

Applying a Health Equity and Cultural Competence Lens To Claims Management

Nevada Workers' Compensation Educational Conference
September 7-8th, 2023



Disclaimer

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Objectives & Ground Rules

Diversity, Equity and Inclusion can be challenging topics.

Objectives

- 1 Explore intersectionality as it relates to workers.
- 2 Share studies on health disparities and recent data on health equity
- 3 Identify key questions and actions to take back to your organization to move the needle on health equity

Ground Rules

- 1 Please engage!
- 2 Assume good intent – this is a safe learning environment.
- 3 What happens at Big Sky stays at Big Sky.

Meet your presenters



Kevin Harlen

Manager in
AI & Data Engineering

- Ph.D. trained data scientist
- Father & Husband
- Former biotech geneticist
- Montana born and bred
- A horrible speller
- Harvard Graduate School alum



Shadya Yazback

Specialist Leader
in Human Services
Transformation

- Former State Fund Sr. Executive
- World's Best Auntie
- Proud African Immigrant's Kid
- Assault Survivor
- 1st Generation College Graduate
- Numbers Geek with Dyslexia

Let's Level Set...

The words we use matter. Varying definitions exist across publications and organizations for DEI concepts. Three terms as used in this session are defined below.

1

Intersectionality

\,in-tər-,sek-shə-'na-lə-tē\

:the concept that **social identities**, such as race, gender, sexuality, class, marital status, and age, **overlap and intersect in dynamic ways** that shape each individual.

This term was first introduced by Kimberlé Crenshaw in the late 1980s to explain the compounded impact of being both black and a woman.

2

Cultural Competence

\'kəlch-rəl 'käm-pə-tən(t)s\

:the ability of an individual to **understand and respect** values, attitudes, beliefs, and mores that differ **across cultures**, and to **consider and respond appropriately** to these differences in **planning, implementing, and evaluating** health education and promotion programs and interventions.

This definition was established by the American Association for Health Education.

3

Health Equity

\'helth 'e-kwə-tē\

:the **fair and just opportunity** for every individual to achieve their **full potential** in all aspects of **health and well-being**.

This definition is used by the Deloitte Health Equity Institute.

Take a moment to reflect...

We'll give you a couple minutes...



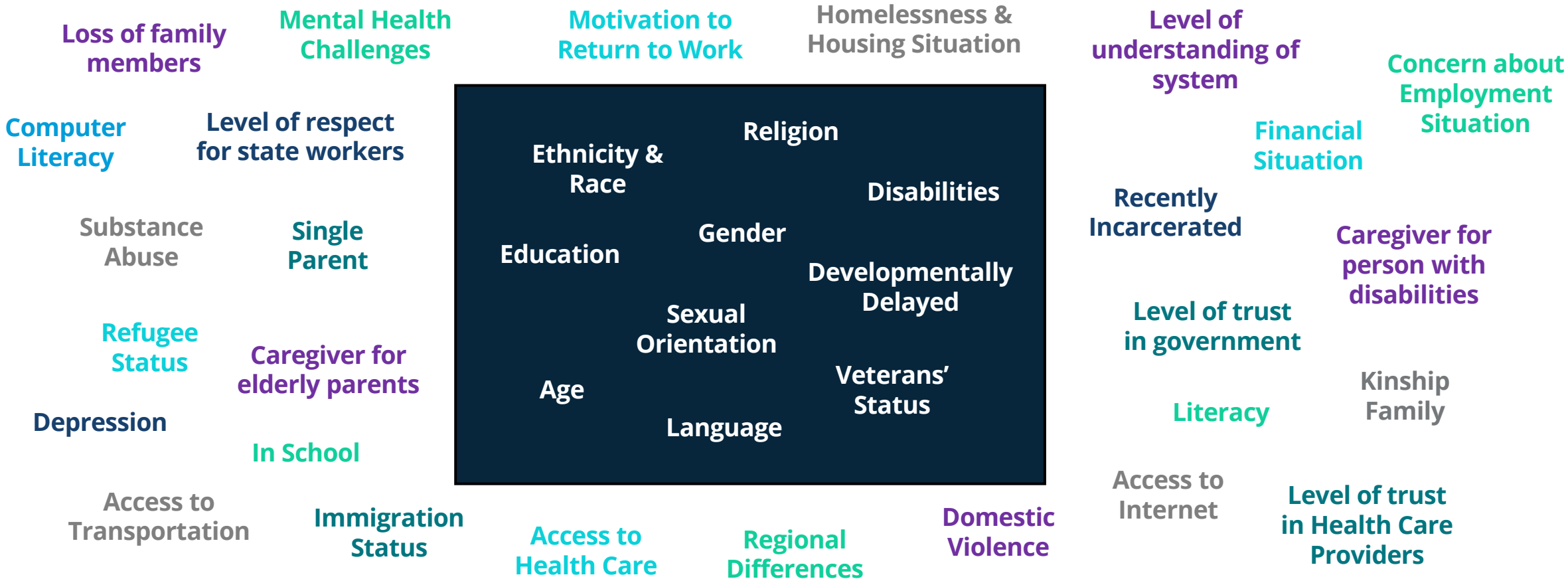
**Think about the ~~injured~~
workers your agency
serves.**

**What diversity exists
among them?**

**How can that impact the
services you deliver?**

Dimensions of Diversity

Workers' compensation providers have identified the dimensions below as impacting service delivery.



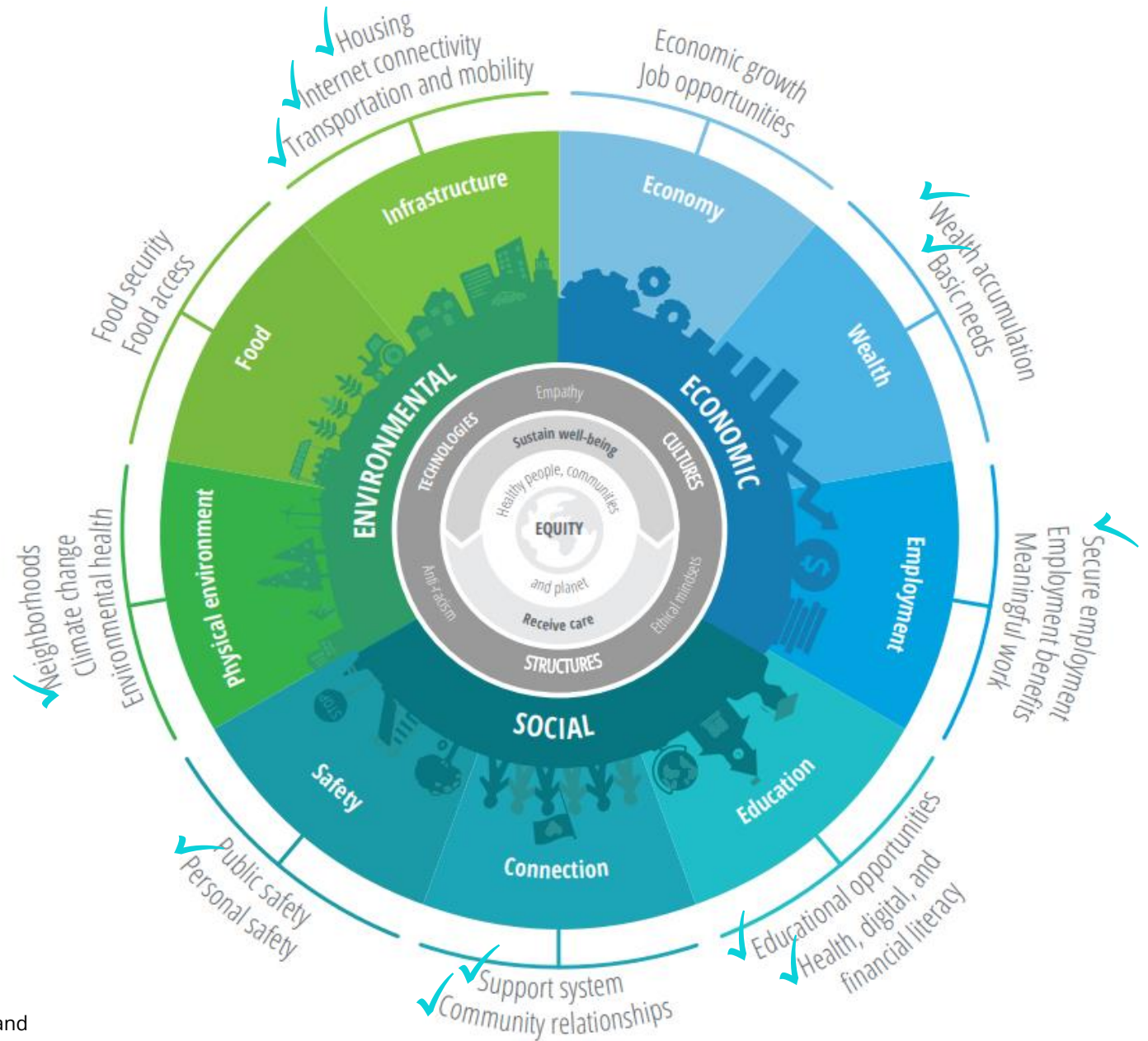
Are there categories you didn't think of that could impact your customers?
Are there categories not on here that you identified?

Drivers of Health

The graphic to the right is one model of the drivers of health.

Health care itself is only one factor that affects a person's health.

Some studies estimate that social, economic, and environmental “drivers of health” (also known as social determinants of health) can account for 80% of health outcomes, whether positive or negative.¹



¹ SOURCE : County Health Rankings & Roadmaps, “[County Health Rankings Model](#),” accessed April 5, 2021; The National Academies of Sciences, Engineering, and Medicine, [Communities in Action](#) (National Academies Press, 2017).

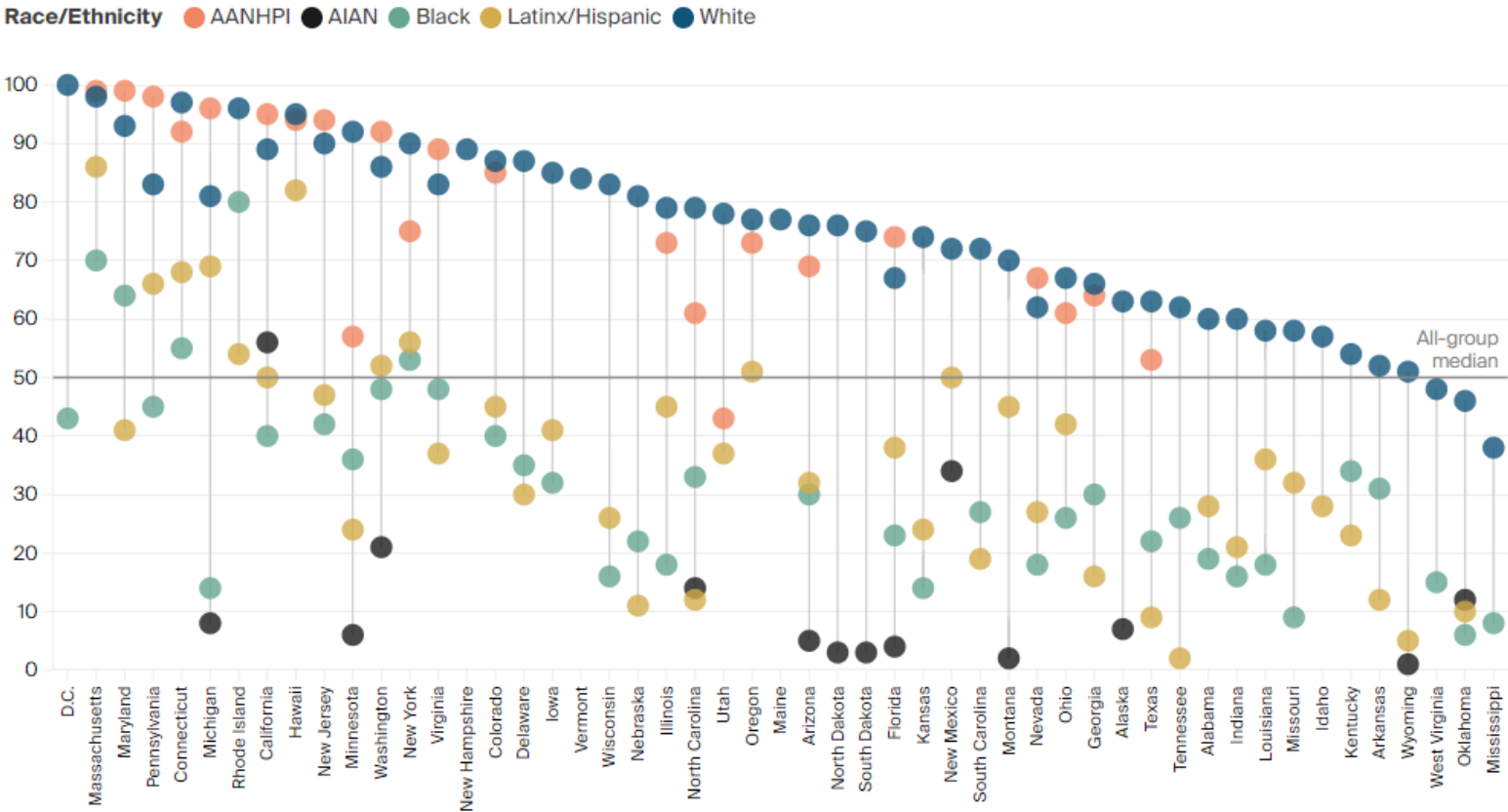
What we know about health outcomes...



Race, Ethnicity and Health Outcomes

Measuring 24 indicators, the Commonwealth Fund evaluates state health system performance annually.

Health system performance scores, by state and race/ethnicity



“Both across states and within states, health care system performance varies widely by race and ethnicity.

Mirroring the nation as a whole, substantial health and health care disparities exist between white and Black, Latin[e]/Hispanic, and AIAN communities in nearly all states.”

Notes: Scores are based on the percentile distribution of each group’s final composite z-score across all indicators/dimensions; rank-ordered by score of state’s highest group. The 50th percentile represents the median health performance score among all the groups measured. Summary performance scores not available for all racial and ethnic groups in all states; missing dots for a particular group indicate that there are insufficient data for that state. AANHPI = Asian American, Native Hawaiian, and Pacific Islander; AIAN = American Indian/Alaska Native.

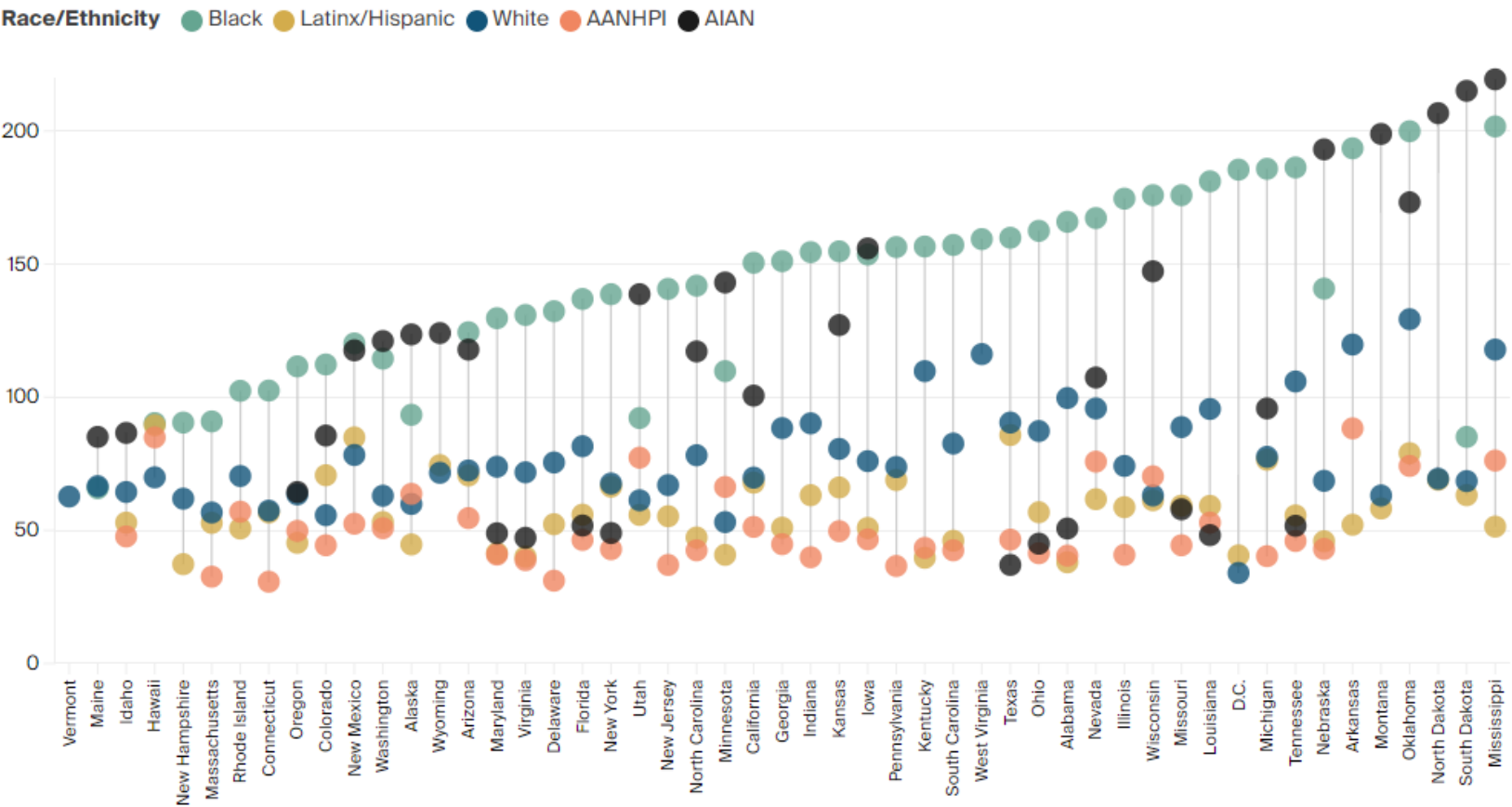
Data: Commonwealth Fund 2021 Health System Performance Scores.

Source: David C. Radley et al., *Achieving Racial and Ethnic Equity in U.S. Health Care: A Scorecard of State Performance* (Commonwealth Fund, Nov. 2021).

Race, Ethnicity and Health Outcomes

The Commonwealth Fund also examines preventable deaths across states by race and ethnicity.

Mortality amenable to health care, deaths per 100,000 population, by state and race/ethnicity



“Both across states and within states, health care system performance varies widely by race and ethnicity.

Mirroring the nation as a whole, substantial health and health care disparities exist between white and Black, Latin[e]/Hispanic, and AIAN communities in nearly all states.”

Notes: States arranged in rank order based on highest rate in each state. Missing dots for a particular group indicate that there are insufficient data for that state. AANHPI = Asian American, Native Hawaiian, and Pacific Islander; AIAN = American Indian/Alaska Native.

Data: CDC, 2018 and 2019 National Vital Statistics System (NVSS), All-County Micro Data, Restricted Use Files.

Source: David C. Radley et al., *Achieving Racial and Ethnic Equity in U.S. Health Care: A Scorecard of State Performance* (Commonwealth Fund, Nov. 2021).

Bias in Health Care Interactions

Data has long indicated that bias impacts perceptions of pain and treatment. In addition to racial and ethnic disparities, gender disparities have also been observed in numerous studies.

Opioid Follow-up Study (2013)

Compared to White patients,
Black patients:

- Reported pain was documented less frequently
- Subjected to more drug tests
- Less likely to be referred to a pain specialist
- More likely to be referred for substance abuse assessment.

SOURCE: Leslie R.M. Hausmann, Shasha Gao, Edward S. Lee, C. Kent Kwoh (2013), Racial disparities in the monitoring of patients on chronic opioid therapy, *PAIN*®

Opioid Use Disorder and Racial/Ethnic Health Disparities (2022)

- Hispanic and Latine populations often **lack culturally appropriate translation services**, which can bar effective treatment.
- Blacks tend to suffer from the **criminalization of OUD** and are less able to seek treatment due to this, and furthermore, often **lack community services** that would benefit them.
- Incarcerated individuals often **lack access to naloxone** and suffer from **high rates of fatal overdose** soon after being released to the community.
- People in rural settings **lack needle-exchange programs** and **community-based interventions/support groups**.

SOURCE: Siddiqui, N., Urman, R.D (2022). Opioid Use Disorder and Racial/Ethnic Health Disparities: Prevention and Management, *Current Pain and Headache Reports*, available at <https://doi.org/10.1007/s11916-022-01010-4>

Bias Transmission in Charts

Studies suggest that the words used to record a patient's history and chief complaint impact the way that physicians perceive and treat the patient.

Transmission of Bias Study (2018)

- Changed key phrases in medical chart notes

Mr. R is a 28-year old man with sickle cell disease and chronic left hip osteomyelitis who comes to the ED with 10/10 pain in his arms and legs. He has about 8–10 pain crises per year, for which he typically requires opioid pain medication in the ED. At home, he takes 100 mg OxyContin BID and oxycodone 5 mg for breakthrough pain. Over the past few days, he has taken 2 tabs every 4–6 hours. About 3 months ago, he moved to a new apartment and now has to wheel himself in a manual wheelchair up 3 blocks from the bus stop.

Mr. R is a 28-year old sickle cell patient with chronic left hip osteomyelitis who comes to the ED stating he has 10/10 pain “all up in my arms and legs.” He is narcotic dependent and in our ED frequently. At home he reportedly takes 100 mg OxyContin BID and oxycodone 5 mg for breakthrough pain. Over the past few days, he says that he has taken 2 tabs every 4–6 hours. About 3 months ago, patient states that the housing authority moved him to a new neighborhood and he now has to wheel himself in a manual wheelchair up 3 blocks from the bus stop.

- Study population was consistent regarding race, gender, condition to control for other biases
- Limited study – single location, defined answers, and did not measure relative impact of stigmatizing language.

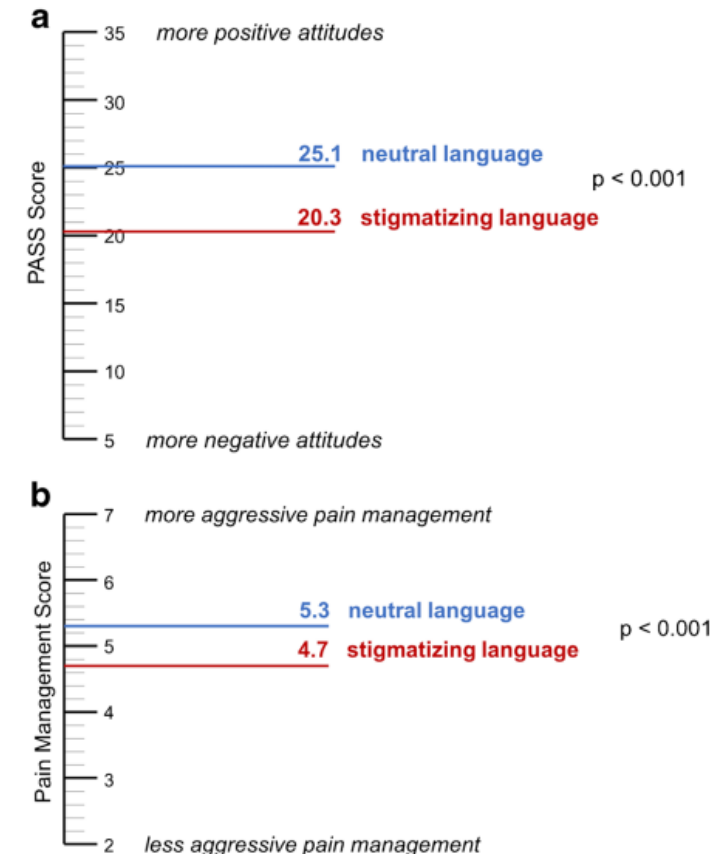


Figure 1 Effect of stigmatizing language on attitudes (Panel A) and on pain management (Panel B).

SOURCE: Goddu AP, O'Connor KJ, Lanzkron S, Saheed MO, Saha S, Peek ME, Haywood C Jr, Beach MC (2018). Do Words Matter? Stigmatizing Language and the Transmission of Bias in the Medical Record, *Journal of General Internal Medicine*

The LGBTQIA2S+ Healthcare Experience

The LGBTQ+ community experience includes adverse impacts on many drivers of health.

Behavioral Health

- LGBTQ+ people are at **greater risk of suicide and suicidal thoughts, mood disorders and anxiety, and eating disorders**.^{1,2}
- LGBTQ+ people are **more likely to suffer from violence** (and subsequent adverse mental health impacts).²

Physical Health

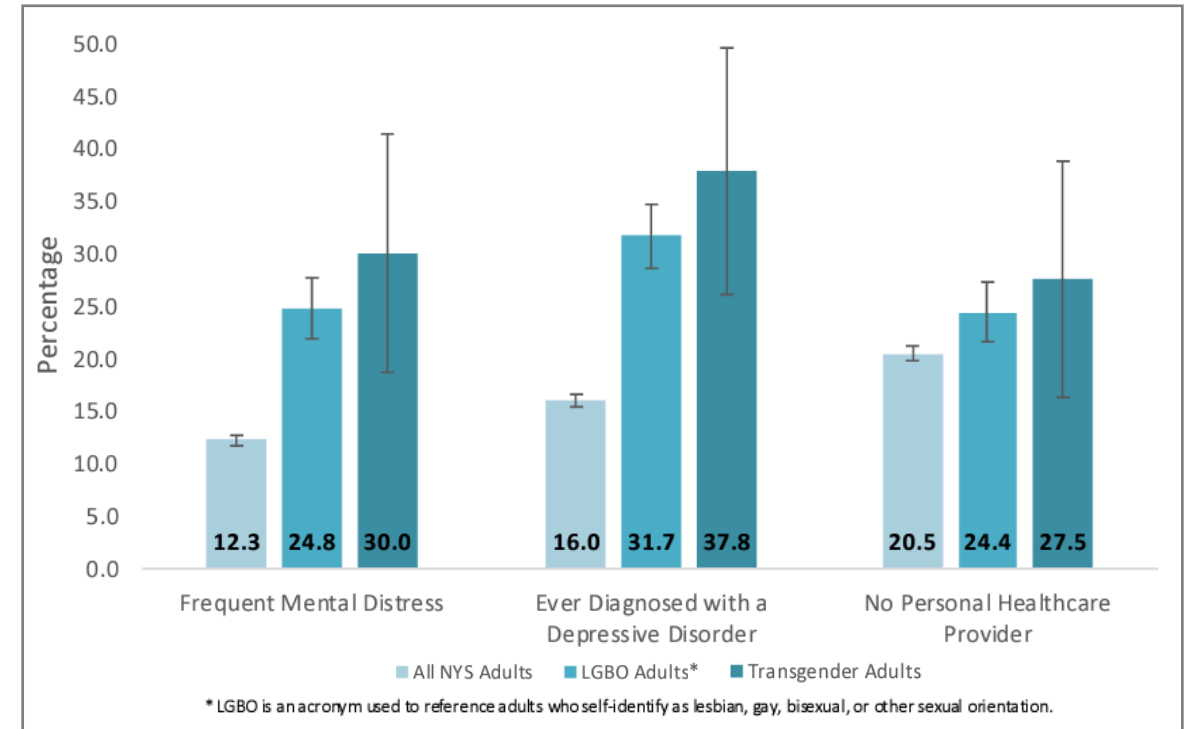
- LGBTQ+ people are **less likely to have a regular health care provider** or health insurance.^{1,2}
- LGBTQ+ people are **more likely to delay getting care**, especially in older LGBTQ+ adults.¹
- Older LGBTQ+ adults are more likely to rate their health as poor and **report more chronic conditions while having less social support**.¹

Isolation, lack of social services, and lack of culturally competent providers²

SOURCES:¹ Cigna (2021), *LGBTQ+ Health Disparities*, available at <https://www.cigna.com/individuals-families/health-wellness/lgbt-disparities>

² US Department of Health and Human Services Office of Disease Prevention and Health Promotion (2020), *Lesbian, Gay, Bisexual, and Transgender Health*, available at <https://www.healthypeople.gov/2020/topics-objectives/topic/lesbian-gay-bisexual-and-transgender-health#five>

Prevalence of Select Health Indicators among Adults Who Self-Identify as Lesbian, Gay, Bisexual, Other Sexual Orientation, or Transgender in New York State

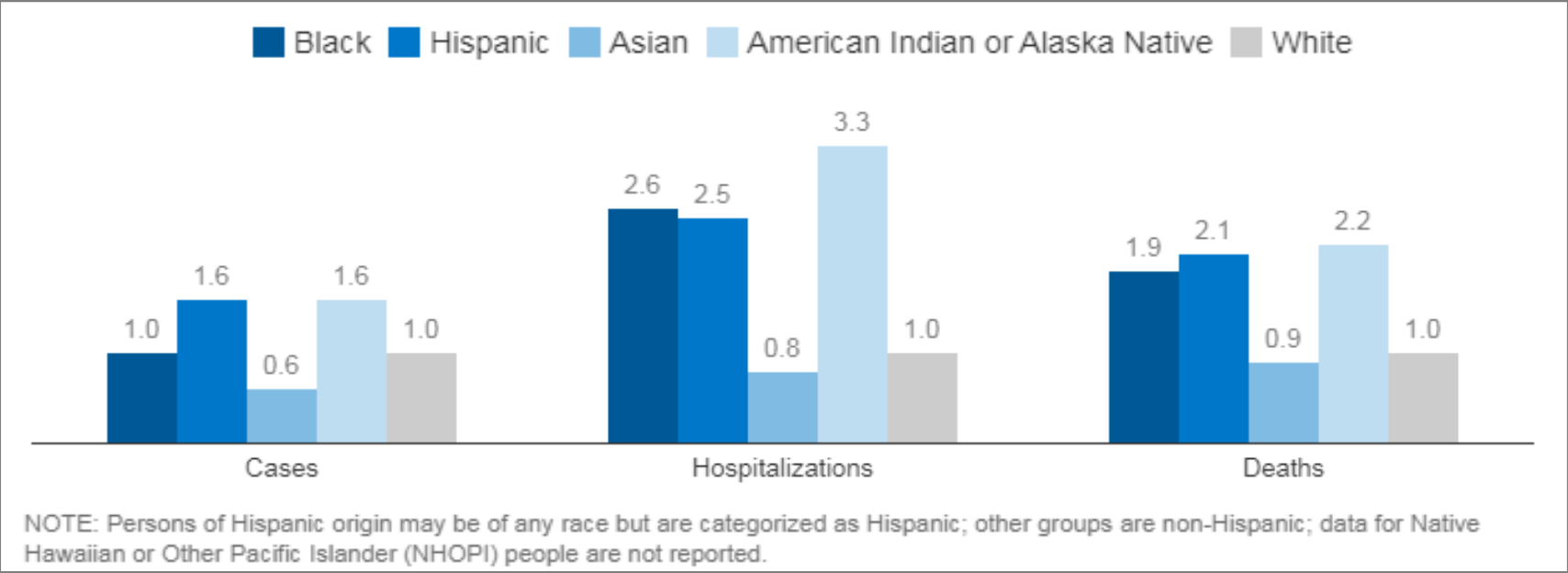


SOURCE: New York State Department of Health (2022), *BRFSS Brief Number 2022-16: Sexual Orientation and Gender Identity: Demographics and Health Indicators, New York State Adults, 2019-2020*, available at: https://www.health.ny.gov/statistics/brfss/reports/docs/2022-16_brfss_sogi.pdf

COVID-19 Disparities

Disparities in the drivers of health compounded the impacts of COVID-19 in most BIPOC groups.

Age-Adjusted Risk of COVID-19 Infection, Hospitalization, and Death, Compared to White People in the United States¹

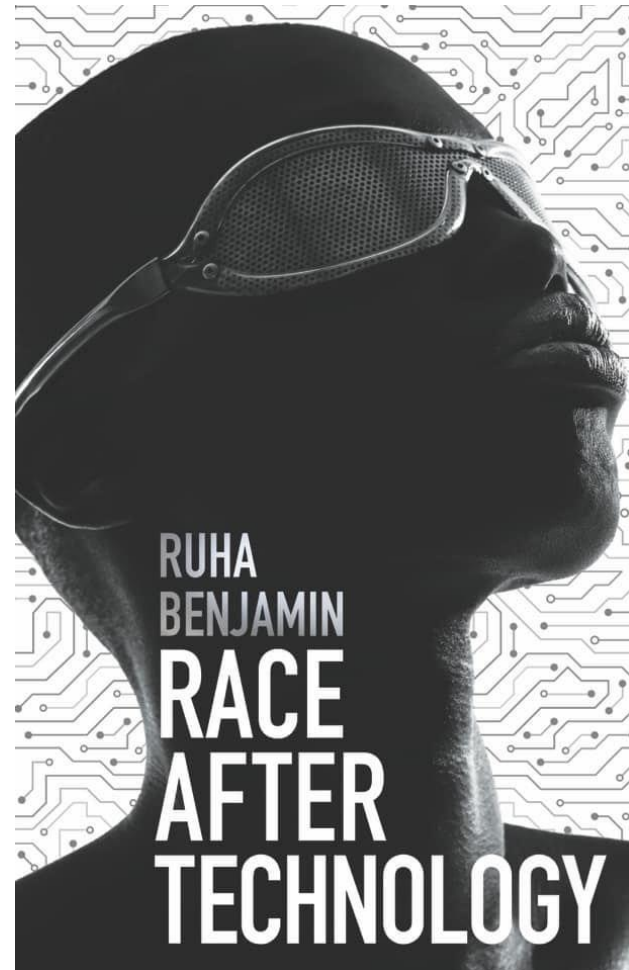


The U.S Centers for Disease Control and Prevention, which generated the data for the table on the left, reports that disparities in COVID-19 outcomes persist **even when accounting for other demographic and socioeconomic factors.**²

SOURCES: ¹Kaiser Family Foundation (2022), *Key Facts on Health and Health Care by Race and Ethnicity*, available at <https://www.kff.org/report-section/key-facts-on-health-and-health-care-by-race-and-ethnicity-disparities-in-covid-19-impacts/>
²U.S Centers for Disease Control and Prevention (2022), *Health Equity Considerations and Racial and Ethnic Minority Groups*, available at <https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html>

Technology Bias

Emerging research indicates technology and data algorithms can reinforce bias.



RESEARCH

RESEARCH ARTICLE

ECONOMICS

Dissecting racial bias in an algorithm used to manage the health of populations

Ziad Obermeyer^{1,2,*}, Brian Powers³, Christine Vogeli⁴, Sendhil Mullainathan^{5,*†}

Health systems rely on commercial prediction algorithms to identify and help patients with complex health needs. We show that a widely used algorithm, typical of this industry-wide approach and affecting millions of patients, exhibits significant racial bias: At a given risk score, Black patients are considerably sicker than White patients, as evidenced by signs of uncontrolled illnesses. Remedying this disparity would increase the percentage of Black patients receiving additional help from 17.7 to 46.5%. The bias arises because the algorithm predicts health care costs rather than illness, but unequal access to care means that we spend less money caring for Black patients than for White patients. Thus, despite health care cost appearing to be an effective proxy for health by some measures of predictive accuracy, large racial biases arise. We suggest that the choice of convenient, seemingly effective proxies for ground truth can be an important source of algorithmic bias in many contexts.

There is growing concern that algorithms may reproduce racial and gender disparities via the people building them or through the data used to train them (1–3). Empirical work is increasingly lending support to these concerns. For example, job search ads for highly paid positions are less likely to be presented to women (4), searches for distinctively Black-sounding names are more likely to trigger ads for arrest records (5), and image searches for professions such as CEO produce fewer images of women (6). Facial recognition systems increasingly used in law enforcement perform worse on recognizing faces of women and Black individuals (7, 8), and natural language processing algorithms encode language in gendered ways (9)

researcher-created algorithms (10–13). Without an algorithm's training data, objective function, and prediction methodology, we can only guess as to the actual mechanisms for the important algorithmic disparities that arise.

In this study, we exploit a rich dataset that provides insight into a live, scaled algorithm deployed nationwide today. It is one of the largest and most typical examples of a class of commercial risk-prediction tools that, by industry estimates, are applied to roughly 200 million people in the United States each year. Large health systems and payers rely on this algorithm to target patients for “high-risk care management” programs. These programs seek to improve the care of patients with complex health needs by providing additional

that rely on past data to build a predictor of future health care needs.

Our dataset describes one such typical algorithm. It contains both the algorithm's predictions as well as the data needed to understand its inner workings: that is, the underlying ingredients used to form the algorithm (data, objective function, etc.) and links to a rich set of outcome data. Because we have the inputs, outputs, and eventual outcomes, our data allow us a rare opportunity to quantify racial disparities in algorithms and isolate the mechanisms by which they arise. It should be emphasized that this algorithm is not unique. Rather, it is emblematic of a generalized approach to risk prediction in the health sector, widely adopted by a range of for- and non-profit medical centers and governmental agencies (21).

Our analysis has implications beyond what we learn about this particular algorithm. First, the specific problem solved by this algorithm has analogies in many other sectors: The predicted risk of some future outcome (in our case, health care needs) is widely used to target policy interventions under the assumption that the treatment effect is monotonic in that risk, and the methods used to build the algorithm are standard. Mechanisms of bias uncovered in this study likely operate elsewhere. Second, even beyond our particular finding, we hope that this exercise illustrates the importance, and the large opportunity, of studying algorithmic bias in health care, not just as a model system but also in its own right. By any standard—e.g., number of lives affected, life-and-death consequences of the decision—health is one of the most important and widespread social sectors in which algorithms are already used at scale today, unbeknownst to many

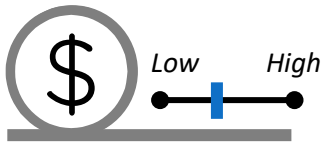
Downloaded from <http://science.sciencemag.org/> on April 20

Health Equity Modeling



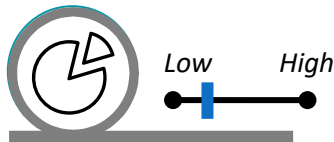
Evaluating Equity

Deloitte’s equity index is created by standardizing equity measures across states then weighing them based on relevance to context of inquiry. The measures show the weights assigned for workers’ compensation.



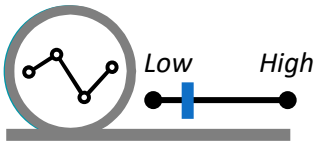
Income Distribution

distribution of income levels across each state



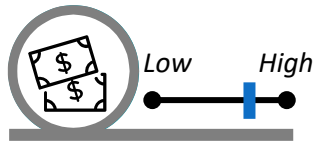
Wealth Distribution

distribution of wealth across each state



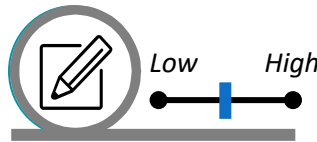
Change in Income

median change in income in the past year across each state



Discretionary Spending

median dollars of discretionary spending across each state



Education Level

average level of education across each state



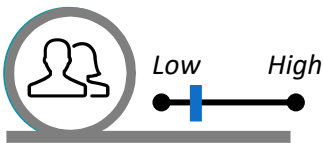
Physical Health

average physical health score across each state



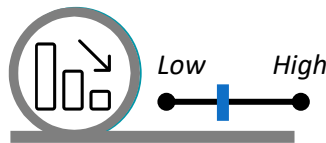
Mental Health

average mental health score across each state



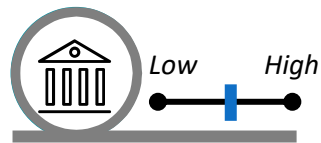
Employment Level

average level of employment (Full/Part time or unemployed) across each state



Consumption Rate

average consumer spending rate across each state



Credit

ratio of late/bankrupt/foreclosed credit trades per state

Level Setting the Data

Understanding the Equity Index requires knowing what it is, but also what it is not.



What the Data Are

The data are a guide to identifying sociodemographic, socioeconomic, and health equity factors that can impact the workforce in various ways across the country, across a state, and even throughout a community.



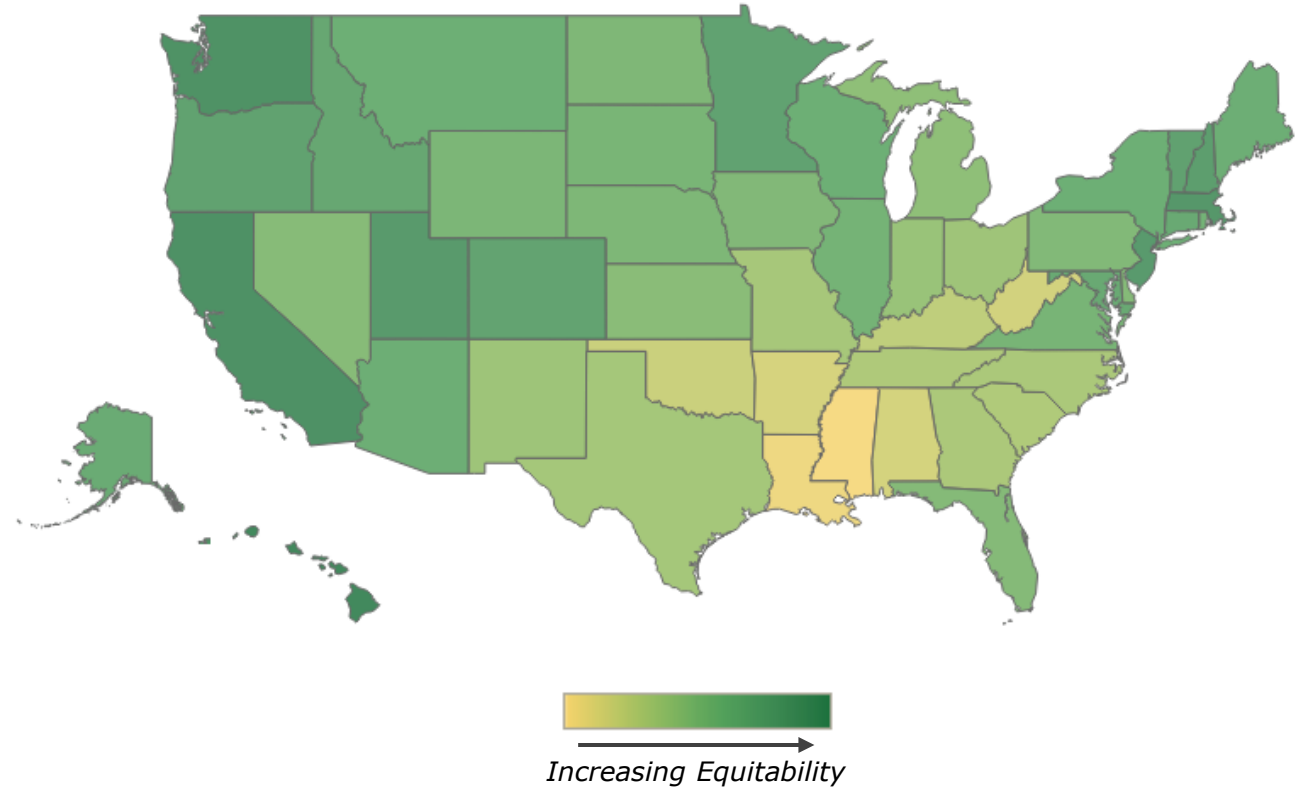
What the Data Are Not

The data are **not** a measure of how well one state or community is doing in comparison to others, rather the data and analysis are meant to identify areas of opportunity unique the workforce in each geography.



Where Can the Data be Sourced?

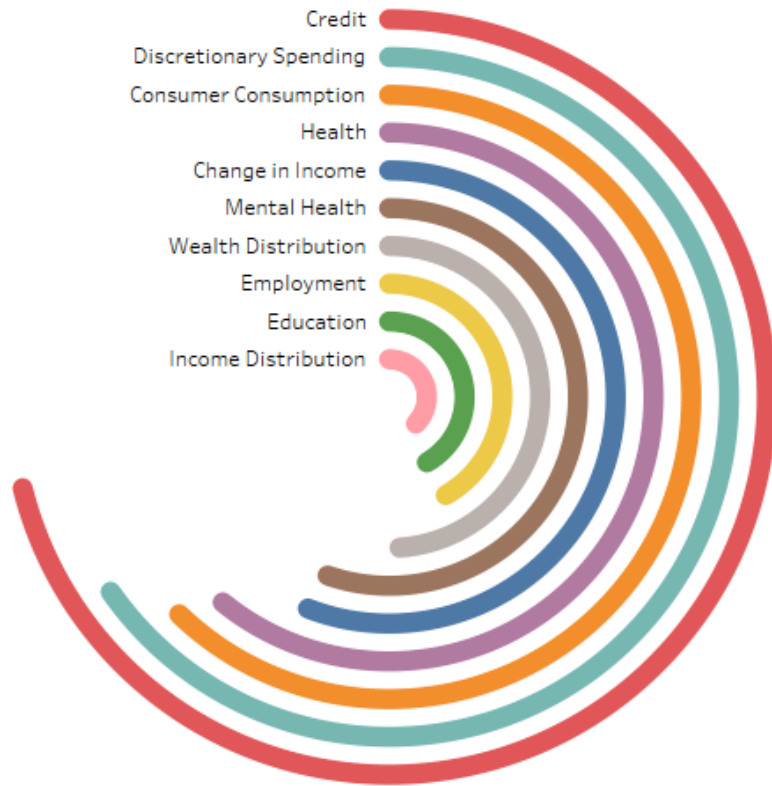
These data can be sourced publicly, such as through the US Census Bureau, through third party data sources, or even better, from existing data that resides within the organization.



Advancing Equity is Not a One-Size-Fits-All Formula

The composition of each state's factors are indicative of initial priorities for consideration.

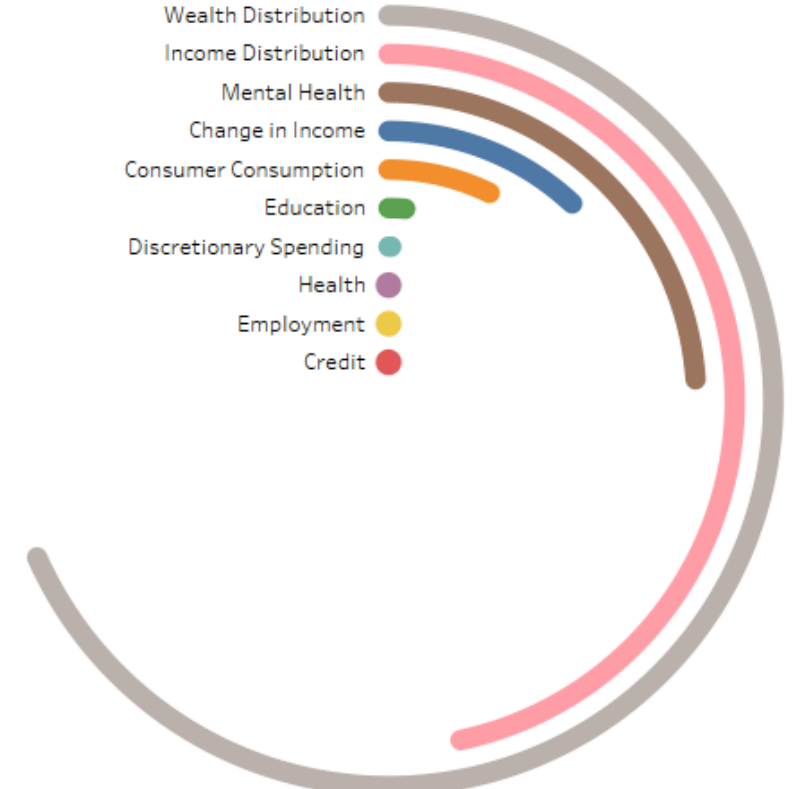
Washington



Virginia



Mississippi



**Where do you start
strengthening health
equity?**



It's in the Data...

Start by looking at what your data is telling you, and what gaps you have in data.

Steps to take



INVENTORY YOUR DATA & IDENTIFY GAPS

Use historical sociodemographic and socioeconomic data to better understand current worker population



TAILOR YOUR PROCESSES

Identify unique workforce personas or archetypes as indicated by the data and create tailored processes that address the unique needs of the archetypes



LOCALIZE REFINEMENTS

Based on the data's identification of geographical differences, identify refinements to tailor targeted solutions for identified regions in your service area



IMPLEMENT A PILOT

Incorporate workforce analytics, personas, and location into a pilot claims approach



Questions to ask

- What data in my organization helps to create context?
- Where are our blind spots, and who can help fill them?
 - Provider Network?
 - State Agencies?
 - Federal Government?
- What disparities appear for worker groups within my data?
- Do outliers correspond with consistent characteristics in demographics or the drivers of health?
- Are there process changes we can make to better tailor services to the needs of identified personas or archetypes?
- What geographic differences appear in the data?
- Are there clear differences in determinants in health that may be related to geographical differences?
- Are there process changes we can implement by location to address the illuminated needs of certain areas?
- What information will we use to determine success of the pilot?
- How long will the pilot need to run for reliable information?
- When is the right time to implement the pilot from a change management perspective for our teams?

What do your forms ask?

How you collect the data from your workers sends subtle signals about your DEI journey and dictates how much refinement you can do in your outcomes analysis.

How do your forms ask about **sexual orientation and gender identity**?

- ☐ Male
☐ Female

Challenges:

This construct conflates gender with sex and ignores sexual orientation, which all may have specific implications in a care setting.

Within the LGBTQ+ community, there are many subpopulations that may have their own unique health needs in a given context.

How do your forms ask about **race**?

Choose ONE of the following:

- ☐ American Indian or Alaskan Native
☐ Asian or Pacific Islander
☐ African American
☐ White
☐ Two or more races

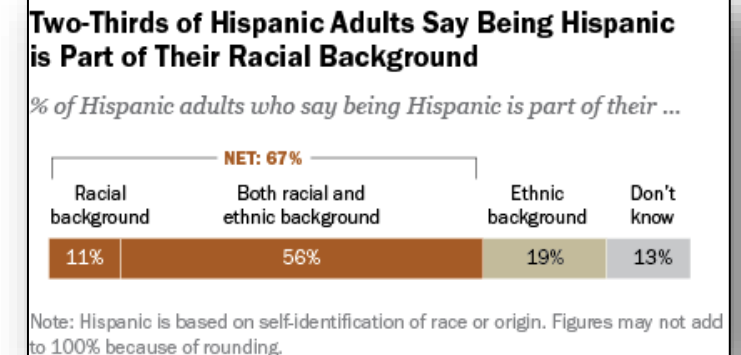
Challenges:

- Not all Blacks are African American.
- Individuals that identify as Middle Eastern/North African (MENA) are grouped in “White”, so data may mask attributes particular to MENA genealogy
- Requiring selection of one box introduces challenges to drawing meaningful observations for the “Two or more races” category.

How do your forms ask about **Hispanic or Latino Origin**?

- Are you Hispanic or Latino?
☐ Yes
☐ No

Challenges:



SOURCE: Pew Research Center (2015), *Is being Hispanic a matter of race, ethnicity or both?*, available at:

<https://www.pewresearch.org/fact-tank/2015/06/15/is-being-hispanic-a-matter-of-race-ethnicity-or-both/>

Leading Practice: Demographic Questions

Consider these industry leading revisions to demographic questions. Work with your legal department on any redesign, as state statutes and regulations may impact what questions you can ask.

The National Academies of Sciences, Engineering and Medicine recommends the use of the following standardized questions for Sex, Gender Identity, and Sexual Orientation.

What sex were you assigned at birth, on your original birth certificate?

- ☐ Female
- ☐ Male
- ☐ Don't know
- ☐ Prefer not to answer

What is your current gender?
(Mark only one)

- ☐ Female
- ☐ Male
- ☐ Transgender
- ☐ Two-Spirit
- ☐ I use a different term: [free text]
- ☐ Don't know
- ☐ Prefer not to answer

Which of the following best represents how you think of yourself? (Select ONE):

- ☐ Lesbian or gay
- ☐ Straight (not gay or lesbian)
- ☐ Bisexual
- ☐ Two-Spirit
- ☐ I use a different term: [free text]
- ☐ Don't know
- ☐ Prefer not to answer

At a minimum, the race and ethnicity questions should:

- Use Black/African American as a category, rather than just African American
- Allow a racial identification of Hispanic
- Allow for selection of two or more identities
- Provide an open text category for individuals to provide their own self-identification
- Consider other categories that may be necessary to create the granularity needed for the analysis to be undertaken.

Choose one or more of the following:

- ☐ Asian
- ☐ Black or African American
- ☐ Mexican or Central American
- ☐ Middle Eastern, North African
- ☐ Native American or Alaskan Native
- ☐ Native Hawaiian and Other Pacific Islander
- ☐ South American
- ☐ White
- ☐ Prefer not to say

SOURCE: National Academies of Sciences, Engineering, and Medicine (2022), *Measuring Sex, Gender Identity, and Sexual Orientation*, available at <https://nap.nationalacademies.org/catalog/26424/measuring-sex-gender-identity-and-sexual-orientation>

Principles for Data Collection

The National Academies of Science, Engineering, and Medicine offers five principles that should underlie data collection when it comes to demographics such as race, gender identity and sexual orientation.

Inclusiveness

People deserve to count and be counted.

Both quantitative and qualitative data, regardless of how they are collected, reflect the identities and experiences of people and communities that deserve to be heard and respected. Everyone should be able to see themselves, and their identities, represented in surveys and other data collection instruments.

Precision

Use precise terminology that reflects the constructs of interest

Dimensions of identity are complex and multidimensional, and identifying the components of these constructs that are of interest and measuring them using appropriate terminology is critical for collecting reliable data.

Autonomy

Respect identity and autonomy

Questions about dimensions of identity, by definition, are asking about a person's sense of self. Data collection must allow respondents to self-identify whenever possible, and any proxy reporting should reflect what is known about how a person self-identifies.

Parsimony

Collect only necessary data

Data collection is not an end in itself: data should only be gathered in pursuit of a specific and well-defined goal...and data that are not essential to achieve that goal should not be collected.

Privacy

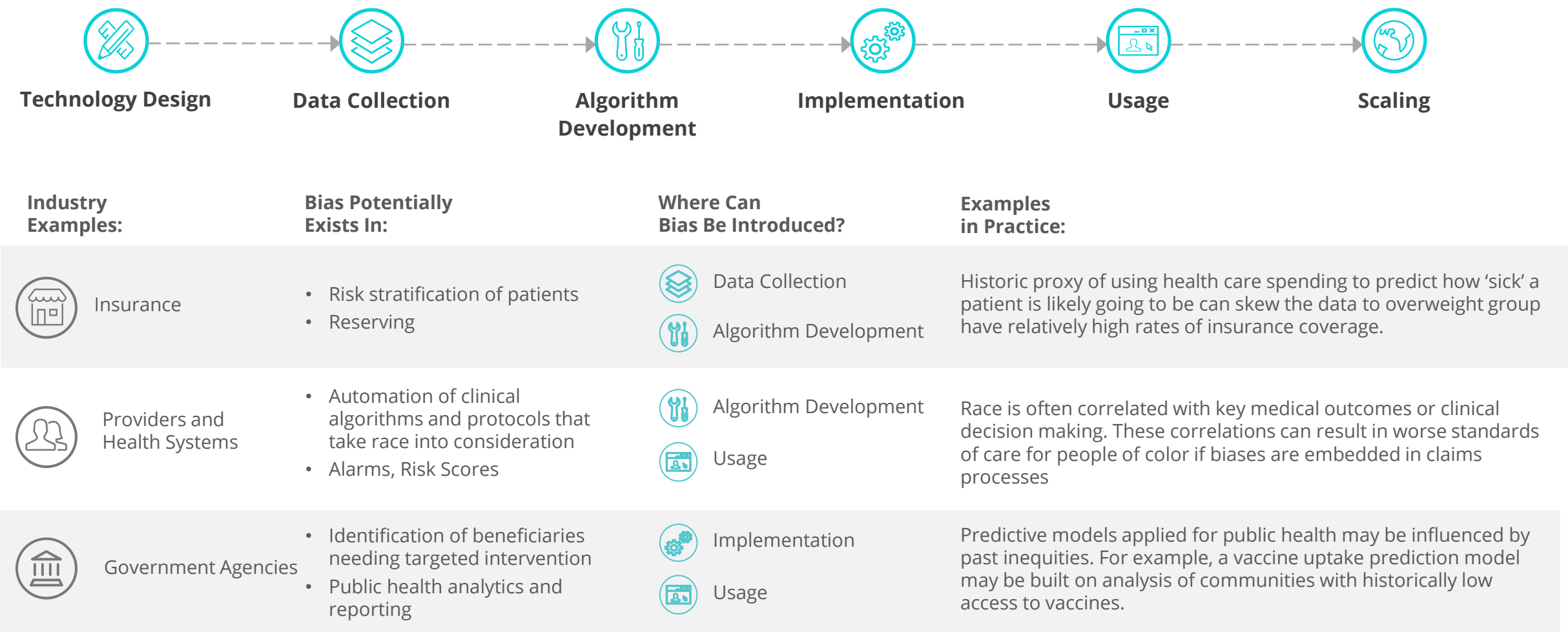
Use data in a manner that benefits respondents and respects their privacy

Once data are gathered, they should be analyzed at the most granular level possible, and research findings should be shared back with respondents and their communities to ensure that they benefit from data they have shared.

SOURCE: National Academies of Sciences, Engineering, and Medicine (2022), *Measuring Sex, Gender Identity, and Sexual Orientation*, available at <https://nap.nationalacademies.org/catalog/26424/measuring-sex-gender-identity-and-sexual-orientation>

Monitoring Potential for Bias

Collecting the right data is only one step. Monitoring applications of data and technology for bias are also necessary.



It's not just data...
Inclusive Leadership
matters, too.

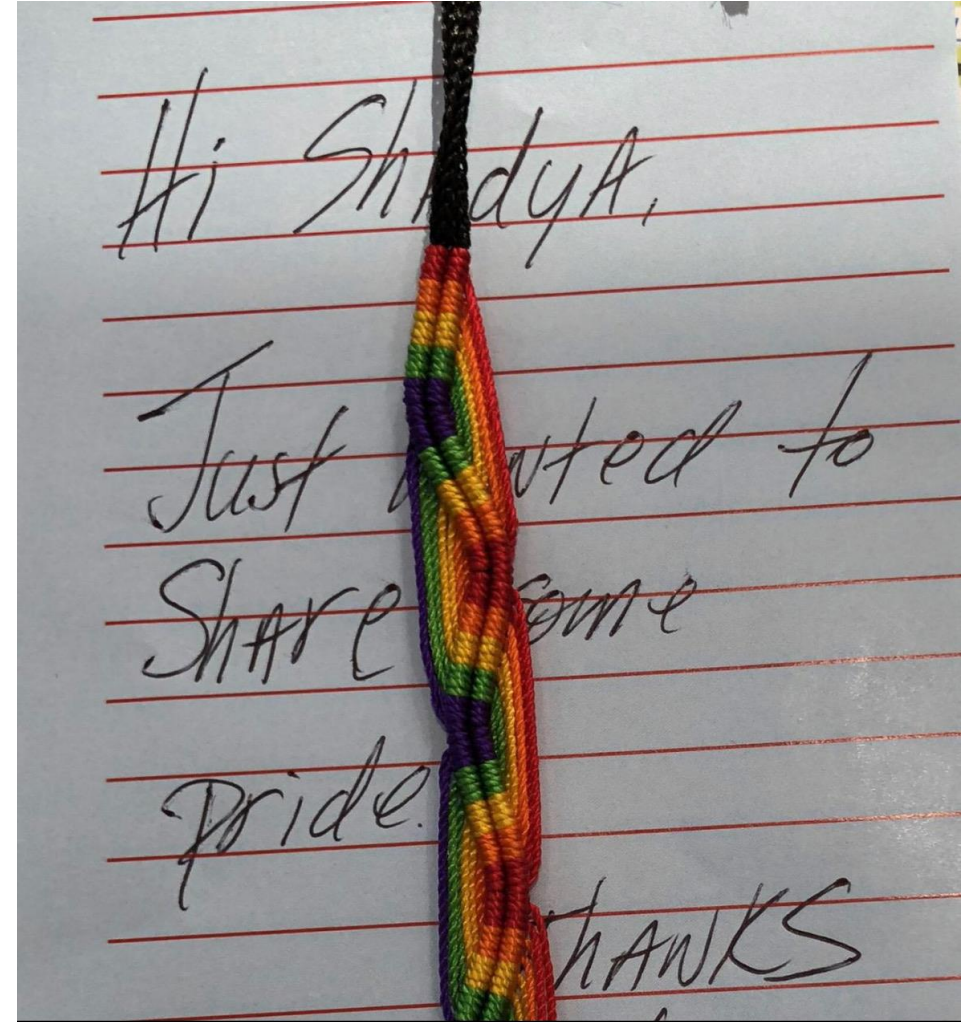


What is Inclusive Leadership?

You never know who is paying attention...

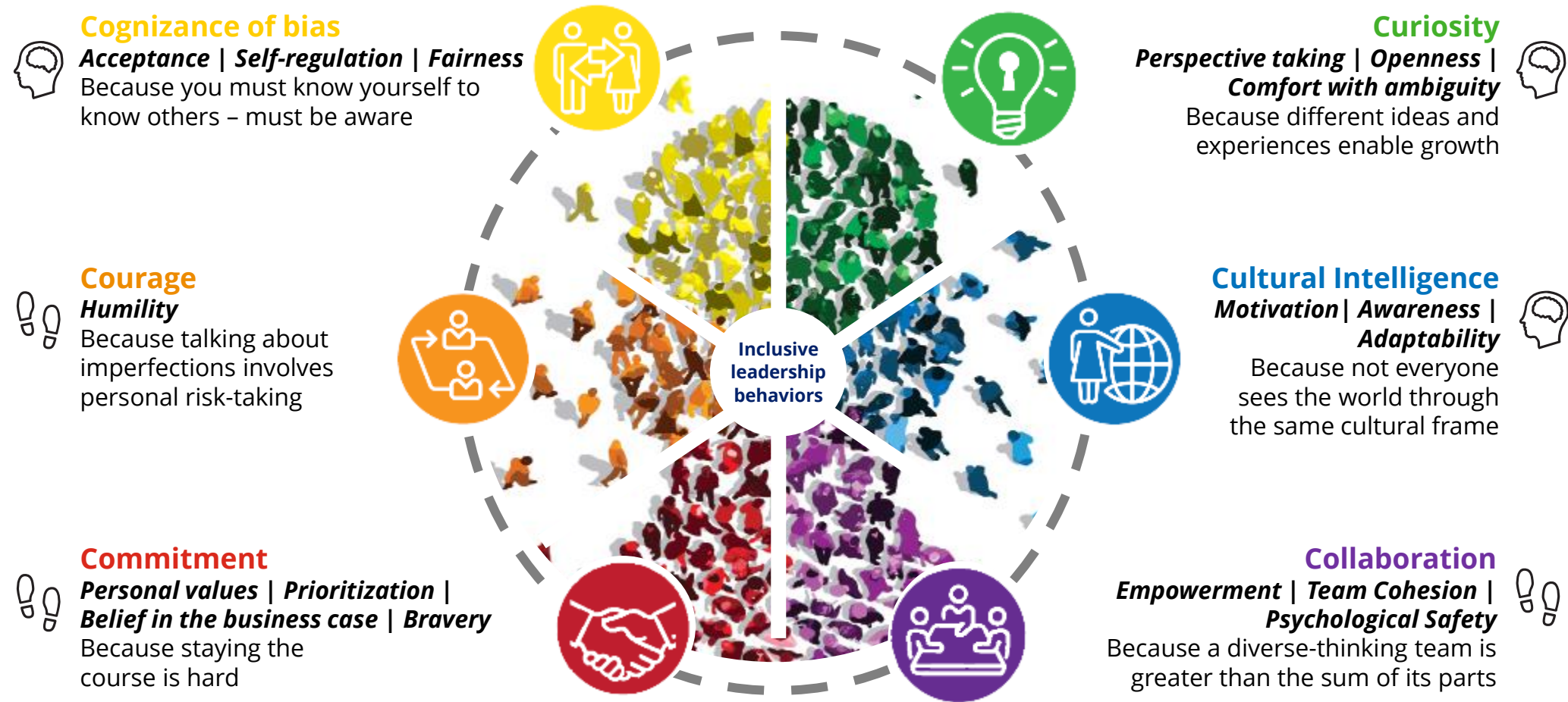
Inclusive leadership is essential to **fostering an environment** of empowered well-being, where people are given the **support and flexibility** they need to be energized, confident, and engaged.

It is a combination of **behaviors** and **mindsets**.



Deloitte's Inclusive Leadership Framework

Leaders that are inclusive combine mindsets and behaviors.



Long-Term Actions to Consider

Data-driven insights are important, but so is creating a culture of innovation where front-line employees feel supported in making process improvement suggestions.

		Claim Initiation	Investigation & Initial Determination	Ongoing Claim Administration	Medical Management & Disability Prevention	Settlement & Claim Closure	Fraud Detection & Prevention
Forms & Communications	Refine self-identification opportunities	✓		✓	✓		
	Review website for WCAG standards compliance	✓		✓	✓		
	Consider language options based on your populations for key documents that explain process and related forms	✓	✓	✓	✓	✓	✓
	Identify key language skills needed in your customer-facing teams (or services that provide them, if hiring is not feasible)	✓	✓	✓	✓	✓	✓

Resources



If you want to learn more...

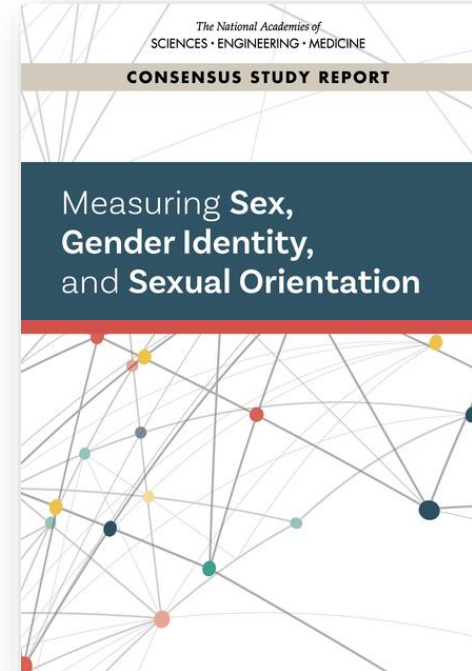
The images link to the online homes for these resources. Each has a link for a free downloadable .pdf.



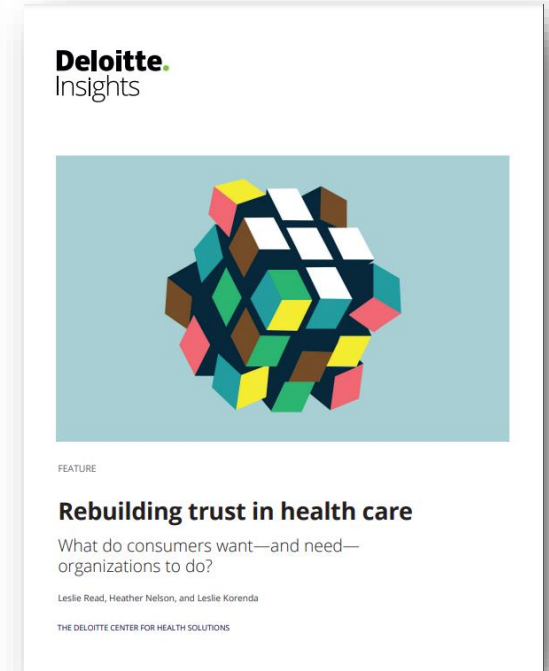
Discusses racism and bias as barriers to health equity, and elaborates on the drivers of health model shared on page 7 of this presentation



Detailed discussion of the Inclusive Leadership Framework shared on page 28, including what inclusive leaders think about and do to display each of the six inclusive leadership traits



Contains comprehensive definitions tables and more detail on guidelines for data collection related to information shared on pages 22-24



Contains the results of focus groups with 525 BIPOC individuals exploring their experiences with health care and sentiments around trust. Interviews with health executives, advocates and academic experts explore strategies to repair and improve trust.

If you'd like to continue the conversation...



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