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2

The burden of being born black...




### Burden of Asthma on Black Populations

Black Americans are more likely to be diagnosed with asthma compared to white Americans. Black people are also at risk of worse asthma outcomes. They are:

- Two times as likely to have a hospital stay due to asthma
- Three times as likely to die from asthma
- Five times as likely to visit the emergency department due to asthma



3

Inequity in diagnosis...



### When it comes to darker skin, pulse oximeters fall short

Craig LeMoult • July 11, 2022 11:06 AM ET

A pulse oximeter is worn by Brown University professor Kimani Toussaint. The devices have been shown in research to produce inaccurate results in dark-skinned people, and Toussaint's lab is developing technology that would be more accurate, regardless of skin tone.

### Black men were likely underdiagnosed with lung problems because of bias in software, study suggests

A new study suggests racial bias built into a common medical test for lung function is likely leading to fewer Black patients getting care for breathing problems

By MIKE STOBBE AP Medical Writer  
June 1, 2023, 1:58 PM

NEW YORK -- Racial bias built into a common medical test for lung function is likely leading to fewer Black patients getting care for breathing problems, a study published Thursday suggests.

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Inequity in  
treatment...



## Study Finds Surprising Variations by Age, Race to Asthma Medications

By staff

**Denver, CO**—Growing evidence suggests that response to medication therapy by individuals or specific cohorts varies much more than previously expected. One example is a new study of African Americans with poorly controlled asthma, which found wide differences in patients' responses to commonly used treatments.

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Inequity in the  
air we breathe



## *People of Color Breathe More Hazardous Air. The Sources Are Everywhere.*

Researchers uncovered stark disparities between white people and minorities across thousands of categories of pollution, including trucks, industry, agriculture and even restaurants.



## Asthma: roads double risk

by JENNY HOPE, Daily Mail

Children living near main roads are at double the risk of asthma, say doctors.

Two studies show the harm caused by airborne pollution which many experts fear is actually causing respiratory disease and not just making symptoms worse.

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## Additional reasons for these inequities?

- Lower job rates, lower pay, lower quality jobs, less job stability
  - (less access to insurance, inability to pay deductibles, work exposures)
- Lower home ownership rates
- Limited access to quality medical care
- Distrust in the medical establishment (eg Tuskegee)

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## Inequity in caregivers...



HEALTH

### After 40 years, medical schools are admitting fewer Black male or Native American students

By [Usha Lee McFarling](#) April 28, 2021

[Receipts](#)



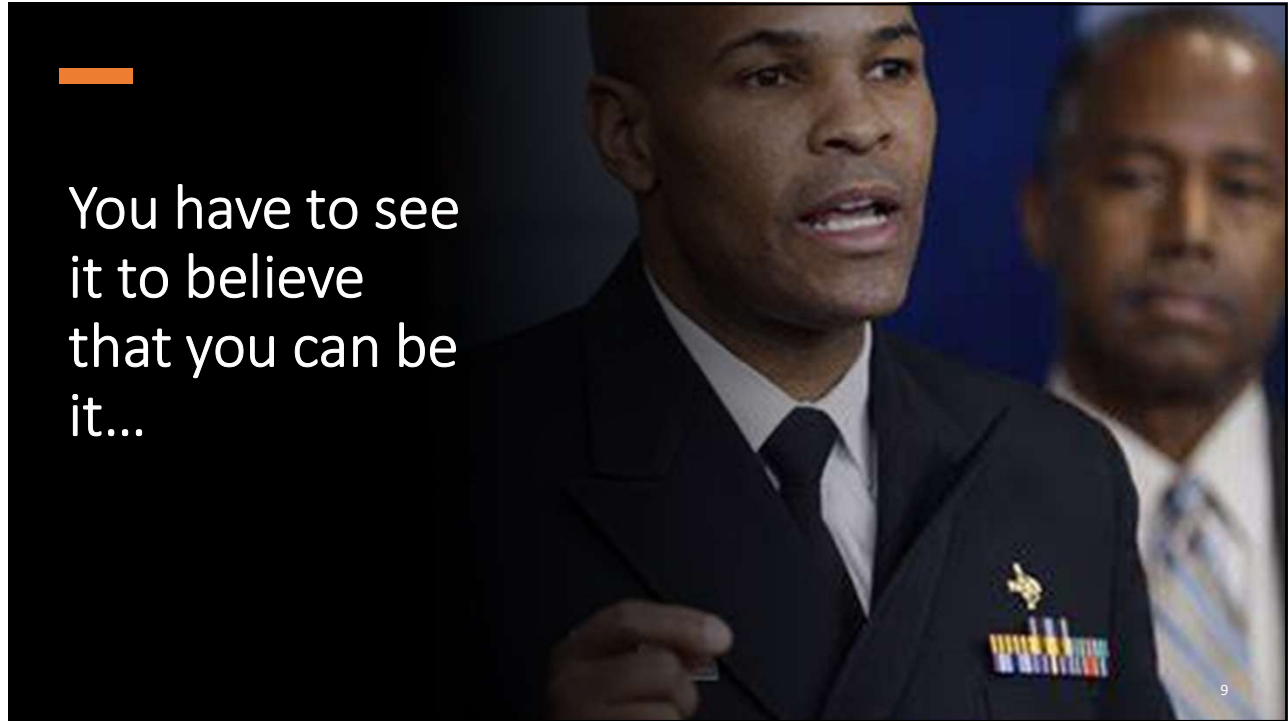
ADDP

**I**n what some are calling a “persistent failure” of medical schools to improve diversity, a comprehensive new analysis going back 40 years shows the number of students from the most underrepresented groups in medicine — Black males and Native American and Alaskan Native men and women — has declined.

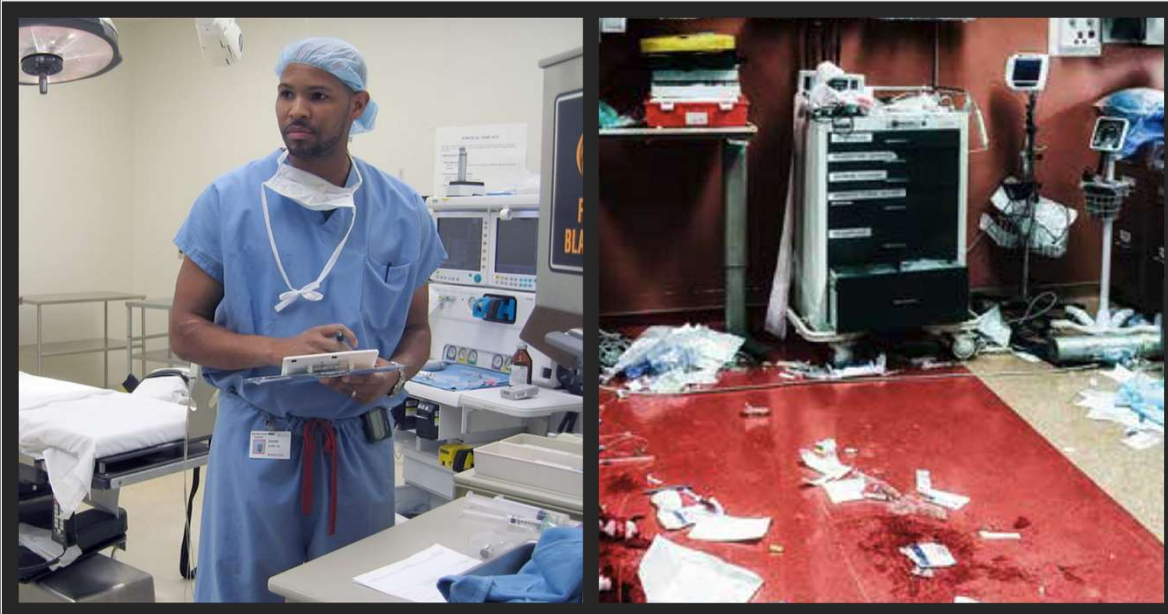
[HTTPS://WWW.STATNEWS.COM/2021/04/28/MEDICAL-SCHOOLS-ADMITTING-FEWER-BLACK-MALE-OR-NATIVE-AMERICAN-STUDENTS/](https://www.statnews.com/2021/04/28/medical-schools-admitting-fewer-black-male-or-native-american-students/)

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You have to see  
it to believe  
that you can be  
it...



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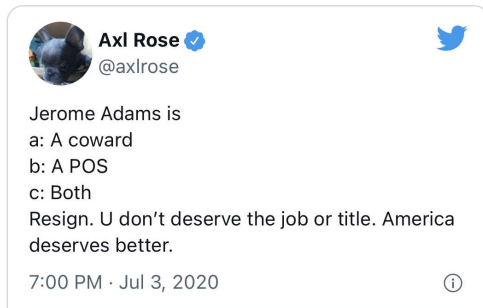
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**AXL ROSE BLASTS SURGEON  
GENERAL OVER COMMENTS  
ON LARGE GATHERINGS**



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12




**DL Hughley** ✓  
@RealDLHughley

...

I think [#SamuelAdams](#) would be a better surgeon general than [#JeromeAdams](#) [#TeamDI](#)

**D.L. Hughley Opens Up About COVID-19 Diagnosis After Collapse ...**

Jul 8, 2020 — D.L. Hughley is assuring fans he's healthy and feeling great after he collapsed on stage at a Nashville stand-up show on June 19, and later ...



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The 2019 Samoa measles outbreak began in September 2019. As of 6 January 2020, there were over 5,700 cases of measles and 83 deaths, out of a Samoan population of 200,874. Over three percent of the population were infected. [Wikipedia](#)

Jazz-Thunder postponed, NBA suspends season

Cliff Brunt | The Associated Press  
March 11, 2020 8:41 PM

OKLAHOMA CITY — Utah's scheduled game at Oklahoma City was postponed Wednesday night and the NBA suspended its season a few minutes later after a Jazz player tested positive for the coronavirus.


The player is star center Rudy Gobert, according to a person who spoke to The Associated Press on condition of anonymity because neither the league nor the team had confirmed it publicly.

CORONAVIRUS

CORONAVIRUS CONCERNS: SPEAKER PELOSI TOURS SAN FRANCISCO'S CHINATOWN TO SHOW IT'S SAFE

By David Louie

Monday, February 24, 2020

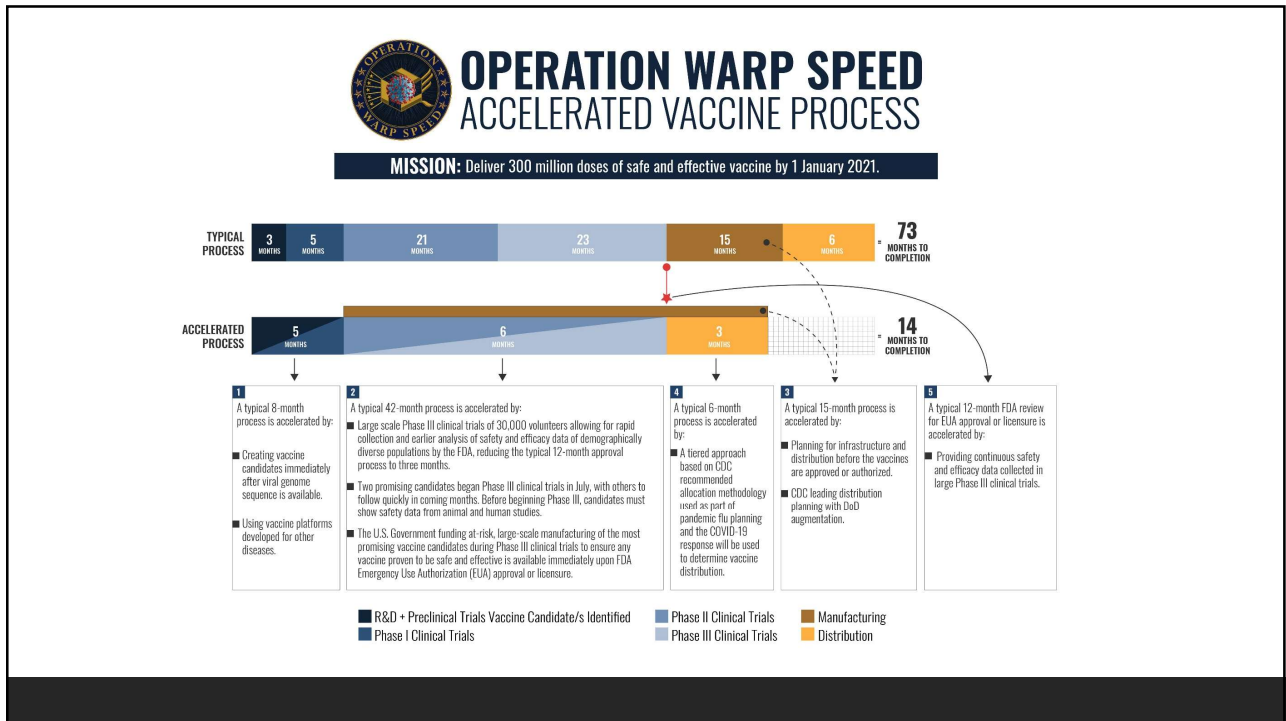


House Speaker Nancy Pelosi made a point of taking a walk through San Francisco's Chinatown on Monday to show that it is safe, after some merchants have seen a 50% drop in business as some fear they could be exposed to the coronavirus.

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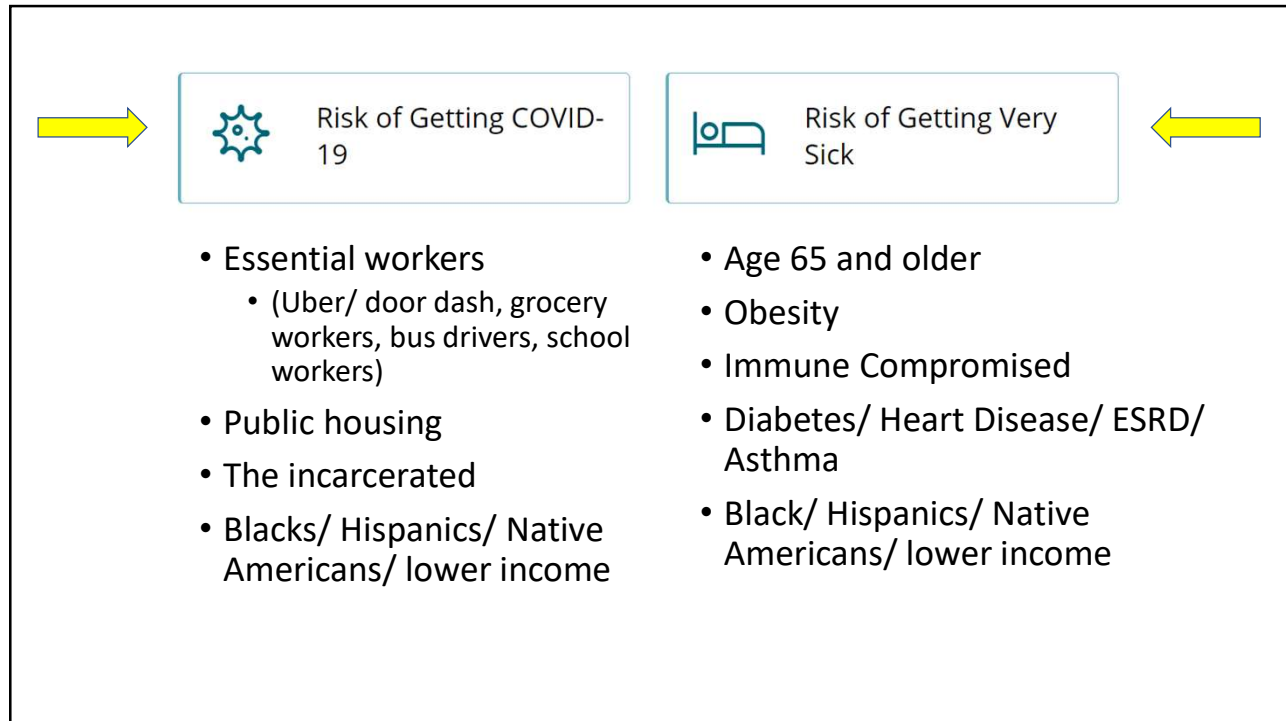


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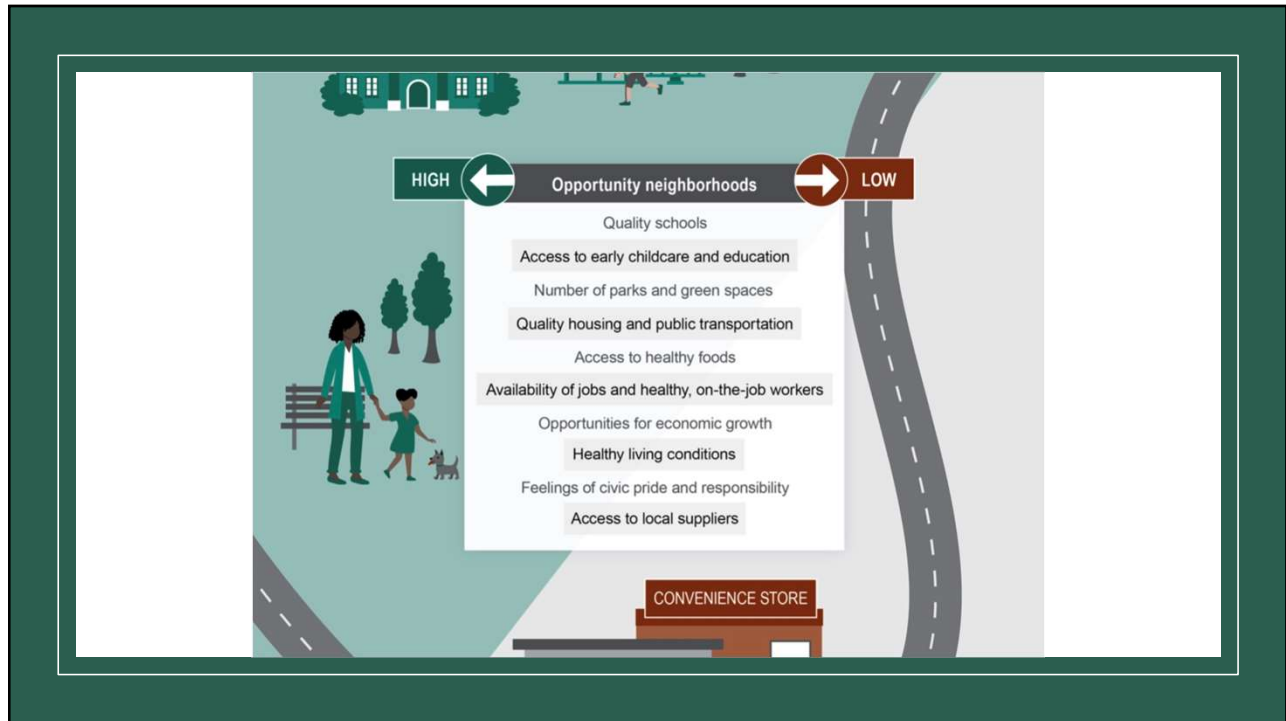


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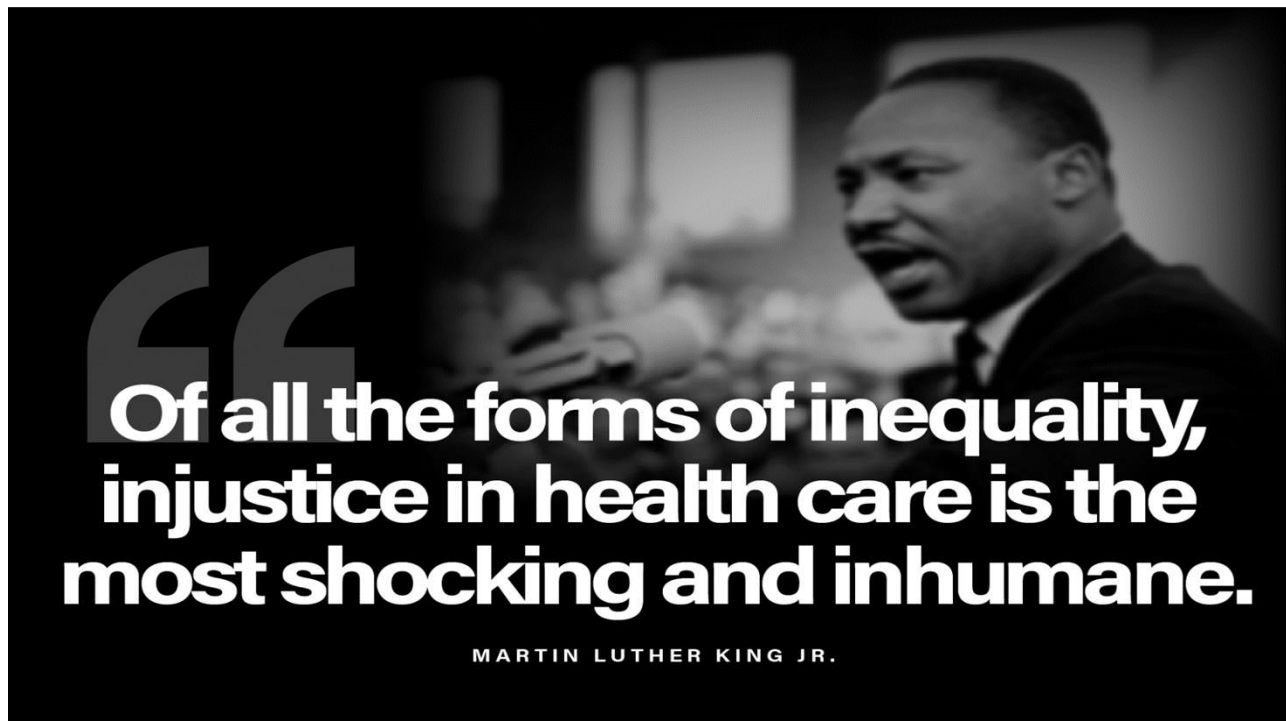
Two side-by-side panels, each featuring a portrait of W. Edwards Deming, the Deming Institute logo, and a quote in a blue box.

Quote
Every system is perfectly designed to get the results it gets.
A bad system will beat a good person every time.

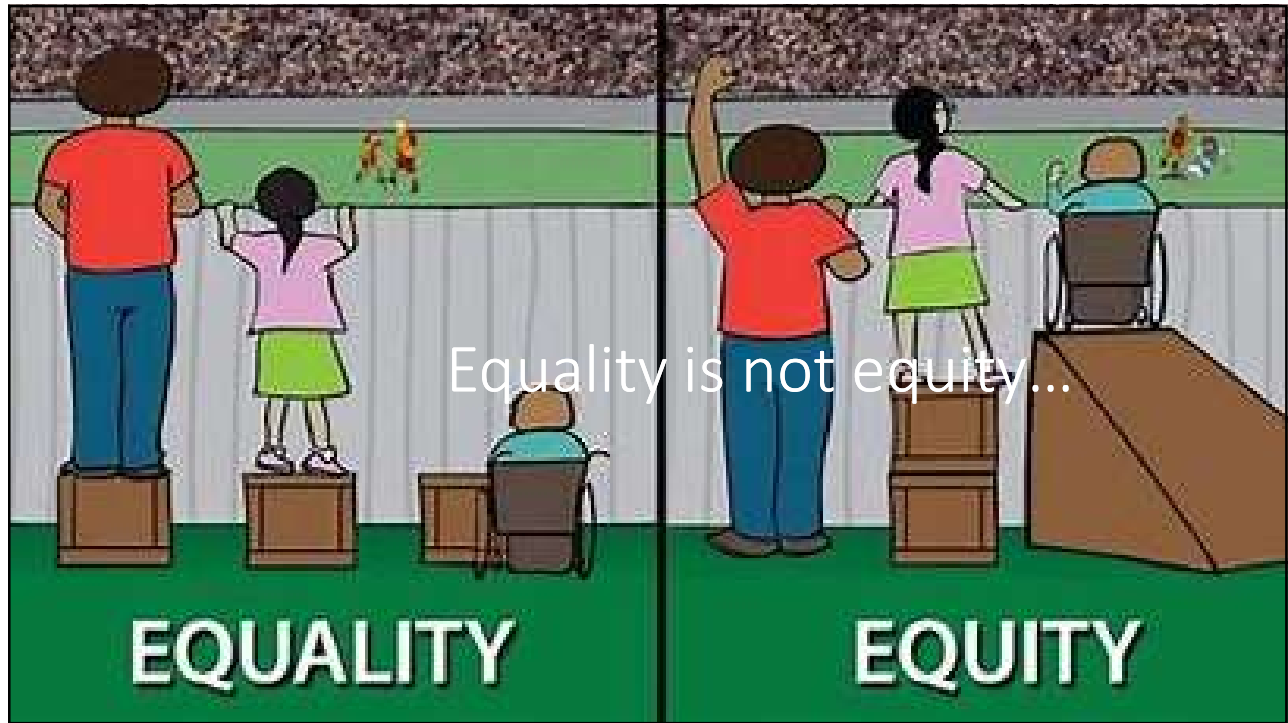
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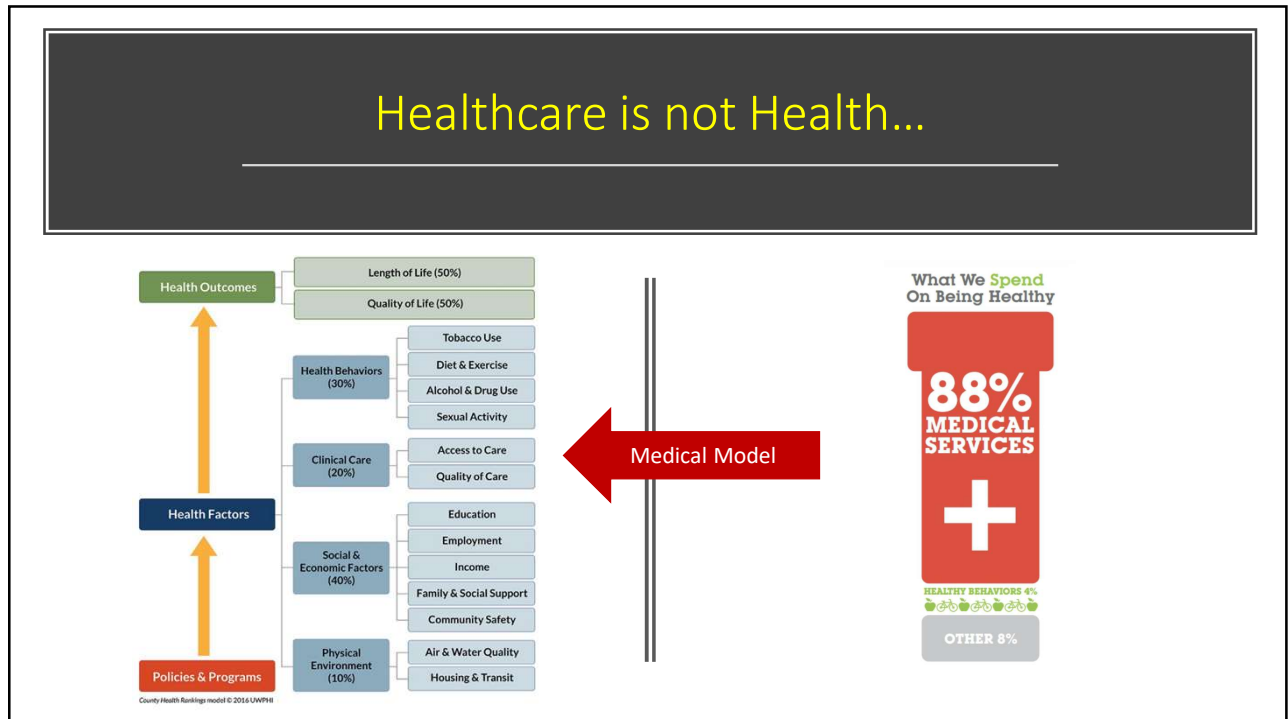
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The image shows a screenshot of a CDC Vital Signs article titled "Health Workers Face a Mental Health Crisis". The article text includes: "Workers Report Harassment, Burnout, and Poor Mental Health; Supportive Workplaces Can Help". A button labeled "View All Topics" is visible. Below the article, it says "Updated Oct. 24, 2023 | [Print](#)".

Next to the article is a summary of key statistics:

- 46%** Nearly half of health workers reported often feeling burned out in 2022, up from 32% in 2018.
- 44%** Nearly half of health workers intended to look for a new job in 2022, up from 33% in 2018.

At the bottom of the screenshot, the URL <https://www.cdc.gov/media/releases/2023/s1024-Health-Worker-Mental-Health.html> and the number 23 are visible.

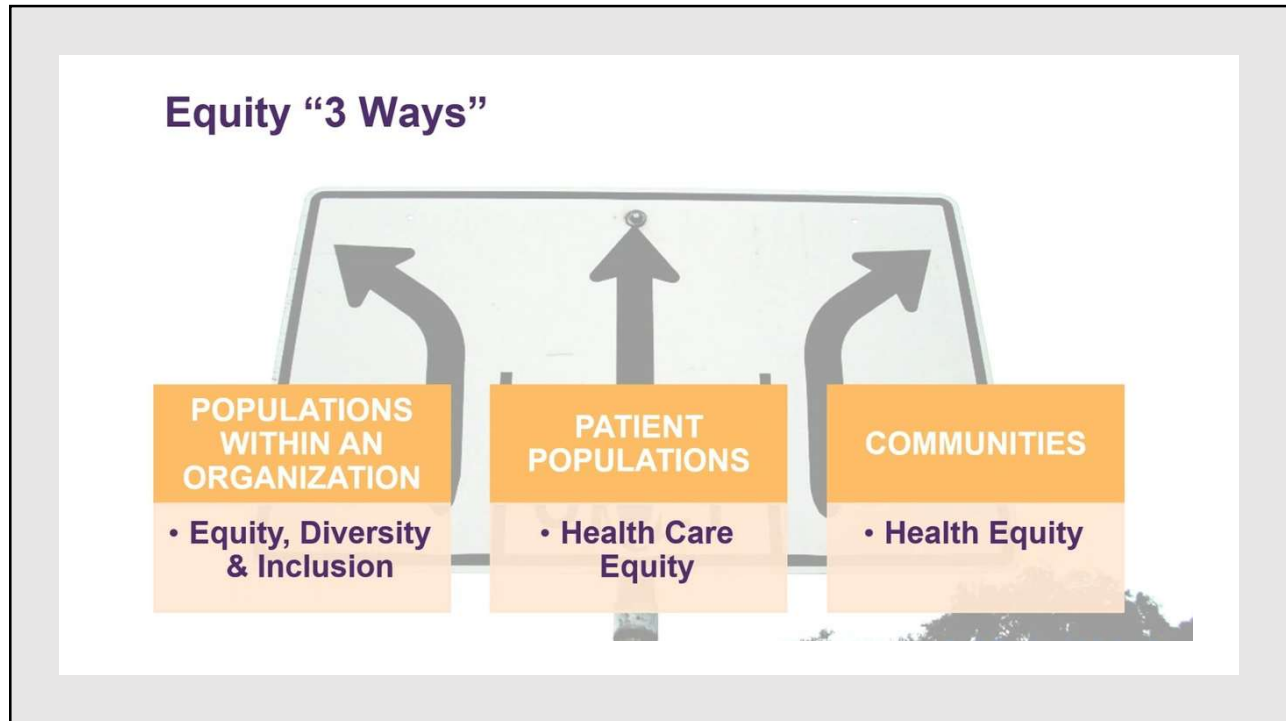
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## *What is health equity?*

*Health equity is when everyone has a fair opportunity to make healthy choices and can be their healthiest and happiest version of themselves*



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**LESSON 8: WE CAN'T BE A HEALTHY NATION WITHOUT HEALTH EQUITY**

While equality is an admirable goal, it is often an incomplete one. That's why we need to understand and embrace the concept of health *equity*—making sure people are getting the resources they need to make healthy choices. The pandemic shed light on inequitable access to vaccines, testing, treatments, and the internet, which was sorely needed for virtual schooling or telehealth appointments and remote work. Further, too many could not work from home or take off work if sick. As of the writing of this book, deaths from COVID-19 are still topping a thousand a week. The number has now become background noise in our rush to return to the old normal—unless you're in a group at high risk for COVID-19 hospitalization and death.

**LESSON 9: WE HAVE TO REMEMBER THAT ECONOMICS AND HEALTH ARE INTERTWINED**

The top layer of Abraham Maslow's pyramid of human needs is self-actualization—that is, being the best (and healthiest) you that you can be. The next layer down is “esteem,” which includes respect by and for others. Neither of these is a priority until the needs of the lower layers of the hierarchy (food, shelter, safety, etc.) are met. For too many people, particularly that half of all Americans who don't have \$400 saved for an emergency, thinking about those top two layers is a luxury they both figuratively and literally can ill afford. It takes money to house yourself and your family and put clothes on your backs and food on the table. That's one of the main (and least talked about) reasons health is not a priority for most Americans. Buying costly fruits and

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## What can you do to promote health equity?



Understand	Ask	Implement	Advocate
Understand the communities you work in and the demographics of the people you serve	Ask your patients and their families about social drivers	Implement programs (eg transportation to appointments, prescriptions for food, medical-legal partnerships) to address the root causes of downstream medical issues	Advocate for broader systemic change- within your hospital, community, state and Nation

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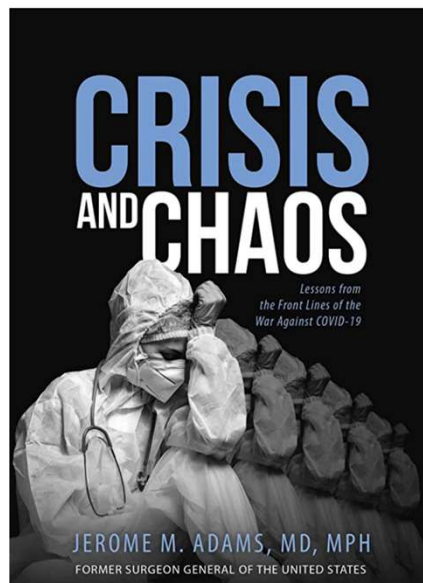
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### Overview

Hard truths and surprising insights about our COVID-19 response from America's former top doctor.

When COVID-19 began spreading rapidly, the world was taken by surprise. As the ensuing pandemic raged, we faced one constant—a lack of consistent, scientifically sound, and trusted information about dangers, risks, and mitigation strategies that the average person could understand and put into practice to keep themselves and their families safe.

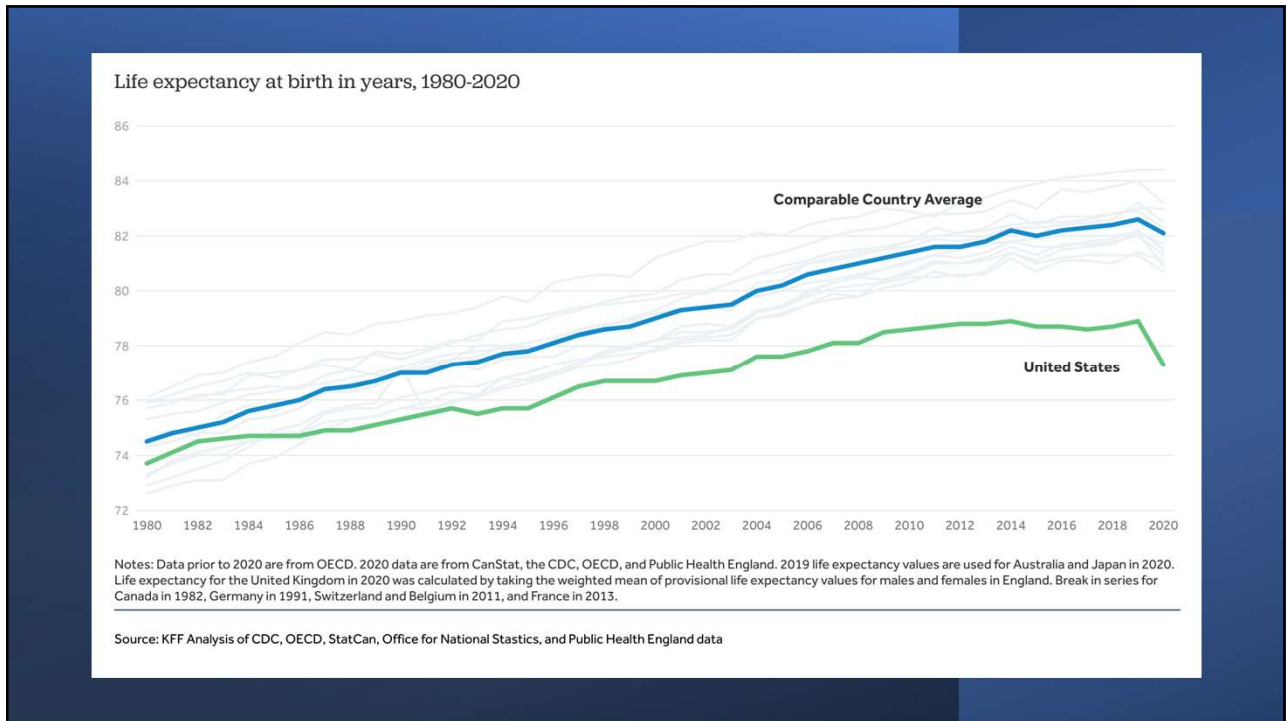


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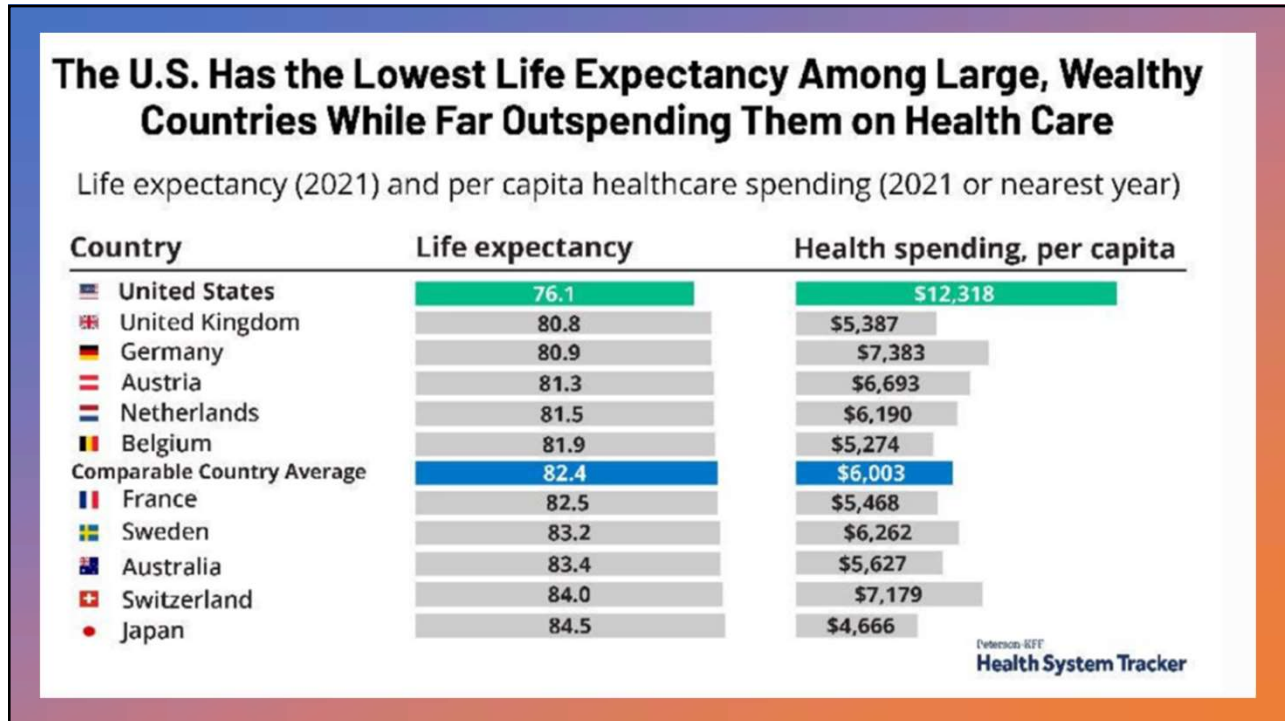
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**PUBLIC HEALTH**

## As the Monkeypox Spread Recedes, There Are Lessons To Learn

In times of public health crises, government red tape and misguided communication make matters worse.

**SCOTT SHACKFORD** | 12.1.2022 2:30 PM

First of all, just as with COVID-19, government bureaucracy and red tape threaten lives in the event of a public health crisis. While monkeypox began spreading only in major population centers, it ended up spreading all across the country partly because it took so long for the Food and Drug Administration and the Department of Health and Human Services to actually get vaccines that were in storage in Denmark to the United States. The drop in new infections almost perfectly matches the arrival of vaccines in the U.S. Just think of the potential impact of this slow response had this strain of monkeypox spread just as easily among sexually active heterosexuals or in a nonsexual capacity.

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## Biden Signs Sweeping Executive Order on AI Oversight



President Joe Biden signs an executive on artificial intelligence in the East Room of the White House, Oct. 30, 2023, as Vice President Kamala Harris looks on at right.

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How can digital health impact health outcomes?

- Telehealth => increased access
- Leverage electronic medical records to looking for individual or population level patterns (ie "AI")
- Wireless medical devices and wearable technologies
- Text message reminders and interactive health technologies (eg "chat bots") => engagement and compliance

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34

## How can digital health impact health outcomes?

- Virtual and augmented reality- as a therapeutic or an educational tool for patients, or as an adjunct to care for physicians (eg smart glasses)
- Gamification to influence health behaviors
- “Smart” homes or environments
- Cybersecurity- remains a barrier to people’s willingness to embrace (ie “trust” in) digital health technologies

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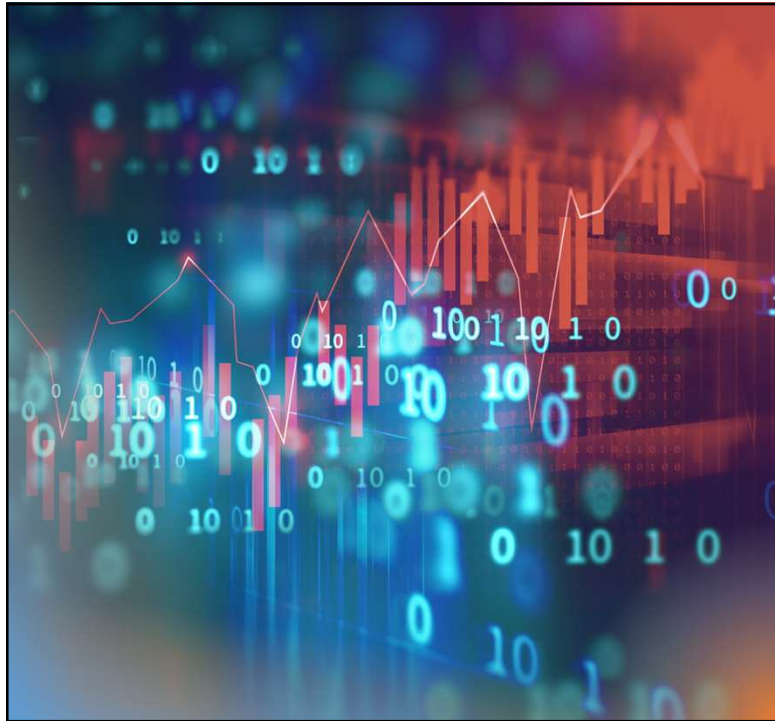
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## Beware of equity and ethics concerns

- Digital Divide
  - By geography, education, age, economics, home environment (ie privacy), trust deficits (who has my data and what will they be doing with it?)
- Bias
  - AI algorithms are subject to the garbage in = garbage out problem
  - Bias that’s baked in can never be fully corrected for, and often gets amplified
- How is the information being used?
  - Is information being given BACK to the patient?
  - Are you subjecting people to discrimination?  
(eg jobs, insurance, sports)
  - Who is profiting? (eg Henrietta Lacks)
  - Just because you CAN doesn’t mean you always SHOULD!  
(eg cloning, picking characteristics of your child, knowing if someone will develop an untreatable disease, or when they will die)
- Who’s job is it to police this?

4/16/2024 36

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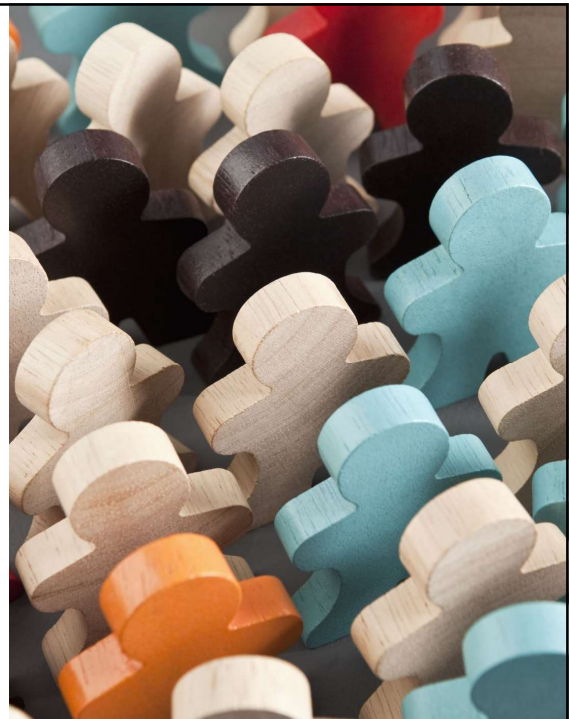
## *What is digital health equity?*

Digital health equity is everyone has fair access to, and trust in, and benefit from new digital health technologies, so all communities can become and stay healthy!

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## Representation and Communication are KEY!

- Need diverse representation at the table from the start, to see past your blind spots
- Need early and frequent outreach to communities- especially marginalized communities- to make sure new technologies are developed in way that meets the communities needs, and not just industry's needs
- Must acknowledge the trust gap, and be proactive vs reactive in addressing it



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## Policy levers to advance digital health equity



### Research

Must fund research to uncover disparities and interventions to ensure digital health equity



### Payment

Alternative payment models that address digital health equity through quality reporting and bonuses for outreach to marginalized communities



### Regulation

No approvals unless studies have a diversity plan and diverse representation



### Privacy/ transparency

Must ensure protection of data, that people know who has/ is using their data, and that where possible, if profits are generated from the use of people's data, that everyone benefits



### Access

Institutions and payers should strive to ensure everyone has access to new technologies

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Telehealth usage grew more than 7,000% during the first year of the pandemic, a [new report](#) from Fair Health has found. The annual report, which looks at health care indicators and issues related to trends and patterns in health care utilization across the U.S. The latest

## Growth of Telehealth During Pandemic Occurred Mostly in More Affluent and in Metropolitan Areas

**FOR RELEASE**

Monday

March 15, 2021

**Overdose**

Study findings support value of expanding use of telehealth services for opioid use disorder-related care

**Media Resources**

**RAND Office of Media Relations**

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## Inequities in screening lead to poorer breast cancer outcomes for minorities...

Extensive research has established that regular breast cancer screening can detect tumors at an earlier stage and result in improved survival and better prognosis. Yet minority women are more likely to have longer intervals between screening mammograms, which contributes to the higher rate of late-stage diagnosis within Black and Hispanic populations.<sup>[3]</sup> Furthermore, minority women were less likely to be screened at breast imaging centers of excellence or facilities with digital mammography and dedicated breast radiologists. Studies have found that, consequently, the probability of missed detection is higher among both minority women and women with lower socioeconomic status when compared to non-Hispanic White women or those from socioeconomically advantaged backgrounds. Though routine screening to promote early-stage breast cancer diagnosis is strongly advocated by the most prominent national clinical guidelines, disagreement has arisen over the age at which a patient should initiate screening.<sup>[13]</sup>

<https://www.ncbi.nlm.nih.gov/books/NBK564311/>