

# Identifying and Mitigating Implicit Bias in Health Disparities

DR. JO REGER

OAKLAND UNIVERSITY



# My background

- Chair of the Department of Sociology, Anthropology, Social Work and Criminal Justice
- Sociology Professor at Oakland University
- My research has focused on inequality and its ramifications, particularly for women and other marginalized groups
- Implicit bias training for MSWs working in the health care field
- So why do I want to talk to you today?



# My goal

- To help make the connections between your work as physicians and my work looking at inequality
- I see trainings like these as ways to address some of the inequities around us – in this case healthcare. And I do think that is possible.
- This presentation will meet your MI LARA R **338.7004** implicit bias training standards and there will be a pre- and post-test inserted in the presentation

# First, a story.....



11:51



NOV 01 2021

# Is this the result of implicit bias?

- There are a lot of reasons for her situation.
- However, as someone who studies inequality, I know:
  - She is less likely to be listened to (than me) when describing her pain
  - She is more likely to be seen as seeking pain relief (than me) because of stereotypes about addiction and drug use
- Statistics bear this out... there is implicit (and at times, explicit bias) in healthcare

# Race and healthcare

- Patients of color are more likely to be blamed for being too passive about their health care
- Non-white patients are less likely to be prescribed pain medications (non-narcotic and narcotic)
- Non-white patients receive fewer cardiovascular interventions and fewer renal transplants
- Black women are more likely to die after being diagnosed with breast cancer
- Black men are less likely to receive chemotherapy and radiation therapy for prostate cancer and more likely to have testicle(s) removed
- Source: recent global *Joint Commission Report*

# Maternal mortality

The [study](#), ***MATERNAL AND INFANT HEALTH INEQUALITY: NEW EVIDENCE FROM LINKED ADMINISTRATIVE DATA***, by the National Bureau of Economic Research, includes nearly all the infants born to first-time mothers from 2007 to 2016 in California, the state with the most annual births. For the first time, it combines income tax data with birth, death and hospitalization records and demographic data from the Census Bureau and the Social Security Administration, while protecting identities.

## **Summary – Childbirth Is Deadlier for Black Families Even When They're Rich, Expansive Study Finds**

- **In 100,000 births....**
  - **173 of the richest white mothers will have their babies die by their 1<sup>st</sup> birthday (more likely to be premature, older mothers or twins)**
  - **350 of the poorest white mothers will have their babies die by their 1<sup>st</sup> birthday**
  - **437 of the richest Black mothers will have their babies die by their 1<sup>st</sup> birthday**
  - **635 of the poorest Black mothers will have their babies die by their 1<sup>st</sup> birthday**

- This is more than economics. “Money protects white mothers and babies. It doesn’t protect black ones.”
- “There is clear evidence that Black patients experience racism in health care settings. In childbirth, mothers are treated differently and given different access to interventions. Black infants are more likely to survive if their doctors are Black
- This study addresses 3 important social determinants of health –
  - Race and ethnicity
  - Gender
  - Social class

# This also extends beyond the body...

- Black and Hispanic adults receive less medication for mental health services than non-Hispanic white adults.
- Black, Hispanic, Native Hawaiian and Pacific Islander adults received less mental health services compared with non-Hispanic white adults.
- Asian American adults received fewer prescription medications for mental health services by about a 5<sup>th</sup> compared with of non-Hispanic white adults.
- Source: Health Disparities by Race and Ethnicity, Fact sheet, May 2020

# New technologies can add to the problem

- Underrepresented data of women or minority groups can skew predictive AI algorithms.
- For example, computer-aided diagnosis (CAD) systems have been found to return lower accuracy results for black patients than white patients.

# Overall ...

**Black, Hispanic, and Indigenous people fared worse than White people across the majority of examined measures of health and health care and social determinants of health.**

**Economics also plays a role but is not the only explanation in differences**

- *Note that these are statistics on groups (not individuals)*

# What role does implicit bias play?

- Untangling these issues is difficult (remember the research on income and race)
- For example, we know there is a wage gap between women and men. March 26 was equal pay day – the day when women’s incomes reached men’s (who calendar stopped in December)
- When we control for all sorts of factors:
  - Women in and out of the work force because of families.
  - The persistence of sex segregated work
  - ETC
- There is still a difference that cannot be explained — that difference is bias or implicit bias

# So why these differences in healthcare outcomes?

- Are these all outcomes from bias?
- There can be a range of factors responsible for health outcomes and medical sociologists look at identifying these
- However, one constant is implicit bias in health care which keeps people from getting the treatment they need

# Today's Objectives

**Define and identify types of implicit bias**

**Investigate where bias comes from**

**Explore particular types of bias in health care and other areas**

**Discuss how to respond and manage bias**

# Implicit or Unconscious Bias

## Implicit –

- Automatic and unintentional
- Unconscious
- When you reach conclusions without giving it thought or reason

## Bias –

- A prejudgment that draws on stereotypes or former experiences and can result in discrimination

## Implicit bias affects your -

- Decisions
- Behavior
- Worldview

# Who is biased?

- We like to think that people who are negative about others are the ones who perpetrate implicit bias.
- However, we all carry some kind of bias
- All people includes people in marginalized as well as privileged groups in society

# Where does bias come from?

- We learn directly or indirectly from family, friends and peers
- Social media and news
- We learn through our experiences that we make into “global” assumptions
- We learn it as we learn our jobs
  - In a survey, 48.7% of U.S. medical students, reported having been exposed to negative comments about Black patients by attending or resident physicians (Changes Study Report, 2015)
  - One “fact” that continues to be shared is that Black patients have thicker skin and different nerve endings and therefore feel less pain than other groups. [Link to source](#) (2026)

# Example of Workplace Bias: “Being Sane in Insane Places”

- Researchers placed themselves in mental hospital – then behaved normally
- Patients immediately knew they were NOT mentally ill
- Nurses and doctors did not
- Why not?
- *Psychology Today* article 2022 – argues that the data for this study was problematic and it should be retracted
- Why did I include? Experiences combined with a setting/context shapes our knowledge. Can cause us to screen out some information because of these.

# Example: Resume screening bias

- **Name bias** - Ethnic or culturally different than “white” names may face higher rejection rates.
- **Gender bias** - Female candidates may be judged more harshly or less likely to be selected for interviews.
  - STEM study of men and women candidates found that women were less likely to be hired and when hired, they were offered lower salaries
- **Age bias** – Older candidates may be passed over for employment opportunities in favor of younger applicants.
- **Affinity bias** - Candidates who share similar interests, backgrounds, and experiences may be more positively viewed.

# Example: The expectation of heterosexuality

**People who identify as LGBTQ+ (non-heterosexual) can experience discomfort in medical interactions,**

- sharing about their sexual identity**
- explaining their partnership status (which is a common question on forms)**
- picking up on the doctor's discomfort**
- This discomfort can result in physicians not obtaining important information**
- It can also result in LGBTQ+ people not seeking medical attention**

**\* Source: "Discomfort, Judgment, and Health Care for Queers" *Bioethical Inquiry*, 2012. Harbin, Beagan & Goldberg**

# Consider the assumptions/information here

- Ethnic “non-white” names
- Female vs. male workers
- Age and employment
- The approval of those like ourselves
- Expectations of who we think people are
- There is also a hierarchy in medicine that also makes assumptions about people, skill and knowledge

All of these draw on stereotypes and decisions based on these become bias

Forged through elements like context, cultural values, interaction norms

# Implicit Bias: Myth vs. Fact

**Myth – Only ill-intentioned individuals produce biased behavior**

**Fact – Even well-intentioned people can manifest bias**

**Myth – Bias is always negative**

**Fact – Bias can be negative, positive, or descriptive**

**Myth – Implicit bias can be addressed individual by individual**

**Fact – We can stop individual behaviors but the roots of bias (racism, sexism, homophobia and many others) are structural and systemic. Society is where our information comes from.**

# Exacerbating implicit bias

**Implicit bias can be more prevalent in situations that are:**

- Filled with ambiguity, or missing information
- Where discretionary judgement must be used
- When decisions are rushed
- When we are fatigued and/or when we are stressed

**In sum, high pressure situations can result in decisions shaped by implicit bias**



# In sum....

- We rely on what we know (and where we are) to help us make decisions and our knowledge is structured by the our culture, neighborhood, region, education and occupation (among other factors).
- This knowledge is always partial (Think of Angel's story)
- So being biased is being human
- But also, being human means we can reflect on our behavior and actions, particularly when we are concerned with what is happening in a situation.

- We just covered the why of implicit bias – now we turn to the what American Medical Association identifies 4 common biases in healthcare



# Confirmation bias

- A judgement or decision that supports prior belief and values. Ignores other information and draws on the past
- Example: Refusing to consider alternative diagnoses once an initial one has been established, even though data, such as laboratory results, might contradict it
- AMA - “Since it occurs early in the treatment pathway, confirmation bias can lead to mistaken diagnoses being passed on to and accepted by other clinicians, a process referred to as diagnostic momentum.”

# Anchoring bias

- The tendency to stick with initial impressions even as new information becomes available. The first impression becomes an anchor in decision making.
- Often used to get us to buy things –
- For example, if you first see a T-shirt that costs \$1,200 – then see a second one that costs \$100 – you're prone to see the second shirt as cheap.



# Hindsight/Outcome Bias

- The tendency to judge a situation based on the outcome rather than on the process of decision-making.
- AMA - “Although the relation between decisions and outcomes might seem intuitive, ... sometimes a good outcome can happen despite a poor clinical decision, and vice versa.”



“I knew it all along!”

# Emotional Shortcuts

- **When emotions influence decision-making at the moment instead of rational deliberation about risks and benefits. Can be positive or negative.**



# AMA's advice

- **“Simply increasing physicians’ familiarity with the many types of cognitive biases—and how to avoid them—may be one of the best strategies to decrease bias-related errors.”**
- **Need to know biases and have tools to address**
- **Medical education “could fruitfully invest in training on cognitive biases, the role they play in diagnostic and treatment errors, and effective debiasing strategies.”**

# ***This is not the last slide....***

**So why is knowing common biases in healthcare(or any biases) not enough? Or why don't anti-bias training work?**

- **People's motivations for attending differ  
Often trainings "preach to the choir"  
Can make cynics more cynical about discussions of bias**
- **Fail to confront the deep-seated nature of bias**
- **Suggest we can think our way out of bias by recognizing our stereotypes and assumptions**

# Steps to take to reduce bias



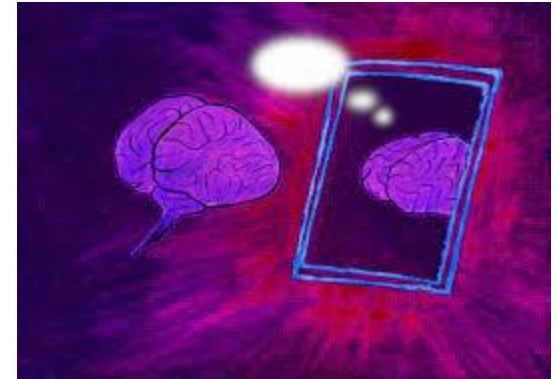
# 1. Engage in epistemic humility

- Recognize that knowledge is always incomplete and provisional, and that it can change in light of new evidence.
- This calls for being humble about what we know and what we don't know.
- This interrupts drawing on prejudgments and leads to a search for more information.
- Epistemic humility interrupts anchoring and confirmation bias – brings in new information

I'm Not Sure.

## 2. Practice active introspective interrogation

- Incorporate reflection on the process when making decisions. Can reinforce behaviors that reduce bias in complex situations. More than thinking but a process of reflecting.
- Guided reflections can improve diagnostic reasoning.
- "A guided reflection intervention involves searching for and being open to alternative diagnoses and willingness to engage in thoughtful and effortful reasoning and reflection on one's own conclusions..." AMA Report on Bias.



### 3. Interrupt emotional shortcuts

- **Actively identifying and interrogating emotions during an interaction**
- **Clinicians who have good emotional regulation skills and who experience positive emotion during clinical encounters may be less likely to view patients in terms of their individual attributes, and to see them as a part of a bigger picture (Joint Commission Report)**

## 4. Seek external accountability

- Make your assumptions evident through external processes
- Cognitive Forcing Strategies involve a conscious consideration of alternative decisions that don't come intuitively.
- In other words, it is thinking about how you are thinking
- Can interrupt confirmation bias – force a range of diagnoses



# In conclusion,

- Humility, reflection, emotional identification and making evident the process of decision-making can interrupt implicit bias
- Regardless of what we do as individuals – must remember where these implicit biases take root in society
- This calls for systematic and structural changes, in addition to our work on implicit bias
  - Example: Address how neighborhood contexts affect health – pollution, safety, access to nutritious food, access to affordable healthcare, quality housing, occupational and educational opportunities and more.

# Implementing these ideas is not easy

In past presentations, doctors have said to me:

- “If I took this much time with each patient, I would not have a practice.”
- “During my residency, I couldn’t definitely answer a question about a situation and I was humiliated for not knowing.”
- “Aren’t there lots of potential reasons for why Angel had this complication? Maybe its not bias.”



Let's return to  
Angel's story

What I have learned  
as a partner about  
my own biases

# References

- Cristina M. Gonzalez, Mimi Y. Kim & Paul R. Marantz (2014) Implicit Bias and Its Relation to Health Disparities: A Teaching Program and Survey of Medical Students, *Teaching and Learning in Medicine*, 26:1, 64-71, DOI: [10.1080/10401334.2013.857341](https://doi.org/10.1080/10401334.2013.857341)
- Carratala. Sofia. Health Disparities by Race and Ethnicity, Center for American Progress, <https://www.americanprogress.org/article/health-disparities-race-ethnicity/>
- **11** harmful types of bias and how to interrupt them, *Catalyst*, January 2020, <https://www.catalyst.org/2020/01/02/interrupt-unconscious-bias/>
- Hill, Nugga, Artiga, 2023, Key Data on Health and Health Care by Race and Ethnicity, <https://www.kff.org/racial-equity-and-health-policy/report/key-data-on-health-and-health-care-by-race-and-ethnicity/>
- Sabin, 2022, Tackling Implicit Bias in Health Care, *New England Journal of Medicine*, <https://www.nejm.org/doi/full/10.1056/NEJMp2201180>
- FitzGerald C, Hurst S. Implicit bias in healthcare professionals: a systematic review. *BMC Med Ethics*. 2017 Mar 1;18(1):19. doi: 10.1186/s12910-017-0179-8. PMID: 28249596; PMCID: PMC5333436.

- <https://www.ama-assn.org/delivering-care/ethics/4-widespread-cognitive-biases-and-how-doctors-can-overcome-them>
- <https://www.jointcommission.org/resources/news-and-multimedia/newsletters/newsletters/quick-safety/quick-safety-issue-23-implicit-bias-in-health-care/implicit-bias-in-health-care/#:~:text=Some%20examples%20of%20how%20implicit,being%20diagnosed%20with%20breast%20cancer>