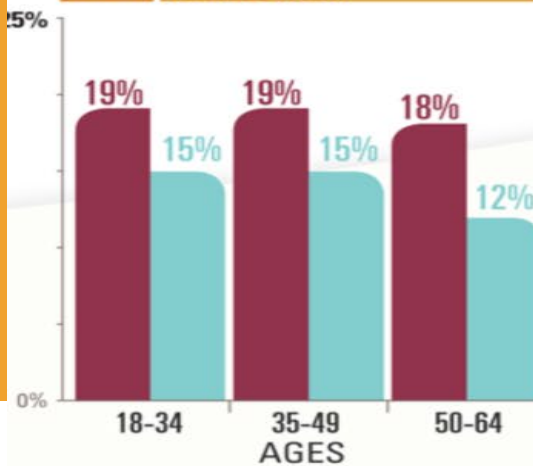
Living in poverty



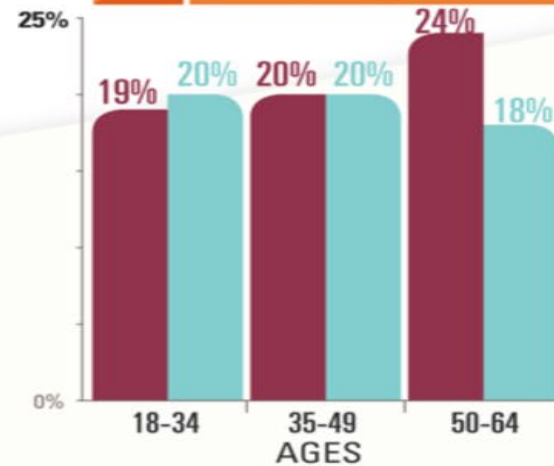
No home ownership



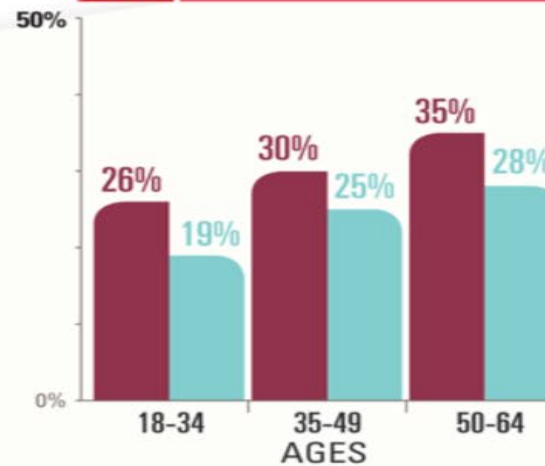
Could not see an MD because of cost



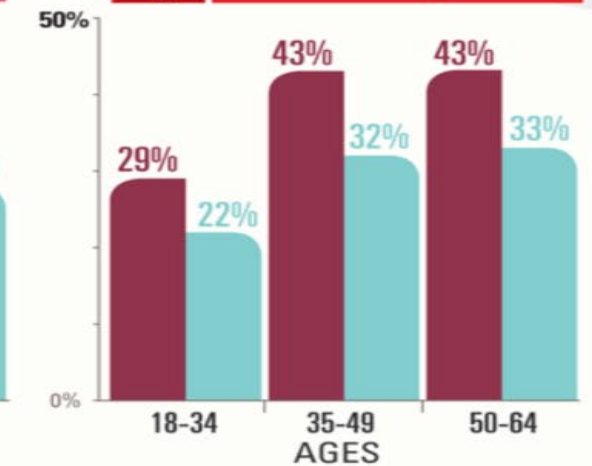
Smoking



Not active



Obesity



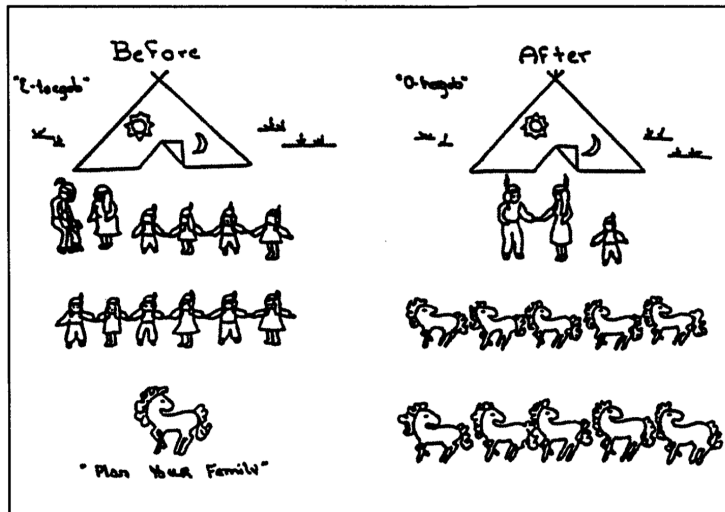
SOURCES: Behavioral Risk Factor Surveillance System, 2015; American Community Survey of the US Census Bureau, 2014.

Systemic Racism: Medical Abuse

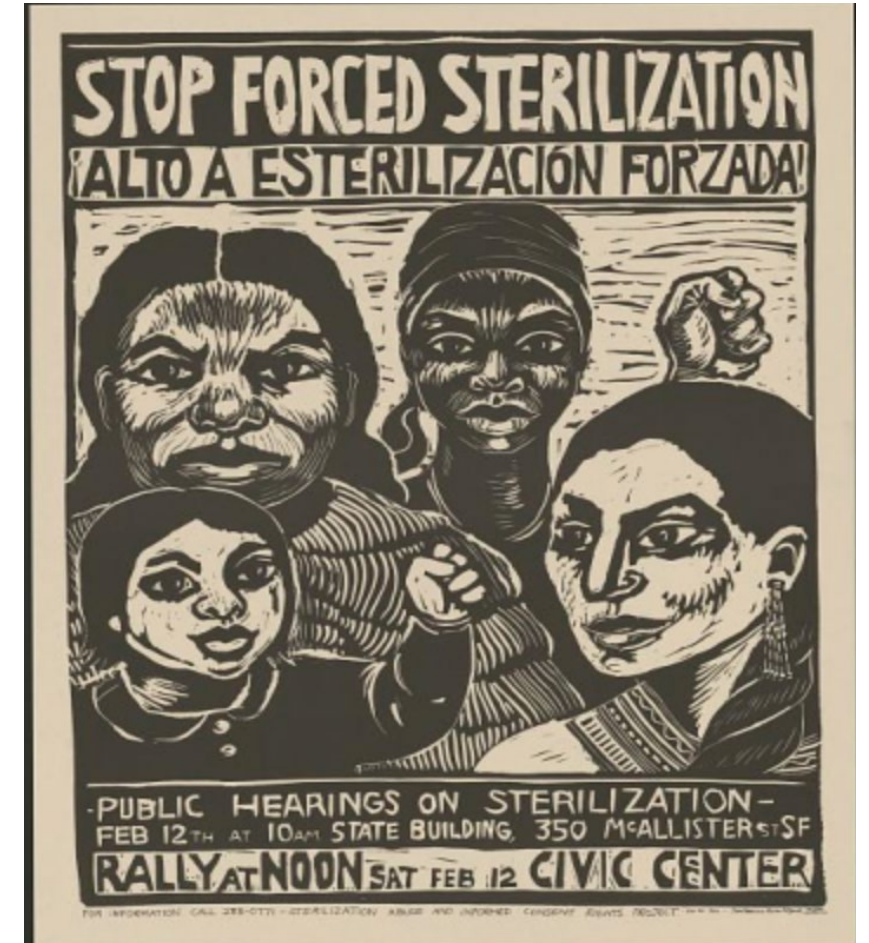


James Marion Sims –
experimented on Black Slave
Women

Planning Your Family



Coerced sterilization as a
form of birth control for
Native women – 1960s-70s



Sterilization laws were used to
disproportionately forcibly sterilize
women of color: 1909-1970s

Systemic Racism: Medical Abuse



Tuskegee Study- Withholding treatment for Black men with Syphilis in study.



Henrietta Lacks cells taken and used without consent.

Systemic Racism: Medical Abuse

nature

Explore Content ▾ Journal Information ▾ Publish With Us ▾

nature > news > article

Published: 01 April 1998

Row erupts over child aggression study

Meredith Wadman

Nature 392, 747(1998) | [Cite this article](#)

210 Accesses | 2 Citations | 0 Altmetric | [Metrics](#)

washington

Psychiatrists under attack for using the drug fenfluramine in a trial examining aggression in poor, non-white, inner-city boys last week defended themselves, along with those who gave ethical approval to the experiments, against criticism appearing in the press.

Critics of researchers at the New York State Psychiatric Institute (NYSPI) in Manhattan claim that a paper published last year in the *Archives of General Psychiatry* shows the research was in flagrant breach of federal ethics rules governing research on children.

1990s Fenfluramine study on Black and Latino kids in NYC attempting to link violence with biology. No Sanctions/Violations found.

CDC Says It Erred in Measles Study

By MARLENE CIMONS

JUNE 17, 1996 12 AM PT

TIMES STAFF WRITER

WASHINGTON — A government-sponsored study of two measles vaccines, begun in 1989 during a major U.S. epidemic and conducted on nearly 1,500 minority infants in Los Angeles, failed to disclose to parents that one of the vaccines was experimental, federal health officials said Sunday.

“A mistake was made,” said Dr. David Satcher, director of the Atlanta-based federal Centers for Disease Control and Prevention, one of the study sponsors. “It shocked me.”

Satcher said in an interview that the CDC plans to contact all the families involved. He said he was very concerned that the events not fuel suspicion in the minority community of government-sponsored medical research.

“Every little mistake like that seeds the concerns of people,” he said. “We need to move to a new level of assurance so people can really trust what we’re doing.”

1987-1991 Black and Latinx children in LA given high doses of experimental measles vaccine without informed consent.

The New York Times

Immigrants Say They Were Pressured Into Unneeded Surgeries

Immigrants detained at an ICE-contracted center in Georgia said they had invasive gynecology procedures that they later learned might have been unnecessary.

[f](#) [📷](#) [🐦](#) [✉](#) [↻](#) [🔖](#) 228



2020 Report of unwanted hysterectomies and unnecessary medical procedures in ICE detention centers.

Vaccine Hesitancy

Original Paper | [Published: 03 January 2021](#)

COVID-19 Vaccination Hesitancy in the United States: A Rapid National Assessment

[Jagdish Khubchandani](#) ✉, [Sushil Sharma](#), [James H. Price](#), [Michael J. Wiblishauser](#), [Manoj Sharma](#) & [Fern J. Webb](#)

[Journal of Community Health](#) (2021) | [Cite this article](#)

2624 Accesses | **1** Citations | **40** Altmetric | [Metrics](#)

- **Vaccine Hesitancy (not likely or definitely not vaccinating):**
 - **34% Blacks; 29% Latinx**
 - **Compared to only 22% Whites and 11% Asians**

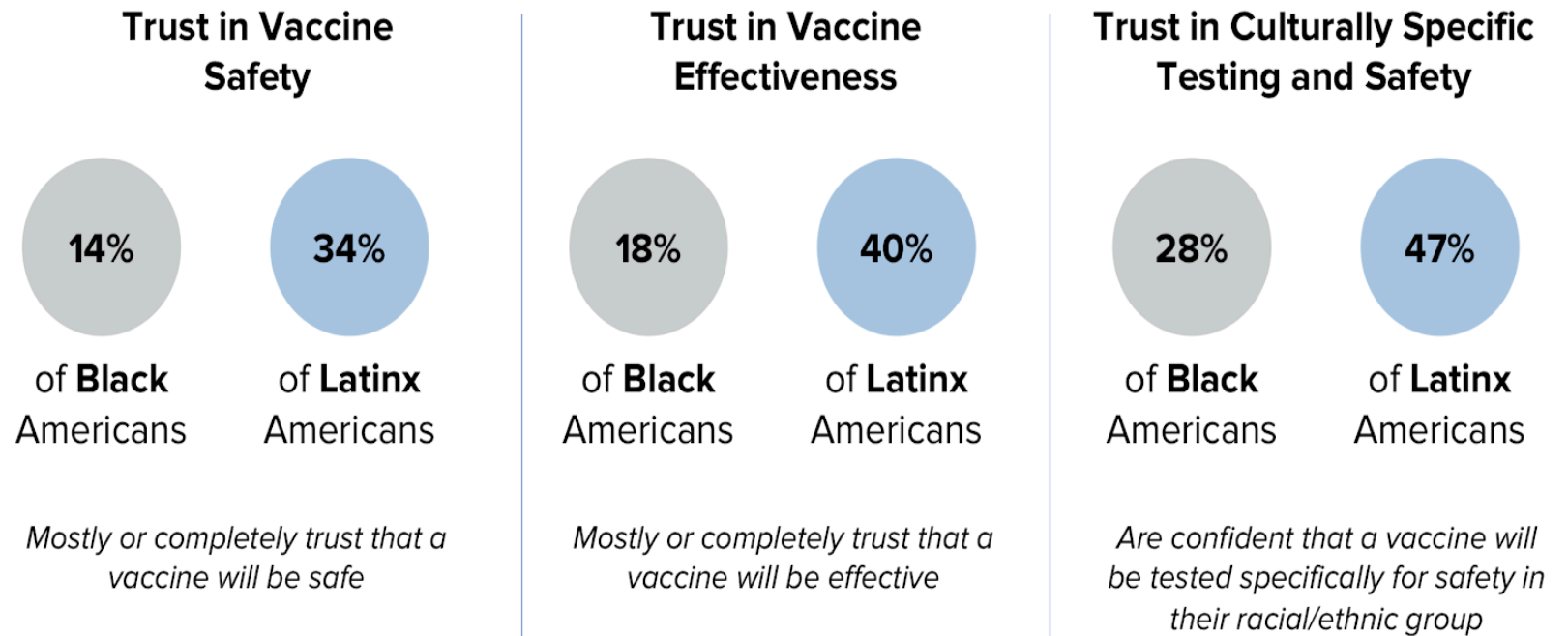
Vaccine Hesitancy

“Too much haste in developing this vaccine. Politics is being put before people's health and safety.”

“I am not confident that this really is a prevention for COVID-19. I feel like it could have other sinister or ulterior motives for African Americans.”

“I'm afraid it may cause me to have the virus.”

While vaccination is a vital strategy for stopping the virus, a significant majority mistrust the safety and efficacy of a COVID-19 vaccine, particularly among Black Americans.



Black People as a Share of COVID-19 Vaccinations, Cases, Deaths and Total Population, February 1, 2021

Based on vaccinations, cases, and deaths with known race/ethnicity, among states reporting vaccinations by race/ethnicity

Click on the buttons below to see data for the different race/ethnicity groups:

Black Hispanic Asian White

State	Percent of Vaccinations	Percent of Cases	Percent of Deaths	Percent of Total Population
Alaska	1%	3%	3%	2%
Colorado	2%	4%	4%	4%
Delaware	6%	24%	23%	22%
Florida	6%	15%	16%	16%
Indiana	4%	8%	9%	9%
Louisiana	13%	34%	39%	32%
Maine	1%	6%	1%	1%
Maryland	16%	33%	35%	30%
Massachusetts	4%	8%	7%	7%
Mississippi	17%	38%	41%	38%
Missouri	5%	12%	14%	11%
Nebraska	3%	4%	4%	5%
New Jersey	4%	11%	16%	12%
North Carolina	12%	20%	25%	21%
Ohio	5%	13%	13%	12%
Oregon	1%	3%	3%	2%
Pennsylvania	3%	14%	12%	11%
Rhode Island	5%	8%	5%	8%
Tennessee	7%	15%	18%	16%
Texas	7%	19%	9%	12%
Vermont	1%	5%	1%	2%

Hispanic People as a Share of COVID-19 Vaccinations, Cases, Deaths and Total Population, February 1, 2021

Based on vaccinations, cases, and deaths with known race/ethnicity, among states reporting vaccinations by race/ethnicity

Click on the buttons below to see data for the different race/ethnicity groups:

Black Hispanic Asian White

State	Percent of Vaccinations	Percent of Cases	Percent of Deaths	Percent of Total Population
Alaska	2%	10%	4%	7%
Colorado	6%	37%	22%	22%
Delaware	3%	18%	6%	10%
Florida	15%	37%	24%	27%
Indiana	2%	10%	4%	7%
Maine	1%	2%	1%	2%
Maryland	4%	19%	9%	11%
Massachusetts	5%	29%	8%	12%
Mississippi	1%	3%	1%	3%
Missouri	3%	6%	3%	4%
Nebraska	3%	23%	13%	11%
New Jersey	6%	26%	19%	21%
North Carolina	2%	22%	8%	10%
Ohio	2%	5%	2%	4%
Oregon	6%	35%	13%	13%
Pennsylvania	2%	20%	4%	8%
Rhode Island	7%	32%	10%	17%
Tennessee	2%	9%	3%	6%
Texas	16%	43%	47%	40%
Vermont	2%	3%	0%	2%
Virginia	6%	18%	8%	10%

A close-up photograph of a hand holding a large, ornate turquoise and silver ring. The hand is positioned over a large pile of yellow corn kernels. The background is a soft, out-of-focus white fabric. The title text is overlaid on the center of the image.

Indigenous and Native American Communities

Gayle Dine'Chacon, MD
University of New Mexico
School of Medicine



NATIVE AMERICAN
BUDGET & POLICY
INSTITUTE

Social Determinants of Health & Key Concerns for COVID-19

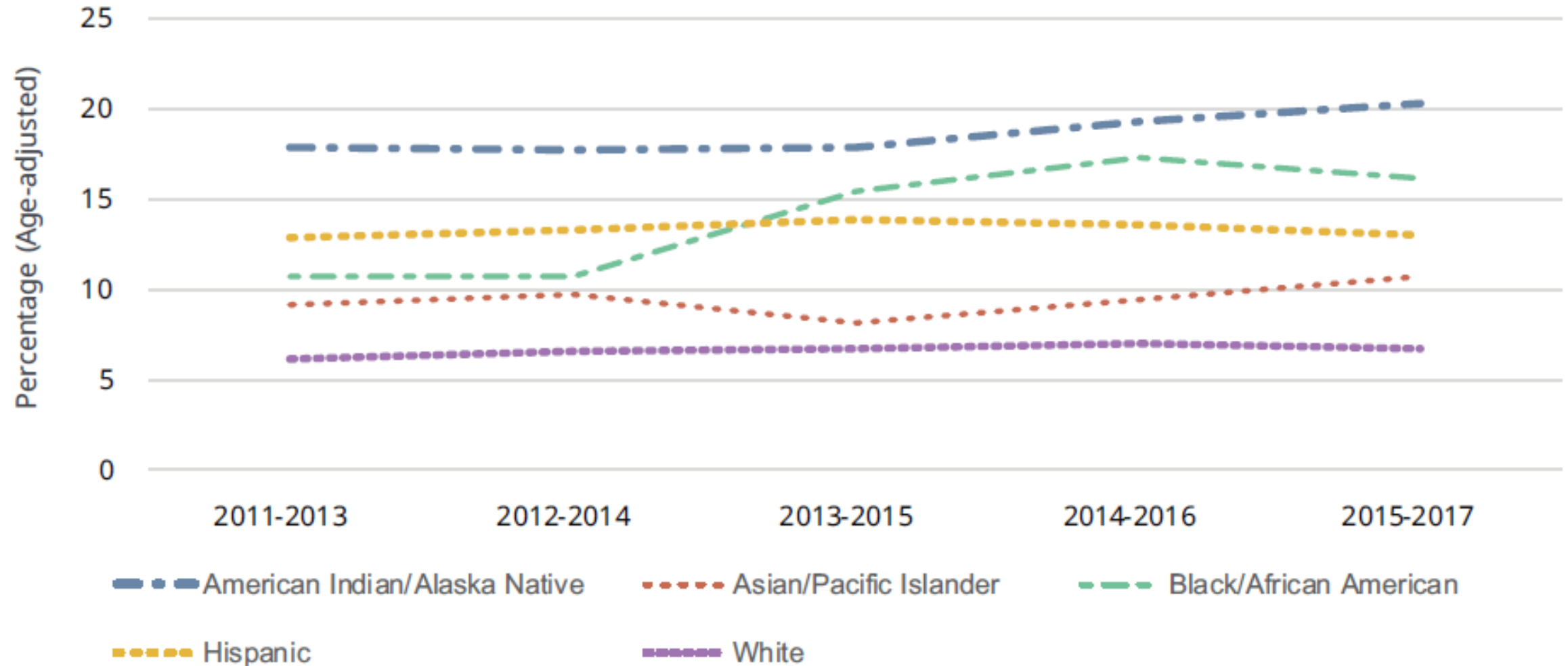
- Economic stability
 - Unemployment on reservations ~ 50%
- Education attainment
 - 56% adults have received a high school diploma
- Living conditions
 - Poor housing, 33% w/o running water, 78% of roads are unpaved
- Lack of broadband (impacts education, work at home & telehealth)
- Lack of access to care – Indian Health Service severely underfunded
- Underlying health conditions (obesity, diabetes, and heart disease)



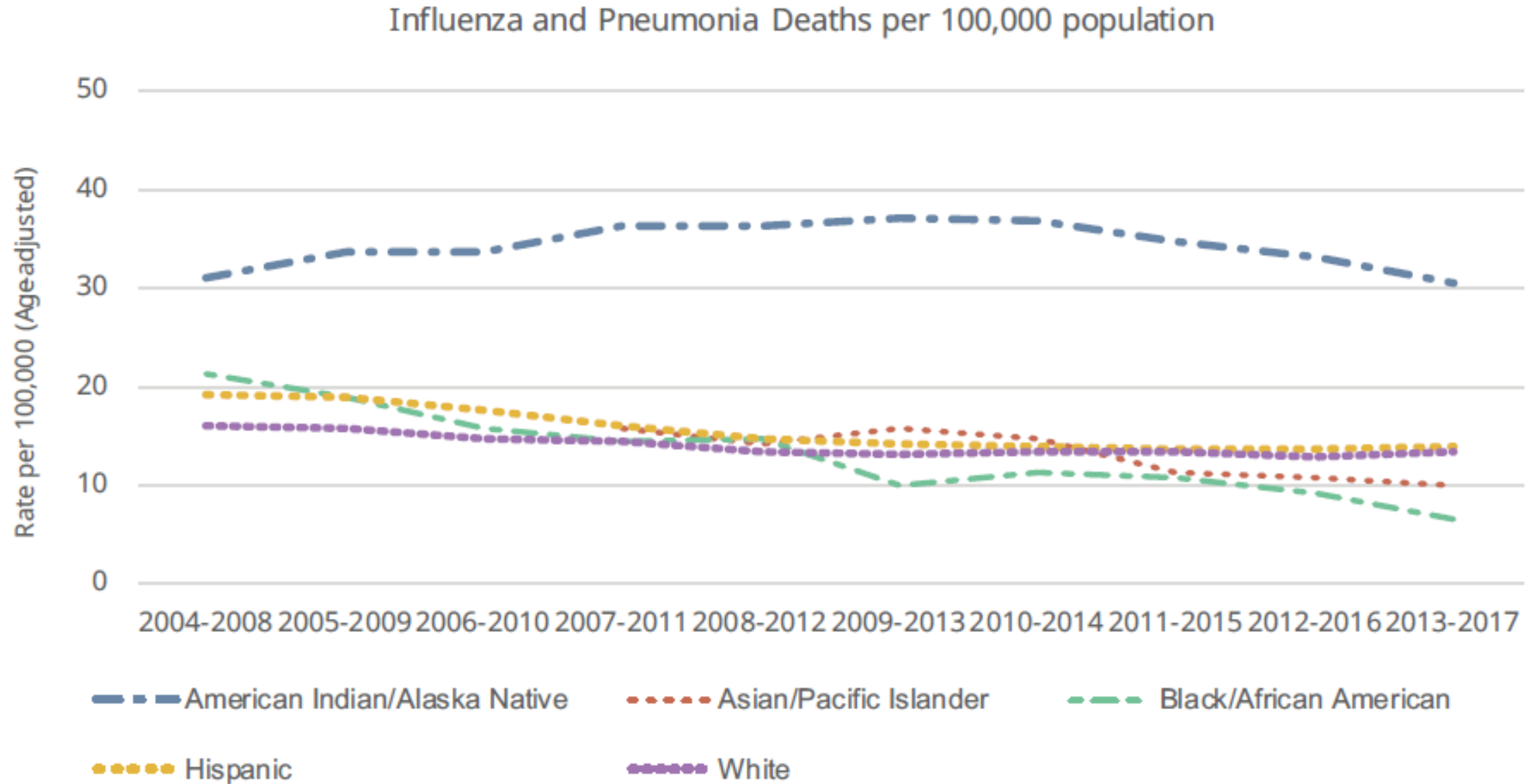


TRENDS BY RACE/ETHNICITY IN NEW MEXICO

Trends in Diagnosed Diabetes in NM Adults, by Race/Ethnicity



TRENDS BY RACE/ETHNICITY IN NEW MEXICO

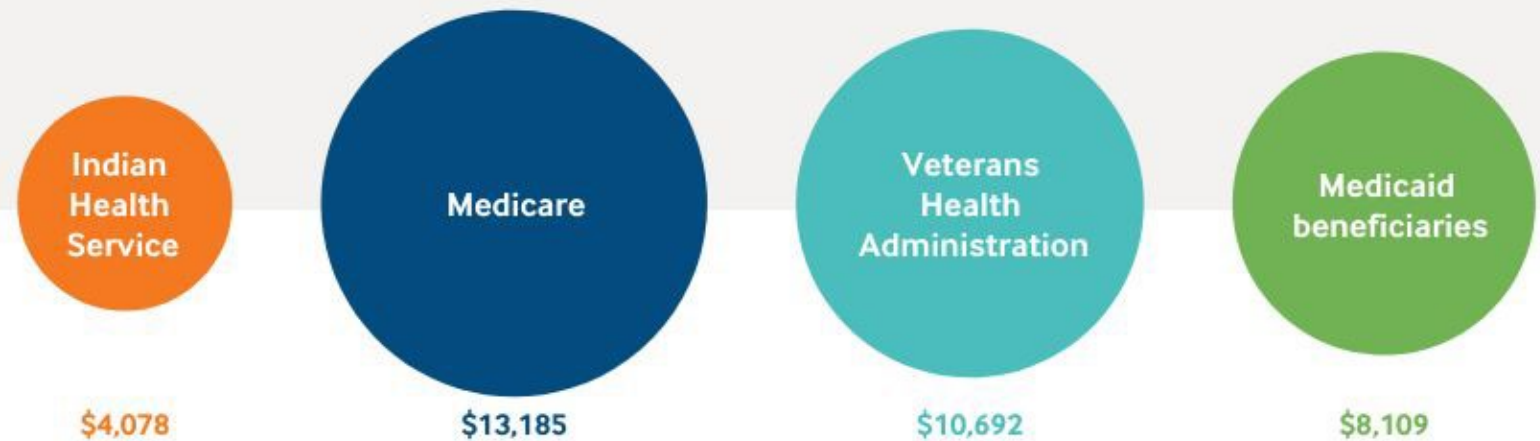


Underfunding of IHS a Perennial Problem

On a per capita basis, public funding to Indian Health Service is substantially lower than that of other programs.

This year the IHS budget is \$6 billion for 2.56 million American Indian and Alaska Natives. Tribal leaders estimate \$32 billion would be needed to meet patients' needs and update aging health care facilities.

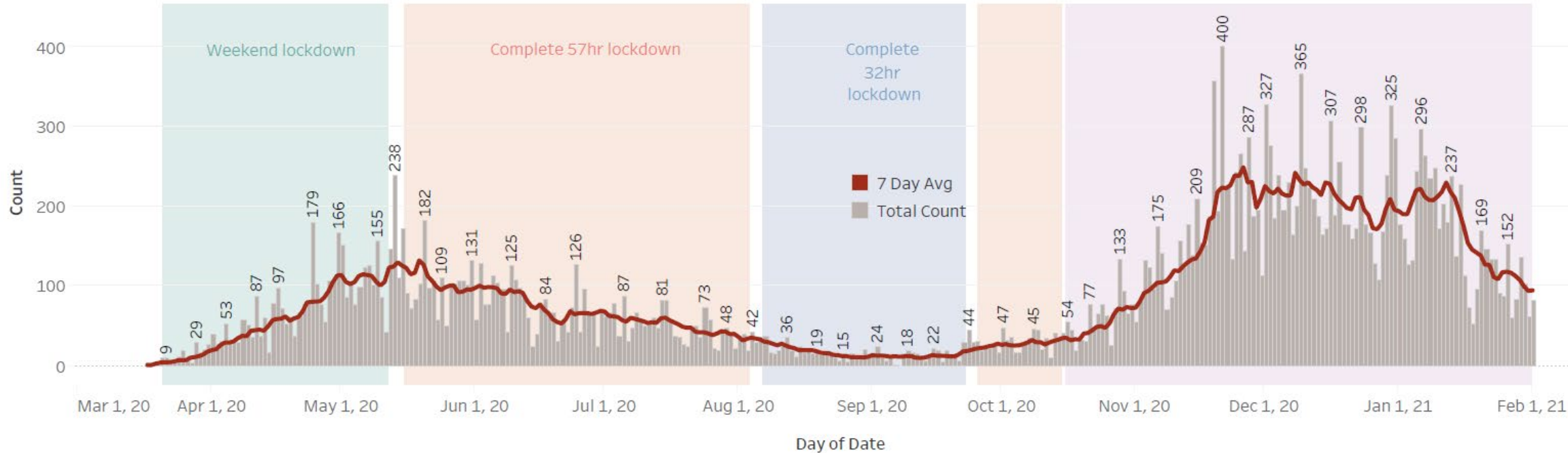
Underfunding has made it difficult to fill health care leadership and clinical positions: 25% are vacant nationally; 30% are vacant in the Navajo Nation.



Note: Some American Indians and Alaska Natives also have health insurance coverage through Medicare, Medicaid, the V.H.A., or through private plans.

Source: <https://www.gao.gov/products/GAO-10-749#summary>

Daily Confirmed Cases on Navajo Nation in All



COVID-19 Cases, Hospitalizations, and Deaths, by Race/Ethnicity

Rate ratios compared to White, Non-Hispanic persons	American Indian or Alaska Native, Non-Hispanic persons	Asian, Non-Hispanic persons	Black or African American, Non-Hispanic persons	Hispanic or Latino persons
Cases ¹	1.8x	0.6x	1.4x	1.7x
Hospitalization ²	4.0x	1.2x	3.7x	4.1x
Death ³	2.6x	1.1x	2.8x	2.8x

Race and ethnicity are risk markers for other underlying conditions that affect health, including socioeconomic status, access to health care, and exposure to the virus related to occupation, e.g., among frontline, essential, and critical infrastructure workers.

How to Slow the Spread of COVID-19



Wear a mask



Stay 6 feet apart



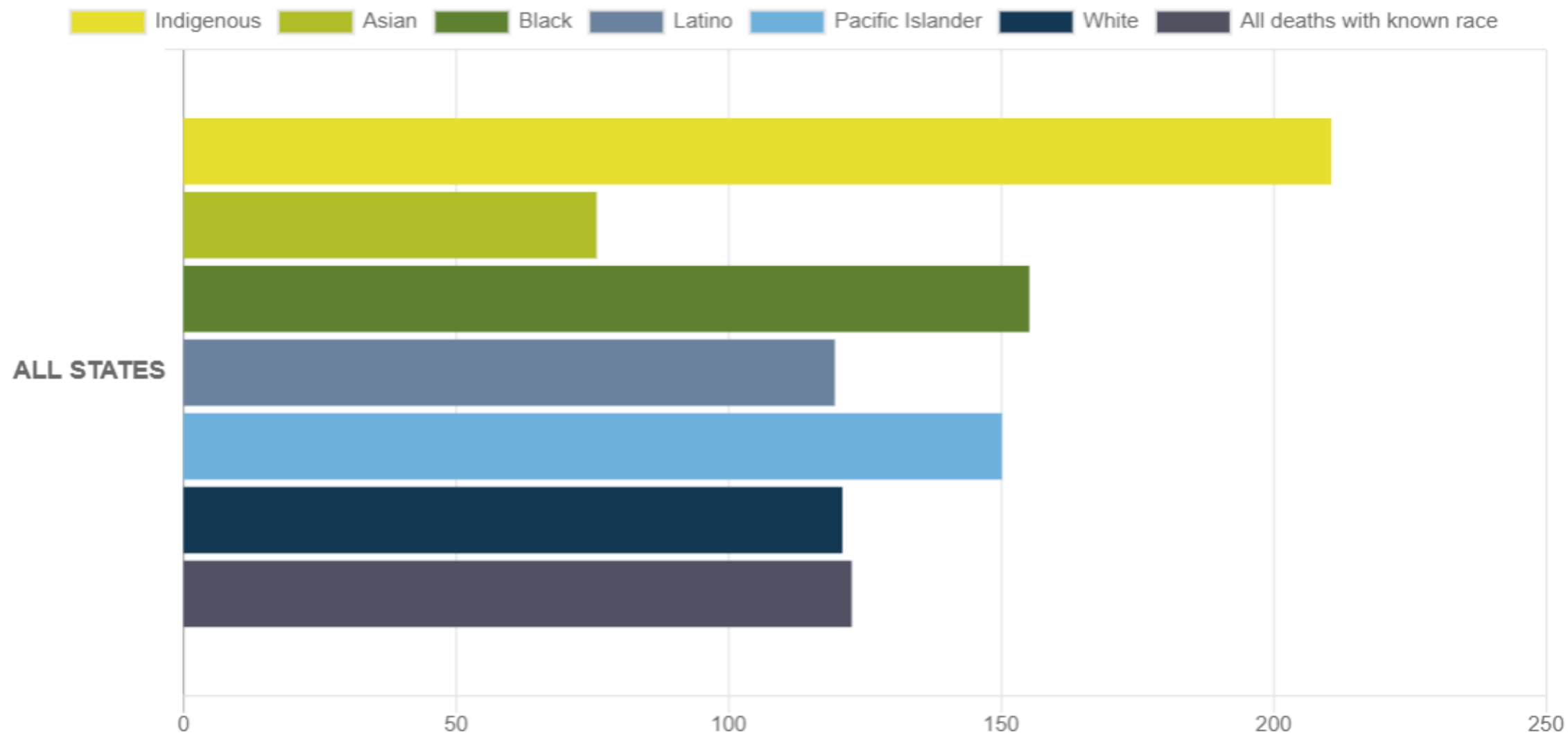
Wash your hands



References on back

cdc.gov/coronavirus

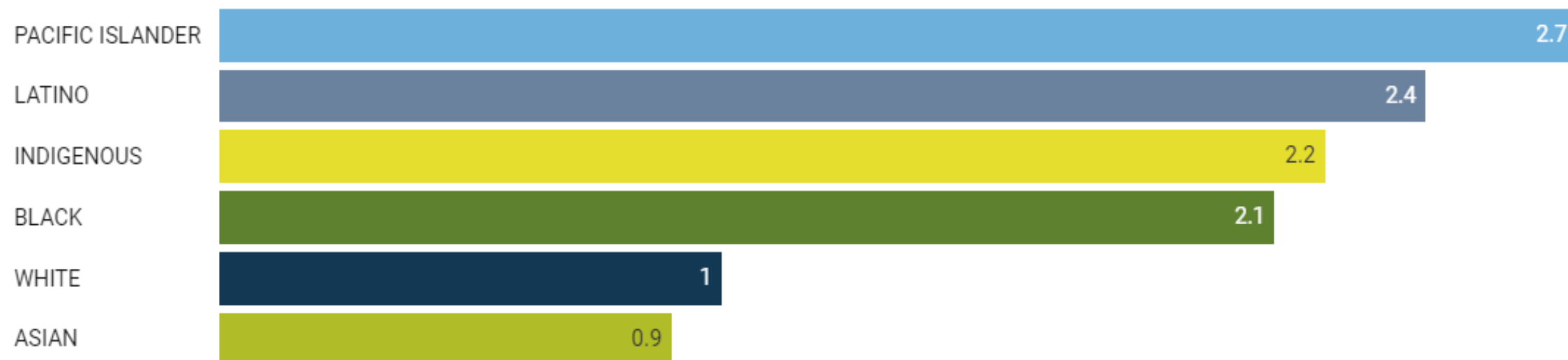
COVID-19 DEATHS PER 100,000 PEOPLE, THROUGH FEB. 2, 2021



** Includes all available data from Washington, D.C., and the 50 states. Users are cautioned that the Indigenous rate is calculated from just 43 states reporting Indigenous deaths, and the Pacific Islander rate from just 22 states reporting such deaths. States employ varying collection*

Adjusted for age, other racial groups are this many times more likely to have died of COVID-19 than White Americans

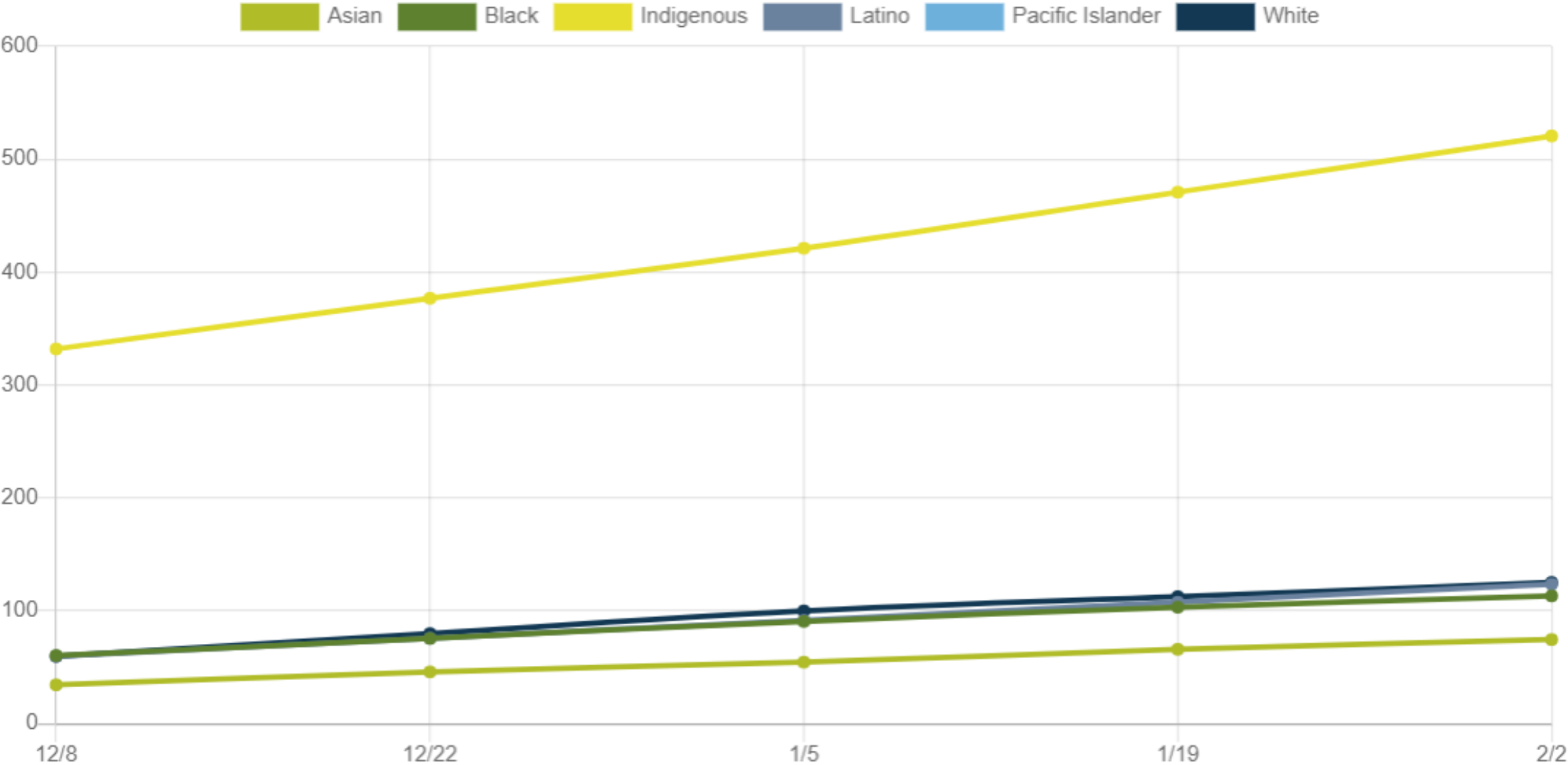
Reflects cumulative mortality rates calculated through Feb. 2, 2021.



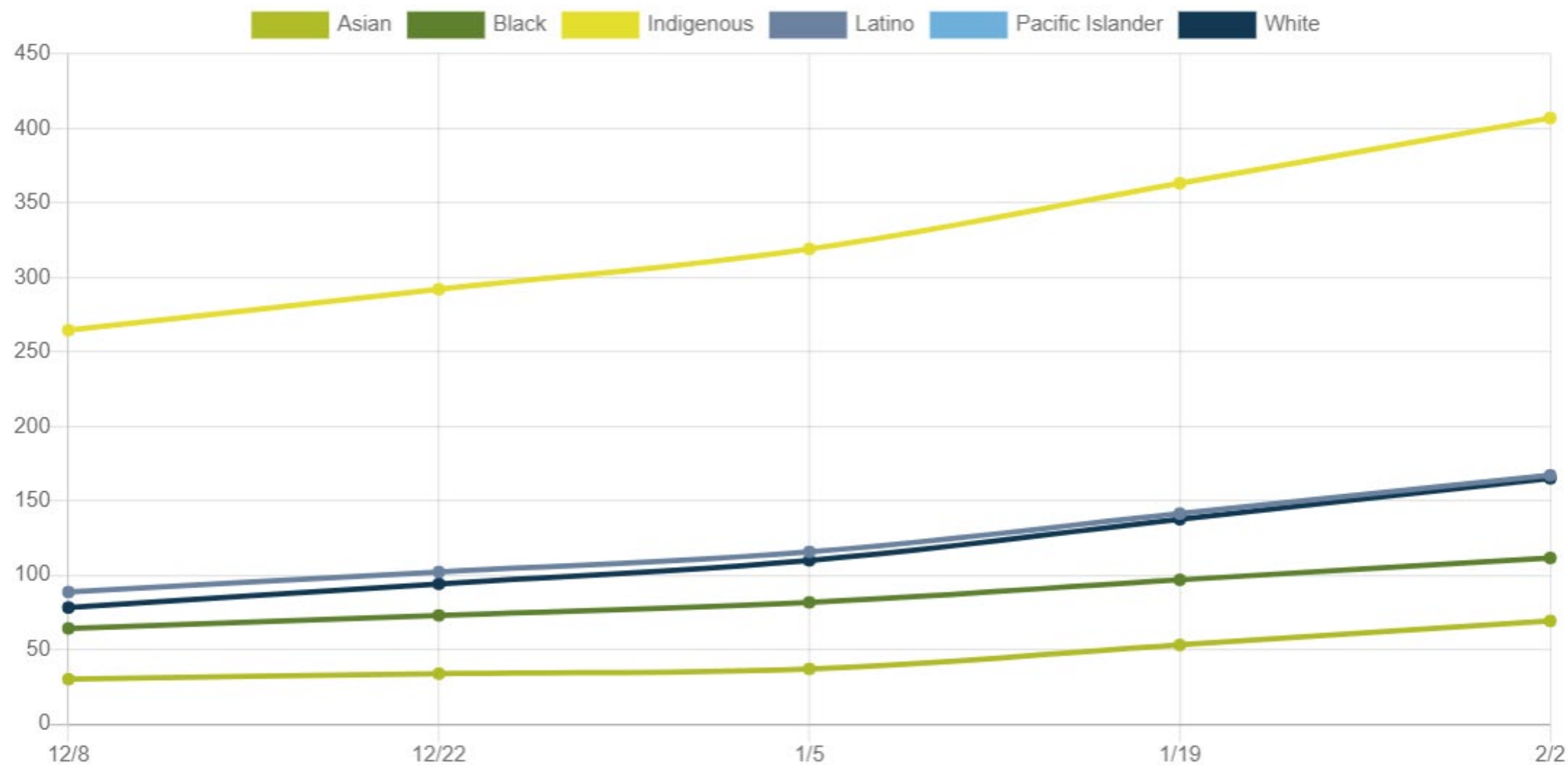
Indirect age-adjustment has been used.

Source: [APM Research Lab](#) • [Get the data](#) • Created with [Datawrapper](#)

RATES OF DEATH FROM COVID-19 (PER 100,000 PEOPLE) IN NEW MEXICO, DEC. 8-FEB. 2, 2021



RATES OF DEATH FROM COVID-19 (PER 100,000 PEOPLE) IN ARIZONA, DEC. 8-FEB. 2, 2021



African-American and Refugee Communities

Amira del Pino-Jones, MD
University of Colorado



Coronavirus In Colorado: African Americans Hit Hard By COVID-19

By [CBS4 Health Specialist Kathy Walsh](#) April 14, 2020 at 11:58 pm Filed Under: [Alfonzo Porter](#), [Aurora News](#), [Colorado News](#), [Coronavirus](#), [Edream Moore](#)

COVID In Colorado: Research Shows Many Minorities Are Hesitant of Coronavirus Vaccine

By [Tori Mason](#) December 8, 2020 at 5:24 pm Filed Under: [Colorado News](#), [Coronavirus](#)

“There’s been a problem with trust, as well as being empowered in the health care system when it comes to our black populations and other populations of color,” she said.

Dr. Terri Richardson MD, Vice Chair
Colorado Black Health Collaborative



Thirty percent of black/African American Coloradans were struggling to pay for the basic necessities of life before the coronavirus outbreak, and it's only gotten worse with 42% now reporting difficulty paying for food, housing, utilities and healthcare.

Black/African American Coloradans are worried about the health impacts of the coronavirus and want the government to do more to protect the public's health.



Coronavirus has left an Aurora clinic for refugees busier than ever and facing big challenges

Since the coronavirus crisis hit Colorado, P.J. Parmar estimates his staff of 10 at Ardas Family Medicine has tested close to 300 refugees for the new coronavirus, with 45% coming back positive.

APR 22, 2020 4:00AM MDT

HEALTH



P.J. Parmar, a family physician, tests a patient for the coronavirus in the parking lot of his clinic in Aurora on April 15, 2020. The medical clinic is part of the Mango House, a shared space for refugees and asylum seekers. (Moe Clark, The Colorado Sun)



COVID-19 Risk Factors for Refugees

Often live in close quarters with family and friends

Reliance on public transportation

Essential workers



LatinX & COVID-19: Impacts & Vaccine Engagement

Ricardo Correa, M.D., EdD., F.A.C.P., F.A.C.E., F.A.P.C.R., F.A.C.M.Q.

Fellowship Director, Endocrinology, diabetes and Metabolism

Director, Diversity for Graduate Medical Education

University of Arizona College of Medicine

Staff Endocrinologist, Phoenix VAMC

Associate Professor of Medicine Creighton University SOM, Alix School of
Medicine, Mayo Clinic

LatinX Population Overview

- **60M or 18.3 %** of the U.S. population
 - 63% Mexican-American
- **Socio Economic Status**
 - Young population (med age 29.5 yo), low-income, crowded households, mixed families, limited education & English proficiency, large families
- **Health Care**
 - Greatest uninsured, limited doctor visits & health literacy
 - Underrepresented in medicine, public health & clinical trials
- **Occupations**
 - Small business, retail, grocery stores, construction, gardeners, janitors
 - Limited social distancing

Data Collection Information

- **States (MOST RELEVANT SW REGION)**
 - CA – 55% cases, 46% deaths, 39% population or 15.5M of 39.5M
 - TX- 35% cases, 40% population or 12M of 29M
- **Latinos in clusters in poorest zip codes w/SDOH**
 - poverty, food insecurity, toxic stress, not car owners, tech divide

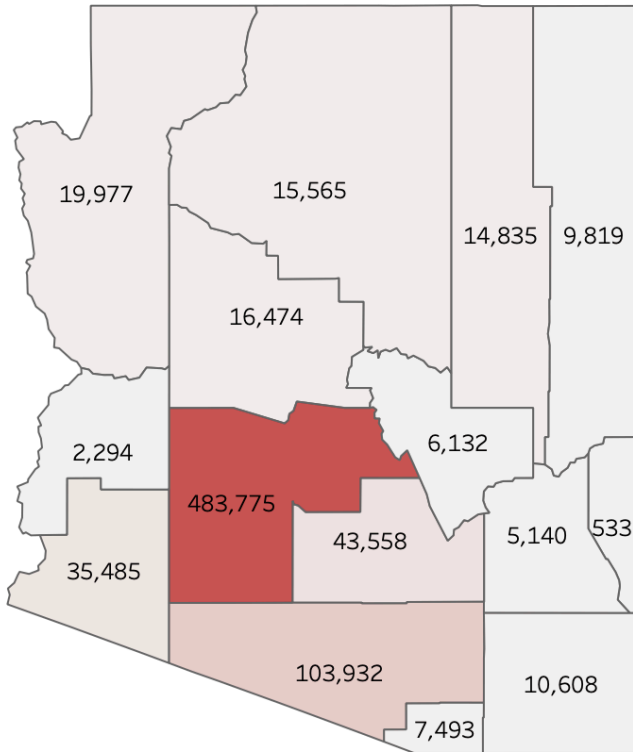
Arizona

Number of Cases

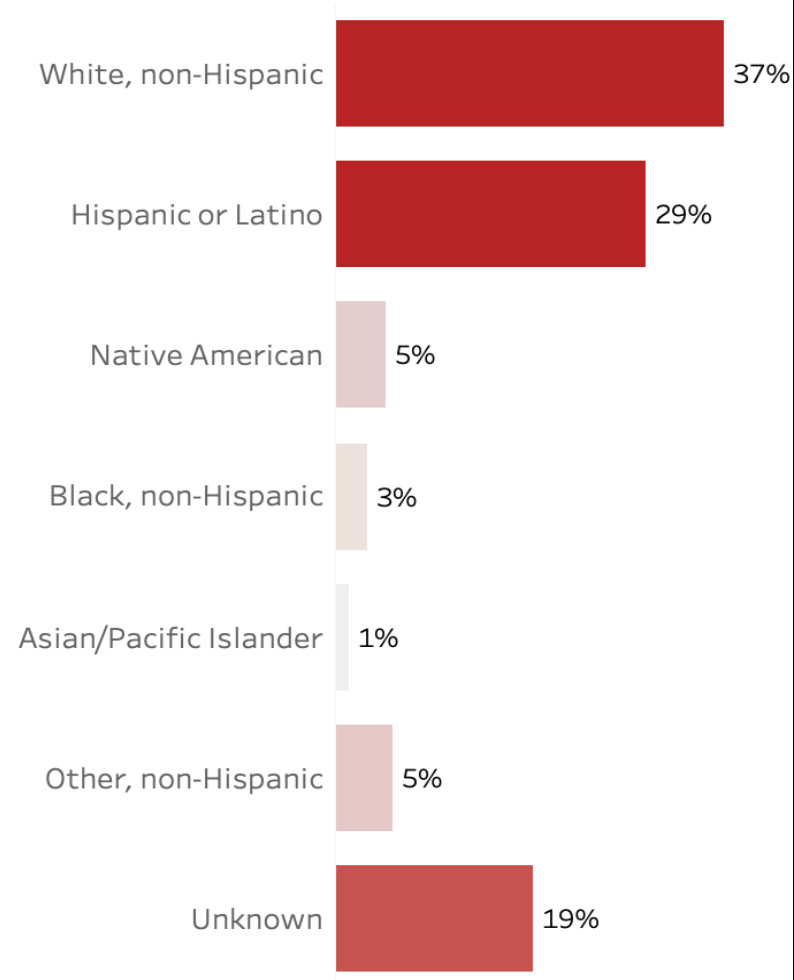
775,622

Select a county to filter the other graphs.

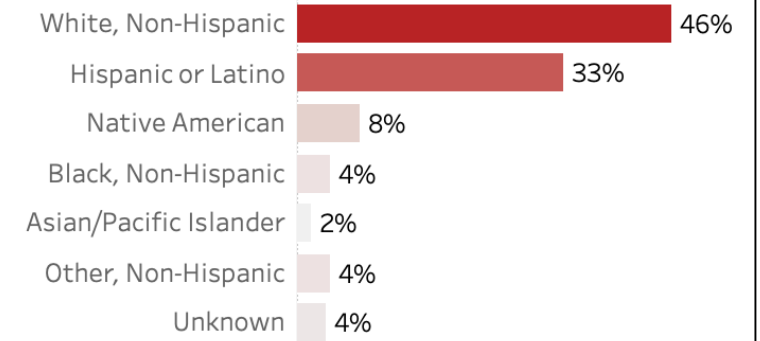
Graphs will not be displayed for counties with fewer than 10 cases.



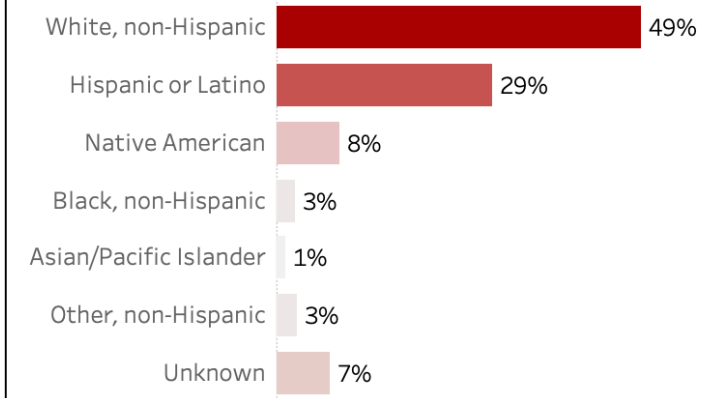
COVID-19 Cases by Race/Ethnicity



COVID-19 Hospitalized Cases by Race/Ethnicity



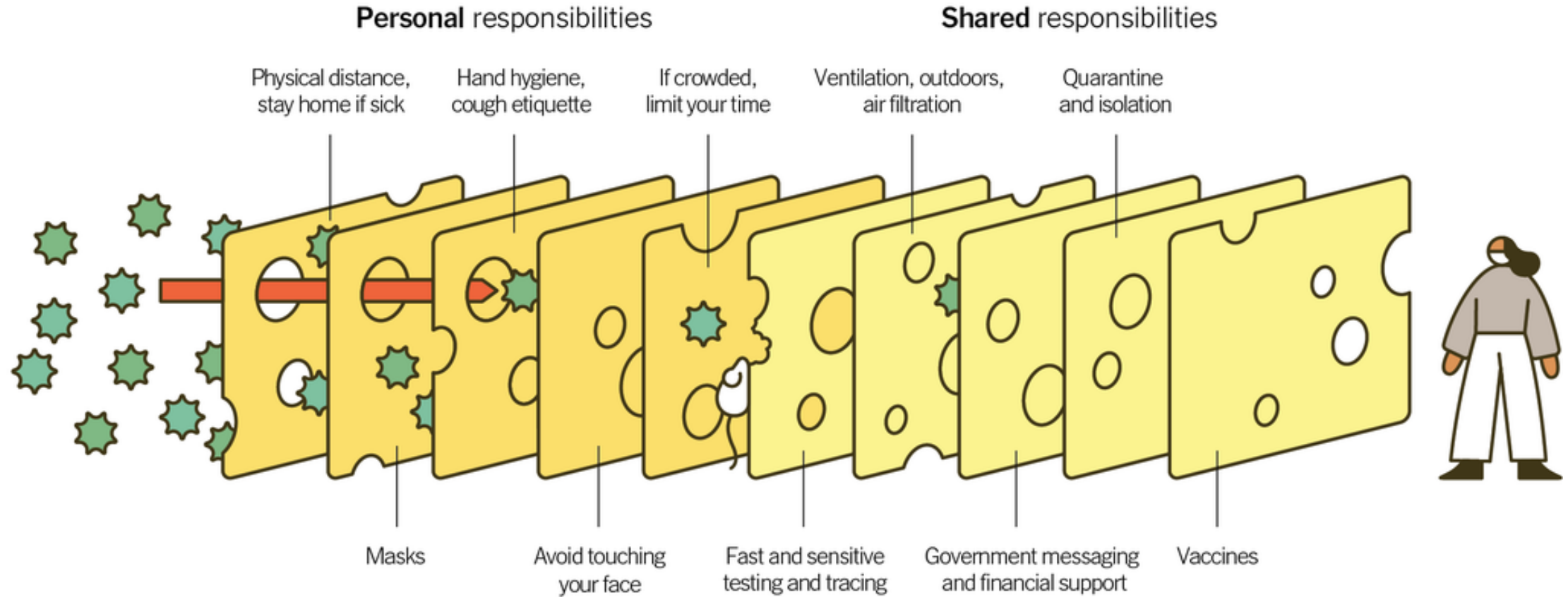
COVID-19 Deaths by Race/Ethnicity



Feb 5, 2021

Multiple Layers Improve Success

The Swiss Cheese Respiratory Pandemic Defense recognizes that no single intervention is perfect at preventing the spread of the coronavirus. Each intervention (layer) has holes.



Source: Adapted from Ian M. Mackay (virologydownunder.com) and James T. Reason. Illustration by Rose Wong

Barriers that Impact Covid-19 Prevention and Vaccination among Latinos

- LatinX lack of knowledge –disease course, symptoms, isolation or Quarantine.
- Lack of access to testing.
- Lack of health insurance and no trusted medical home.
- Lack of resources to isolate, food insecurity and family support when isolating.
- Lack of language and culturally concordant services.
- Fear, anxiety, isolation and stigma.
- Lack of social support and loneliness during isolation.

Outreach Interventions Proven Effective

- Engage in a manner that preserves confidentiality and promotes trust
- Bilingual information and materials provided in Spanish in a culturally relevant manner
 - Provide support for health-related decisions.
 - Be a credible source for information.
 - Be aware of community resources for Information and support to enroll in insurance and establish primary healthcare services, Home-based deliveries of essential goods (food medications, PPE)

Getting back to work and protecting close family a motivator for vaccination!

Health Care Providers play a Critical role!

Encourage patients to get tested and isolate until they receive their results.

Educate your patients on what to expect if they test positive.

Become informed about available resources in your community.

Become a reliable resource on Covid-19 Prevention, Treatment and Vaccination.

Let them know you were vaccinated!

Key Recommendations

Family oriented Messages

- Best way to protect yourself and your whole family is to get vaccinated.

Dispel myths & Misconceptions

- Prevent misunderstandings about the COVID-19 vaccine.
- Explain benefits, side effects and safety.

Vaccine protects both healthy and high-risk individuals

- Discuss exposures and risks for healthy and vulnerable patients and family members in the household.

Recommend vaccine! Let them know you were vaccinated

- Provider recommendations increase likelihood of patients getting vaccinated.

Trust is vital!

Q & A

Please type questions into the Q&A

COVID-19 Disparities and Vaccine Hesitancy: Moving Toward Health Equity

PART II

March 9th, 2021 1:00 – 2:30 pm MST

Thank you

Please use the QR Code to
complete the Grand
Rounds Evaluation:

