



Health Equity-The Role of Data In Addressing Social Determinants of Health

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Learning Event Summary: Data collection, reporting, and analysis are essential priorities for the Centers for Medicare and Medicaid Services Equity Plan and HRSA to improve patient quality and health outcomes. It is important for health centers leaders to understand the role of data in helping to identify and reduce healthcare disparities, address social determinants of health, and discuss actionable strategies you can implement at your health center.

Objectives:

- Learn more about the correlation between a patient's social history and social determinants.
- Learn how to identify patients who are at a higher risk of late detection and how to ensure proper treatment of certain diseases.
- Explore interventions and resources that address disease prevention.



Determinants of Health

Social Determinants are the social and economic conditions that influence individual and group differences in health status including:

- Socioeconomic status
- Education
- Neighborhood
- Physical environment
- Employment
- Social support networks
- Access to health care

Structural Determinants are the systems and structures such as governing process, economics and social policies that affect pay, working conditions, housing, and education including:

- Racism
- Classism
- Sexism
- Ableism



Connection to Social and Structural Determinants

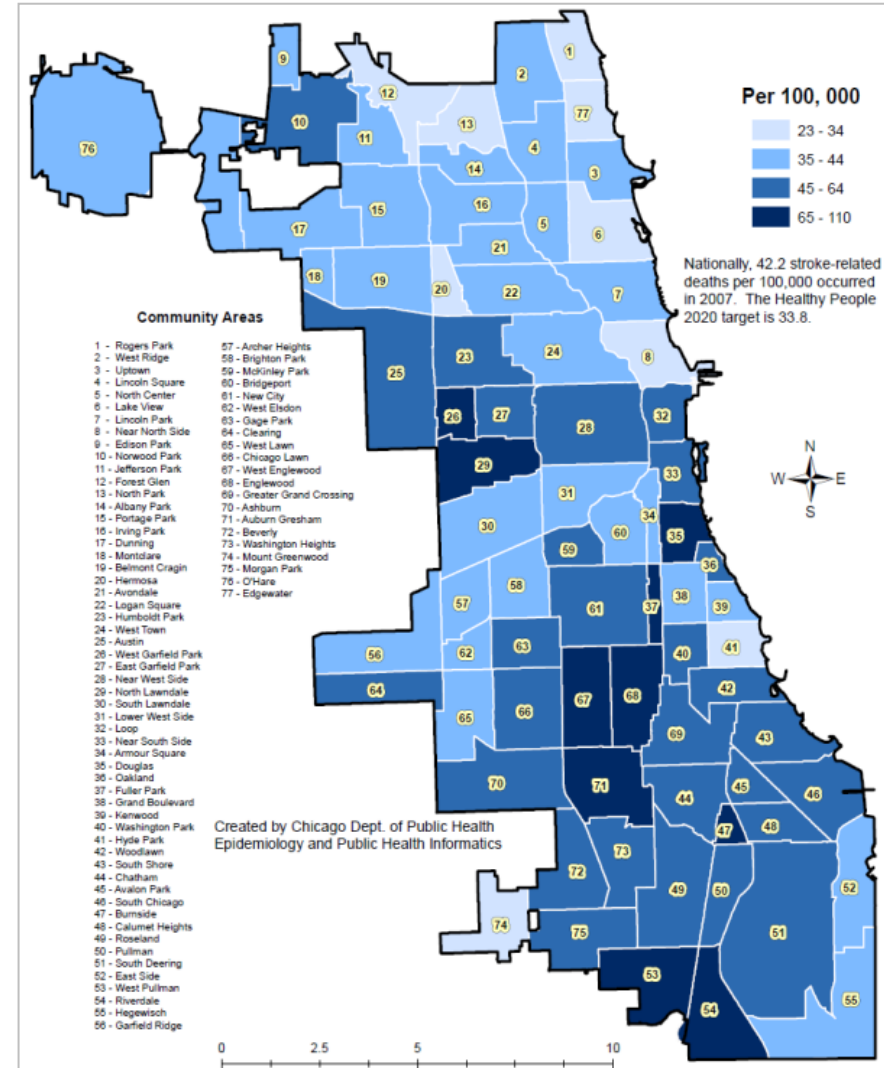
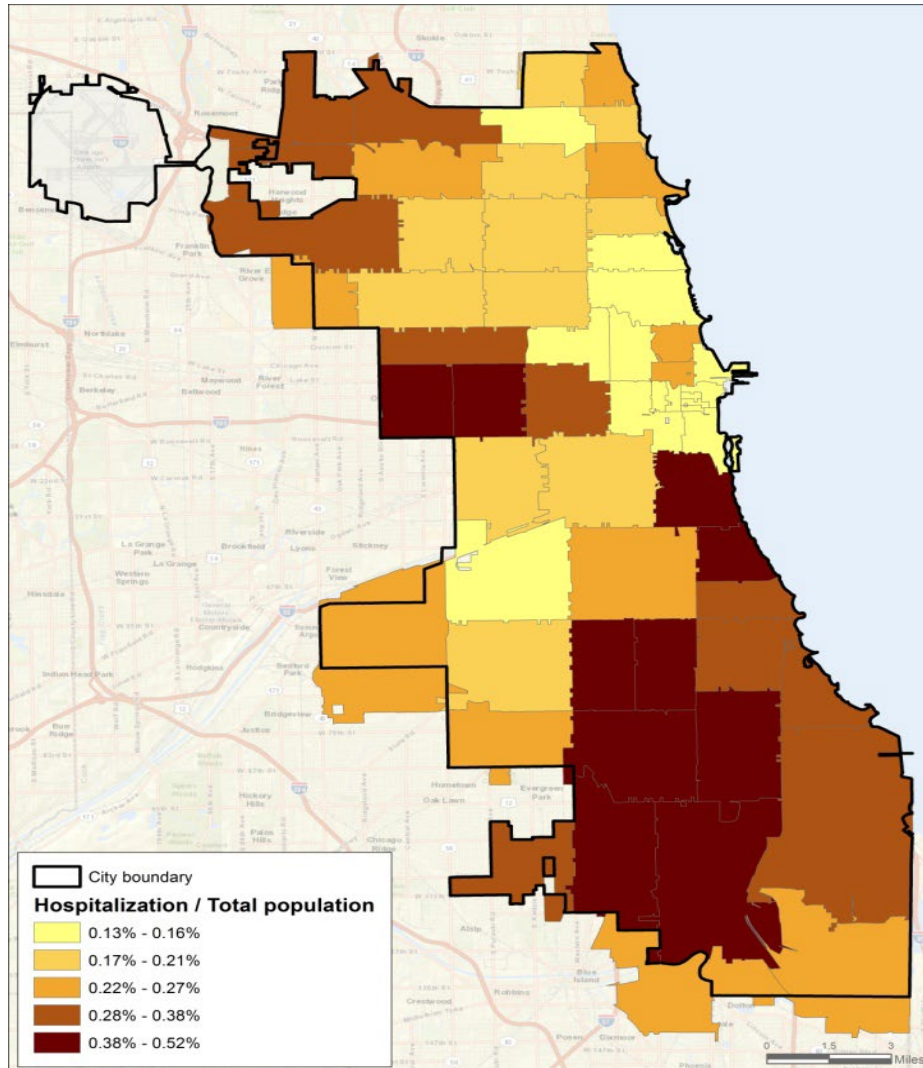
- Self Care
- Access to Care
- Processes of Care

Employment
Racism
Classism
Ableism
Education
Physical environment
Neighborhood
Sexism
Social support networks

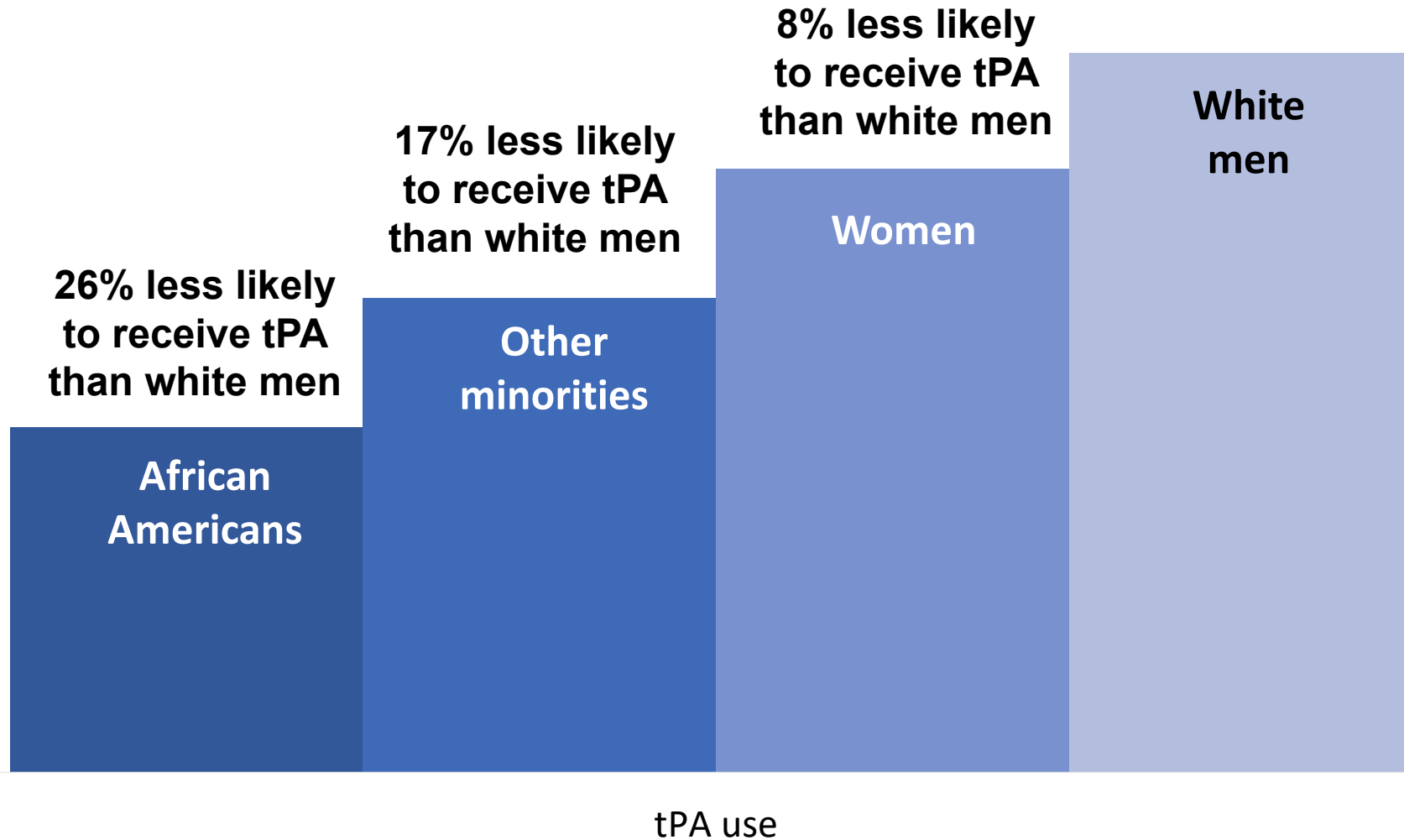
CEERIAS Program Background

- CEERIAS study was funded by PCORI in 2014
- Objective was to use a patient- and community-partnered approach to develop and implement an intervention to increase early hospital arrival for acute stroke in two high-risk Chicago neighborhoods
- The CEERIAS team trained community leaders or “**Stroke Promoters**” to recognize and train others in the community on the need to “Act FAST for Stroke”
- After the program, more younger people, men, and African Americans got to the ER early than before the program
- The number of people who used an ambulance when they thought they were having a stroke increased after the program started

Stroke Prevalence in Chicago Communities

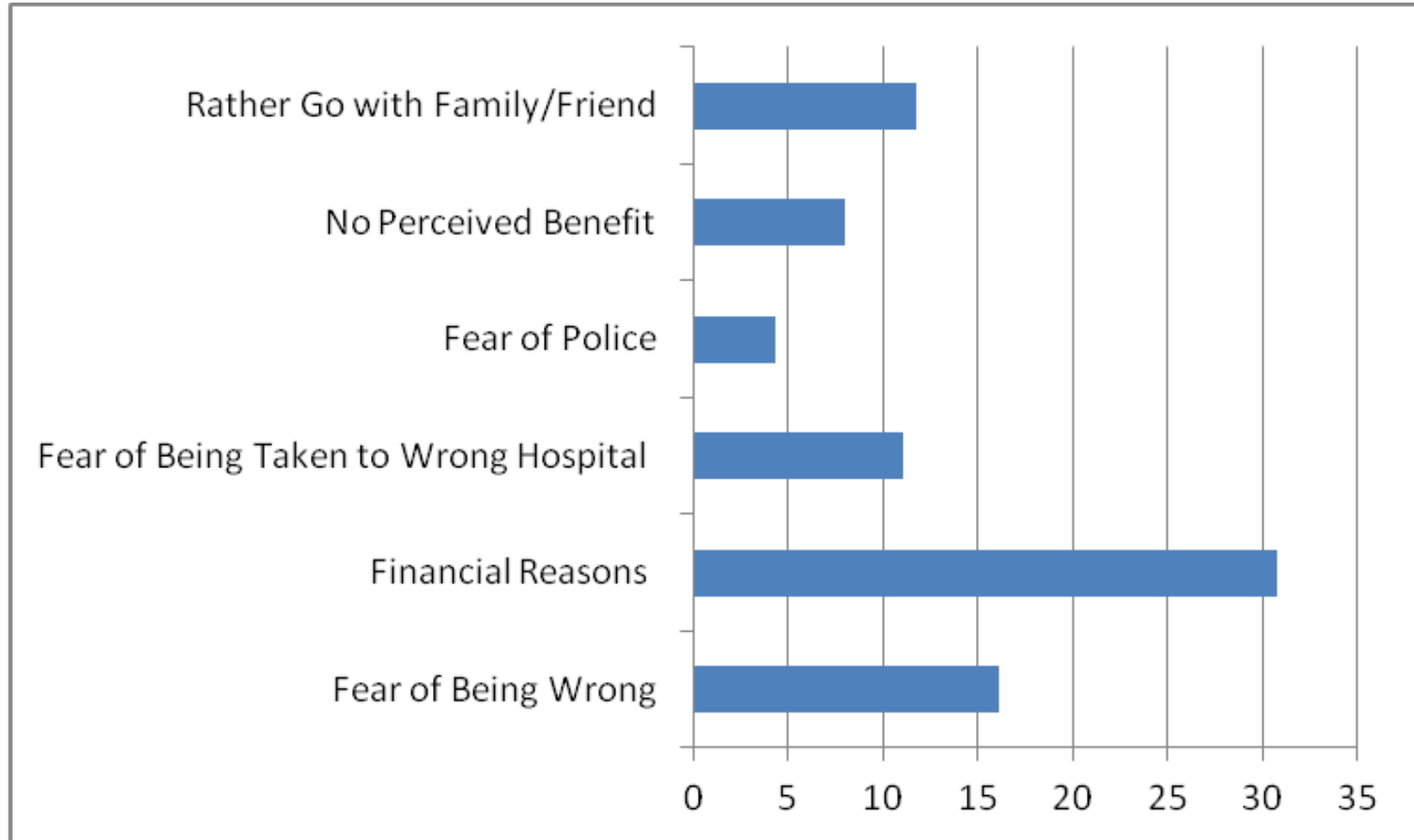


tPA Utilization Comparison



Barriers to Timely Arrivals

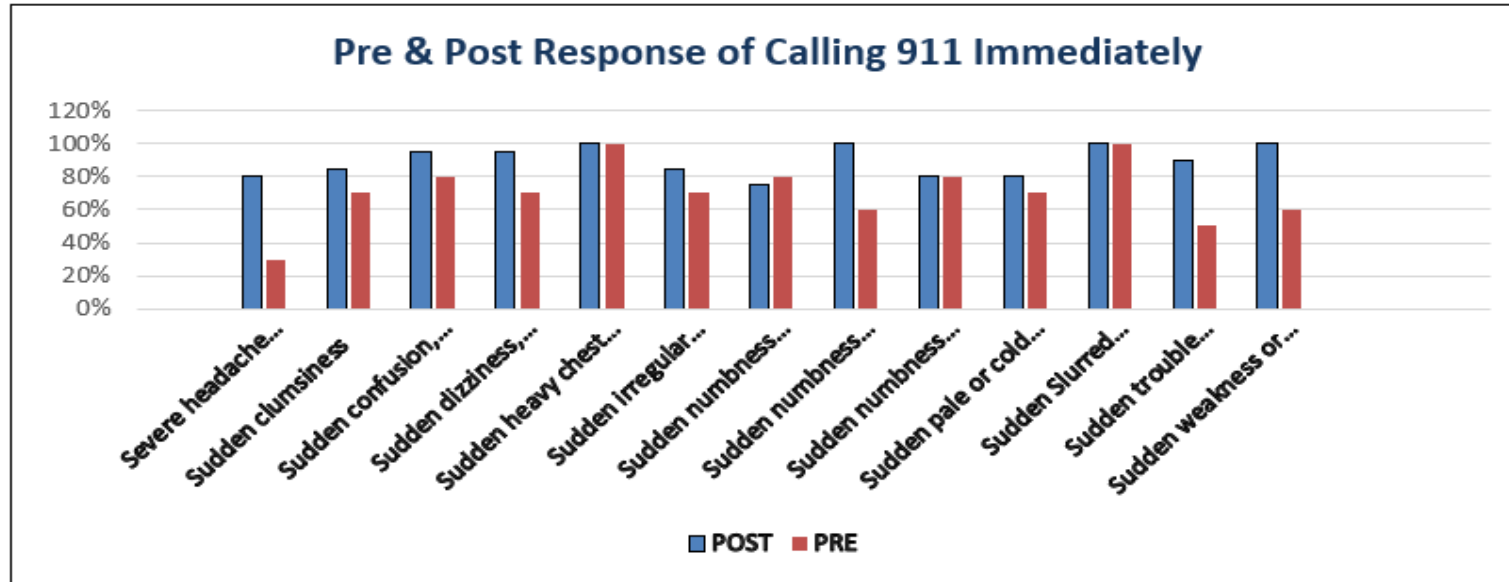
A survey of 143 Chicago community members identified barriers to timely arrival.



What are some of the structural and social determinants that represent barriers and influence outcomes for your patient population?



Pre and Post Testing



A Pre and Post Community Stroke Survey was carried out to assess changes in knowledge, self-efficacy, and barriers to calling 911 (i.e. mechanisms for behavioral change). The Pre-Survey was completed to provide the 2CEERIAS research team with baseline information about Stroke Promoters. This survey included 30 questions on demographics, stroke knowledge, stroke knowledge attitudes, experience with health care system, and impact of COVID-19 pandemic. The Post Survey completed 2-weeks after the Pre-Survey included 13 questions on effectiveness of convening, stroke knowledge and impact of COVID-19 pandemic.

Table1: Survey instruments for the primary aim (knowledge, attitudes, and barriers)

Instruments	Items	Time to complete
Stroke Action Test (STAT)	28 items	5 minutes
Cynical Distrust Scale	8 items	2 minutes
Perceived Discrimination scale	9 items	3 minutes
Health Care Trust Survey	24 items	5 minutes
Self-efficacy Rating (Likert Scale)	2 items	1 minute
Other Barriers (Likert Scale)	5 items	2 minutes
COVID-19 Questionnaire	43 items	10 minutes

Intervention Framework

Patient Advisory Board

- Consists of 5 total members (patient and community-based stakeholder participants)
- Project governance ensuring activities have high impact on stroke patient lives.

Education & Training

- Attended by Stroke Promoters and CAB members.
- 4 hr. training focused on sharing clinical, social and engagement learning.

Social Media Campaign

- Website
- Facebook
- Twitter
- Instagram
- Tik Tok
- Other (Telephone, Text, Email, Zoom, etc.)

Measurement

- Pre and Post Testing
- Office Hours for ongoing data capture and learning
- Social media analytics

Engagement Principles

Community Ownership

The use of a structured and deep learning intervention that endorsed culturally appropriate application.

Inclusive, Open Dialogue

Targeted all teach...all learn engagement strategy.



Agile, Flexible Approach

Researchers partnered with patients and community partners by promoting equal voices to determine the path for success.

Experimental Learning Model

Kolb experiential learning cycle model was used via virtual platforms to surface recommendations for future patient family and community-driven research.

Interventions that Support Protective Factors

<i>Exposures</i>	<i>Risks</i>	<i>Protective Factors</i>
Poverty	Depression	Strong Familial Support/Relationships
Structural Inequalities (Screenings and Access to Care)	Delinquent Behavior	Religious and Spiritual Engagement
Low-Resourced Community	Poor Family Support	Community/ Social Support
Violent- Neighborhood Environment	Substance abuse	Personal Factors (self-esteem, emotional well-being, strong academic performance)
Discrimination, Biases and Beliefs	Feelings of Hopelessness	Stable family Housing, Income and Employment
Lack of Cultural Competency by Authority Figure/ Provider	Impulsive or Aggressive Tendencies	
Racism	Trauma	
	ACE (Adverse Childhood Events)	
	Seclusion	
	Restraint	
	Suspension, Student Retention and School Bonding	



Equity and Patient-Centered Measurement Current State

1

Measurement

Measures that manage payment systems for aggregate outcomes

2

Data analytics

Not focused on or skilled at identifying disparities

3

Lack of accountability

Little accountability for population health and none for equity

4

Health inequities

Major health disparities and racial inequities

Theory of Change for an

EQUITABLE PATIENT CENTERED MEASUREMENT ECOSYSTEM

That Supports an Advanced
Healthcare System

Powered by
ATW Health Solutions

Authors
Knutasha V. Washington, DHA, MHA, FACHE
Ellen Schultz, MS
Desiree Bradley
Hala Dutrah, MTA
Karen Frazier, PhD

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Using Data to Address Equity

Collections

Patient self-reported demographic data such as race, ethnicity, language, sexual orientation, gender identity, disability, and veteran status

Analysis

Stratify quality, safety and experience data by patient and staff demographics to identify disparities in outcomes

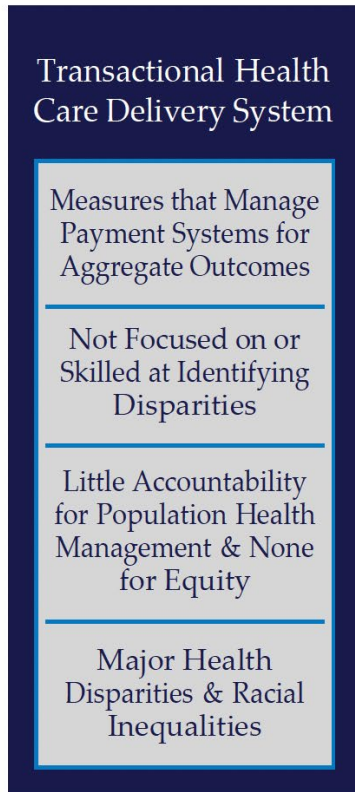
Reporting & Tracking

Make data interpretation easily translatable and summarize performance. Communicate findings to staff and leaders as well as the community and report and track stratified data



Equity and Patient Centered Measurement

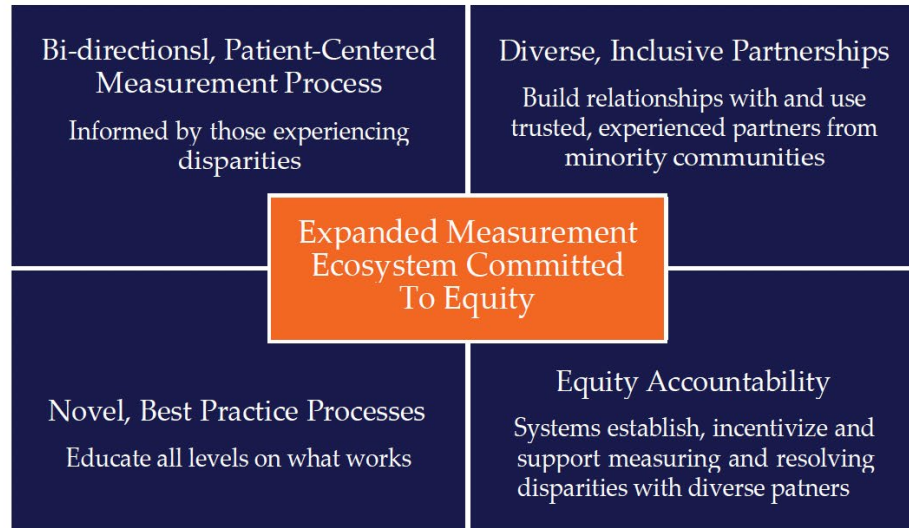
Current State



Culture & Power Dynamic Shift Necessary to Support Equity



Future State



Source: Theory of Change for an Equitable Patient Centered Measurement Ecosystem
[ATW Health Equitable Patient Centered Measurement White Paper 2021](#)



Harborview Medical Center

- **Prep clinics led by interpreters in Vietnamese and Spanish explaining the importance of colorectal cancer screening and how to prepare.** Prior to the inception of prep clinics at Harborview Medical Center, some patients would arrive for colonoscopies with inadequately prepped bowels leading to prolonged and additional exams. A slide show explained the importance of the exam, defined key terms and reviewed bowel prep instructions. This improved screening rates of Vietnamese and Hispanic patients.

Spanish-speaking patients who attended prep clinic:

- **90.3% of patients completed a colonoscopy which was up from 69.5% (p < 0.05)**
- **Patients had excellent bowel preparation 74.3% up from 32.4% pre-intervention (p < 0.05).**

Vietnamese-speaking patients who attended prep clinic:

- **98.5% of patients completed a colonoscopy which was up from 67% (p < 0.05)**
- **Patients had excellent bowel preparation 91.1% up from 48.3% pre-intervention (p < 0.05)**

- **Development of culturally sensitive education tools around food choices to support chronic diseases such as diabetes and hypertension.** Navigators used motivational interviewing to learn how the patient's life and disease intersect. Tools included care coordination, coaching, navigation, education and on-line tools through EthnoMed (<https://ethnomed.org/>).

Programs on diabetes were developed for populations of Cambodian, Ethiopian and Eritrean, Latino, Vietnamese and Somali decent. Programs on hypertension were developed for people of Cambodian decent. The program included 12-page brochure with images of high and low sodium foods.

- **Specialized diabetes management tools for the Hispanic and Somali populations to improve care coordination.** Tools include the use of trained medical interpreters called navigators, who leverage motivational interviewing to learn how the patient's life and disease intersect. They provide care coordination, coaching, navigation, education and they assist with the development of on-line tools through EthnoMed (<https://ethnomed.org/>).

In six months, Harborview Medical Center decreased the median HbA1c from 9.3 to 8.5 for the population enrolled in the program.

Rush Medical



2018 Health Equity Report

Patient Care Through An Equity Lens



Readmissions

One way to measure quality of care is to track how many patients are readmitted to the hospital within 30 days after they're discharged.

At **Rush University Medical Center**, patients of different ages, races and sexes had different readmission rates.



Older patients were more likely to be readmitted. An older patient is **1.7 percent more likely** to be readmitted than a patient who is one year younger.



Male patients were **13.7 percent more likely** than female patients to be readmitted.

Non-Hispanic black patients were **63.5 percent more likely** than non-Hispanic white patients to be readmitted.

Hispanic patients were **55.4 percent more likely** than non-Hispanic white patients to be readmitted.

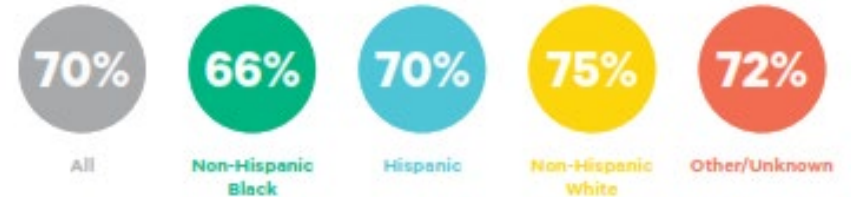
Colorectal cancer screening

Black patients in the U.S. tend to get screened for colorectal cancer less than other groups, which can mean that they are diagnosed later and have worse outcomes. However, at Rush, we actually screened slightly more non-Hispanic black patients than non-Hispanic white patients.



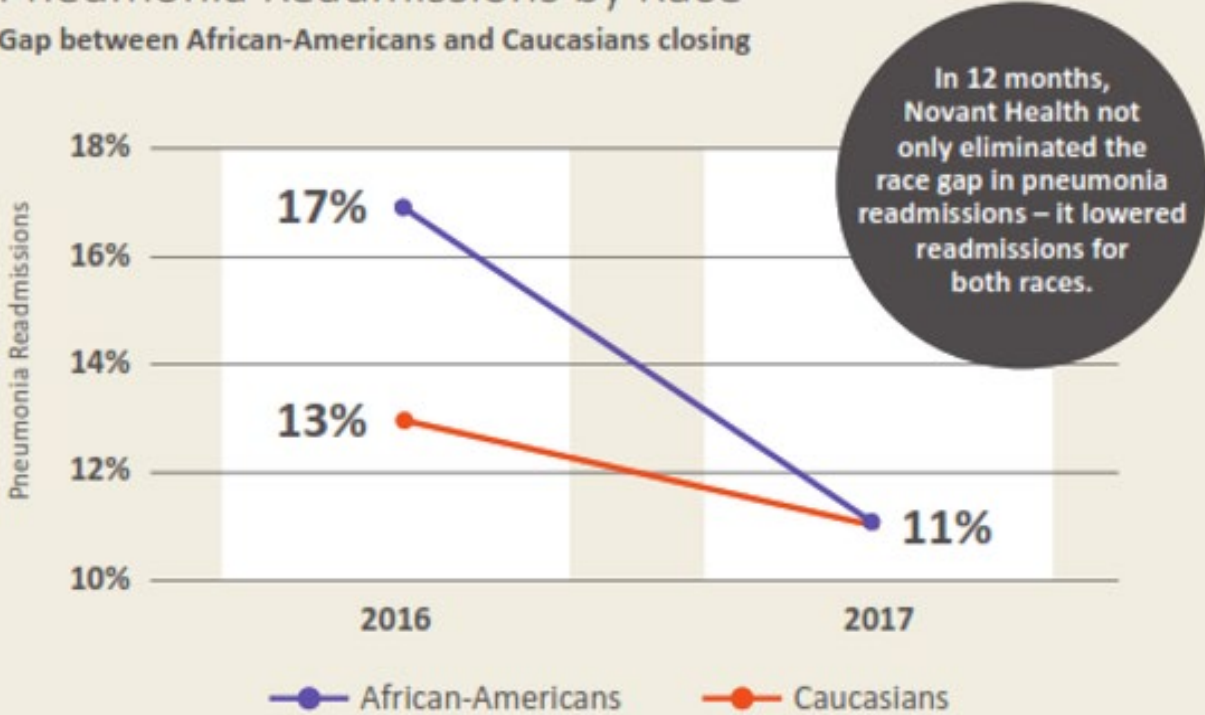
Well-controlled high blood pressure

Seventy-five percent of non-Hispanic white patients did a good job of controlling their high blood pressure, compared to 66 percent of non-Hispanic black patients and 70 percent of Hispanic patients.



Novant Health

Pneumonia Readmissions by Race
Gap between African-Americans and Caucasians closing



“In our pneumonia project, we closed the gap between Caucasians and African-Americans, and at the same time, we improved care for both populations of patients. When you commit to health equity, everyone benefits.”

– Gina Fambrough
Manager, Diversity and Inclusion



What are the evidence-based interventions used by your organization that promote improved outcomes?





QUESTIONS?



Thank You

