



# COVID-19: Addressing Health Equity in the U.S.

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# **Environmental Justice and Resiliency in an Age of Uncertainty**

Edited by Celeste Murphy-Greene





# Equality vs Equity

## WHOLE COMMUNITY

While each individual defines “community” differently, the “Whole Community” refers to individuals and families, including those with access and functional needs, businesses, faith-based and community organizations, nonprofit groups, schools and academia, media outlets, and all levels of government, including state, local, tribal, territorial, and federal partners that have a shared responsibility in emergency preparedness and mitigation.

### Equality



### Equity



# Equality vs Equity vs Justice

## Equality



The assumption is that **everyone benefits from the same supports**. This is equal treatment.

## Equity



**Everyone gets the supports they need** (this is the concept of "affirmative action"), thus producing equity.

## Justice



All 3 can see the game without supports or accommodations because **the cause(s) of the inequity was addressed**. The systemic barrier has been removed.

# What is Social Equity

“Social Equity is about fairness, right, justice, and freedom from the effects of bias...It is a pragmatic condition that describes access to, distribution of, and outcome related to public goods” (Guy & McCandless, 2020).



# What is Health Equity?

Health equity is when everyone has the opportunity to be as healthy as possible. Achieving health equity requires valuing everyone equally with focused and ongoing efforts to address avoidable inequities, historical and contemporary injustices, and the elimination of disparities in health and healthcare. The population health impact of COVID-19 has exposed longstanding inequities that have systematically undermined the physical, social, economic, and emotional health of racial and ethnic minority populations and other population groups that are bearing a disproportionate burden of COVID-19. (CDC 2021c)

# COVID-19 and Health Equity

COVID-19 exposed “pre-existing” health inequities in the U.S.

Highest death rates are among American Indians, Alaskan Natives, Blacks, and Hispanics. (CDC, 2021).



# COVID-19 Weekly Deaths per 100,000 Population by Race/Ethnicity, United States



Jurisdiction

3/7/2020

9/11/2021

US

March 01, 2020 - September 11, 2021\*

Cases

Deaths

Sex

Age

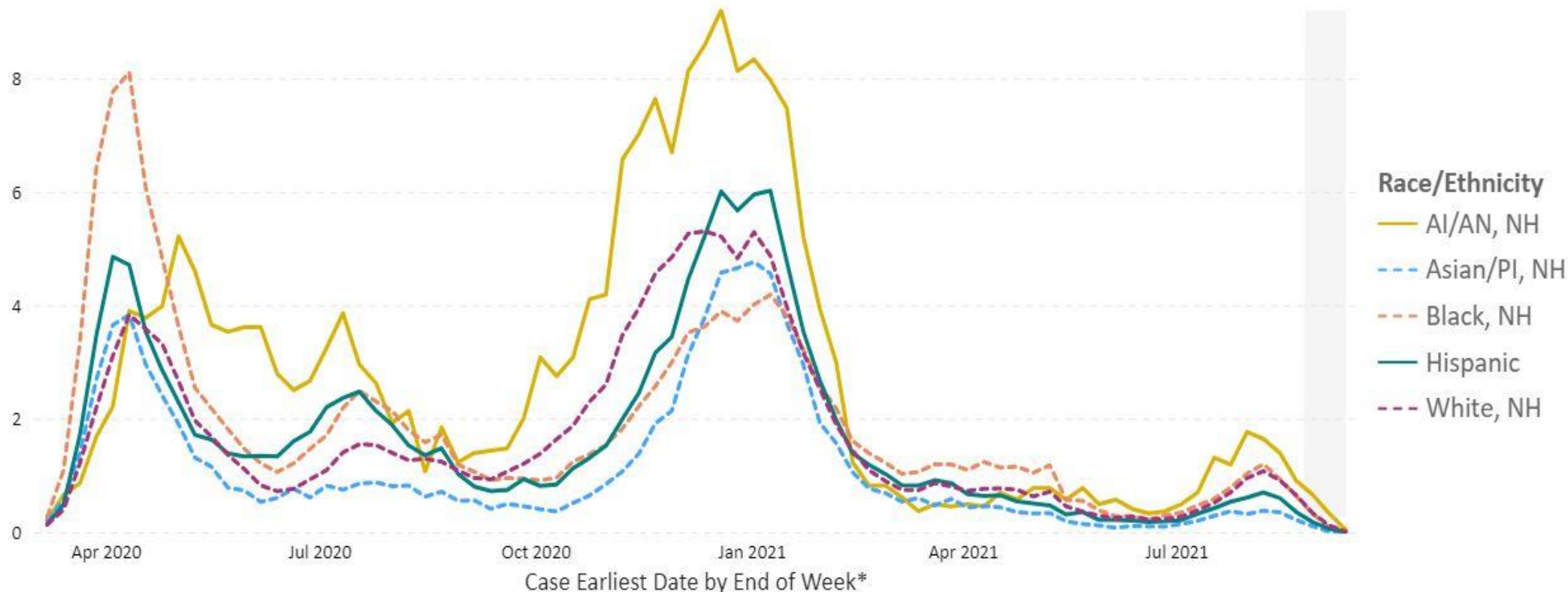
Race/Ethnicity

Sex

Age

Race/Ethnicity

Incident Deaths per 100,000 Population



US: The most recent line level case record was reported during the week ending on Sep 11, 2021. Percentage of deaths among reported cases - 1.68%. Percentage of deaths reporting race by date - 80.42%

US territories are included in case and death counts but not in population counts. Potential two-week delay in case reporting to CDC denoted by gray bars. AI = American Indian, AN = Alaska Native, NH = Non-Hispanic, PI = Pacific Islander. Excludes deaths with unknown or multiple races. \*Case Earliest Date is the earliest of the clinical date (related to illness or specimen collection and chosen by a defined hierarchy) and the Date Received by CDC.

Last Updated: Sep 10, 2021

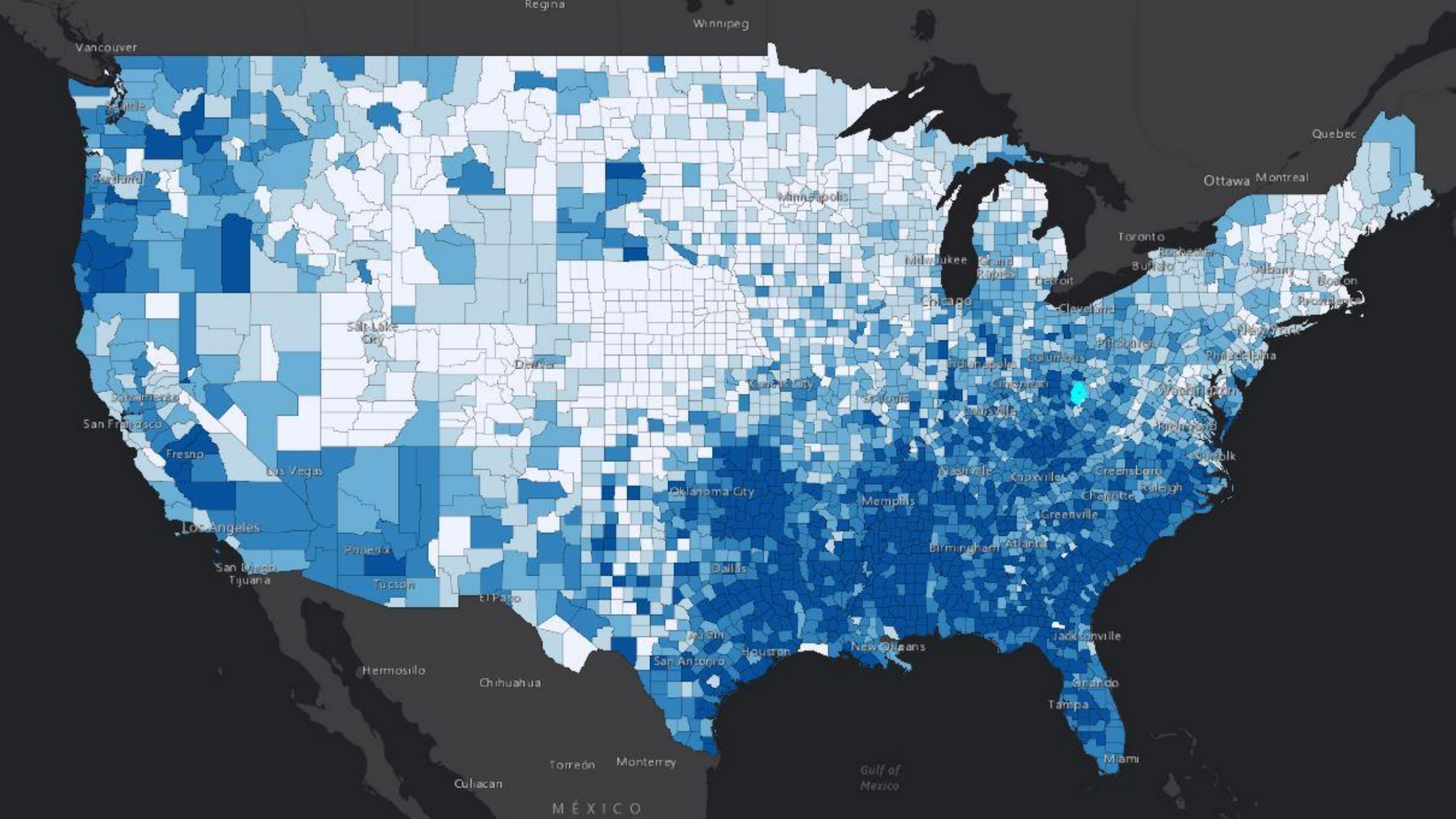
Source: CDC COVID-19 Case Line-Level Data, 2019 US Census, HHS Protect; Visualization: Data, Analytics & Visualization Task Force and CDC CPR DEO Situational Awareness Public Health Science Team



# Pandemic Vulnerability Index (PVI)

PVI-provides data on location of the most vulnerable communities in the U.S. Uses the following measures:

- 1) Infection Rate Transmissible Cases,
- 2) Infection Rate Disease Spread,
- 3) Population Concentration/Population Mobility,
- 4) Population Concentration/Residential Density,
- 5) Intervention/Social Distancing,
- 6) Intervention/Testing,
- 7) Health & Environment/Population Demographics,
- 8) Health & Environment/Air Pollution,
- 9) Health & Environment/ Age Distribution,
- 10) Health and Environment/Co-Morbidities,
- 11) Health & Environment/Health Disparities, and
- 12) Health and Environment/Hospital Beds (NIEHS, 2021).



# Occupational Status and COVID-19

-Goldman et al (2021) reveal linkages between occupation standing and COVID-19 related exposure for American Indians (AI), Alaskan Natives (AN), Black and Hispanics.

-Whites more likely to work remotely.

-AI, AN, Blacks and Latinos are more likely to hold jobs of lower occupational standing, with no remote option, putting them at risk of COVID exposure.



# COVID-19 and Farmworkers


-Bottemiller Erich et al. (2020) found farmworkers faced disproportionately high rate of infection from COVID-19.

-Counties in CA, WA, AZ, OR, and NC with the highest infection rates were the top agricultural producers.

-Murphy-Greene (2002) found farm worker, who are largely Hispanic, are at risk of exposure to occupational hazards due to a lack of personal protective equipment and basic hand washing facilities and toilets.

-OSHA still exempts farms of 11 or fewer workers to provide hand washing facilities and toilets for farm workers.



A photograph of two glass vials and two syringes on a blue background. The vials are filled with a clear liquid and have black caps. The syringes are also filled with a clear liquid and have green plungers. The background is a solid blue color with a white curved line on the right side.

# COVID-19 Vaccine

Blacks lag behind in vaccination rate compared to overall vaccination rate in U.S.

As of Nov. 2, 2021 58.1% of U.S. population has received one dose and

67.1% are fully vaccinated (Mayo Clinic, 2021).

# Percent of People Receiving COVID-19 Vaccine by Race/Ethnicity and Date Reported to CDC, United States



December 14, 2020 – September 13, 2021

	AI/AN, NH	Asian, NH	Black, NH	Hispanic/Latino	NHOPI, NH	White, NH
At Least One Dose	55.5%	42.9%	33.9%	41.0%	45.6%	40.1%
Fully Vaccinated	47.5%	41.8%	29.9%	36.1%	39.7%	37.8%

Race/Ethnicity data were available for 63.9% receiving at least one dose and 69.1% of people fully vaccinated.

Race

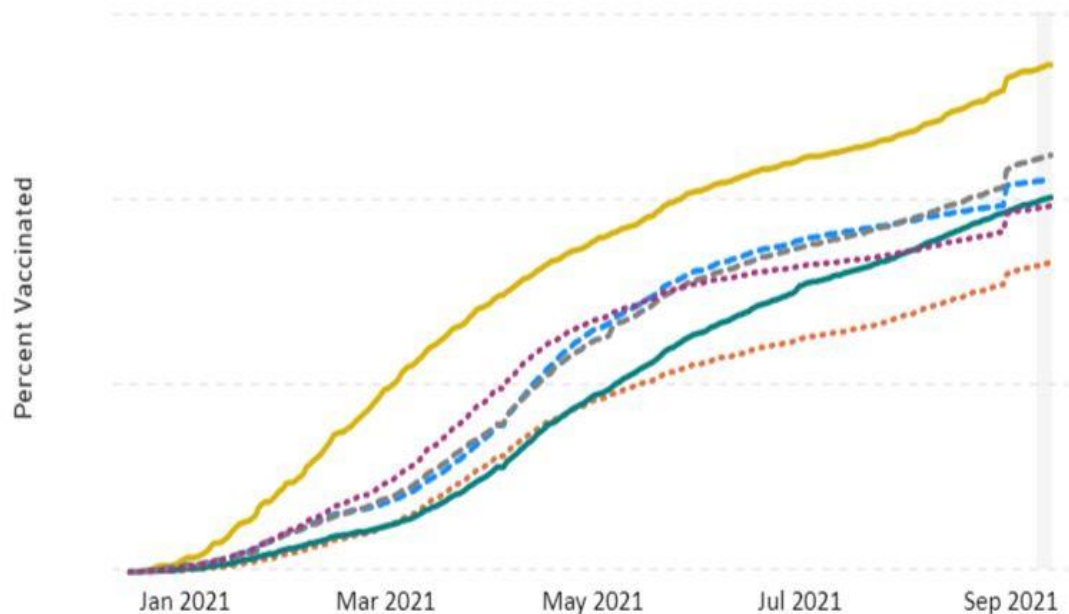
Sex

Age

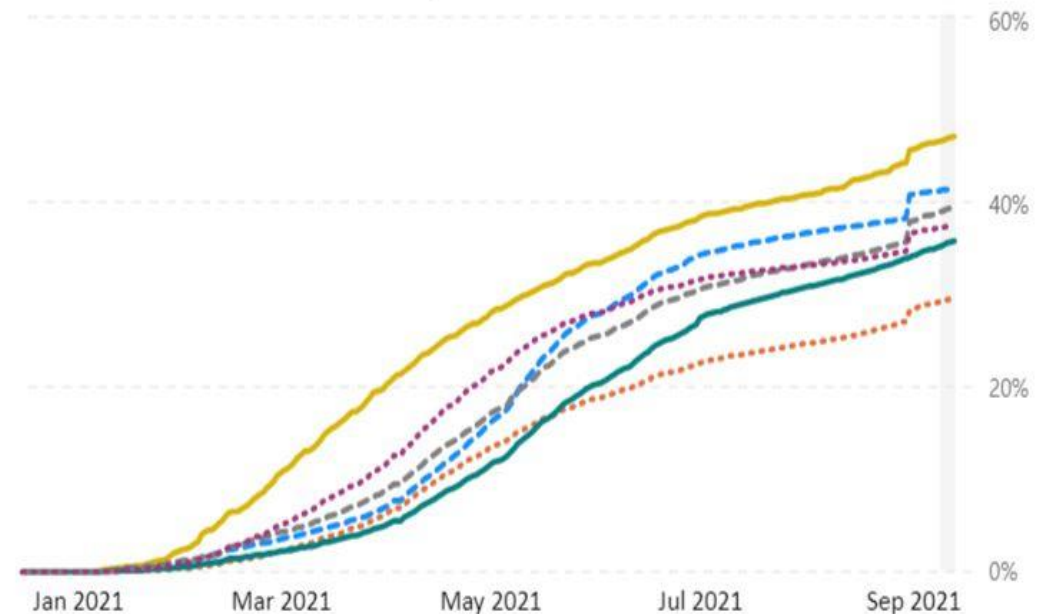
12/13/2020

9/13/2021

At Least One Dose



Fully Vaccinated



Date Reported

AI/AN = American Indian/Alaska Native; NH = Non-Hispanic/Latino; NHOPI = Native Hawaiian or Other Pacific Islander; People receiving at least one dose; total count represents the total number of people who received at least one dose of COVID-19 vaccine. People fully vaccinated; total count represents the number of people who have received a dose of a single-shot COVID-19 vaccine or the second dose in a 2-dose COVID-19 vaccine series. Due to the time between vaccine administration and when reported to CDC, vaccinations administered during the last 5 days may not yet be reported. This reporting lag is represented by the gray, shaded box. Texas does not report race-specific dose number information to CDC, so data for Texas are not represented in these figures.

Last Updated: Sep 13, 2021

Data source: VTrcks, IIS, Federal Pharmacy Program, Federal Entities Program, U.S. Census Bureau 10-year July 2019 National Population Estimates; Visualization: CDC CPR DEO Situational Awareness Public Health Scientist Team

# **Social Vulnerability and COVID-19**

**The CDC's Social Vulnerability Index (SVI) consists of five themes:**

- 1) Socio Economic Status,**
- 2) Household Composition and Disability Status**
- 3) Racial/Ethnic Minority Status and English**
- 4) Household type and Transportation.**

**Hughes et al. (2021) found of 49,264,338 people in counties in 49 states and the District of Columbia receiving at least one dose of the vaccine, vaccination rates were higher (15.8%) in counties with low SVI than in high SVI counties (13.9%).**





Social antecedents that create vulnerability within certain groups.

National Institute of Environmental Health Sciences (2021). *COVID-19 Pandemic Vulnerability Index*. Retrieved From , 2021 <https://covid19pvi.niehs.nih.gov/>





## Redlining and Zoning

Palm, R., & Corbridge, J. (1982). The unintended impacts of anti-redlining legislation. *Journal of Environmental Systems*, 12 (4): 341- 350


Roberts, S. O., & Rizzo, M. T. (2021). The Psychology of American Racism. *American Psychologist*, 76(3), 475–487.

# Urban Heat Islands just another by product of environmental injustice

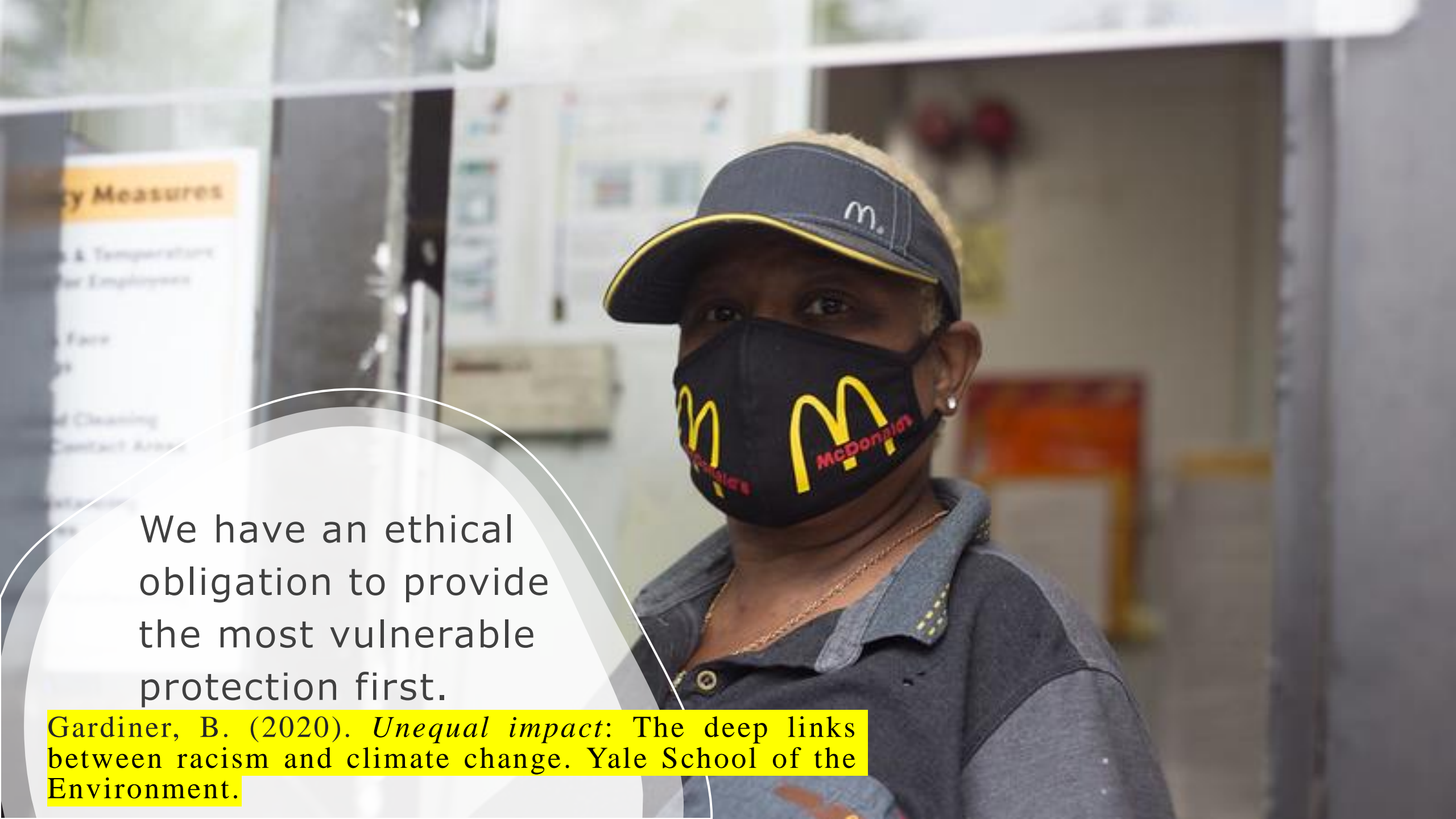
Wilson, B. (2020) Urban heat management and the legacy of redlining. *Journal of the American Planning Association*, 86(4), 443-457, doi: 10.1080/01944363.2020.1759127





A photograph of a grocery store cashier, an African American woman, wearing a bright green polo shirt, a blue surgical mask, and glasses. She is standing behind a checkout counter, looking down at a cash register. The counter is cluttered with various grocery items, including bags of bread and yellow bags of chips. In the background, there are shelves stocked with hats and other merchandise. A green sign on the counter reads "WE'RE TAKING YOUR HEALTHY WELL-BEING OF OUR CUSTOMERS HEART". A white circular graphic is overlaid on the left side of the image, containing the text "A majority of our essential workers are African American.".

A majority of our  
essential workers are  
African American.



We have an ethical obligation to provide the most vulnerable protection first.

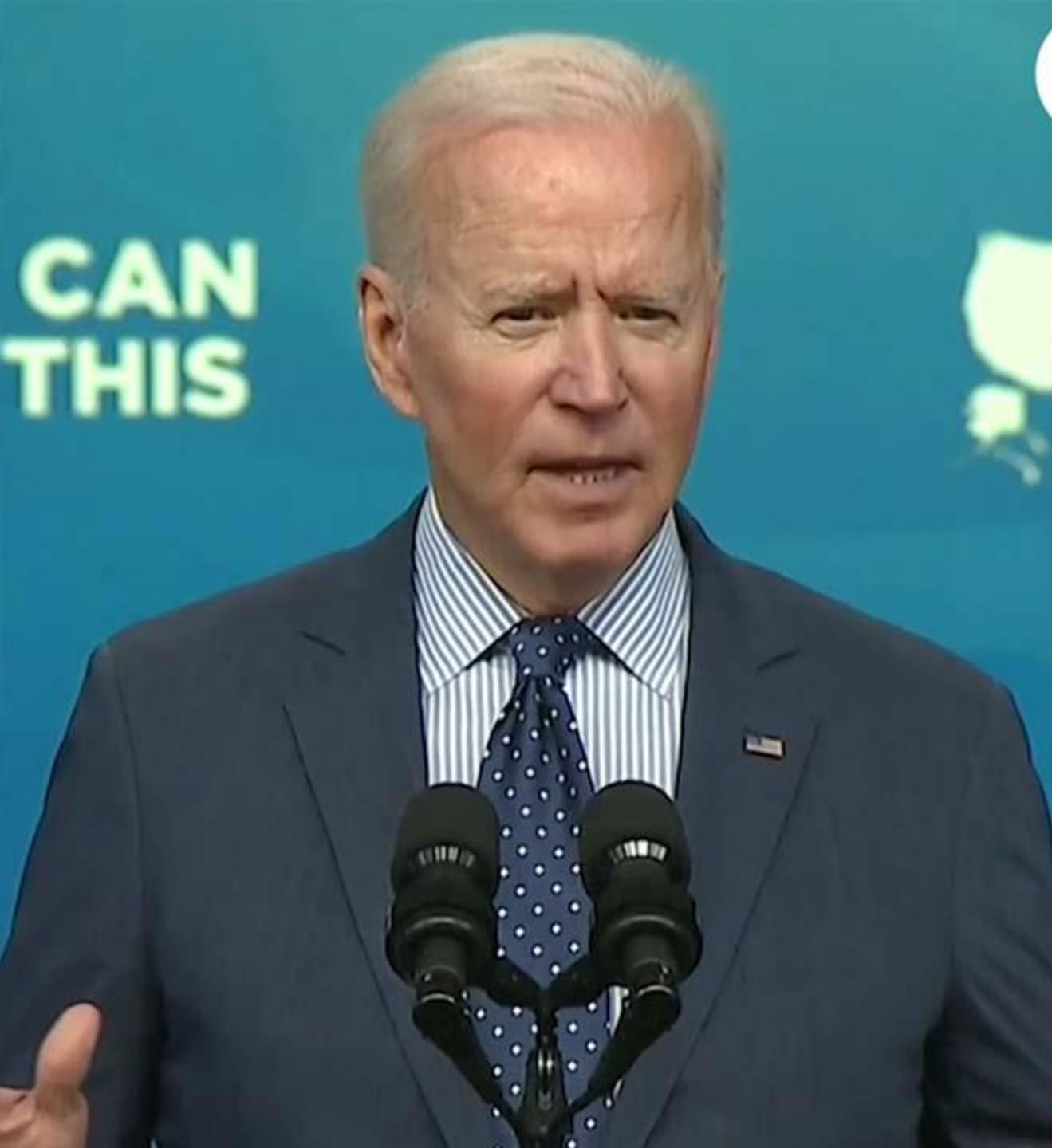
Gardiner, B. (2020). *Unequal impact: The deep links between racism and climate change*. Yale School of the Environment.





HAIR Network. Building community reliance one cut at a time.

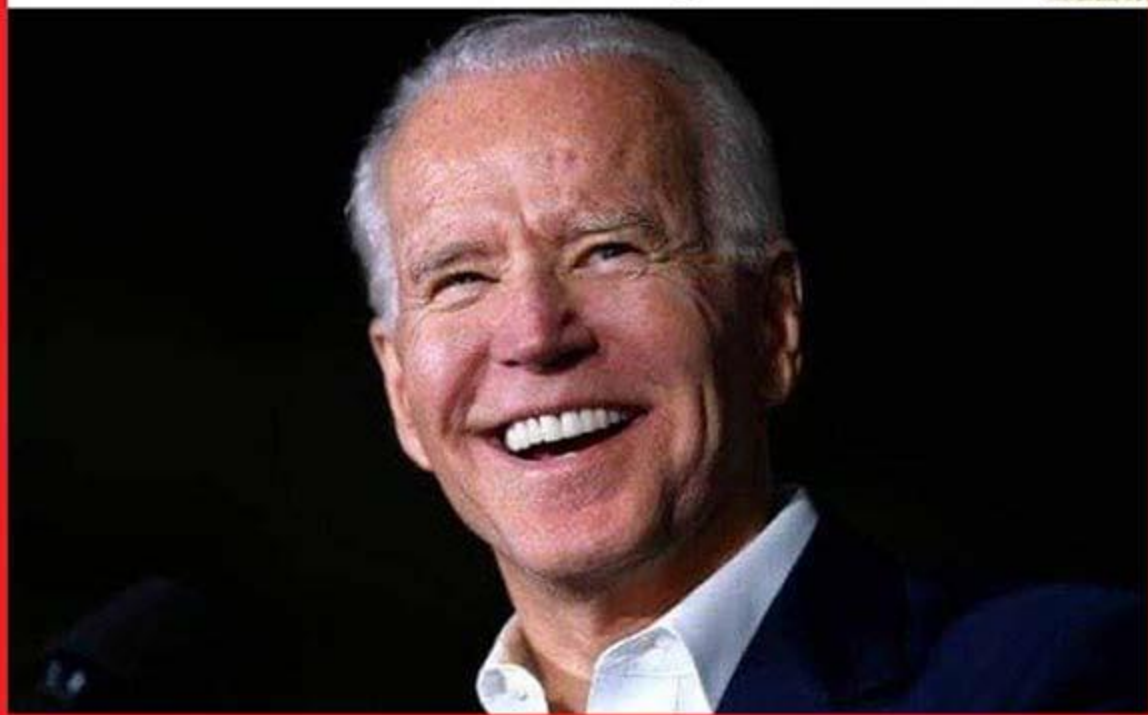




theshaderoom



**#TSRHealth: President Biden Enlisting 1,000 Black-Owned Beauty Salons & Barbershops To Administer COVID-19 Vaccine As Part Of His 'Shots At The Shop' Initiative**











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**So what can we do? How do we  
regain and build trust?**

failing  
to prepare = prepare  
to fail

The National Preparedness System and Whole Community  
Approach

DOMPREP 2021 May

Presidential Policy Directive-8 ([PPD-8](#)) and the National Preparedness Goals ([NPG](#)) provide an outline for building national sustainable resilience using a [whole community](#) approach, which includes:

- All individuals and families
- Private businesses
- Faith-based and nongovernmental organizations
- Medical/healthcare and educational institutions
- Media and social media platforms
- Federal, state, local, territories, and tribes.

Gather the collective resources (i.e., strategic stockpiles) and exploit them to benefit and sustain the socioeconomic stability, safety, and security of communities across the country. This ensures the ability to provide much needed resources to areas where capacity is exceeded.

Ref: Brown, M. A. (2021, May). National preparedness failure: Hindsight is 2020.





**TRUST**



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# Questions?

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