Innovation Project Summary Report

Title: Health Inequity is a Patient Safety Emergency
Wave: 53
October 2019 to December 2019

Project Type:

90-day Innovation Project: **A full wave to scan, test, and document recommendations in a formal deliverable**	*30-day Innovation Project:* A short project to scan, provide research assistance, or design an expert meeting	*Content Development:* A full wave of research support with the potential for continued support

Team:

- Lead: Karthik Sivashanker
- RA: Dorian Burks and Tam Duong
- Helper: John Whittington, Tejal Gandhi

Intent & Aim:

A research team at IHI conducted two 90-day innovation waves with the aim of 1) developing an equity-informed high-reliability framework to support the systematic integration of equity into a health care organization's operational effort, starting with patient safety, and 2) drafting an evaluation tool to measure the impact of equity-informed high-reliability education.

During the two waves, the team:

1. Conducted a scan of published academic literature and grey literature on existing frameworks in patient safety and equity, as well as a scan of current assessment methods for behavior change in implicit bias;
2. Conducted key informant interviews with leaders in the field;
3. Developed a draft theory of how health systems can integrate equity into safety efforts to eliminate disparities;
4. Began testing the theory at Brigham Health; and,
5. Drafted an evaluation tool to measure the impact of equity-informed high-reliability education on awareness of implicit bias.

Background:

The Institute of Medicine (IOM) defines healthcare quality as "safe, effective, patient-centered, timely, efficient, and equitable." The patient safety and academic health quality movements in the 1990s helped begin to address the problems related to poor health quality and outcomes.[1] Much progress has been made to improve the domains of quality as defined by the IOM; however, health equity remains largely marginalized and de-prioritized in the current schema of healthcare. Indeed, equity has often been referred to as the "forgotten aim."

> *According to the World Health Organization (WHO), health inequities are health differences that are not only unnecessary and avoidable but, in addition, are considered unfair and unjust.*

Many organizations and health systems have worked to reduce disparities and inequities for over a decade, including many safety net organizations. However, there are still persistent systematic and widespread differences in health outcomes by race, gender, language, and other factors. The Institute of Medicine Report "Unequal Treatment" and the Healthy People 2010 report both highlight these inequities and prioritize elimination of them as important health goals.

The origins of patient safety started very similarly. In 1999 when the Institute of Medicine Report *To Err is Human* was released, patient safety was not widely spoken about, the health care field was not capturing data, studying, or systematically thinking about how to prevent errors, and there was little leadership on creating zero harm. Now, the literature about effective solutions to patient harm and safety errors are widespread, reporting systems are in place, regulation/accreditation requires the collection and use of quality and safety measures, and federal and state agencies understand the importance of patient safety and link payment with measures.

Although there is still more work to be done, the field of patient safety has come a long way in understanding and preventing adverse events. However, there is a gap in the literature looking at patient safety outcomes of patients from non-dominant cultural and language backgrounds.[2] *To Err is Human* reported that there are as many as 98,000 preventable deaths per year that occurs in the U.S. hospital. Another study suggests that the number is much higher – closer to 210,000 deaths.[3] Regardless of the number, it is much too high. Further research shows that there are significant disparities in quality between whites and non-whites. Asian-Pacific Islanders face the worse rates of patient safety events compared to whites, and blacks had higher rates of hospital complications and adverse events.[4,5]

The demographic trends in the US show that the nation is continuing to be more racially and ethnically diverse, and the majority of the population will be nonwhite by 2050.[6] As such, it is imperative that the healthcare address equity within patient safety.

Opportunities

As the nation moves towards value-based payment models and health care is incentivized to focus on quality rather than quantity, there is a shift underway with others in the healthcare sector joining the equity movement. In 2016, Joe Betancourt argued that payment reform is ushering in a new era of health equity and is transforming the US health care system towards high-value health care.[7] Hospitals are now looking at ways to address both medical and non-medical, social factors that impact health outcomes. One way providers have started to address reducing disparities is to explore ways to address the social determinants of health, integrate health and social services, and partner with community based organizations to integrate medical and non-medical services into their payment and financial models. Although this is an important step, we need new strategies and ways of thinking that address issues, such as racism, poverty, and language barriers. We need to:

1) Surface the omnipresent and toxic effects of structural racism and other 'isms' on the health and well-being of patients, families, and healthcare workers;
2) Highlight the critical role of healthcare organizations in either addressing or perpetuating inequities;
3) Systematically incorporate equity into the operational DNA of healthcare delivery and innovation; and,
4) Provoke responsibility and accountability from healthcare organizations for inequities experienced by (or inflicted on) patients, families, and staff._

Description of the Work:

Developing an Equity-informed High-reliability Framework

There are several existing frameworks within the field of patient safety and health equity that inform our theory for how health care organizations can eliminate health inequities in patient safety. These include many of IHI's resources, such as IHI's White Paper Achieving Health Equity: A Guide for Health Care Organizations, as well as IHI's Framework for Safe, Reliable, and Effective Care and IHI's publication Leading a Culture of Safety: A Blueprint for Success. Additionally, through scans of current published literature and the field experience and expertise

of our innovation lead, Dr. Karthik Sivashanker, we created an initial theory for eliminating health inequities through focusing on quality/safety/risk events (Figure 1).

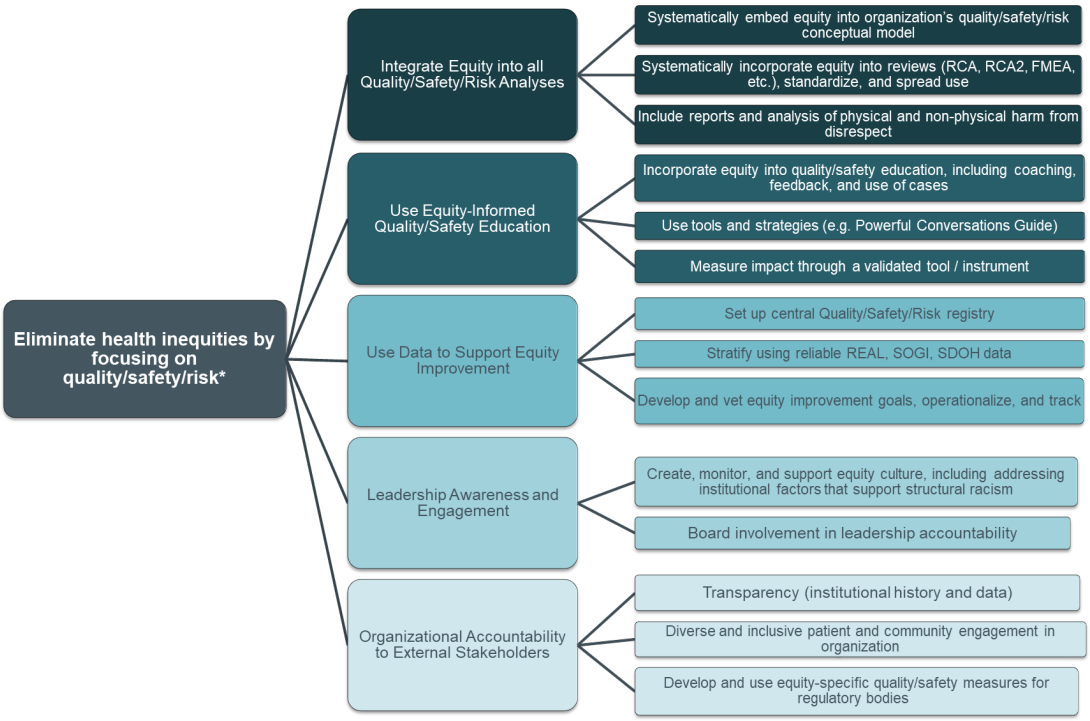

Figure 1. Draft Driver Diagram: Eliminating Health Inequities in Patient Safety

Driver 1: Integrate Equity into all Quality/Safety/Risk Analyses:

Patient safety infrastructure and processes make them ideal platforms for advancing equity, because: 1) high-reliability teams, like patient safety, are typically steeped in data—stratifying by race, ethnicity and language is a small ask; 2) the widespread use of standardized tools, like high-reliability algorithms/RCA/RCA2/FMEA, presents an opportunity to systematically embed equity concepts and prompts into risk analyses; 3) existing high-reliability infrastructure (e.g., case review meetings using root cause analysis) provide a stage for bringing attention to inequities using data and stories; and, 4) the emphasis on systems contributors leads to structural solutions to address inequities.

- **Systematically embed equity into organization's quality/safety risk conceptual model and reviews:** A simple first step is to apply an equity lens to existing safety data, such as safety reporting, root cause analysis, and harm event reduction. This requires stratifying data by race, ethnicity, and language (REAL), gender and gender identity, disability, and other key social determinants of health (SDOH). Doing so enables us to identify, study, and eventually address inequities that were previously hidden to us. For

example, a recent study of stratified safety reporting data found that race differences exist in voluntary reported adverse event systems, by type and by hospital setting.[8] Another recent study found that Asian and Hispanic patients may have higher rates of hospital-acquired infections than white non-Hispanic patients. The authors identified language barriers as a plausible cause.[9] By stratifying data in this way, we are able to detect inequities and gain new insights into reducing old problems, such as improving translation services to possibly decrease hospital-acquired infections.

- **Include reports and analysis of physical and non-physical harm from disrespect:** Through our interviews, we also identified that non-physical harm, such as disrespect, is an important element to include in the approach.[10] Dr. Lauge Sokol-Hessner from Beth Israel Deaconess Medical Center (BIDMC) argues that preventable physical and preventable emotional harm should be treated the same way using existing quality and safety systems. BIDMC outlined a method to identify and address emotional harm.[11] However, this method does not yet *systematically* apply an equity lens. BIDMC found that patients from more affluent and educated backgrounds were more likely to report, and patients from less affluent and educated backgrounds did not report for fear of receiving worst treatment and, in some cases, retaliation. This happens with both physical and non-physical harms. To mitigate this affect, the BIDMC prioritizes addressing complaints and comments from those from less affluent backgrounds, but they have not yet systematically identified how to address this barrier. We addressed this barrier in our fifth driver and identified some initial ways to mitigate this, including 1) there should be an acknowledgement of the history medical institutions play in discriminating against populations with less power, and 2) there should be better inclusion and shared power with patients, families, and community.

Table 1. Tests of Driver 1 at Brigham Health

Tests of Driver 1 at Brigham Health	Results/Progress	Additional Comments
Develop an organizational framework describing the stages of progression from pre-contemplative to action/maintenance around equity in quality/safety	Draft version completed	Needs further consideration for how it fits into the broader framework we're developing and the IHI equity framework
Continue testing and refining Equity-Enhanced High-Reliability Algorithm	In progress; on track	

Continue piloting the systematic integration of equity into adverse event reviews	In progress; on track	Numerous previously hidden vulnerabilities being identified with this process (e.g., lack of ADA services, language barriers with pharmacy, high rates of termination for patients of color, discriminatory staff behavior toward patients, etc.)
Spreading and standardizing the use of equity-informed high-reliability collaborative case reviews	In progress; on track	See above; pilot highlighting importance of co-facilitation by patient safety and equity experts to manage behavioral dysregulation
Automated extraction of demographic data into safety reports	In progress; on track	Identified RL solutions barrier that limits success of extraction; plan to re-design RL solutions reporting entry form
Addition of equity prompts for reporters in RL solutions	In progress; on track	Will include prompts in RL solutions for safety and patient family relations

Driver 2: Use Equity-Informed High-Reliability Education

In order to drive action to recognize and address inequities in care, it is necessary for an appreciation of unconscious bias and structural racism to be built into training on high reliability, and to be shown as an inextricable part of patient safety.

- **Incorporate equity into quality and safety education**: Currently offered unconscious bias and equity trainings have rarely been specific to the healthcare setting, and there is a lack of knowledge of how to bring conversations about inequity and racism into high stress case review settings. All levels of a healthcare system need a basic understanding of the healthcare system ability to create inequities and advance equity, both through ensuring that bias does not negatively affect the patient-provider interactions, but furthermore the ways that healthcare systems have structural and institutional racism and discrimination built into their processes. Brigham Health is beginning to test specific trainings on reliability and equity incorporated, as well as the reason for and how to collect SOGI data.
- **Use tools and strategies:** Taking an understanding of institutional and interpersonal racism and discrimination in healthcare and operationalizing ways to improve equity within systems requires intentional thought and action on how these inequities play out. One often overlooked barrier to operationalizing equity are cultural norms that do not allow for naming racism and discrimination. Brigham Health and Southern Jamaica Plain Health Center have developed and are currently testing a Powerful Conversations guide with strategies to "create the container" for bringing an equity lens into meetings.
- **Measure impact through a validated instrument:** The efficacy of unconscious bias and equity trainings has been rarely assessed apart from increasing knowledge and awareness

of implicit bias, with little understanding of how these trainings create positive behavior change.[12] Simply having bias and equity trainings is not enough to confirm the translation of their effects on staff and the system. In the *Conclusions and Recommendations* section, we review progress on several evaluation tools that we are developing to address this measurement gap.

Table 2. Tests of Driver 2 at Brigham Health

Tests of Driver 2 at Brigham Health	Results/Progress	Additional Comments
Develop a theory for facilitating powerful conversations around racism and other forms of discrimination in healthcare with a focus on quality and safety events	In progress; on track	Further testing in real-world situations is highlighting the importance of co-facilitation by patient safety and equity to ensure successful difficult conversations
Continue testing and refining Powerful Conversations Guide	In progress; on track	Testing ongoing with patient safety/risk managers and patient family relations reps as facilitators for low-risk equity cases
Continue developing and testing curriculum	In progress; on track	Next phase will include measurement of impact using a validated instrument, which is being developed by our team
Integration of equity into high-reliability education	In progress; on track	Quality/Safety/Risk educators under
Refinement of Racism, Equity, and Reliability curriculum	In progress; on track	Next phase will include measurement of impact using a validated instrument, which is being developed by our team
Refinement of Training for Registration Staff re: collection of demographic data	In progress; on track	Merging of MGH and BH to provide a joint training including 3-hour equity training, SOGI training, technical walk-through, and practice/simulation
Development of broader DE&I curriculum strategy through collation of necessary skills, competencies and behaviors for operationalizing equity	Complete	Needs further consideration re: integration into frameworks
Continue exploring the possibility of redesigning spaces to advance equity, quality, and safety (environmental re-design)	In progress; on track	Joint venture with BH and CAAM (California African American Museum)

Driver 3: Use Data to Support Equity Improvement

Collecting reliable data about patients' race, ethnicity, and language preference, sexual orientation and gender identity (SOGI), as well as social determinants of health is an important step for health care organizations to address equity.

- **Set up central quality/safety risk registry**: A central risk registry is important to collected the data needed to determine the existence and extent of inequities. However, organizations are struggling with developing an integrated system for collecting, assessing, and prioritizing risk across an entire health care organization. There are early discussions with Brigham Health and IHI leadership around the possibility of collaborating to develop an integrated system.
- **Stratify using reliable REAL, SOGI, SDOH data**: Some believe that focusing on safety means they are providing equitable care to all patients, regardless of social identity or social needs, while in fact many studies show inequitable treatment caused by implicit biases.[13],[14],[15] While individual implicit biases exist, it is important to balance this with a systems-focus, as inequities are largely perpetuated by systemic factors in the form of policies, practices, and laws. The stratification of the data would reveal the inequities in decision making, treatment, patient experience, and outcomes at the systems level.
- **Develop and vet equity improvement goals, operationalize, and track:** During the interviews, we found that while organizations are collecting and stratifying data, few are systematically meaningfully using the data to assess gaps in care. To prevent measurement burden, it is important to understand the goals of collecting the data, how the improvement work will be operationalized, tracked, and become part of the larger learning system.

Tests of Driver 3 at Brigham Health	Results/Progress	Additional Comments
Develop an organizing theory/ framework for selecting health equity measures (including staff development measures connected to Driver 2)	In progress; on track	Framework developed; manuscript drafted
Continue the development of the multi-institutional equity data group	In progress; on track	Kaiser Permanente added to group; charter complete

Identify common equity measures	Delayed	Needs further development and vetting with other institutions (including multi-institutional
Identify/share/test viable strategies	In progress; on track	Strategies shared with Mass General Brigham (formerly Partners Healthcare); early consideration for testing at other sites
Implement and test the integration of equity prompts into RL solutions	In progress; on track	Will go-live in the next 1-2 months; plans to track volume

Driver 4: Leadership Awareness and Engagement

Leadership commitment is crucial in the adoption of new practices and behaviors. In all models for health equity improvement, leadership awareness and engagement came up as an important driver of change and sustainability. This was further emphasized during our expert interviews. Leaders committed to eliminating health inequities in patient safety should be prepared to address the challenges of creating, monitoring, and supporting a culture of equity and address institutional factors that may contribute to biases, including optimizing staff workload to support equitable high performance.

- **Creating, monitoring, and supporting a culture of equity includes transforming formal and informal norms that support inequities**. A leader's responsibility is to create and communicate organizational priorities. Leadership commitment includes ensuring that equity is a strategic priority, aligning all equity work with the organization's priorities, and communicating the extent to which equity is a priority. Other norms could include presenting patient and staff cases that looks at stratified demographic data, doing an analysis of events with an equity lens, measuring and track action items to identify what is equity-related action items are being implemented, understanding staff's experiences, and setting an example of what inclusive leadership looks like. Additionally, many strategies to improve equity culture looking to reduce implicit bias focus on awareness and individual actions to mitigate biases, such as stereotype replacement, individuation, perspective taking, and more contact with individuals from different groups. While studies have shown that physicians have implicit preferences for white patients,[16] research has also shown that when physicians suffer burnout from workload and pressure, physicians are more likely to fall back on explicit and implicit stereotypes and biased habits.[17] This is further exacerbated in higher stressed, high patient load

settings, such as the emergency department.[18] As such, it is important for leaders to consider more systems-level factors, such as work burden and optimization of clinician workloads, to support equitable high performance and address other root causes that causes inequities.

- **Board involvement in leadership accountability:** Board members have great authority and influence into the mission, priorities, and strategic and operational direction of the organization. Taking the lead of community health centers, health systems can start by ensuring that over 50% of board members are active patients of the health system. Further, they can ensure that the board members represent the make-up of the local community and are diverse in terms of expertise and lived experiences. This could help ensure that boards are involved and empowered to keep leadership accountable. If this is not yet possible, leaders can start by presenting stratified data to the board, educate them on the importance of the work, and help them set measures to ensure the organization is meeting its equity goals.

Tests of Driver 4 at Brigham	Description	Results/Progress
Plan Quality Safety & Equity Retreat for directors/leaders	In progress; on track	Will develop 6-hour customized experience with a focus on Director-level Quality and Safety leaders
Board engagement by presenting equity-related cases	In progress; on track	ADA equity case presented to Quality Board in December 2019 resulting in a plan to expand ADA staff; will present this framework to Quality Board in January 2019

Driver 5: Organizational Accountability to External Stakeholders

As mentioned previously, patients from less affluent and educated and non-dominant cultural and language backgrounds are less likely to report incidence of harm (physical and non-physical). This is not a surprising trend. The field of medicine and healthcare has a long history of discrimination, particularly racial discrimination. Theories of racial inferiority taught in medical schools up to the first half of the 20th centuries, unethical experiments such as the Tuskegee syphilis experiments in the 1930s, racial segregation in hospitals and clinics, professional

societies like the American Medical Association excluding black doctors, among other laws and policies that discriminate against non-white patients and providers have led today's mistrust in health systems. Due to this history, if health systems only focus on the previous four drivers, even if the data is stratified by REAL/SOGI/SDOH, we still risk re-designing a system that works even better for the more affluent, educated, white, cisgender, English-speaking population.

Organization accountability to external stakeholders, such as patients, families, and the local community is an important element to mitigate the effects of historical and current discrimination. Through conversations and interviews with experts in equity and safety, we have identified a few factors health systems can work to address.

- **Transparency (institutional history):** Part of a health system's journey towards equity in patient safety (and equity in general), is to address this long history of institutionalized discrimination that has affected patient safety. The Boston Globe reported that segregation patterns are entrenched in some of Boston's top hospitals, despite increases in health insurance coverage due to the state's mandated health insurance law.[19] In fact, it created greater healthcare segregation because minorities went to medical institutions that have historically welcomed minorities. Understanding the history helps to identify the root causes and to address the institutional remnants from that history that resulted in present day mistrust of the system.
- **Transparency (data):** Developing internal and external accountability is often tied to data collection. Without the ability to see data over time, it is difficult to determine what needs to be done and what impact interventions are having. After the collection and stratification of data, the next step is to make that data publicly available and transparent. For example, Massachusetts General Hospital in Boston, MA publishes an annual report on equity in health care quality. This type of transparency allows for staff, patients, and those in the surrounding communities to clearly identify what the health system is doing to address equity from year to year. It is especially important to understand the data related to preventable adverse events.
- **Diverse and inclusive patient and community engagement:** Health systems can do a better job of engaging, including, and sharing leadership and power with diverse patients and citizens of the community across all areas of organizational strategy and improvement. Many health systems have patient advisory councils (PACs) that brings patients to the table, though efforts still need to be made to ensure councils look like and represent patients served by the system. A systematic review found that successful patient

engagement requires a change in organizational culture, meaningful collaboration, mutual learning, and shared or neutralized power.[20]

- **Develop and use equity-specific quality/safety measures for regulatory bodies.** Organizations are struggling independently to select the best equity measures, leading to fragmentation and a general lack of momentum, and there is a lack of clear standards and benchmarks around equity which incentivization programs can be developed and to influence behavior and performance to hold organizations accountable to the communities they serve. To seriously advance equity requires the identification and widespread adoption of a core set of interconnected stratified measures. As such, we have created a multi-institutional collaborative consisting of five organizations (Brigham Health, Massachusetts General Hospital, University of Chicago, Henry Ford, and Rush) to bring organizations together to work through common challenges and to identify measures of equity that have universal applicability.

To begin, the team outlined three organizing principles that could be used as the beginnings of a measurement framework. If combined with robust economic incentive programs, organizations would be rewarded for caring for the most disadvantaged patients.

- **Principle 1:** The measures, in aggregate, should create a meaningful narrative that describes the journey and experience of patients as they first contact and move through healthcare systems
- **Principle 2:** The ability to impact these measures should largely be within the control of the institution and must allow for risk adjustment.
- **Principle 3:** The core measures should be common and relevant to all institutions and able to drive equity improvement in transformative rather than incremental ways.

From these principles, the team developed an Equity Measurement Framework with four levels, as the beginnings of a pragmatic tool for driving change.

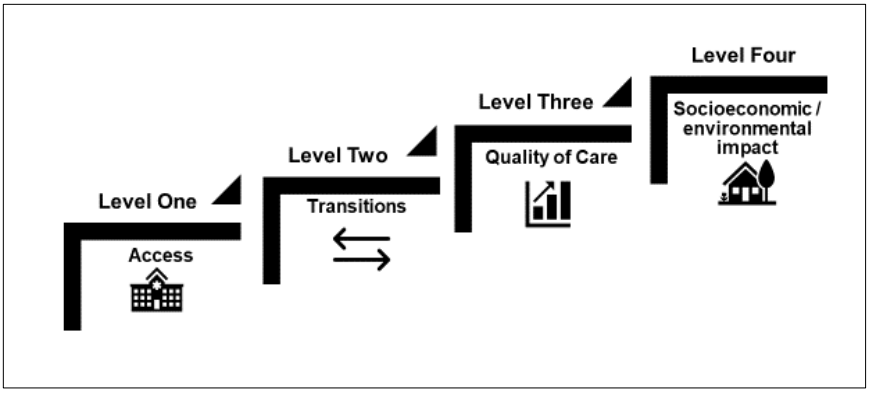

Figure 1. Four Levels of the Equity Measurement Framework

1. Level one, defined as access, refers to whether patients can even gain entry into the health care institution. An example of this might be the difference between the percent of Medicaid patients treated by a health care institution and the total percent of Medicaid recipients in the city, state, or region.[21]
2. Level two, broadly defined as transitions, refers to whether patients will be offered the services they need to fully thrive as they transit the healthcare system.
3. Level three refers to the quality of care delivered, commonly described through clinical outcomes and associated process measures. Most institutions focus primarily on this level without addressing other level measures, which addresses more structural discrimination and inequities.
4. Level four refers to the vitality and broad socioeconomic and environmental conditions in the neighborhoods and communities served by the institution. This includes the organization's responsibility to impact: 1) the neighborhood's economy, which can be measured as the percent of supplies or services a health care organization obtains from minority-owned businesses in the local community;[16] 2) social conditions, which can be measured by pay/wage of employees from neighborhood and/or the percent of employees sent to collections; and 3) the environmental impact of the intuition, as measured by reduction in greenhouse gas emission.

A more detailed description of this framework has been drafted as part of a manuscript. In the next wave, we will continue to build out this framework and work with the multi-institutional collaborative to refine it.

Tests of Driver 5 at Brigham	Description	Results/Progress

Began creation of equity measurement framework	In progress; on track	A manuscript has been drafted with a more detailed description of the

Conclusions and Recommendations:

Developing an Equity-informed High-reliability Framework

We have had several learnings as we continued to test and refined the theory developed with experts in the field as well as through a presentation at the 2019 IHI National Forum:

- Need for identification, testing, and widespread adoption of a core set of interconnected equity measures
    - These measures, in aggregate, should create a meaningful narrative that describes the journey and experience of patients as they first contact and move through healthcare systems.
    - These core measures should be common and relevant to all institutions (e.g., access or transitions of care) and able to drive equity improvement in transformative rather than incremental ways.
- Continue better inclusion of the patient, family, and community voice
    - Consider adding PROMs/PREMs or another way to measure experience to measurement framework
- Lack of reliable demographic data in EHR as a barrier

<u>Recommendations:</u>

We recommend the following steps for the next wave:

- Organize a theory for selecting process measures and outcomes.
- Formalize our theory, continue testing at Brigham Health and explore opportunities for spread
- Develop case for equity as the next horizon for quality & safety
- Integrate this work with/across existing IHI frameworks
- Submit and publish manuscript on equity measures framework

Measuring Efficacy of Implicit Bias and Equity Training

In addition to building out the framework (see above in Driver 2), in our first wave, we began literature scans and interviews (Appendix B) to expand work on creating equity and implicit bias

measurement tools. Prior to the innovation wave, an initial questionnaire for assessing the efficacy of implicit bias training based on the Stages of Change (Transtheoretical) model[22] was created and edited for reliability. In this wave, we continued reliability edits, sharing the first version (Appendix C) with a number of experts who assessed the questionnaire's clarity and reliability, which led to our team re-focusing the tool on assessing ability to increase awareness of personal bias as a first level of understanding, rather than readiness to change biased behavior.

Our second measurement tool, currently in draft format (Appendix D), is built on the principles we explored in our second wave, that understanding awareness of bias is not enough to demonstrate positive behavioral change. This second tool implements a longitudinal approach to assessing behavior change, with a pre-assessment, including an understanding of an individual's awareness of racism, and willingness to advocate interpersonally and institutionally to advance equity, building on a previously validated Anti-Racism Behavioral Inventory[23]. Additionally, to understand what organizational culture and equity issues may affect an individual's ability to promote equitable behaviors, we include a psychological safety analysis (adapted from the AHRQ Culture of Safety Survey[24]) and demographic questions in order to allow for stratification by race/ethnicity, gender and organizational level. In our third wave, we will prototype this pre-assessment and build the post- and post-post-assessments which will analyze change in awareness after an anti-bias/equity training, and uptake of equitable behaviors post-training.

Recommendations:

- Begin validation phase of bias awareness questionnaire (tool #1)
- Test and evaluate tool #2 pre-survey with pilot group, complete development of post-surveys
- Continue interviews for, draft and edit perspectives piece on powerful conversations - description of intervention method for introducing structural racism lens into clinical case reviews

Open Questions:

- Can we link measurable equitable behaviors (as assessed by our training efficacy measurement tool) to the Pursuing Equity Framework, while keeping them general enough to not be specific to healthcare?
- What are the best ways to include and share power with patient, family, and community voice in selecting and prioritizing equity measures?

Appendix A: List of Experts Interviewed on Theory

Name	Title	Organization

Scott Cook	Co-Director Advancing Health Equity	University of Chicago
Frank Federico	Vice President	Institute for Healthcare Improvement
Cassy Horack	VP, Quality and Safety	OSF SFMC
Jennifer Lenoci-Edwards	Head of North America Region	Institute for Healthcare Improvement
Michelle Morse*	Founding Co-Director Assistant Professor	Equal Health Harvard Medical School
William R. Scharf	Director of Patient Safety	Advent Health
Tom Sequist*	Chief Quality and Safety Officer	Partners Healthcare
Lauge Sokol-Hessner	Associate Director of Inpatient Quality	Beth Israel Deaconess Medical Center
Aswita Tan-McGrory	Administrative Director, the Mongan Institute Director, The Disparities Solutions Center	Massachusetts General Hospital
Knitasha Washington	Founder and President	ATW Health Solutions
James William	Executive Director, Diversity, Inclusion and Equity	University of Chicago
Ron Wyatt	Chief Quality Officer	Cook County Health
* To be interviewed in the next wave		

Appendix B: List of Experts Interviewed on Equity Training Measurement

Name	**Title**	**Organization**
Reb Rebele	Senior Research Fellow	Wharton People Analytics, University of Pennsylvania
Candice Belanoff	Clinical Associate Professor, Community Health Sciences	Boston University School of Public Health
Dane Emmerling	PhD Candidate, Health Behavior	Gillings School of Global Public Health, Duke University
Abigail Ortiz	Director of Community Health Programs Co-Director of Racial Justice and Equity Initiatives	Southern Jamaica Plain Health Center

Denise Butler-Mackay	Senior Clinical Social Worker Co-Director of Racial Justice and Equity Initiatives	Southern Jamaica Plain Health Center
Jenna Gaarde	Strategic Projects Manager	San Francisco Department of Health
Alecia Martin	Quality Improvement and Integration Coordinator	San Francisco Department of Health

Appendix C: Implicit Bias Questionnaire Draft

Name: _____ Department: _____

Date of Training: _____ Primary Instructor: _____

- Please read the sentences below carefully. Circle the answers that best describe how you feel.
- Your responses are combined with those of others and summarized to protect your anonymity.
- Definition of implicit (unconscious) bias—Positive or negative beliefs and attitudes about groups of people, that individuals form outside of conscious awareness, that may contribute to unfair and avoidable differences in social and health outcomes.

1. I don't think I have any implicit biases.

Strongly Disagree *Disagree* *Unsure* *Agree* *Strongly Agree*

2. I am trying to become more self-aware of my implicit biases.

Strongly Disagree *Disagree* *Unsure* *Agree* *Strongly Agree*

3. I acknowledge I have implicit biases and they sometimes hurt my interactions with others.

Strongly Disagree *Disagree* *Unsure* *Agree* *Strongly Agree*

4. Sometimes I think I need to do something to become more aware of my implicit biases.

Strongly Disagree *Disagree* *Unsure* *Agree* *Strongly Agree*

5. It's a waste of time thinking about my implicit biases.

Strongly Disagree *Disagree* *Unsure* *Agree* *Strongly Agree*

6. I have recently changed my behaviors around implicit bias.

Strongly Disagree *Disagree* *Unsure* *Agree* *Strongly Agree*

7. Anyone can talk about wanting to become aware of their implicit biases, but I'm actually doing something about it.

Strongly Disagree *Disagree* *Unsure* *Agree* *Strongly Agree*

8. I am at the stage where I should be more aware of my implicit biases.

Strongly Disagree *Disagree* *Unsure* *Agree* *Strongly Agree*

9. My implicit biases are a problem sometimes.

Strongly Disagree *Disagree* *Unsure* *Agree* *Strongly Agree*

10. There is no need for me to think about changing biased behaviors in me.

Strongly Disagree *Disagree* *Unsure* *Agree* *Strongly Agree*

11. I am actually changing my self-awareness of my implicit biases right now.

Strongly Disagree *Disagree* *Unsure* *Agree* *Strongly Agree*

12. Becoming self-aware of my implicit biases would be pointless right now.

Strongly Disagree *Disagree* *Unsure* *Agree* *Strongly Agree*

Appendix D: Anti-Bias/Anti-Racism Training Pre-Diagnostic Draft Questions

A. Demographic information

1. Please indicate your gender:
    1. Male
    2. Female
    3. Non-binary
    4. Other (please describe)
    5. I prefer not to answer

2. What is your racial/ethnic background? (Check all that apply.)
    6. African American/Black
    7. White
    8. Hispanic/Latino
    9. Asian/Pacific Islander
    10. Middle Eastern
    11. Native American/American Indian/Alaska Native
    12. Multiracial (please specify)

_____

    13. Other

3. Please indicate your professional level:
    14. Entry-level (e.g., assistant, coordinator)
    15. Managerial/Professional
    16. Executive
    17. Other (please describe)

B. Anti-Racism Inventory

Please indicate your level of agreement with the following statements (strongly disagree, disagree, uncertain, agree, strongly agree)[1]

I. Individual Advocacy

1. When I hear people telling racist jokes and using racial stereotypes, I usually challenge them
2. I actively seek to understand how I participate in racism in my relationships or communication with other people
3. I actively seek to understand how racism occurs between people
4. I speak to my friends and/or coworkers about instances of racism between individuals, and what we can do about it

II. Awareness

5. Racism does not exist in the United States.

5. I do not feel that White people have any benefits or privileges due to their race
6. Within the US, racism is largely perpetuated by White people
7. White people experience discrimination ("reverse racism") often in this country

Please read each statement below and circle the response that most closely represents how you feel about each statement. Do not circle more than one response. Remember, all of your responses are confidential.

9. All races are treated equally in this society
10. Racism does not bother children
11. In the United States, it is harder for People of Color to succeed than White people
12. People of Color have the same opportunity as White people to get the jobs they want
13. People of Color have the same opportunity as White people to get the education they want
14. People of Color have the same opportunity as White people to live in the neighborhoods they want

III. Institutional Advocacy

1. I actively seek to understand how I participate in racist structures and systems
2. I have challenged racist structures and systems that I have witnessed at work or other settings
3. I actively seek to understand how policies, practices adversely affect some over others
4. I often speak to friends and coworkers about historical and current racist structures and systems

C. Team/Organizational Psychological Safety Assessment[2]

Please indicate your level of agreement with the following statements (strongly disagree, disagree, uncertain, agree, strongly agree):

IV. Team-level Safety

5. In my team, staff speak up if they see something that may be racist
6. When team members see someone with more authority doing something unfair based on race, they speak up
7. If team members speak up about racism, those with more authority would be open to their concerns
8. My team members are afraid to ask questions when something does not seem right

V. Organization-level safety

9. The actions of management show that addressing racist policies and practices is a top priority
10. I feel comfortable talking about race and racism in my workplace.
11. Management provides adequate resources to address racism for staff
12. Management seems interested in addressing racism only after an adverse event occurs

[1] From Anti-Racist Behavioral Inventory https://www.researchgate.net/publication/283839972_Development_and_initial_validation_of_the_anti-racism_behavioral_inventory_ARBI
[2] Adapted from AHRQ Culture of Safety Survey: https://www.ahrq.gov/sites/default/files/wysiwyg/sops/surveys/hospital/hospitalsurvey2-items.pdf

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