



## Leveraging Technology to Advance Health Equity: A Case Study from Chicago

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## DEFINITIONS

### HEALTH DISPARITIES

The differences in health outcomes between groups within a population. <sup>a</sup>

### HEALTH INEQUITY

Differences in health outcomes that are systematic, avoidable and unjust. <sup>a</sup>

### SOCIAL DETERMINANTS OF HEALTH (SDOH)

The conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. <sup>b</sup>

### HEALTH EQUITY

Attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and healthcare disparities. <sup>c</sup>

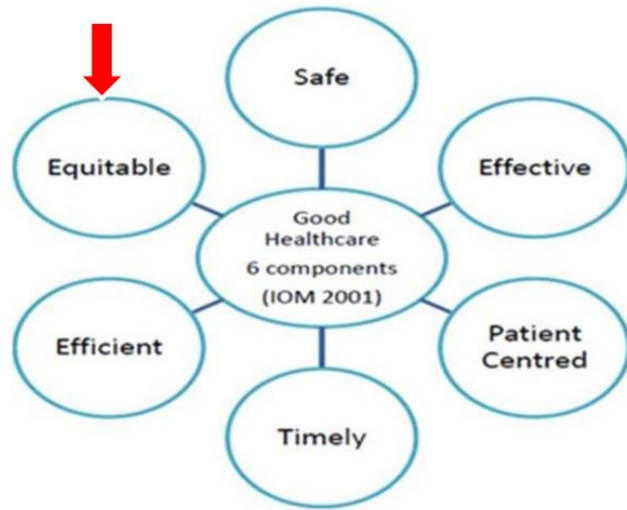
a. Wyatt R, Laderman M, Botwinick L, Mate K, Whittington J. Achieving Health Equity: A Guide for Health Care Organizations. Institute for Healthcare Improvement; 2016.

b. World Health Organization. <https://www.who.int/news-room/questions-and-answers/item/social-determinants-of-health-key-concepts>.

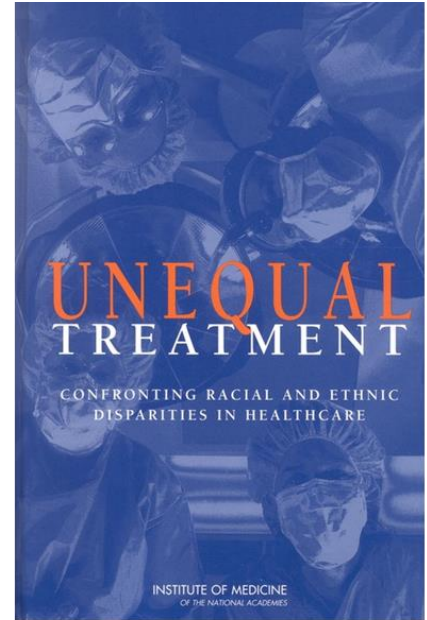
c. Healthy People 2030. Health Equity in Healthy People 2030. <https://health.gov/healthypeople/priority-areas/health-equity-healthy-people-2030>.



No Quality  
Without  
Equity



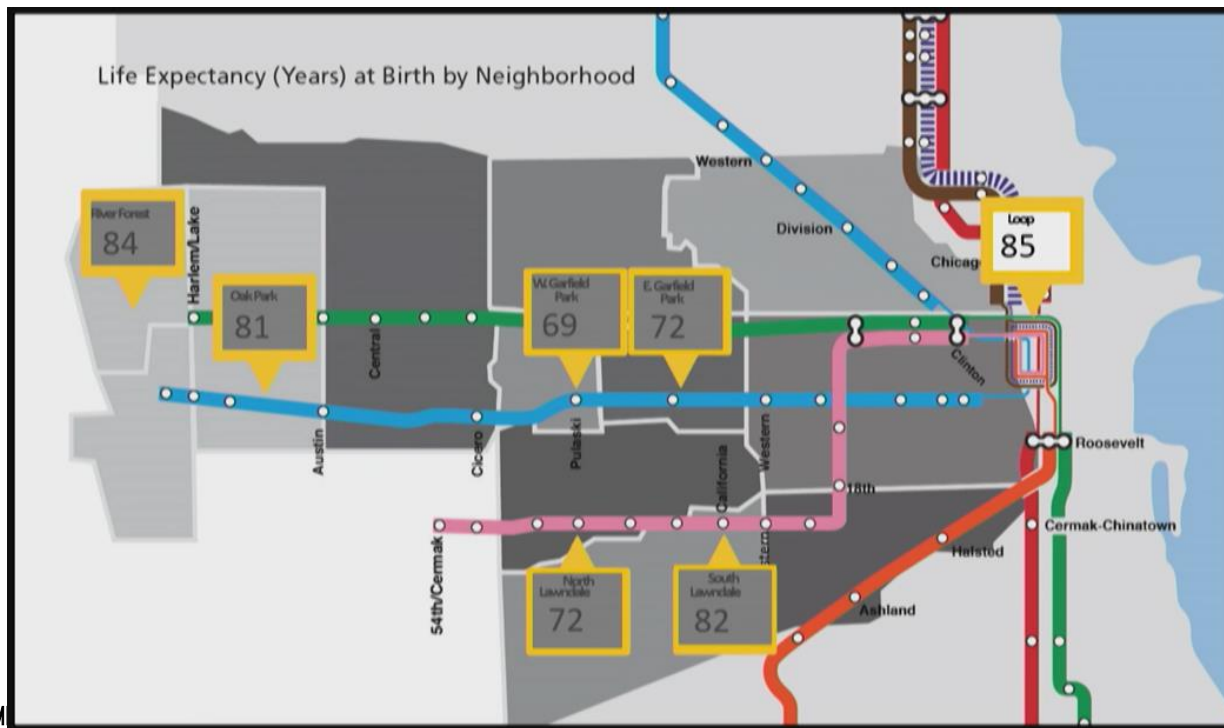
2001



2003



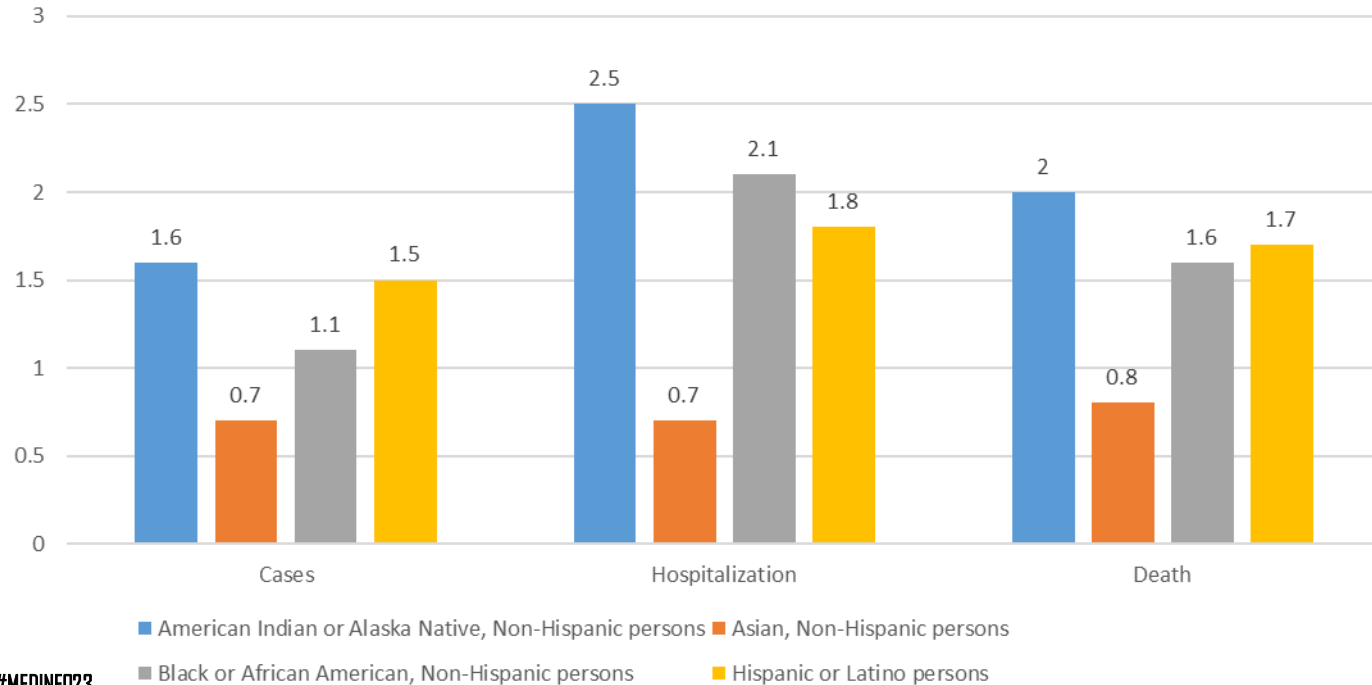
## 7 STOPS - 7 DECADES





## Risk of COVID-19 by Race / Ethnicity

CDC, December 28, 2022





## COVID-19 Positivity Rate

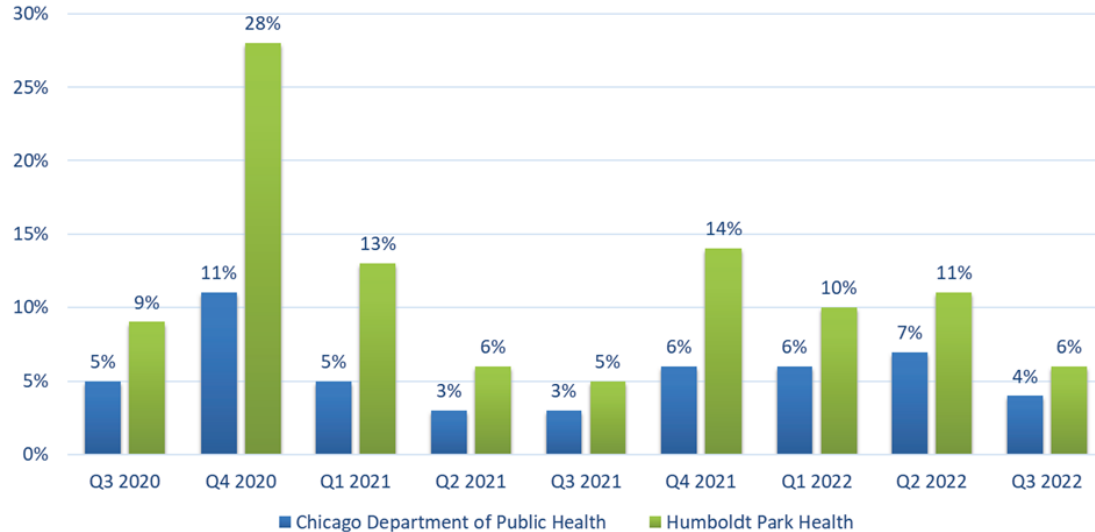
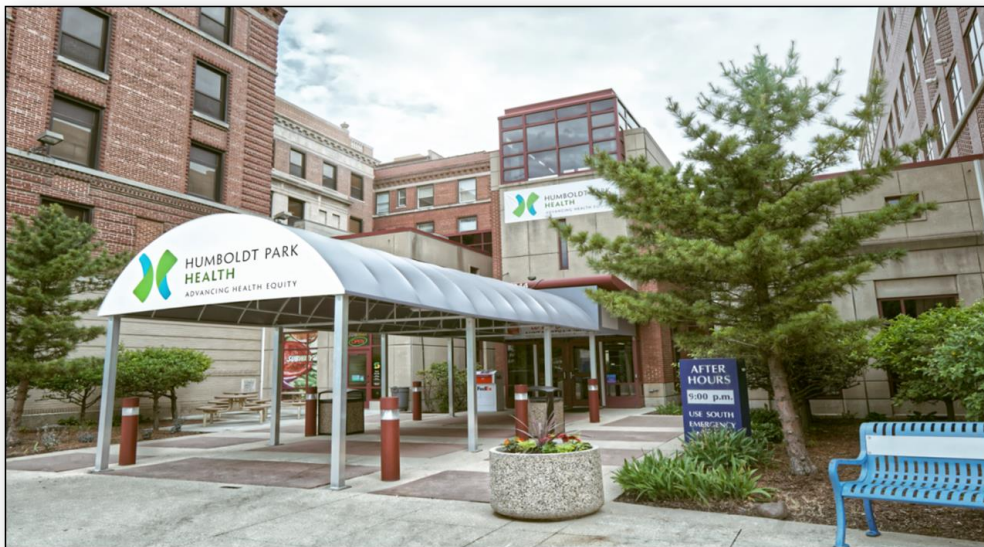


Figure 1: COVID-19 positivity rate at Humboldt Park Health compared to the City of Chicago

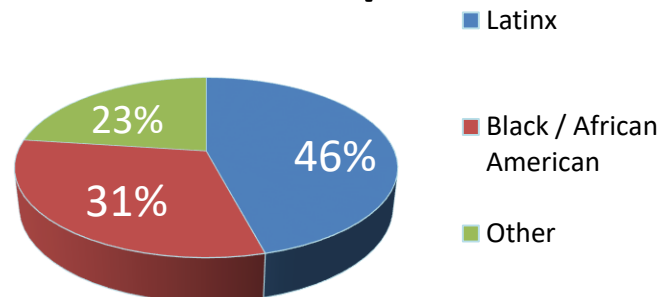


## HUMBOLDT PARK HEALTH

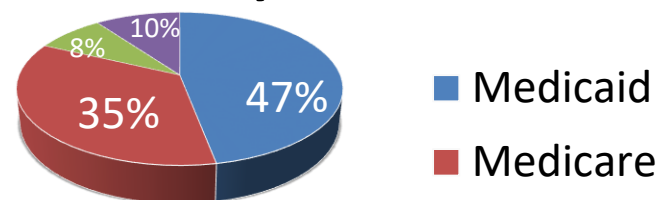
ADVANCING HEALTH EQUITY



### Racial Composition



### Payor Mix







## HPH Core Values

Respect

Empathy

Excellence

Integrity

Inclusivity

Equity





## SDOH Screening Tool in EHR

### Housing

**Living situation**

1. What is your housing situation today?
2. Do you have problems with any of the following in the place that you live? (Select all that apply)

**Save**

### Food availability

**Food availability**

1. In the last 12 months I/we worried whether our food would run out before we got more?
2. Within the past 12 months the food I/we have bought just didn't last and we were not able to get more?

**Save**

### Transportation

**Transportation**

In the past 12 months, has lack of transportation kept you from medical appointments/meetings/work/getting things needed for daily living? (Select all that apply)

- Select -  
- Select -  
Yes it has kept me from medical appt  
Yes it has kept me from non-medical n  
No

**Save**

### Utilities

**Utilities**

In the past 12 months has the electric/gas/water company threatened to shut off services in your home?

**Save**

### Interpersonal Safety

**Interpersonal safety**

1. How often does anyone (including family) physically hurt you?
2. How often does anyone (including family) insult or talk down to you?
3. How often does anyone (including family) threaten you with harm?
4. How often does anyone (including family) scream or curse at you?

**Save**

## Demographic Data Collection

### Demographics

**Language**

**Race**

**Ethnicity**

**Marital status**

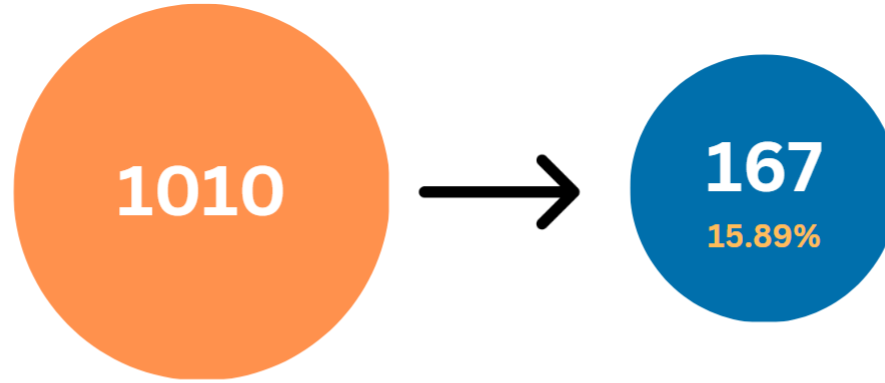
**Sexual orientation**

**Gender identity** ⓘ

**Assigned sex at birth** ⓘ

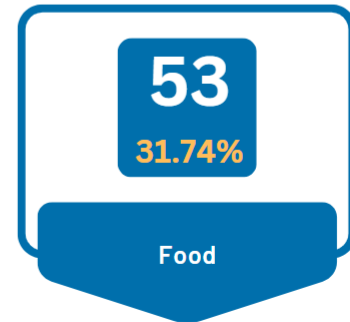
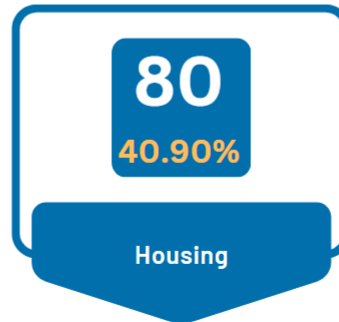
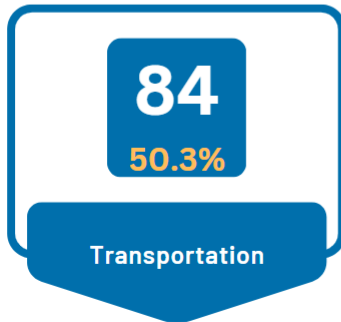
**Pronouns** ⓘ

**Homebound?**



Total Patients Screened for SDOH

Patients POSITIVE for SDOH





## Outpatient Behavioral Health Clinic

started June '21



Shephali Patel, MD



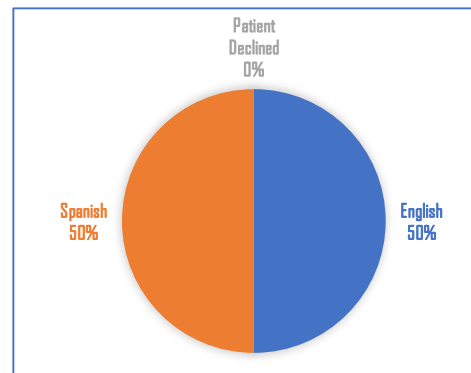
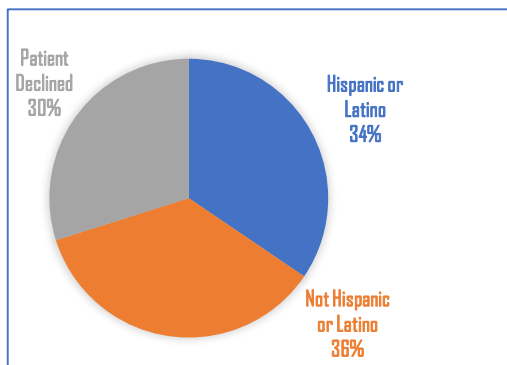
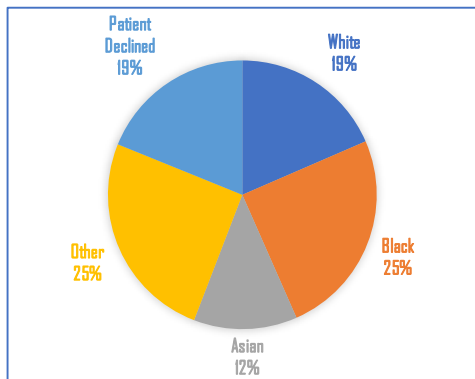
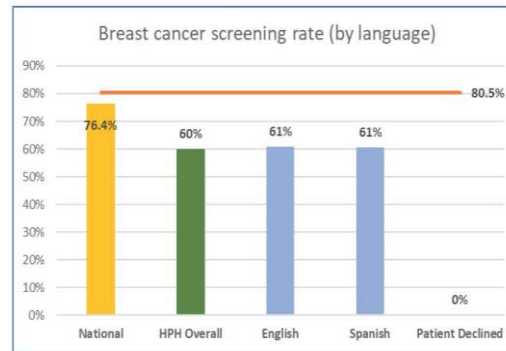
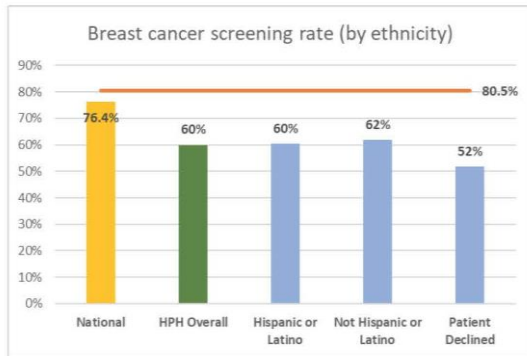
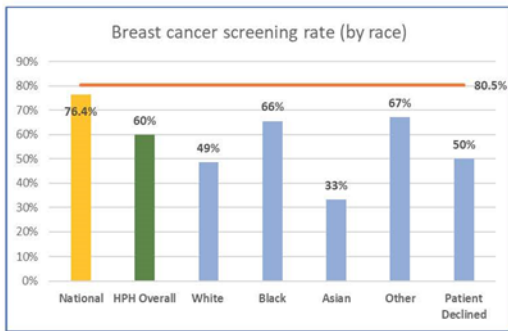
BH Clinic

**Multidisciplinary Clinic including:**

- Psychiatric evaluation and assessment
- Substance abuse evaluation and assessment
- Individual counseling
- Group counseling
- Family counseling
- Medication education and management
- Case management.

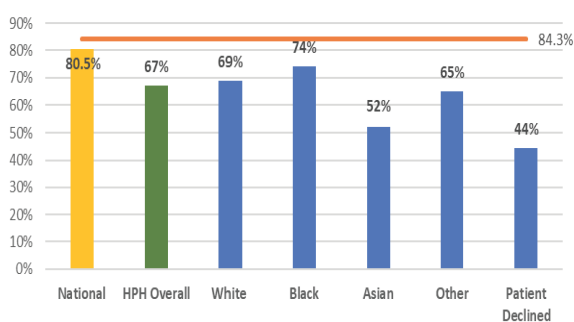


## Breast Cancer Screening (12 month data, n= 306)

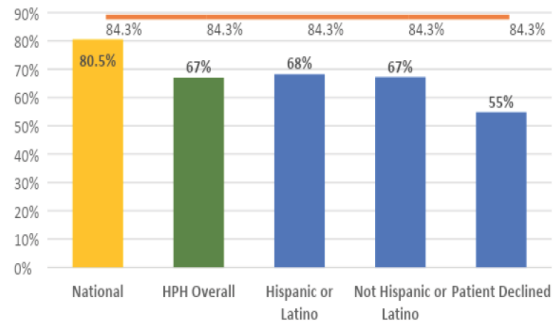




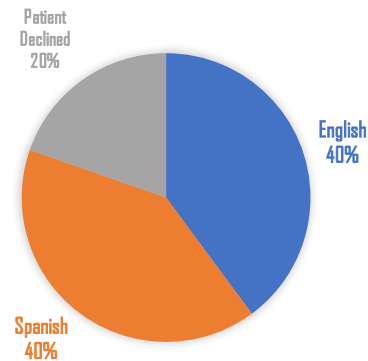
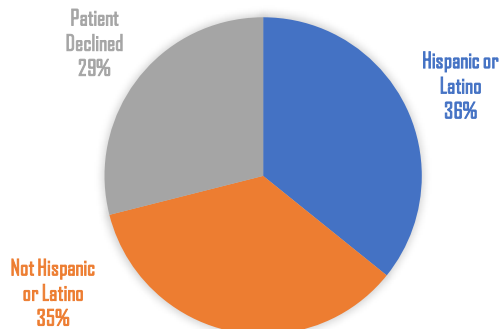
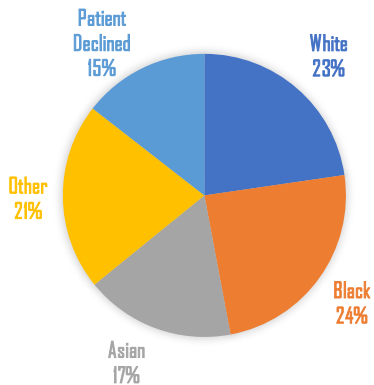
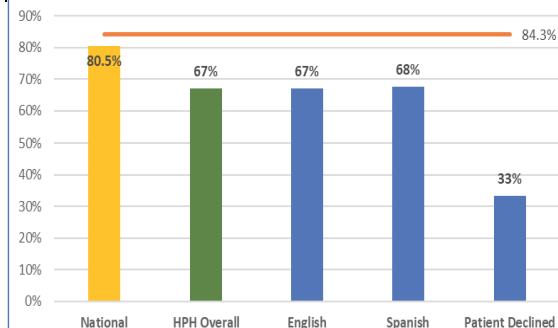
Cervical cancer screening rate (by race)



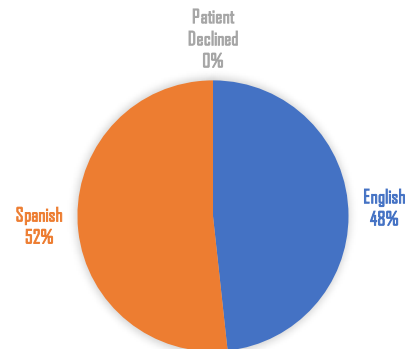
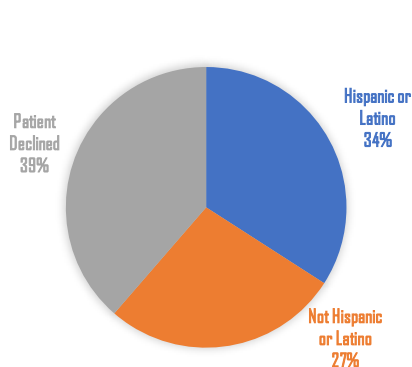
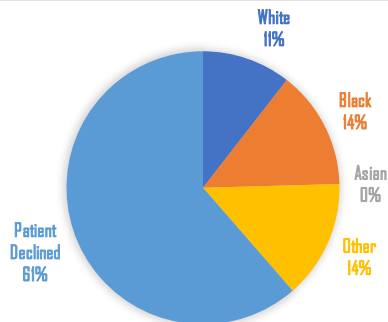
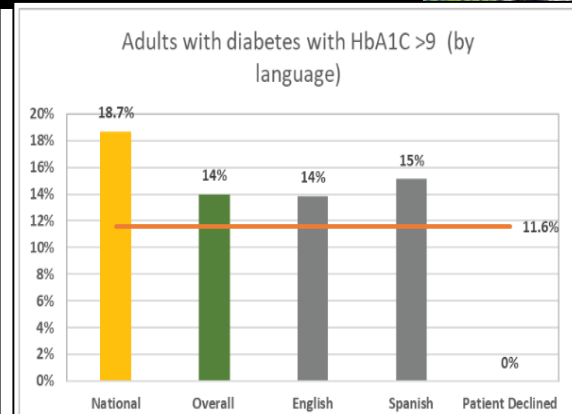
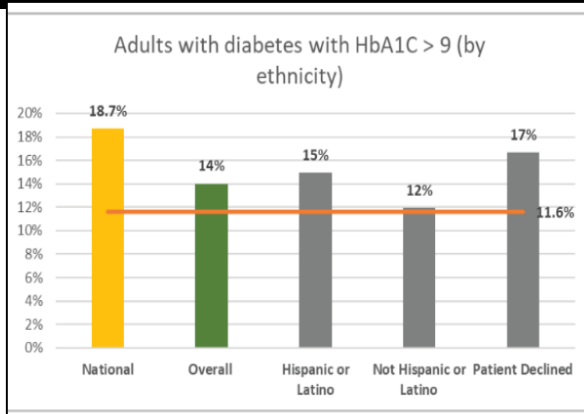
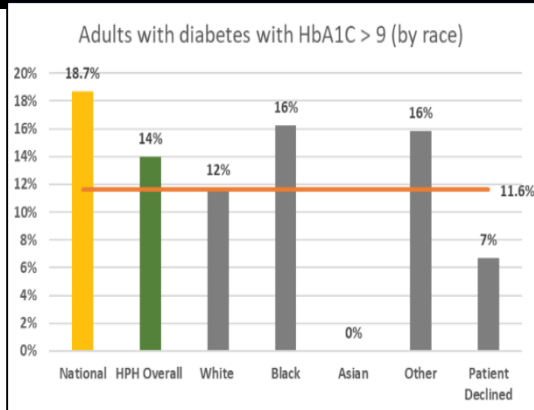
Cervical cancer screening rate (by ethnicity)



Cervical cancer screening rate (by language)

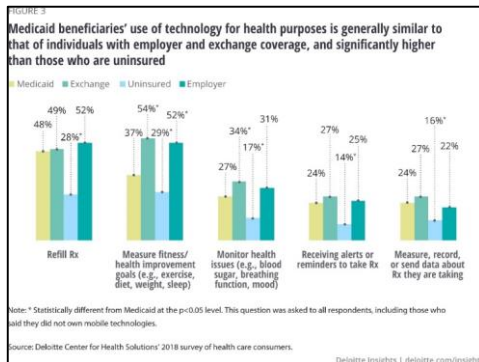
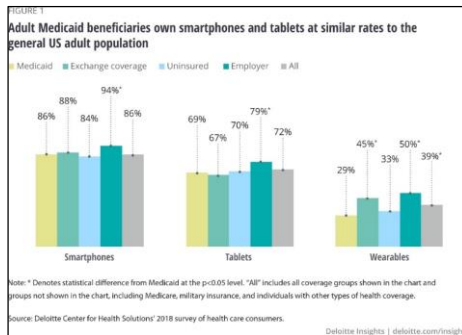
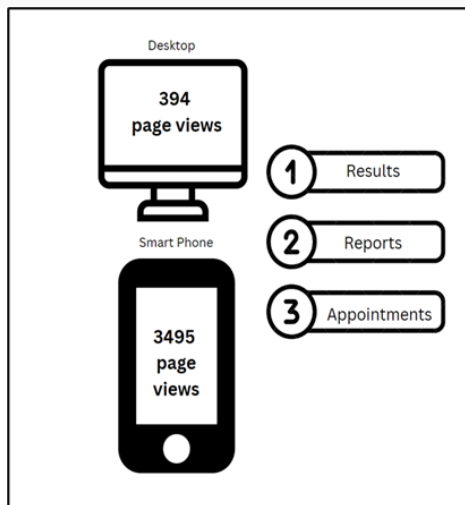


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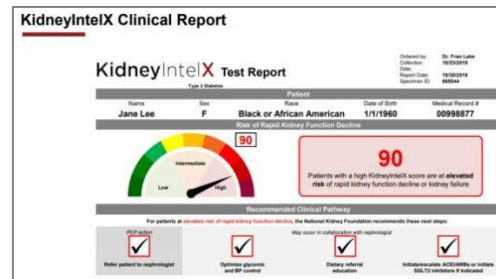


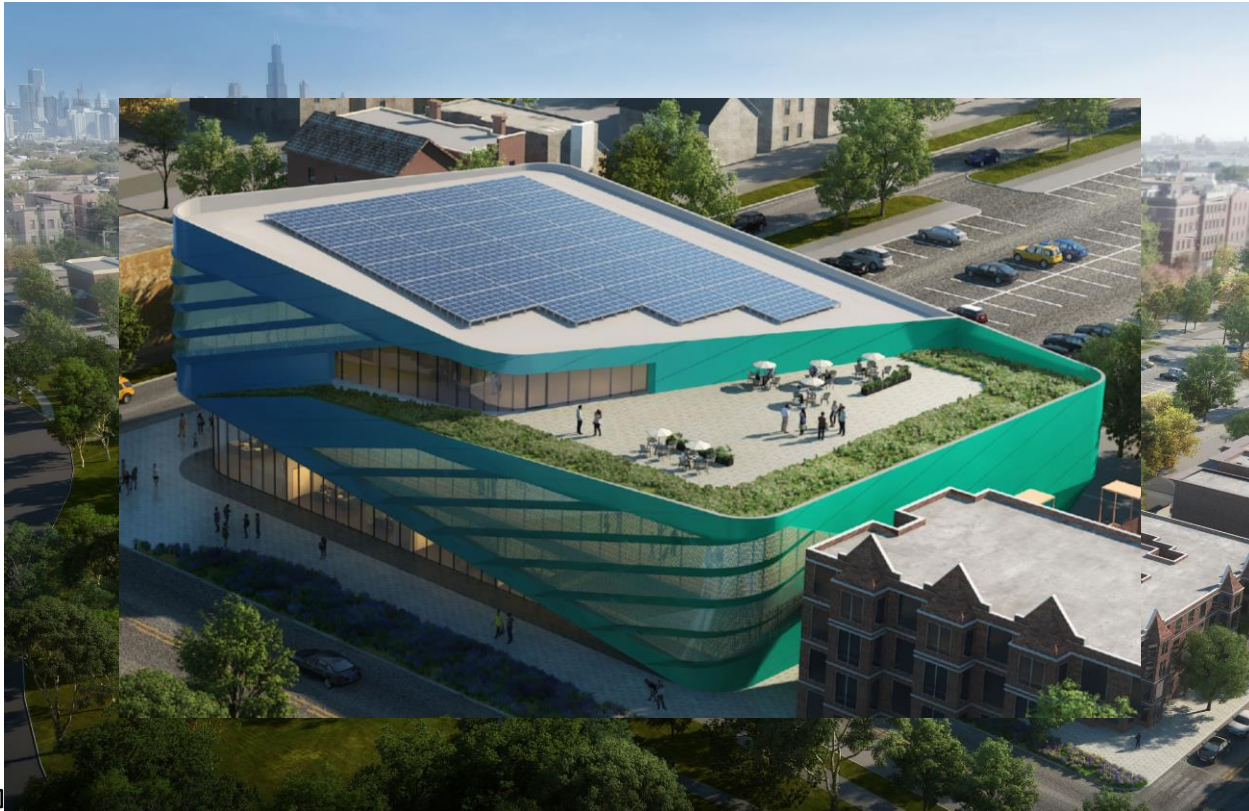
### DIGITAL Health Equity

- Equitable access to digital healthcare
- Equitable outcomes from and experience with digital healthcare
- Equity in the design of digital health solutions



### OTHER INNOVATION PROJECTS







Chicago Medicine  
July 2021



Medical Research Archives  
Publication in Spring 2023

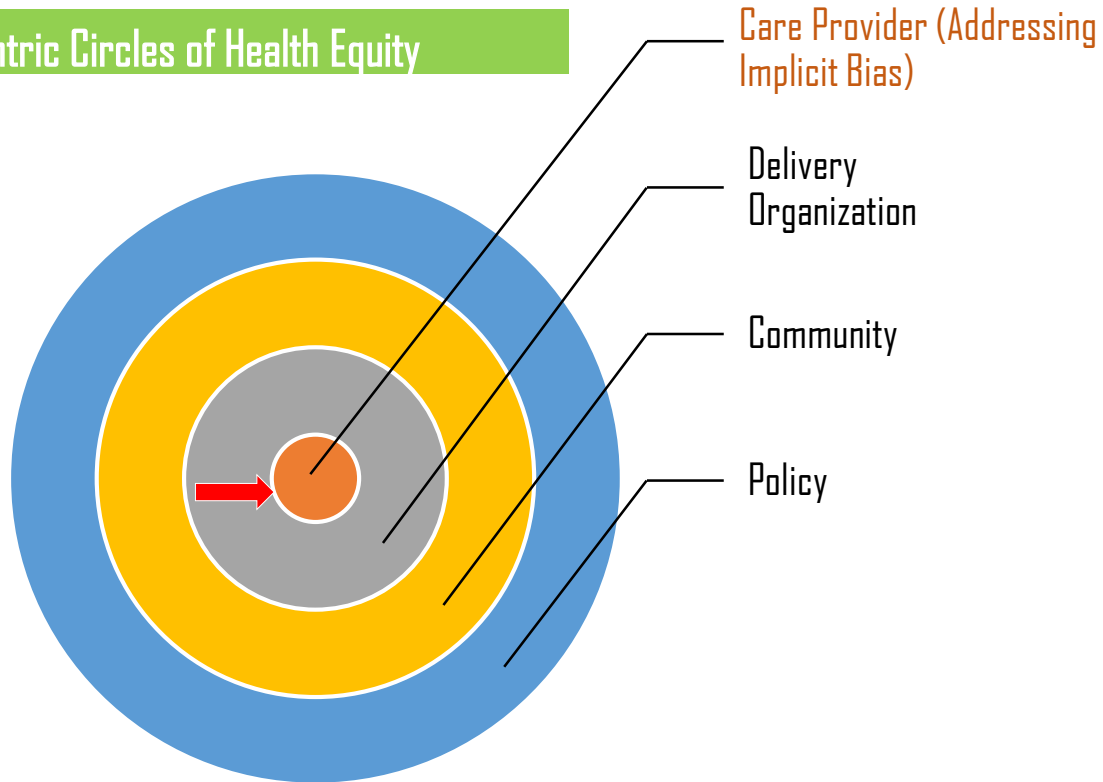
<https://esmed.org/MRA/mra/article/view/3637>



Health Equity Abstract 2022  
Award for presentation

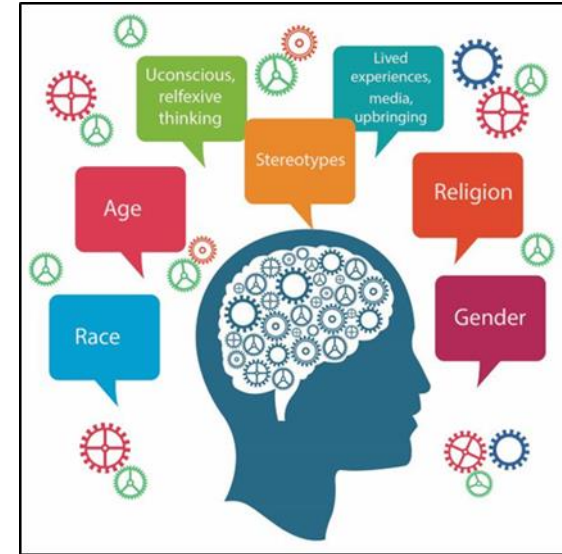


## Concentric Circles of Health Equity





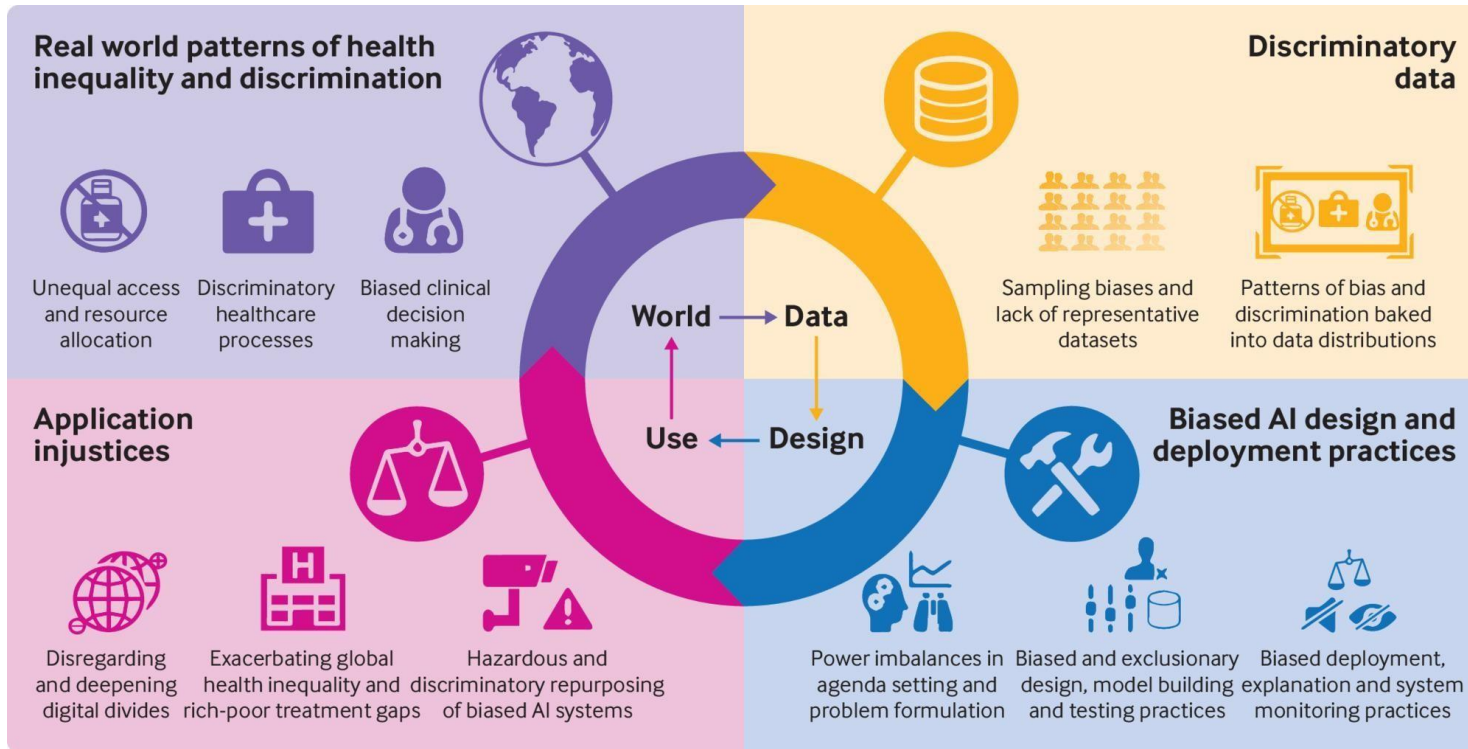
- Implicit biases, are attitudes and beliefs that **operate outside our conscious awareness (unconscious behavior)**.
- **Influence judgment and clinical decision-making.**
- Everyone has it. Even the ones who say, "Some of my best friends are....."
- Harvard study - 4.5 million IATs (Implicit Association Test) administered (1998-2006)
  - Implicit bias is pervasive
  - People are often unaware of their implicit biases
  - Implicit biases predict behavior
  - People differ in levels of implicit bias





- Non-white patients receive fewer cardiovascular interventions and fewer renal transplants.
- Black women are more likely to die after being diagnosed with breast cancer.
- Non-white patients are less likely to be prescribed pain medications (non-narcotic and narcotic).
- Black men are less likely to receive chemotherapy and radiation therapy for prostate cancer.
- Patients of color are more likely to be blamed for being too passive about their health care.

Schulman et al. NEJM. Feb 25 1999  
Implicit bias in healthcare. The Joint Commission. Quick Safety 23.  
Hall et al. Am J Public Health. Dec. 2015  
Agrawal et al. Health Affairs. Jan 15 2020





One doesn't ask of one who suffers: What is your country and what is your religion?  
**One merely says, you suffer, this is enough for me.** You belong to me and I shall help you.

- Louis Pasteur memorial plaque at Cook County Hospital Chicago



# Thank you

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