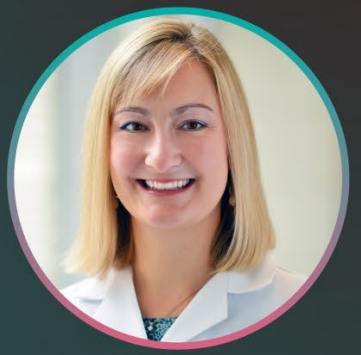
tchmb
Texas Collaborative for Healthy Mothers & Babies

Pre-Session:

QI Training Academy

Using Quality Improvement to Address Health Equity

Christina Davidson, MD
Baylor College of Medicine



Catherine Eppes, MPH, MD
Ben Taub Hospital

Patrick Ramsey, MD, MSPH
UT Health San Antonio

Amanda Wagner, DNP, WHNP-BC, CPHQ, CNE
UT Health Science Center Tyler

Objectives

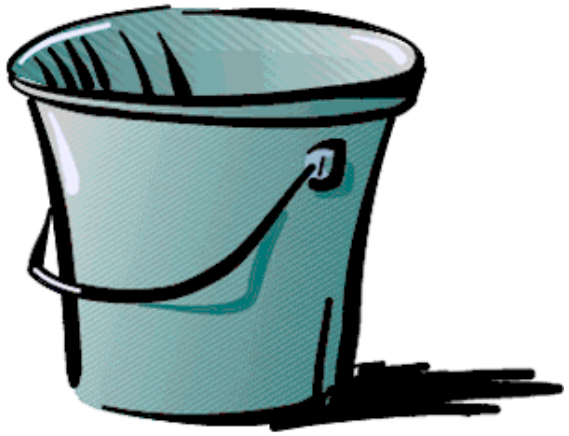
- Describe key QI concepts and principles
- Illustrate the goals and function of QI
- Understand the use of data for QI and differentiate it from other kinds of data
- Apply QI concepts, strategies, and tools to a current project
- Incorporate health equity into QI efforts

Addressing Racial and Ethnic Disparities in Maternal/Infant Health: Root Causes and Corrective Action Plans

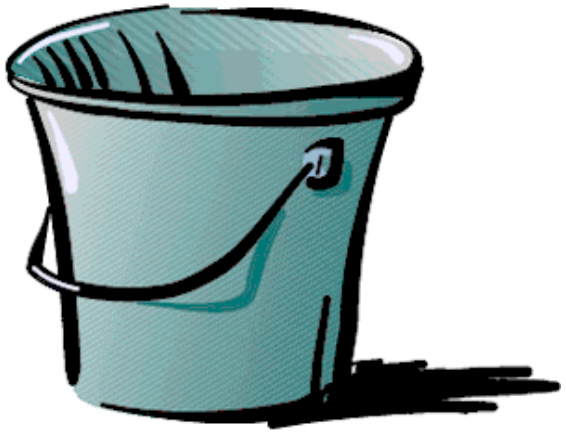
Objectives

Review	Analyze	Outline
Review the literature on racial and ethnic disparities in maternal healthcare	Analyze the root causes for these disparities	Outline a corrective action plan to achieve health equity

Disparity and Equity

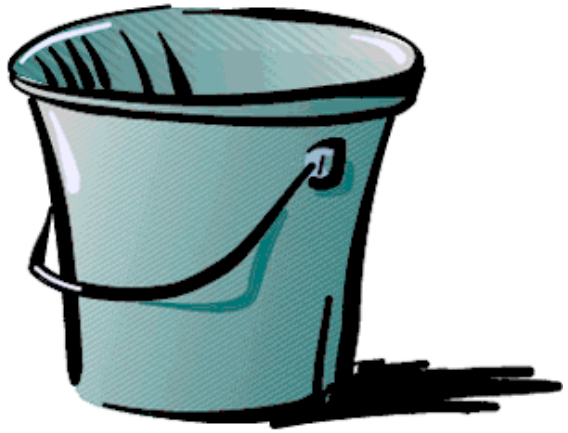


Bias



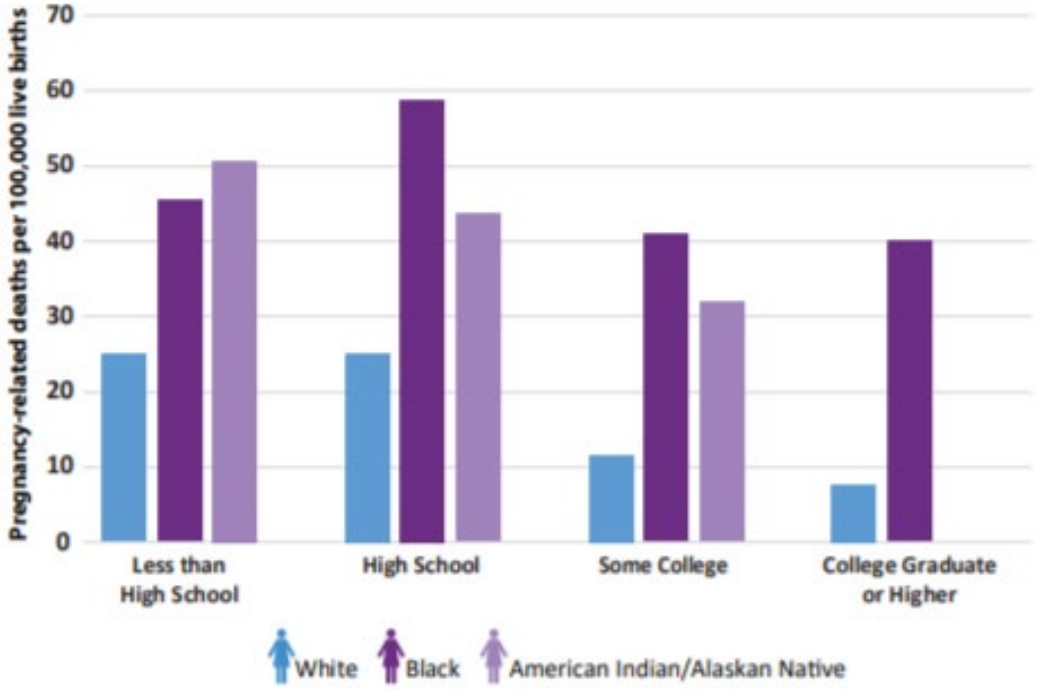
Racism

Social Determinants of Health

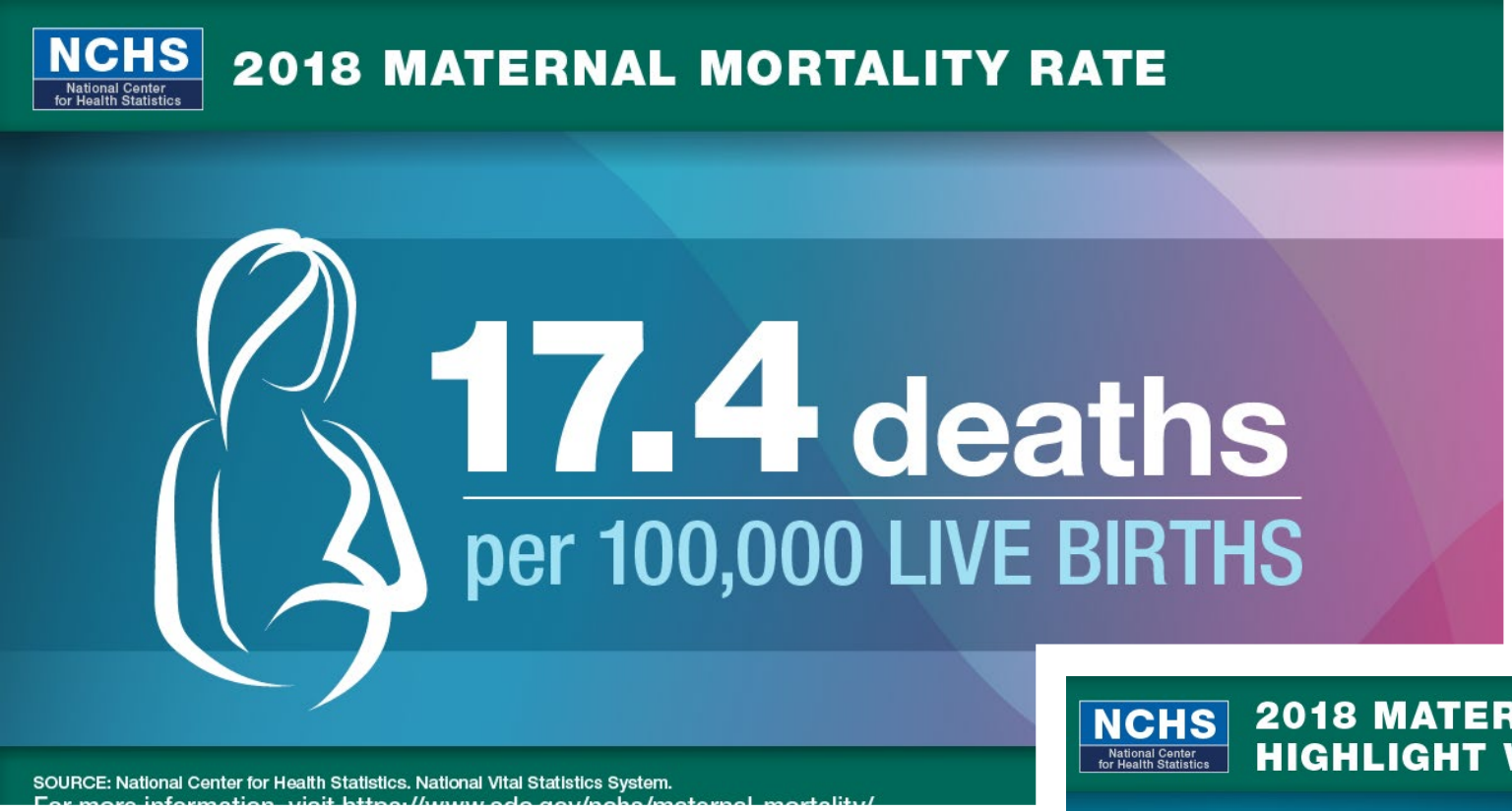


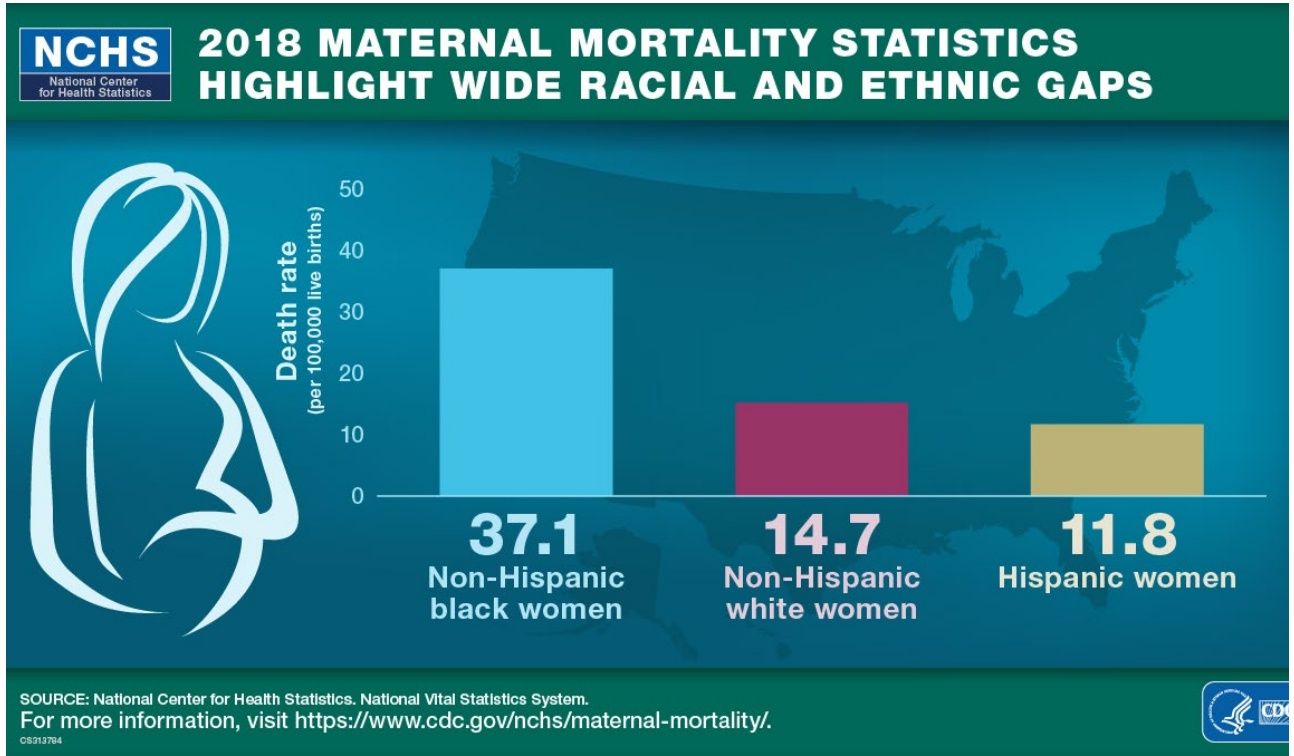
Key Terminology

Racial/Ethnic Disparities in Pregnancy-Related Deaths: United States, 2007–2016



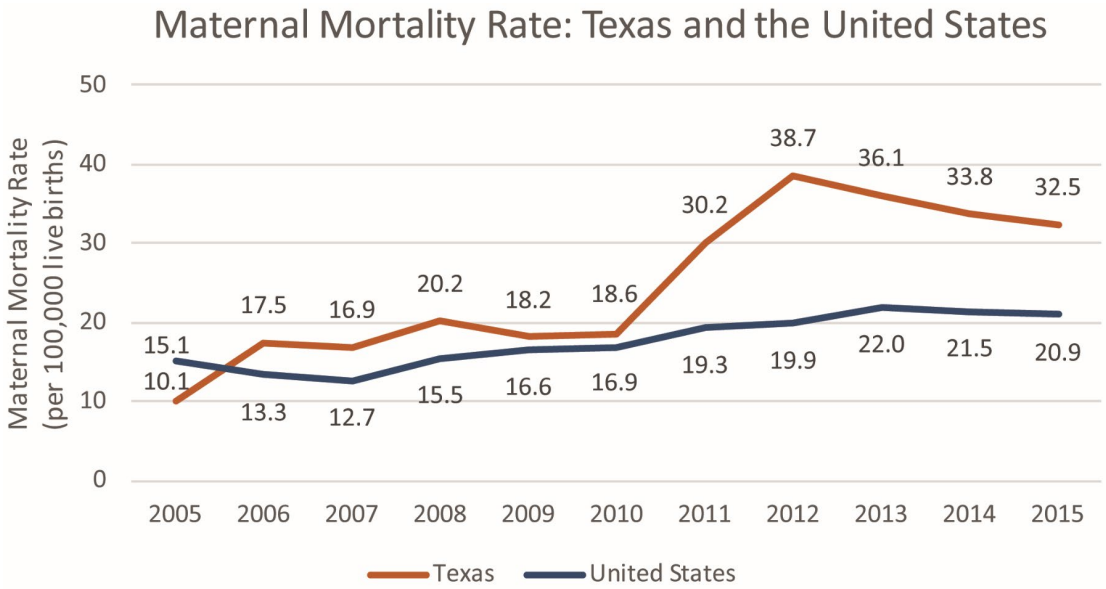
https://www.cdc.gov/reproductivehealth/maternal-mortality/disparities-pregnancy-related-deaths/infographic.html



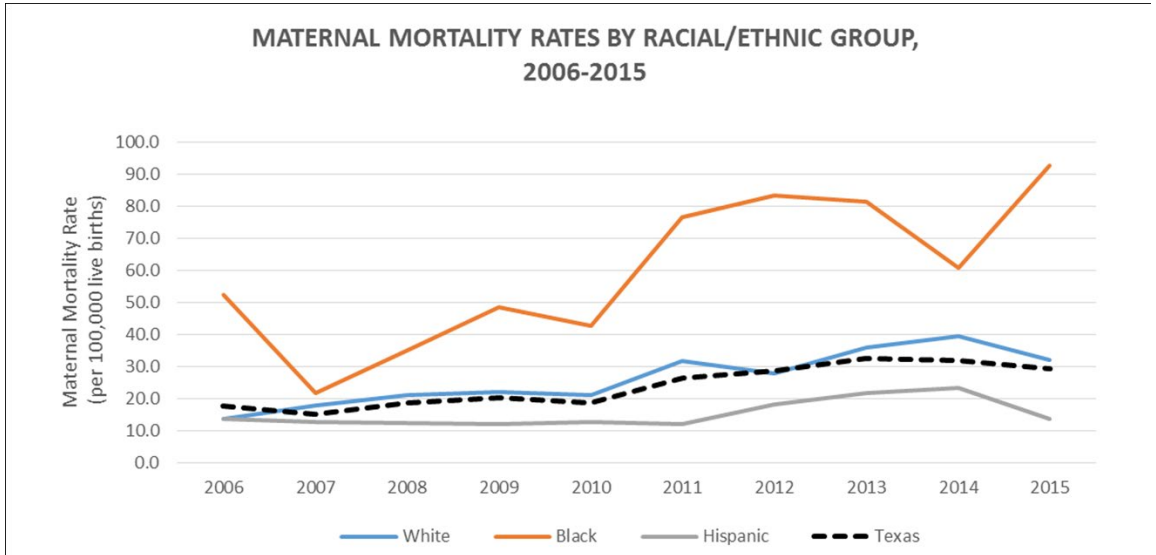


https://www.cdc.gov/nchs/maternal-mortality/

Maternal Mortality in Texas

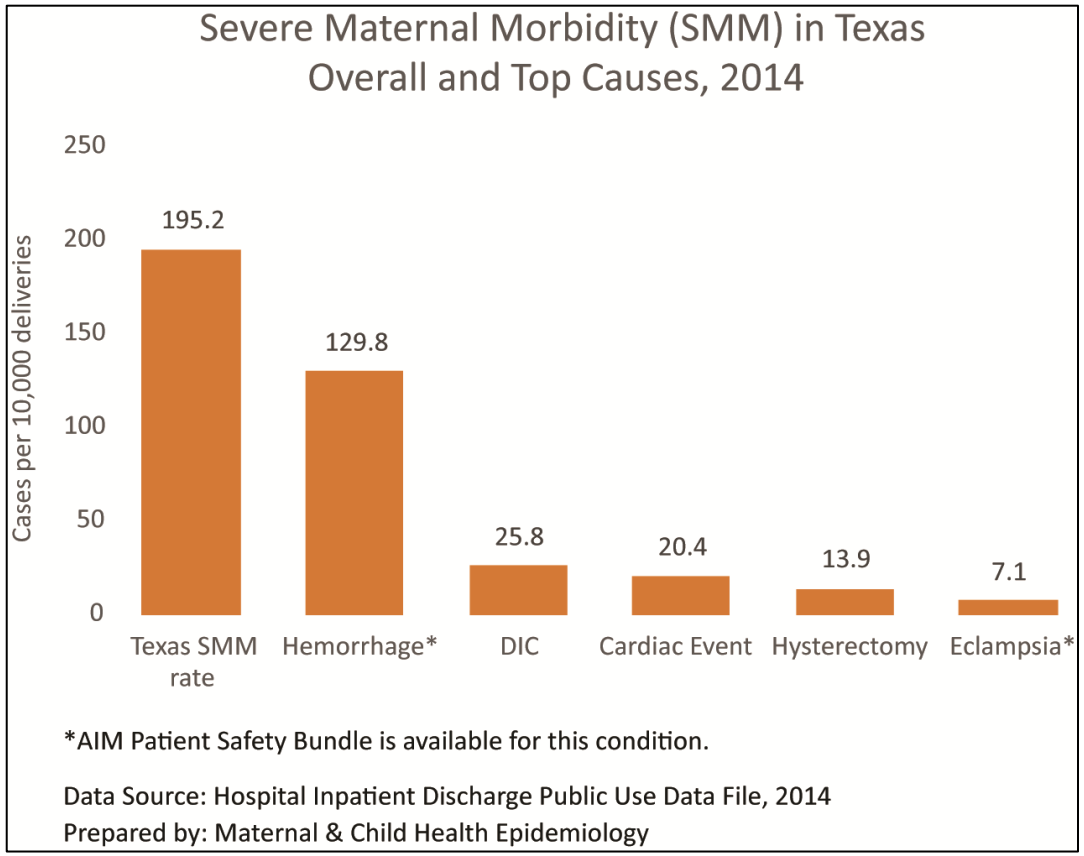


Prepared by: Office of Program Decision Support, Division for Family and Community Health, Texas Department of State Health Services.
Data Sources: Centers for Disease Control and Prevention, National Center for Health Statistics.
Underlying Cause of Death and Natality public use data 2005-2015 on CDC WONDER Online Database.
MMR computed within 42 days following the end of pregnancy, using ICD-10 codes A34, O00-O95, O98-O99.



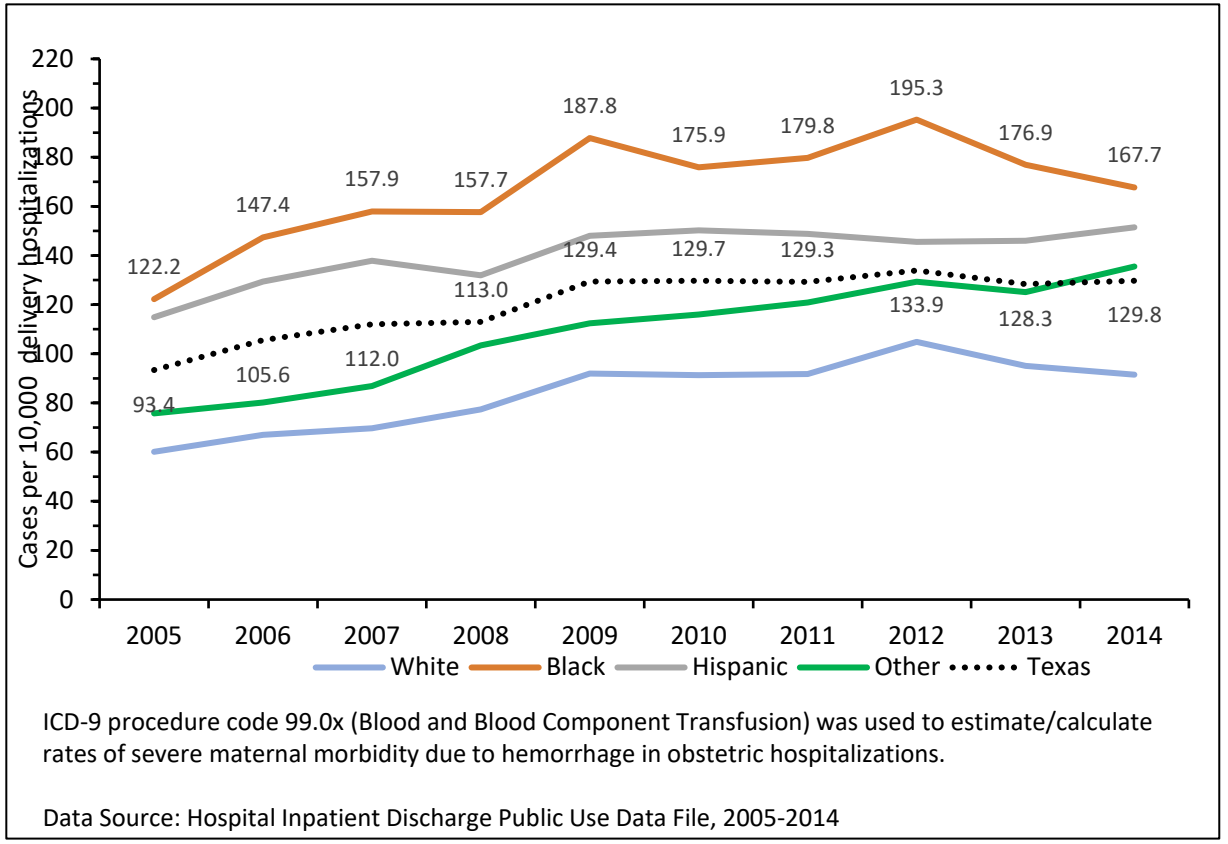
Prepared by: Office of Program Decision Support, Division for Family and Community Health Services, Texas Department of State Health Services, 07/21/2017.
Data Source: Death and Birth Files, Center for Health Statistics, Texas Department of State Health Services.
MMR - computed within 42 days following the end of pregnancy, using ICD-10 codes A34, O00-O95, O98-O99.

Severe Maternal Morbidity in Texas



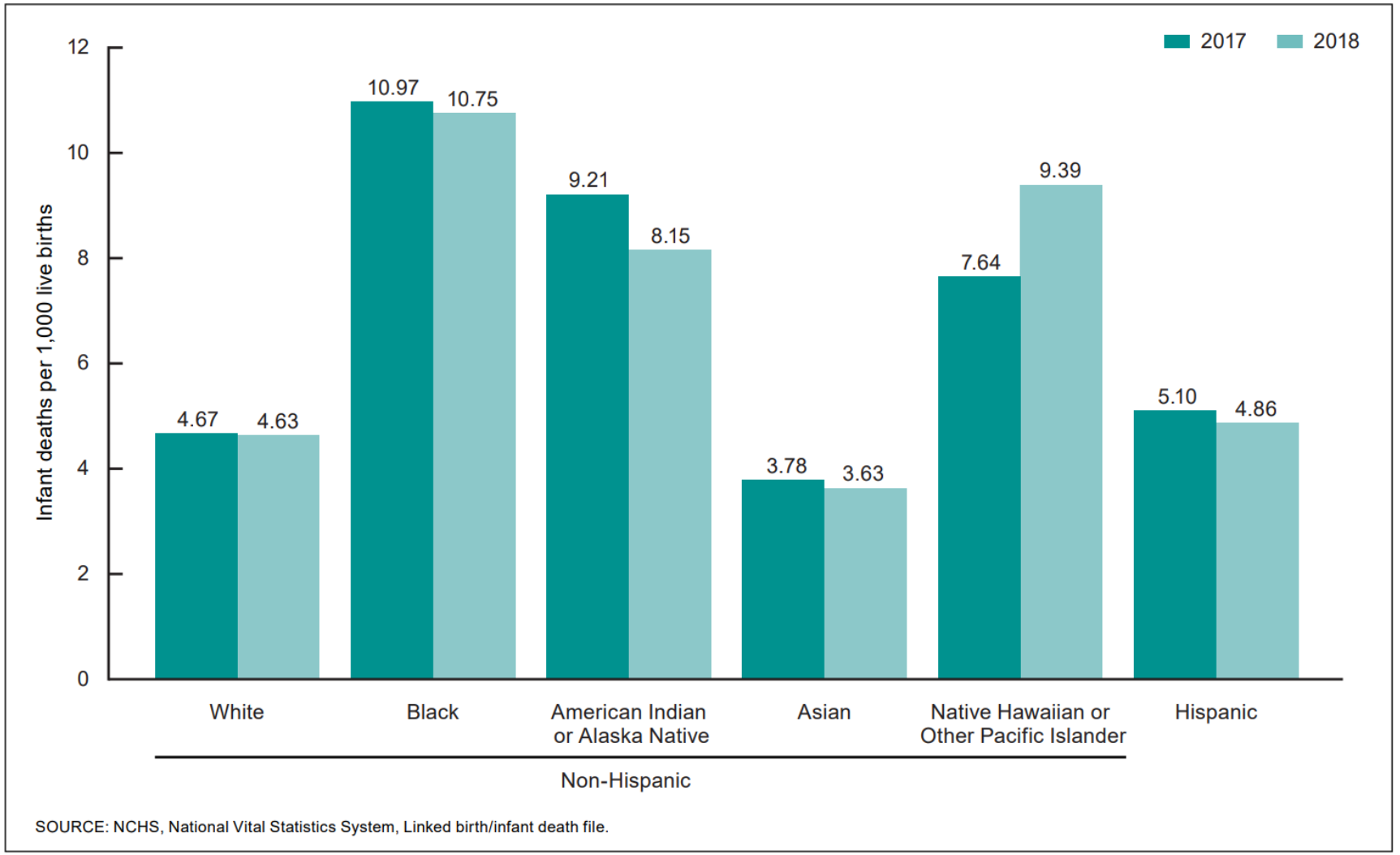
*AIM Patient Safety Bundle is available for this condition.

Data Source: Hospital Inpatient Discharge Public Use Data File, 2014
Prepared by: Maternal & Child Health Epidemiology



ICD-9 procedure code 99.0x (Blood and Blood Component Transfusion) was used to estimate/calculate rates of severe maternal morbidity due to hemorrhage in obstetric hospitalizations.

Data Source: Hospital Inpatient Discharge Public Use Data File, 2005-2014



SOURCE: NCHS, National Vital Statistics System, Linked birth/infant death file.

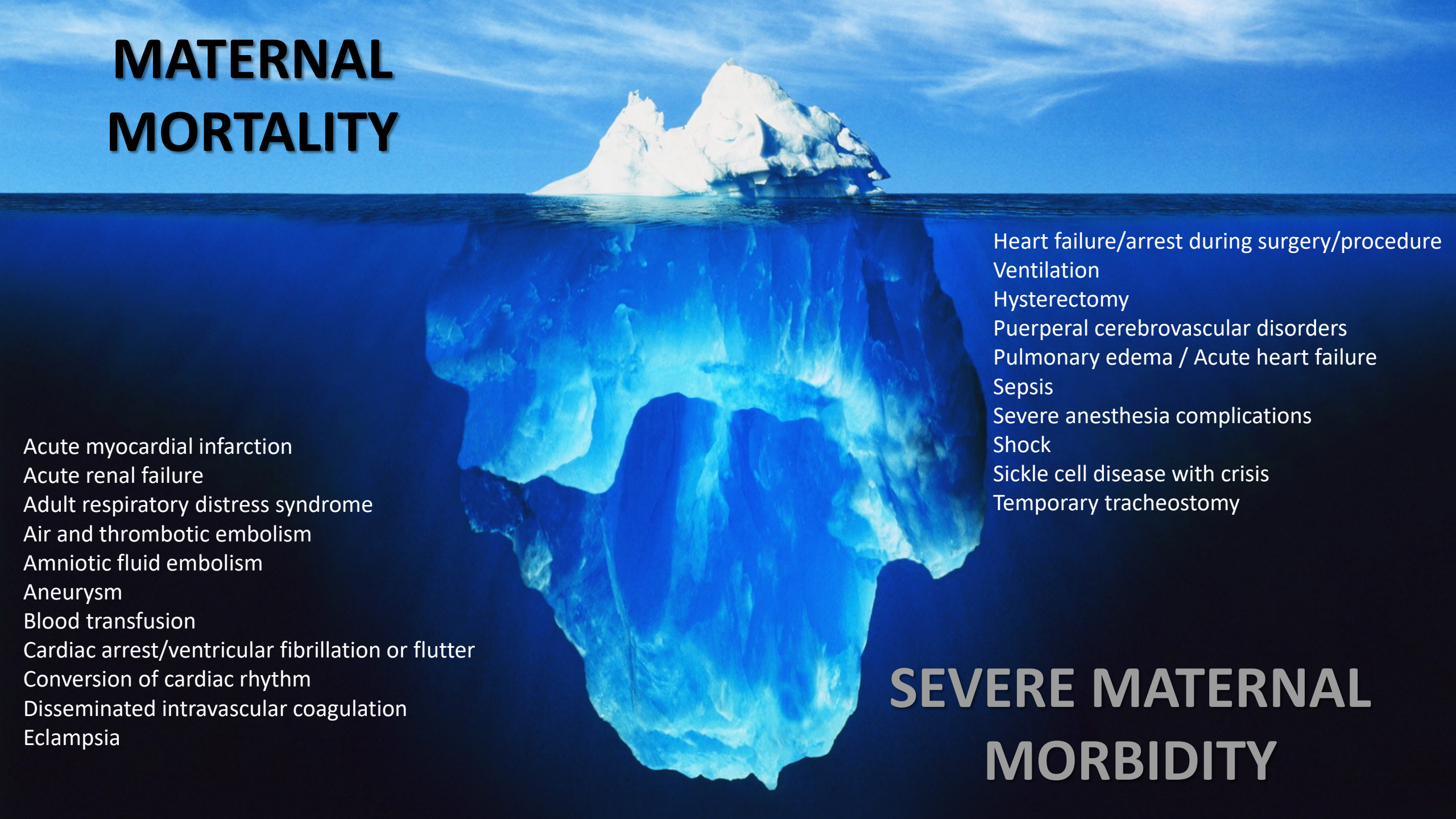
Figure 2. Infant mortality rates, by race and Hispanic origin: United States, 2017–2018

Racial/Ethnic Disparities in Severe Maternal Morbidity and Mortality in the United States

- Compared to White women:
  - Black women have higher mortality from cardiomyopathy, hypertensive disorders of pregnancy, hemorrhage
    - 9.9X more likely to die with a diagnosis of pregnancy induced hypertension
    - 4.7X more likely to die with a diagnosis of hemorrhage
  - Deaths in Black women more likely preventable
  - Hispanic women have increased risk of death due to hypertensive disorders

Howell, E et al. Clin Obstet Gynecol. 2018 Jun;61(2):387-399

MATERNAL MORTALITY



Acute myocardial infarction
Acute renal failure
Adult respiratory distress syndrome
Air and thrombotic embolism
Amniotic fluid embolism
Aneurysm
Blood transfusion
Cardiac arrest/ventricular fibrillation or flutter
Conversion of cardiac rhythm
Disseminated intravascular coagulation
Eclampsia

Heart failure/arrest during surgery/procedure
Ventilation
Hysterectomy
Puerperal cerebrovascular disorders
Pulmonary edema / Acute heart failure
Sepsis
Severe anesthesia complications
Shock
Sickle cell disease with crisis
Temporary tracheostomy

SEVERE MATERNAL MORBIDITY

Racial/Ethnic Disparities in Health Outcome by SMM Indicator

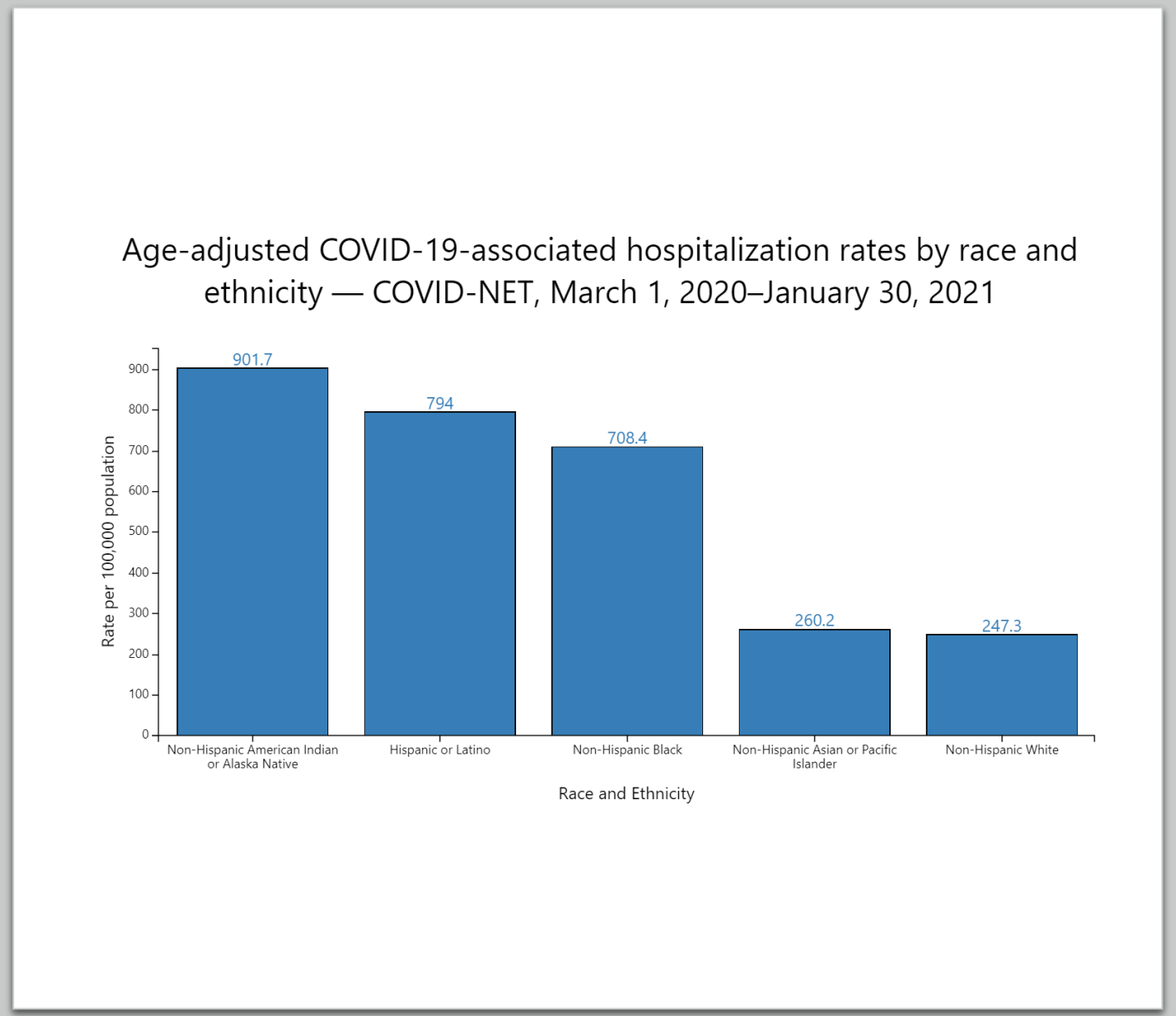
Somer S, et al. Semin Perinatol. 2017 Aug;41(5):258-265.

Acute myocardial infarction (MI)	Increased cardiovascular risk factors among African-American women; some literature finds increased MI risk among non-Hispanic white and African-American women
Acute renal failure (ARF)	Increased among African-American and American Indian/Alaska native; additionally, African-American and Hispanic women with lupus erythematosus at increased risk of ARF
Adult respiratory distress syndrome	Increased among African-American and American Indian/Alaska native women
Amniotic fluid embolism	Conflicting reports in the literature; some suggest an increase among African-American women
Aneurysm	None
Blood transfusion	Increased among African-American, Hispanic, Asian/Pacific Islander, and American Indian/Alaska native women
Cardiac arrest or ventricular fibrillation	Increased among African-American women
Cardio monitoring	Increased among African-American, Hispanic, Asian/Pacific Islander, and American Indian/Alaska native women
Conversion of cardiac rhythm	Increased among African-American women
Disseminated intravascular coagulation	Increased among African-American, Hispanic, Asian/Pacific Islander, and American Indian/Alaska native women
Eclampsia	Increased among African-American and Hispanic women
Heart failure during procedure or surgery	Increased among African-American, Hispanic, and Asian/Pacific Islander women
Hysterectomy	Increased among African-American, Hispanic, Asian/Pacific Islander women
Internal injuries of thorax, abdomen, and pelvis	Increased among African-American women
Intracranial injuries	None
Operations on heart and pericardium	Increased among African-American women
Puerperal cerebrovascular disorders	Subarachnoid hemorrhage increased among African-American and Hispanic women, intracerebral hemorrhage and stroke increased among African-American women
Pulmonary edema	Increased among African-American and Asian/Pacific Islander women
Sepsis	Increased among African-American and Hispanic women
Severe anesthesia complications	Increased among African-American women; use of general anesthesia may also be increased among African-American women
Shock	Increased among African-American, Asian/Pacific Islander, and American Indian/Alaska native
Sickle cell anemia with crisis	Increased among African-American women
Temporary tracheostomy	Increased among African-American women
Thrombotic embolism	Increased among African-American women; thrombotic risk factors differ among non-Hispanic white and African-American women
Ventilation	Increased among African-American, Hispanic, Asian/Pacific Islander, and American Indian/Alaska native women
Additional indicators of morbidity	
Cardiomyopathy	Increased among African-American women
Preeclampsia/help	Increased among African-American and American Indian/Alaska native women
Hemorrhage	Increased among Hispanic and Asian/Pacific Islander women; conflicting data regarding African-American women
Trauma/violence	Increased among African-American, Hispanic and native American women

COVID-19 Hospitalizations and Deaths

- **Hospitalization:** compared with non-Hispanic White persons
  - Non-Hispanic American Indian or Alaska Native = 3.6X higher
  - Hispanic/Latinx = 3.2X higher
  - Non-Hispanic Black = 2.9X higher

- **Deaths:** counties that are majority-Black have 3X rate of infections and ~6X rate of deaths as majority-White counties
  - Chicago: >50% of COVID-19 cases, ~70% of COVID-19 deaths involve Blacks, although Blacks make up only 30% of the population
  - Louisiana: 70.5% of deaths occurred in Blacks, who represent 32.2% of state's population
  - Michigan: 33% of COVID-19 cases, 40% of deaths occurred in Blacks, who represent 14% of the population



https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html

JAMA May19,2020 Volume323,Number19; 1891-92.

The Problem: Health Disparities

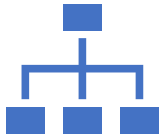
- **Health Disparities**: differences between the health of one population and another
- Black women 3-4 times more likely to die from pregnancy-related causes and have more than twofold greater risk of severe maternal morbidity (SMM) than White women
- Black newborns more than twice as likely to die in first year as White newborns
- Disproportionate rates of COVID-19 infection, severe morbidity, and mortality in communities of color, particularly among Black, Latinx, and Native American people
- Most mortality preventable, especially in Black women

IHI Liberation in the Exam Room: Racial Justice and Equity in Healthcare
ACOG: Addressing Health Equity During the COVID-19 Pandemic Position Statement
Callaghan WM. Semin Perinatol. Feb; 2012 36(1):2–6

What is a Root Cause(s) Analysis?

A structured method used to analyze serious adverse events

A process for identifying the basic or causal factors that underlie variation in performance



Focuses primarily on systems and processes, not individual performance

There may be multiple root causes of a problem; different people who see different parts of the system may answer the questions differently

disparities.

ACOG

Dr. Rebekah Gee

"It's kind of surprising to me that people are shocked by these [COVID-19] disparities," Rebekah Gee, MD, an ob.gyn. who is director of the Louisiana State University Health System in New Orleans and a driving force behind initiatives addressing racial disparities in maternal health, said in an interview. "I mean if you're not shocked by four or five black women dying for every white women that dies in childbirth, I don't know what would wake you up. If this is it, great – and certainly every moment is a moment for learning – but these COVID-19 disparities should not be surprising to people who have been looking at data."

Veronica Gillispie, MD, an ob.gyn. and medical director of the Louisiana Perinatal Quality Collaborative and Pregnancy-Associated Mortality Review, was similarly baffled that the news was treated as a revelation.

Dr. Veronica Gillispie

That news includes outcomes data from New York showing that in March there were 92.3 and 74.3 deaths per 100,000 black and Hispanic COVID-19 patients, respectively, compared with 45.2 per 100,000 white patients.

"Now there's a task force and all these initiatives to look at why this is happening, and I think those of us who work in maternal mortality are all saying, 'We know why it's happening,' " she said. "It's the same thing we've been telling people why it's been happening in maternal mortality.

"It's implicit bias and structural racism."

Race vs. Racism

“Race Is Not a Risk Factor, Racism Is.”

Joia Crear-Perry, MD
Founder and President of National Birth Equity Collaborative

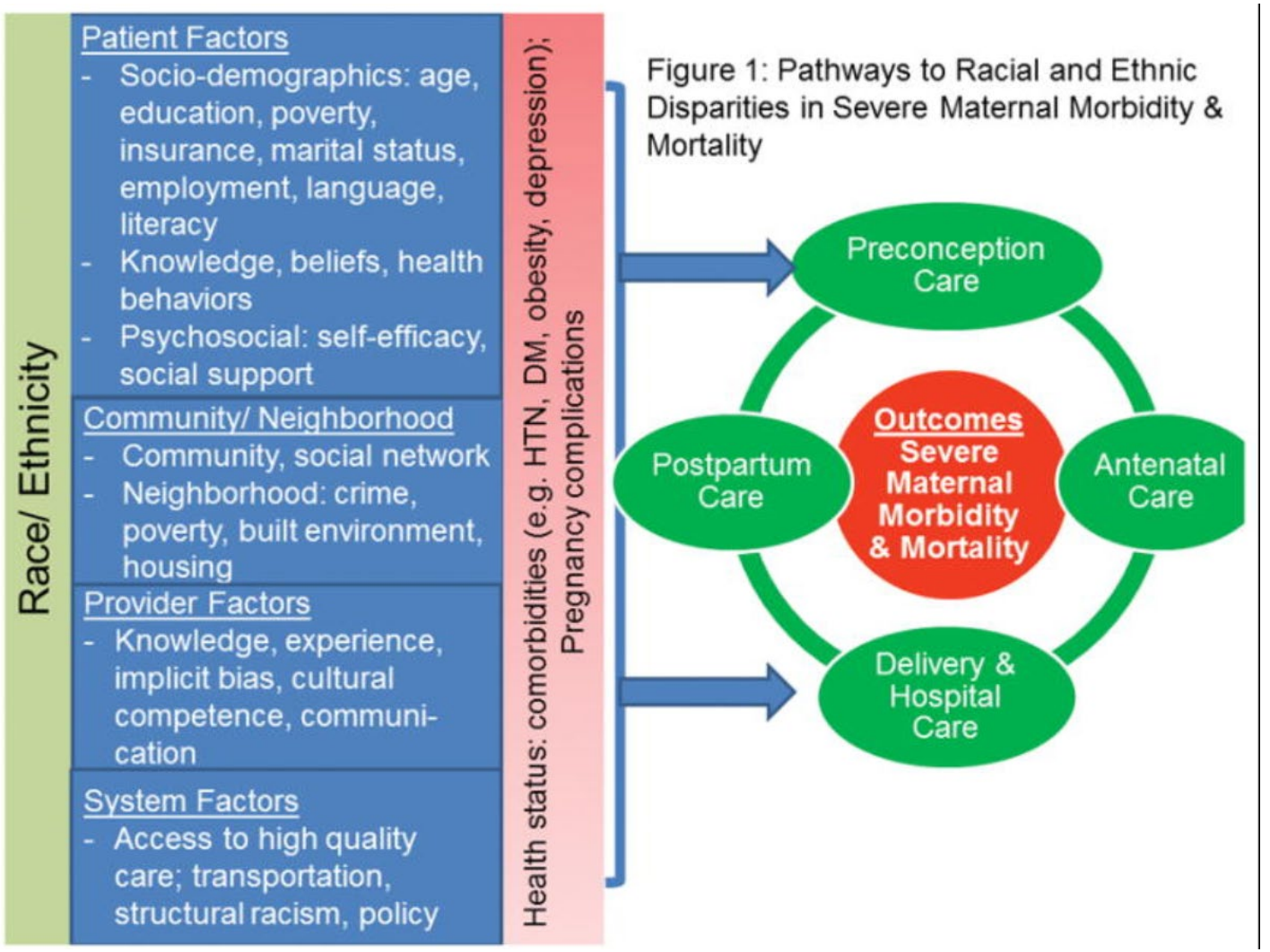
- **Race:** social, NOT biologic, construct for grouping people, based on skin color and other apparent physical differences

- **Racism:** system of advantage based on race
  - Internalized
  - Interpersonal
  - Institutional/Structural/Systemic

- ACOG joint statement addressing racism: “Recognizing that race is a social construct, not biologically based, is important to understanding that racism, not race, impacts health care, health, and health outcomes.”

ACOG Joint Statement: Collective Action Addressing Racism. Aug 2020
IHI Liberation in the Exam Room: Racial Justice and Equity in Healthcare

Racial/Ethnic Disparities in Maternal Morbidity and Mortality: Root Causes



Howell, E et al. Clin Obstet Gynecol. 2018 Jun;61(2):387-399

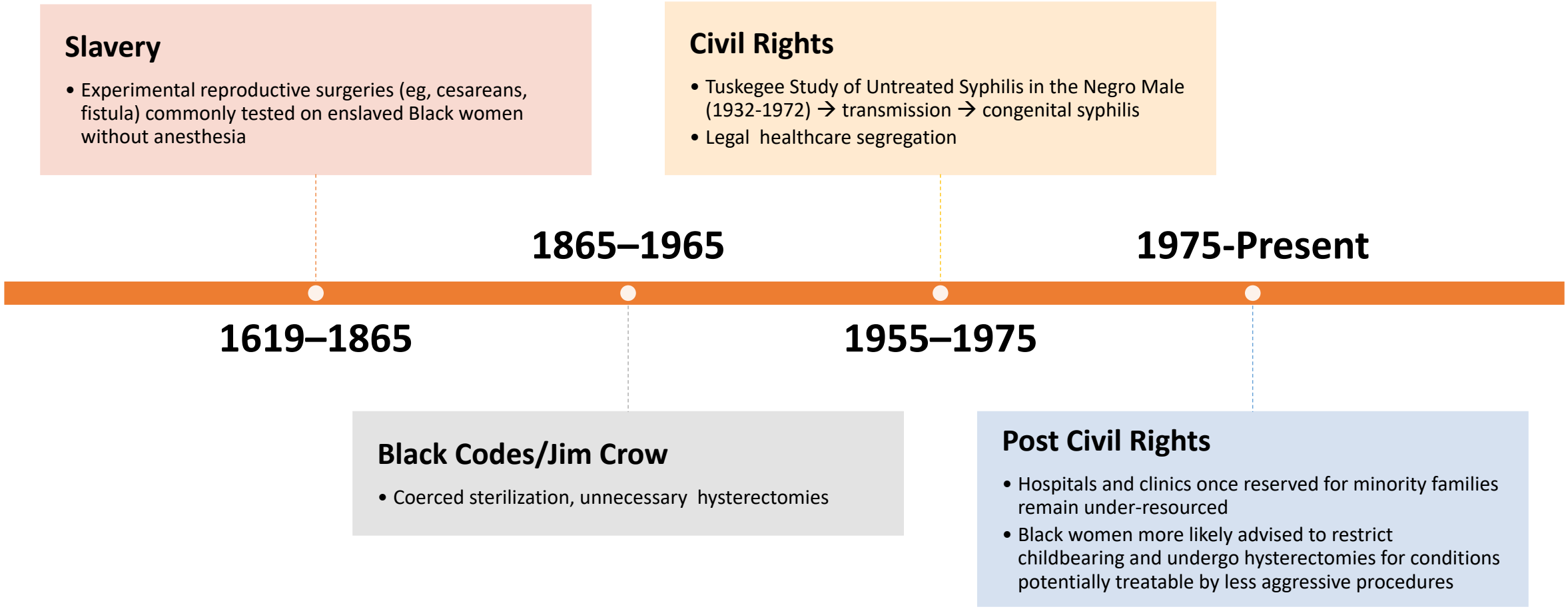
Patient Factors: Social Determinants of Health

- Social Determinants of Health: conditions in the environment in which people are born, live, work, and age; shaped by historical, social, political, economic forces
  - ❑ Housing
  - ❑ Food
  - ❑ Transportation
  - ❑ Utilities
  - ❑ Child Care
  - ❑ Employment
  - ❑ Education
  - ❑ Finances
  - ❑ Personal Safety
- SDOH + inequities in access to health care + language barriers + distrust of healthcare system = disparate outcomes

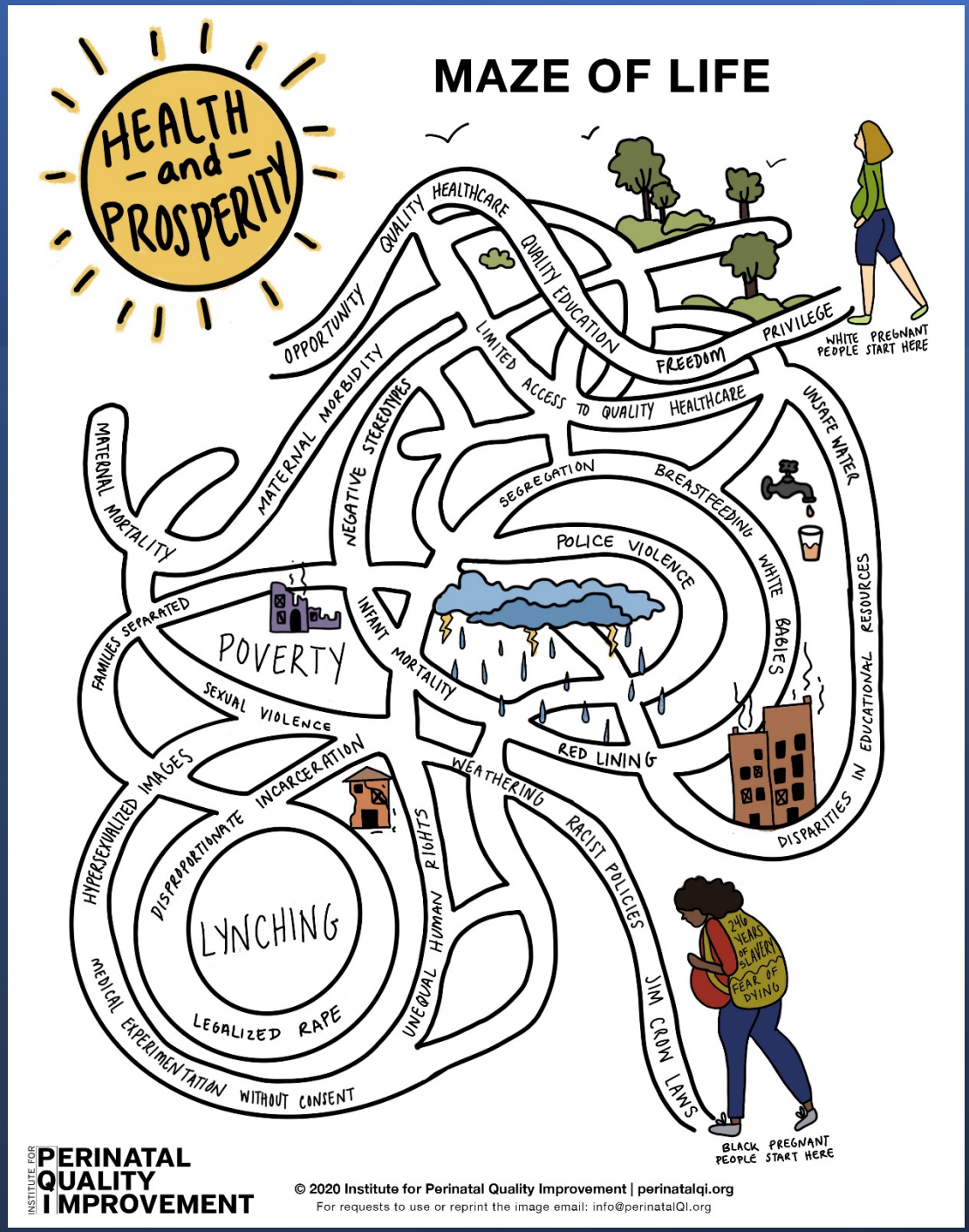
ACOG: Addressing Health Equity During the COVID-19 Pandemic Position Statement

ACOG CO #729, January 2018

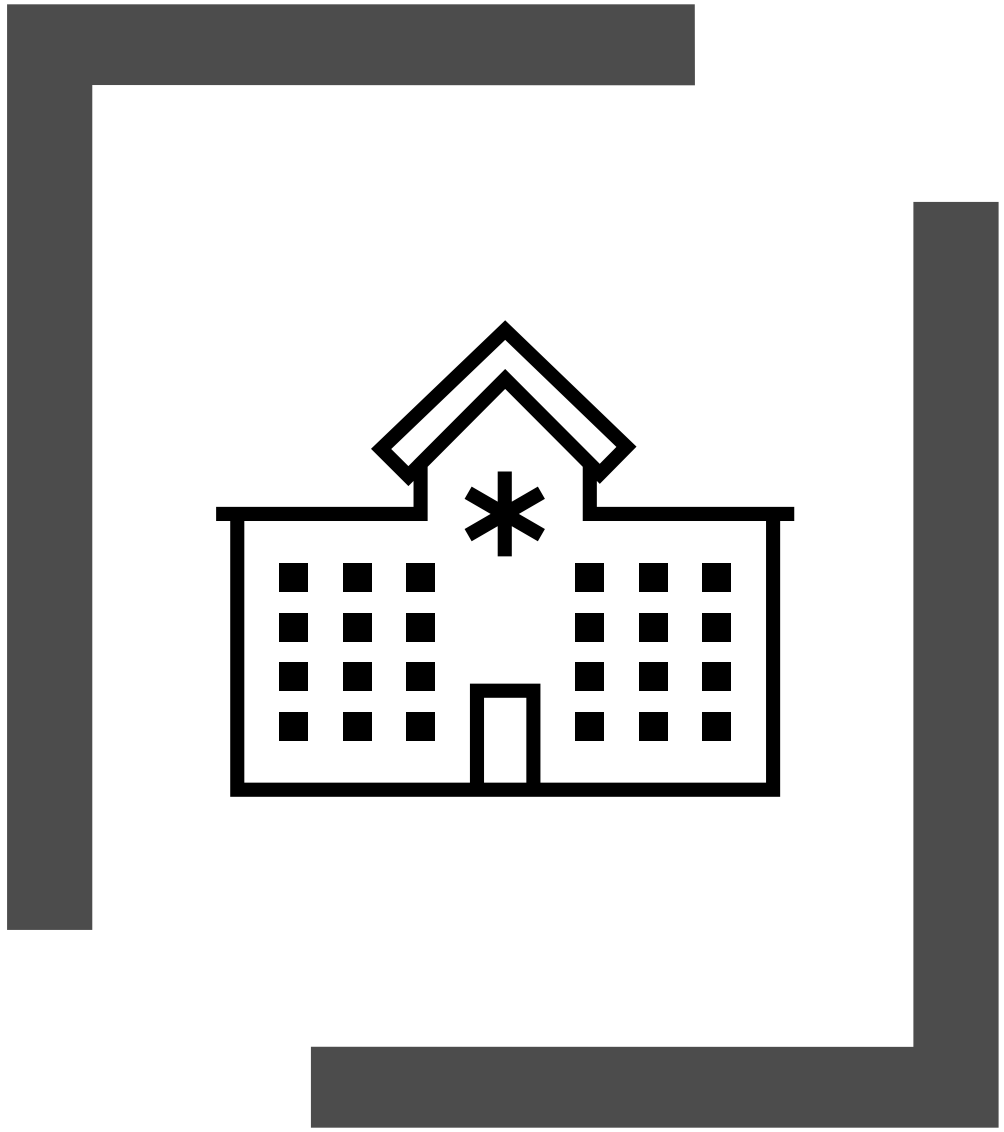
Fear and Mistrust of Healthcare Institutions



Prather C, et al. Health Equity Volume 2.1, 2018;249-59



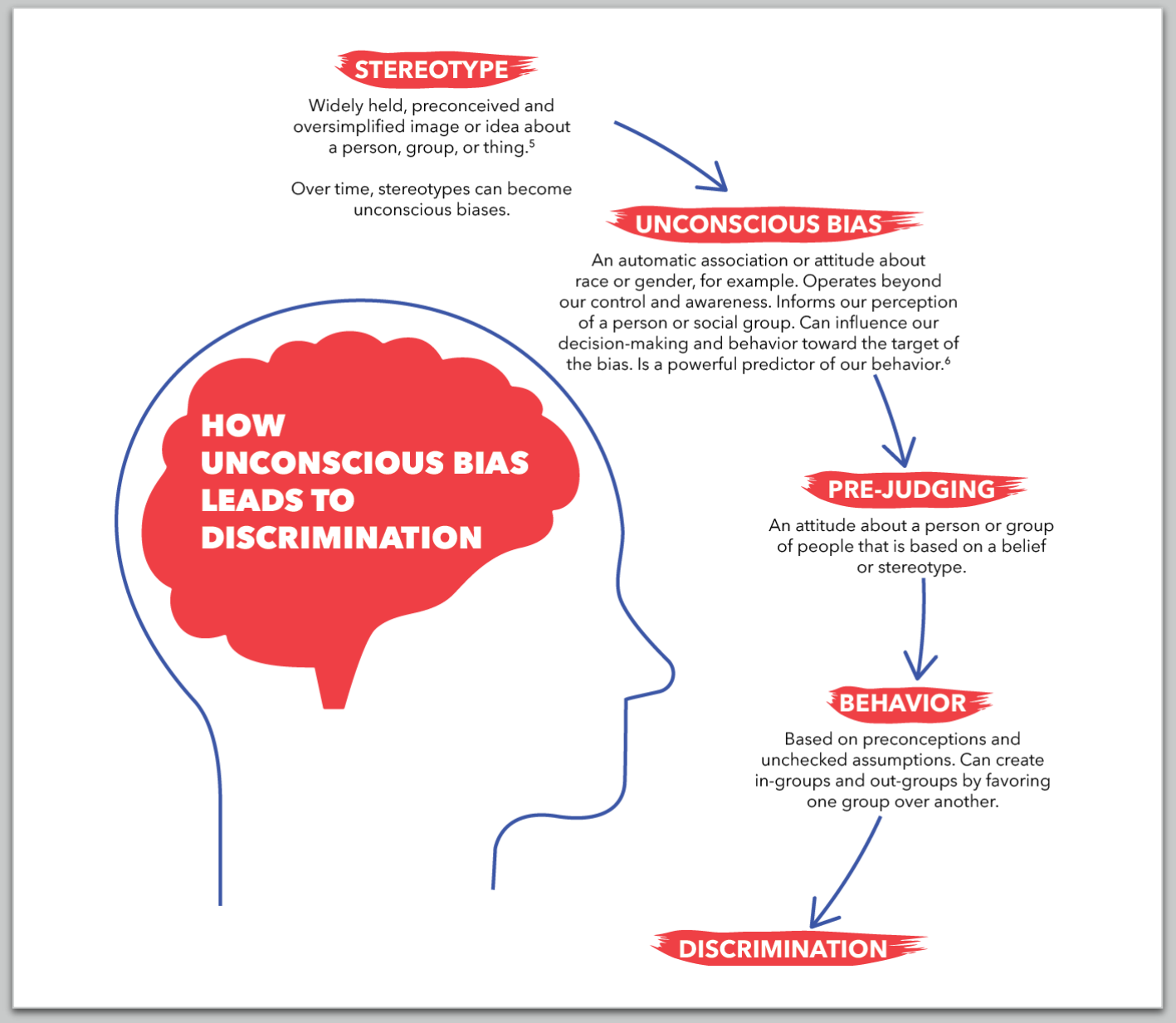
INSTITUTE FOR PERINATAL QUALITY IMPROVEMENT



System Factors: Delivery Hospital Quality & Access to Care

- Variation in hospital quality → racial/ethnic disparities
- Racial/ethnic minority women deliver in different and lower quality hospitals than White women
- Hospitals that disproportionately care for Black deliveries have higher risk-adjusted SMM rates for both Black and White women
- Racial/ethnic disparities documented both between and within hospitals
- Compared to Whites, Hispanics 3X as likely to be uninsured; Blacks 2X

Howell E, et al. Obstet Gynecol 2020;135:285–93; Howell E, et al. Am J Obstet Gynecol. 2016 Aug;215(2):143-52; Howell, E et al. Clin Obstet Gynecol. 2018 Jun;61(2):387-399



Provider Factors: Implicit/Unconscious Bias

- **Implicit/Unconscious Bias**: attitudes and stereotypes that affect our understanding, actions, and decisions in an unconscious manner (unconscious discrimination)
- Stereotyping and implicit bias of health care providers may contribute to racial/ethnic disparities in health
- Greatest effects in situations marked by ambiguity, stress, time constraints
- 2015 SMFM survey: 83% of respondents agreed that disparities have an impact on their practice; only 29% believed that personal biases affect how they care for patients

Am J Obstet Gynecol. 2018 Feb;218(2):B2-B8.

Corrective Action Plan

Using Quality Improvement to Address Health Equity

PATIENT SAFETY BUNDLE

Reduction of Peripartum Racial/Ethnic Disparities

ALLIANCE FOR INNOVATION ON MATERNAL HEALTH AIM

The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

ACOG COMMITTEE OPINION

Number 729 • January 2018 *(Replaces Committee Opinion Number 493, May 2011)*

Committee on Health Care for Underserved Women

This Committee Opinion was developed by the American College of Obstetricians and Gynecologists' Committee on Health Care for Underserved Women in collaboration with committee members Carolyn Sufrin, MD, PhD, Autumn Davidson, MD, MS, and Glenn Markenson, MD.

Importance of Social Determinants of Health and Cultural Awareness in the Delivery of Reproductive Health Care

The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

COMMITTEE OPINION

Number 649 • December 2015 *(Replaces Committee Opinion Number 317, October 2005)*
(Reaffirmed 2018)

Committee on Health Care for Underserved Women

This information should not be construed as dictating an exclusive course of treatment or procedure to be followed.

Racial and Ethnic Disparities in Obstetrics and Gynecology

Institute *for* Healthcare Improvement

WHITE PAPER

Achieving Health Equity:
A Guide for Health Care Organizations

New York State Toolkit to Reduce Health Care Disparities: Improving Race and Ethnicity Data

NEW YORK state department of HEALTH

TABLE 1	Eight steps to narrow disparities across the care

- Enhance communications
- Address implicit bias
- Implement a disparities dashboard
- Perform enhanced maternal mortality and severe maternal morbidity reviews
- Standardize care on labor and delivery
- Promote a culture of equity
- Develop new models of care across the care continuum
- Engage key stakeholders

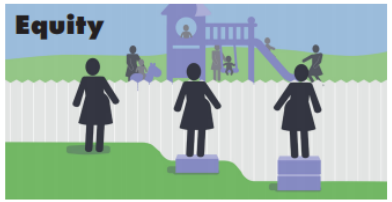
Achieving Health Equity *Has Alignment!*

STRATEGIES TO PROVIDE EQUITABLE CARE DURING COVID-19

Society for Maternal-Fetal Medicine
Highest pregnancy experts

Health Equity, *Defined*

When **every person** has the opportunity to attain their **full health potential**. When **no one** is **disadvantaged** from achieving this potential because of social position or other socially determined circumstances.



Why Racism is Important in COVID-19

Racism

Social Determinants of Health including access to healthcare, food, housing, and education

Co-Morbid Conditions

COVID-19 Incidence & Outcomes

IMPACTS

Emerging Inequities in COVID-19

Increased rates of hospitalization and death in **Black, Hispanic and Native American communities**

Higher prevalence of COVID-19 disease among those of **low socioeconomic status**

Higher risk of infection in **prisons, group homes** and **residential treatment facilities**

Notable increase in xenophobia and bias towards **Asian Americans**

COVID-Specific Threats to Health Equity

Living and **working circumstances** make **social distancing** challenging for some (e.g. undocumented people, the LGBTQ community), survivors of IPV.

Inequitable access to COVID-19 **testing.**

Undocumented immigrants and uninsured people have **limited access to public safety nets.**

Challenges Accessing Telehealth

To accommodate social distancing, many heath care services are being **offered via computer or telephone**. Yet, some people may have **difficulty accessing services this way** (e.g. people with disabilities or people without broadband internet access).

Stress, time constraints, fatigue and **fear** increase the **risk of biased behavior** among health care providers and among the general public.

STRATEGIES

Confront Bias with Proven Upstander Techniques

Direct
Directly address biased behavior. Advise the person that their behavior is biased or ask them to clarify their meaning/intent.

Distract
Disrupt a biased interaction by mentioning or doing something unrelated. Consider using when there is a concern for violence.

Delegate
Ask another person to help you address the biased behavior

Delay
Wait until a safer/more appropriate time then address biased behavior

Increase Access to Community-Based Testing

Design and Conduct Studies with Community Input and Participation from Inception

"Nothing *about* us *without* us"

Advocate: Ask policymakers to ensure that **all pregnant people have access to care**, that **health care workers have the resources they need to stay safe**, and that **pregnant people are included in COVID-19 research.**

Provide Equitable Care

- ☐ Recognize racism is at the root of inequities
- ☐ Screen for social determinants of health
- ☐ Ask about:
  - ability to safely social distance
  - availability of cleaning supplies
  - access to internet/data for virtual visits
  - Screen more frequently for IPV and safety
- ☐ Identify key community resources:
  - Food banks or pantries
  - Housing assistance
  - Infection mitigation supplies (e.g. masks, sanitizer)
  - Intimate partner violence services
- ☐ Provide information in the language that your patient speaks, reads, or understands.
- ☐ Increase capacity for care for vulnerable populations (i.e. increase provider, nursing, social service resources)

Remain Vigilant in Collecting Clinical, Quality & Safety Metrics

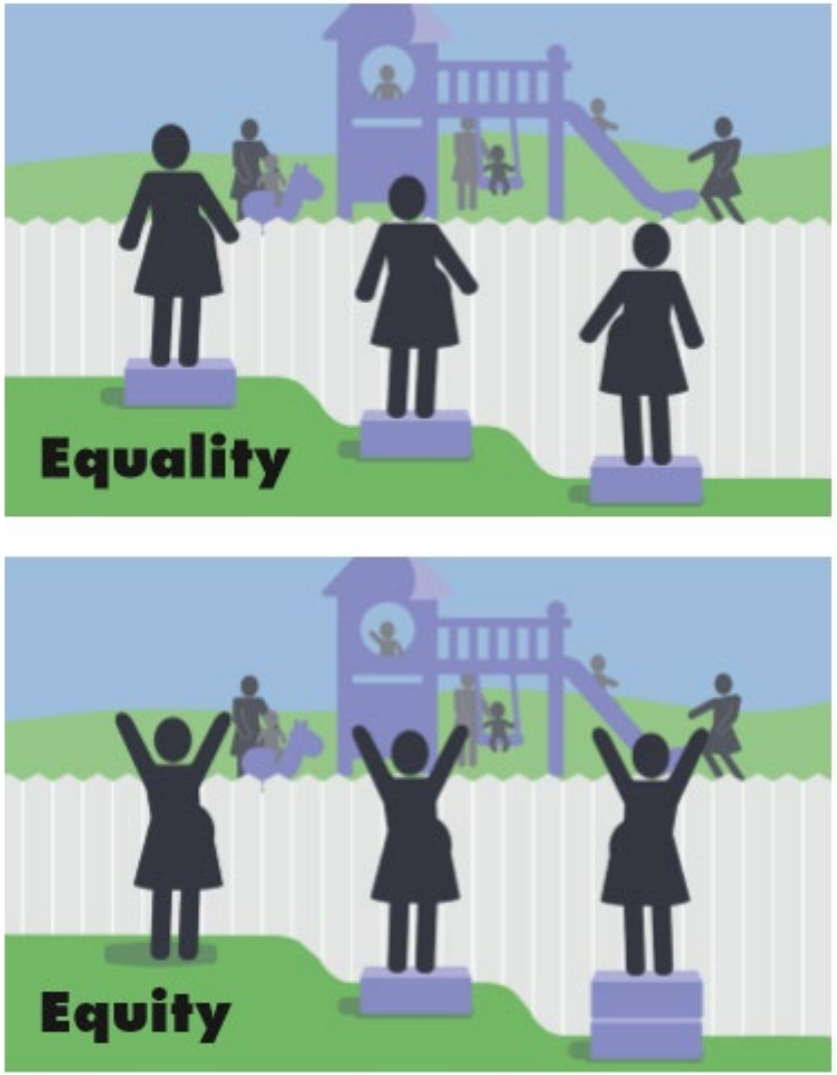
Data should be stratified by age, race, ethnicity, gender/gender identity, payor, employment status, and preferred language.

Collect **COVID-specific outcomes** such as **testing access** and **hospitalization rates.**

For more information, visit **SMFM.org/COVID19**

Equality vs. Equity

- **Health Equity:** opportunity for everyone to attain his/her full health potential



COUNCIL ON PATIENT SAFETY IN WOMEN'S HEALTH CARE

safe health care for every woman

READINESS

Every health system

- Establish systems to accurately document self-identified race, ethnicity, and primary language.
  - Provide system-wide staff education and training on how to ask demographic intake questions.
  - Ensure that patients understand why race, ethnicity, and language data are being collected.
  - Ensure that race, ethnicity, and language data are accessible in the electronic medical record.
  - Evaluate non-English language proficiency (e.g. Spanish proficiency) for providers who communicate with patients in languages other than English.
  - Educate all staff (e.g. inpatient, outpatient, community-based) on interpreter services available within the healthcare system.
- Provide staff-wide education on:
  - Peripartum racial and ethnic disparities and their root causes.
  - Best practices for shared decision making.
- Engage diverse patient, family, and community advocates who can represent important community partnerships on quality and safety leadership teams.

RECOGNITION

Every patient, family, and staff member

- Provide staff-wide education on implicit bias.
- Provide convenient access to health records without delay (paper or electronic), at minimal to no fee to the maternal patient, in a clear and simple format that summarizes information most pertinent to perinatal care and wellness.
- Establish a mechanism for patients, families, and staff to report inequitable care and episodes of miscommunication or disrespect.

PATIENT SAFETY BUNDLE

Reduction of Peripartum Racial/Ethnic Disparities

COUNCIL ON PATIENT SAFETY IN WOMEN'S HEALTH CARE

safe health care for every woman

RESPONSE

Every clinical encounter

- Engage in best practices for shared decision making.
- Ensure a timely and tailored response to each report of inequity or disrespect.
- Address reproductive life plan and contraceptive options not only during or immediately after pregnancy, but at regular intervals throughout a woman's reproductive life.
- Establish discharge navigation and coordination systems post childbirth to ensure that women have appropriate follow-up care and understand when it is necessary to return to their health care provider.
  - Provide discharge instructions that include information about what danger or warning signs to look out for, whom to call, and where to go if they have a question or concern.
  - Design discharge materials that meet patients' health literacy, language, and cultural needs.

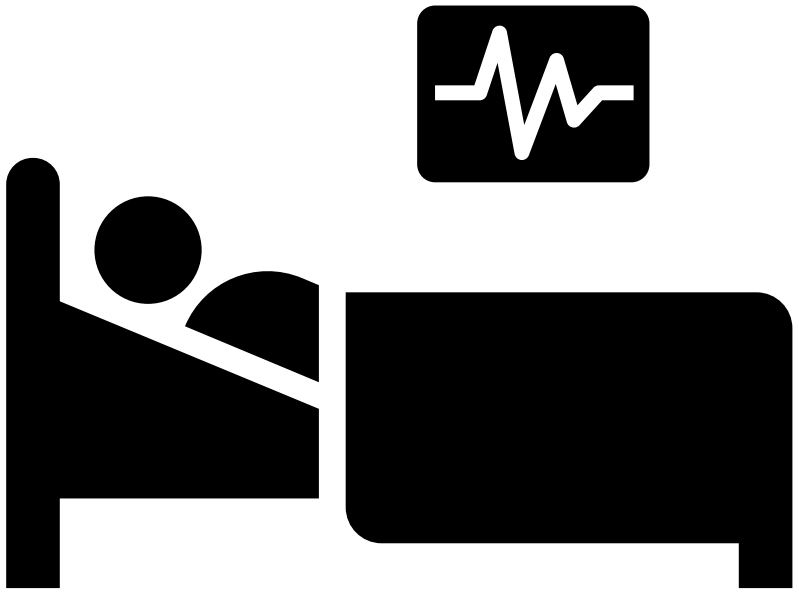
REPORTING & SYSTEMS LEARNING

Every clinical unit

- Build a culture of equity, including systems for reporting, response, and learning similar to ongoing efforts in safety culture.
- Develop a disparities dashboard that monitors process and outcome metrics stratified by race and ethnicity, with regular dissemination of the stratified performance data to staff and leadership.
- Implement quality improvement projects that target disparities in healthcare access, treatment, and outcomes.
- Consider the role of race, ethnicity, language, poverty, literacy, and other social determinants of health, including racism at the interpersonal and system-level when conducting multidisciplinary reviews of severe maternal morbidity, mortality, and other clinically important metrics.
  - Add as a checkbox on the review sheet: Did race/ethnicity (i.e. implicit bias), language barrier, or specific social determinants of health contribute to the morbidity (yes/no/maybe)? And if so, are there system changes that could be implemented that could alter the outcome?

PATIENT SAFETY BUNDLE

Reduction of Peripartum Racial/Ethnic Disparities



Patient Factors

Social Determinants of Health

- When screening for SDOH, it is important to have a plan for what to do when needs are identified
- Inclusion of a social worker or community health worker in your practice is an efficient way to provide help and resources to patients

Table 1. Sample Screening Tool for Social Determinants of Health ⇦

Domain	Question
Food	In the last 12 months, did you ever eat less than you felt you should because there was not enough money for food?
Utility	In the last 12 months, has your utility company shut off your service for not paying your bills?
Housing	Are you worried that in the next 2 months, you may not have stable housing?
Child care	Do problems getting childcare make it difficult for you to work, study, or get to health care appointments?
Financial resources	In the last 12 months, have you needed to see a doctor but could not because of cost?
Transportation	In the last 12 months, have you ever had to go without health care because you did not have a way to get there?
Exposure to violence	Are you afraid you might be hurt in your apartment building, home, or neighborhood?
Education/health literacy	Do you ever need help reading materials you get from your doctor, clinic, or the hospital?
Legal status	Are you scared of getting in trouble because of your legal status? Have you ever been arrested or incarcerated?
Next steps	If you answered yes to any of these questions, would you like to receive assistance with any of those needs?

ACOG Committee Opinion No. 729

join the movement >>

LIBERATION IN THE EXAM ROOM: RACIAL JUSTICE AND EQUITY IN HEALTHCARE

Pursuing Equity in the Exam Room: Make the Implicit, Explicit

- Create safe and welcoming environment, celebrate/acknowledge identity and culture

- Ask better questions:
  - About experiences in the health care system
  - About life experiences
  - Ask relevant follow up questions. Make sure they feel heard and incorporate what they share into your care plan.
  - Deep listening: "listening to understand, not to respond”

- Patients more likely to share information when they feel valued

Institute *for* Healthcare Improvement

Pursuing Equity Initiative, 2017-19

Empower Patients Through Education

Urgent Maternal Warning Signs

If you experience any of these warning signs, get medical care immediately.

- Severe headache that won't go away or gets worse over time
- Dizziness or fainting
- Thoughts about harming yourself or your baby
- Changes in your vision
- Fever of 100.4° F or higher
- Extreme swelling of your hands or face
- Trouble breathing
- Chest pain or fast-beating heart
- Severe nausea and throwing up (not like morning sickness)
- Severe belly pain that doesn't go away
- Baby's movement stopping or slowing down during pregnancy
- Vaginal bleeding or fluid leaking during pregnancy
- Heavy vaginal bleeding or leaking fluid that smells bad after pregnancy
- Swelling, redness or pain of your leg
- Overwhelming tiredness

This list is not meant to cover every symptom you might have. If you feel like something just isn't right, talk to your healthcare provider

Use This Guide to Help Start the Conversation:

- Thank you for seeing me.
  I am/was recently pregnant. The date of my last period/delivery was _____ and I'm having serious concerns about my health that I'd like to talk to you about.
- I have been having _____ (symptoms) that feel like _____ (describe in detail) and have been lasting _____ (number of hours/days)
- I know my body and this doesn't feel normal.

Sample questions to ask:

- What could these symptoms mean?
- Is there a test I can have to rule out a serious problem?
- At what point should I consider going to the emergency room or calling 911?

Notes:

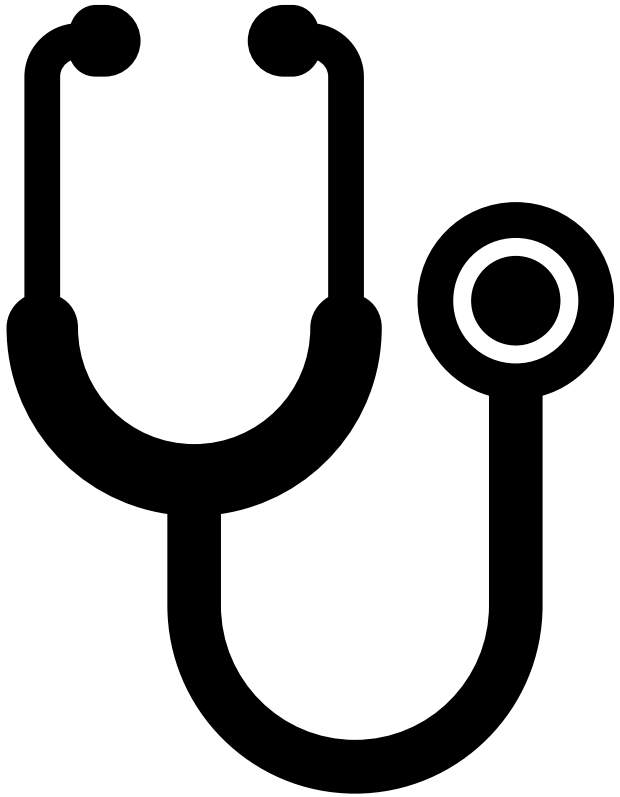
HEAR
HEAR HER CONCERNS

Learn more about CDC's Hear Her Campaign at www.cdc.gov/HearHer

CDC

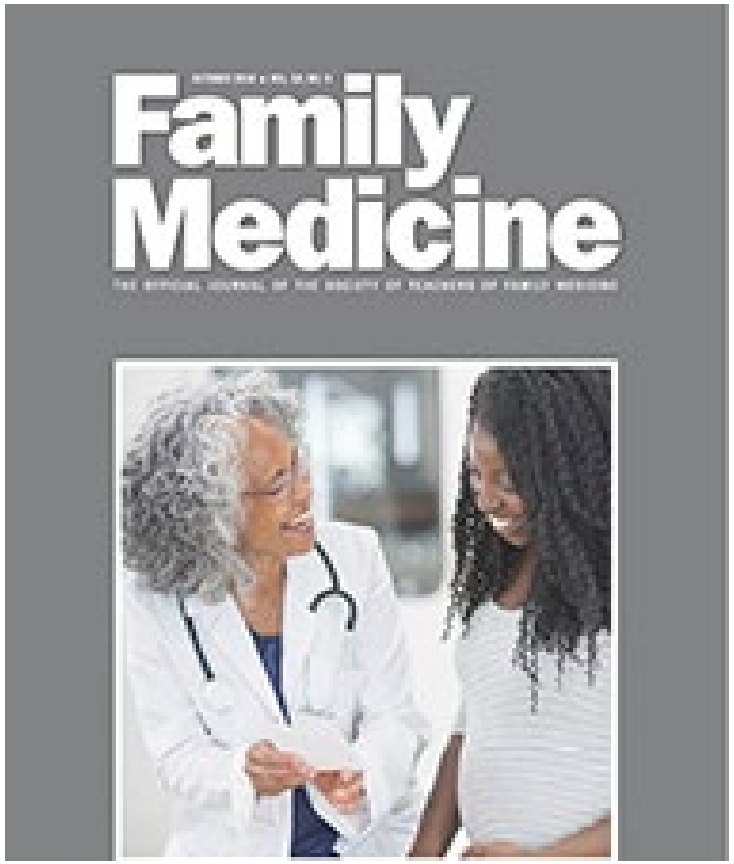
https://www.cdc.gov/hearher/index

https://safehealthcareforeverywoman.org/urgentmaternalwarningsigns/



Provider Factors

Medical Education: Racism and Implicit Bias Workshops



Addressing Racism in Medical Education:
An Interactive Training Module

Tanya White-Davis, PsyD; Jennifer Edgoose, MD, MPH; Joedrecka S. Brown Speights, MD; Kathryn Fraser, PhD; Jeffrey M. Ring, PhD; Jessica Guh, MD; George W. Saba, PhD

Implicit Bias Training in a Residency Program: Aiming for Enduring Effects

Michelle D. Sherman, PhD; Jason A. Ricco, MD, MPH; Stephen C. Nelson, MD; Sheila J. Nezhad, MDP; Shailendra Prasad, MBBS, MPH

- Racism faculty development workshop:
  - Faculty members engaged as learners
  - Improved confidence in teaching learners to reduce racism in patient care
- Parallel implicit bias training for residents and faculty → new practices to address racial bias

Fam Med. 2019;51(8):677-681; Fam Med. 2018;50(5):364-8

Implicit Association Test

- Rapid pairing of 2 social groups with positive/negative attributes
- Measures strength of association between concepts
- Validated tool

Project Implicit®

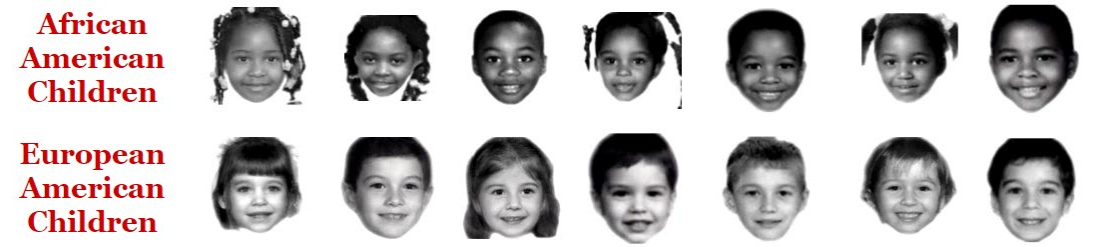


Table 1: Curriculum for Training Sessions

	Part 1 – Race	Part 2 – Racism	Part 3 – Whiteness	Part 4 - Implicit Bias

Session 1: Race, Racism, and Whiteness	• Differentiate race, culture, and ethnicity
	• History
	  • Colonization
	  • Social construction
	  • Creation of white
	  • Human Genome Project
	• Racial narratives
		• General dynamics of oppression
		  • Institutional power
		  • Cultural power
		• Transactional racial oppression
		• Structural racism
			• Racial identity exercise
			• Demographics
			  • Health care
			  • Physicians
			  • Faculty
			  • Nurses
			  • Clinical trials
			• Whiteness
			  • Whiteness= white privilege +white supremacy
			  • White fragility/ innocence
			• Role of whiteness in our work
			  • Norms for lab values
			  • Medical education
				• What is it? When does it operate?
				  • Implicit vs explicit
				  • Stereotyping
				  • Implicit association test
				• Does implicit bias really affect care?
				  • Examples in research literature
				  • Aversive racism model
				• What can I do about it?
				  • Racial justice training
				  • Critical race lens
				  • Recognize discomfort/ Emotional regulation
				  • Humanistic care
				  • Levels of racism exercise

Racism and Implicit Bias Training

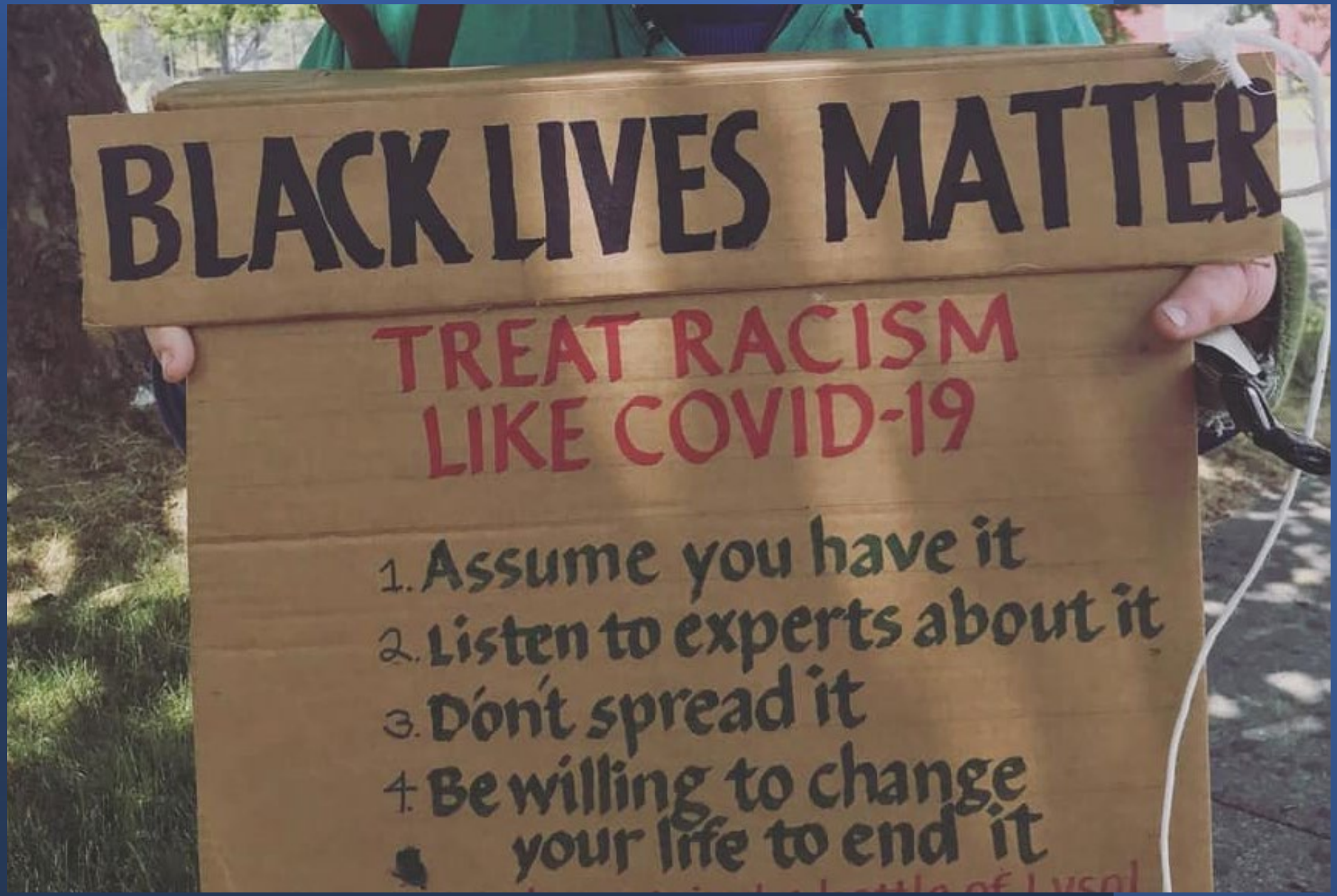
Fam Med. 2019;51(8):677-681

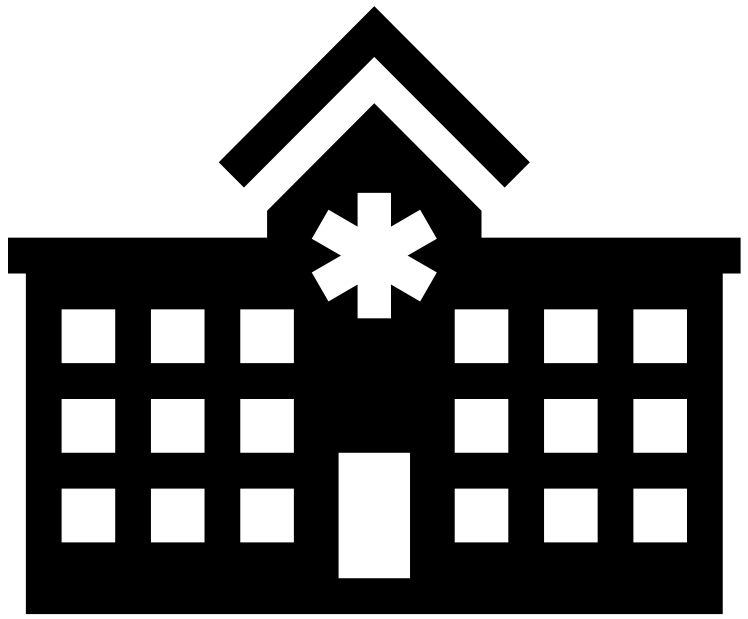
	Part 1 - Group Discussion of Barriers to Addressing Implicit Bias	Part 2 - Tools to Address Barriers

Session 2: Barriers and Tools	• Personal and institutional: money, time, ego
	• Myth of meritocracy
	  • YouTube video: *The Unequal Opportunity Race*
	• Lack of awareness of bias
	• Equality vs equity exercise
	• Pitfalls of discussing race
	  • Individualistic
	  • Legalistic
	  • Tokenistic
	  • Ahistorical
	  • Fixed
	• Aversive racism
	  • Racism without racists
	  • Culture of medicine
	• Whiteness
		• Find allies
		• Mission-driven
		  • Conceptualize an equity climate as a safety climate
		• Personal motivation/core values
		  • Active listening
		  • Validation
		  • "In the past I FELT that way, I FOUND out (xxx), and now I FEEL…
		• Raise awareness
		  • Collect accurate data
		  • Race as an independent variable in outcomes
		• Use a critical race lens
		  • Policies
		  • Systems
		  • Individual cases
		• Take a health equity timeout
		  • Humanism
		  • Be in the moment
		  • Function consciously vs unconsciously

Racism and Implicit Bias Training

Fam Med. 2019;51(8):677-681


BLACK LIVES MATTER
TREAT RACISM
LIKE COVID-19
1. Assume you have it
2. Listen to experts about it
3. Don't spread it
4. Be willing to change
your life to end it



System Factors

Improving Delivery and Hospital Care

- Most important factor in preventable morbidity and mortality: improved quality of care
  - ✓ Safety bundles
  - ✓ Protocols
  - ✓ Checklists
  - ✓ Triggers (such as maternal early warning criteria)
  - ✓ Simulation trainings
  - ✓ Team/staff training
  - ✓ Care coordination and crew resource management
  - ✓ Promotion of a safety culture

- Quality initiatives aimed at standardizing delivery care → improved care at all hospitals

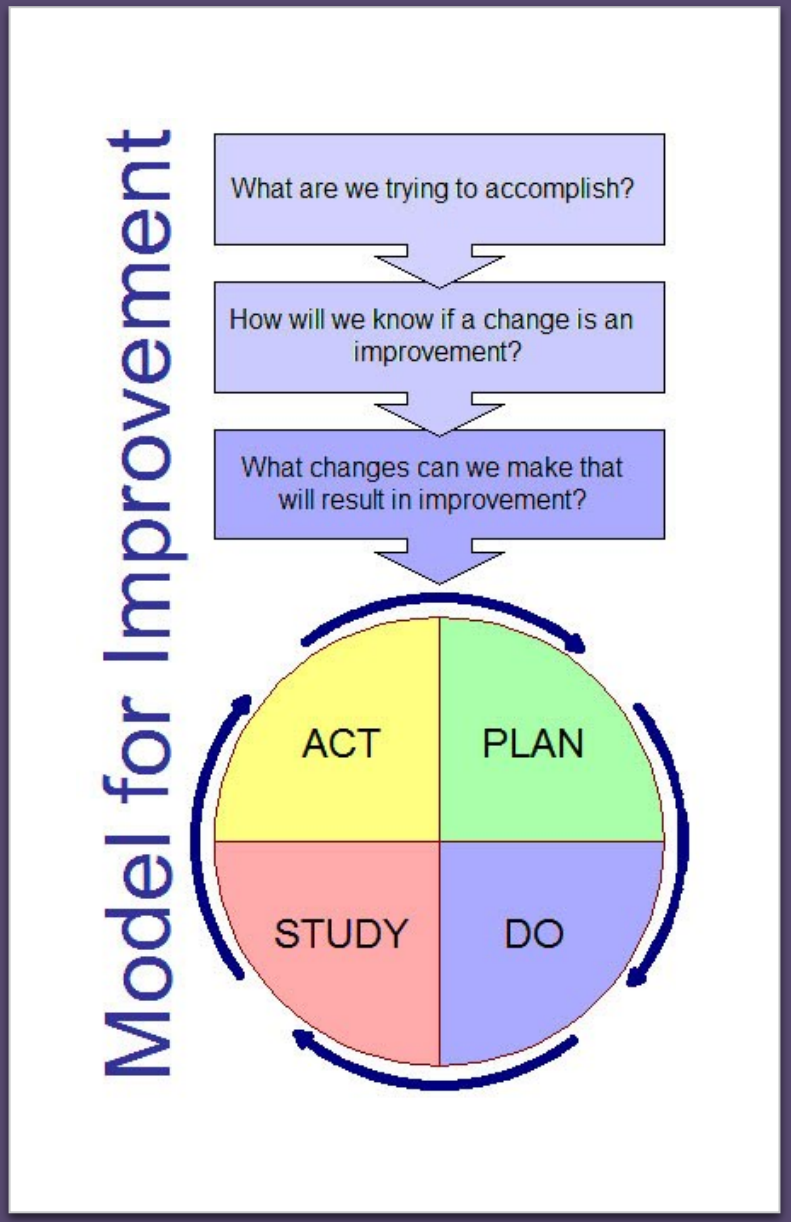
Howell, E et al. Clin Obstet Gynecol. 2018 Jun;61(2):387-399

PDSA: Using Data Stratification to Improve Health Equity

- What are we trying to accomplish?
  - Provide organizational leaders with strategic measures stratified by race, ethnicity, language to reveal disparities that can be reduced/eliminated to improve care

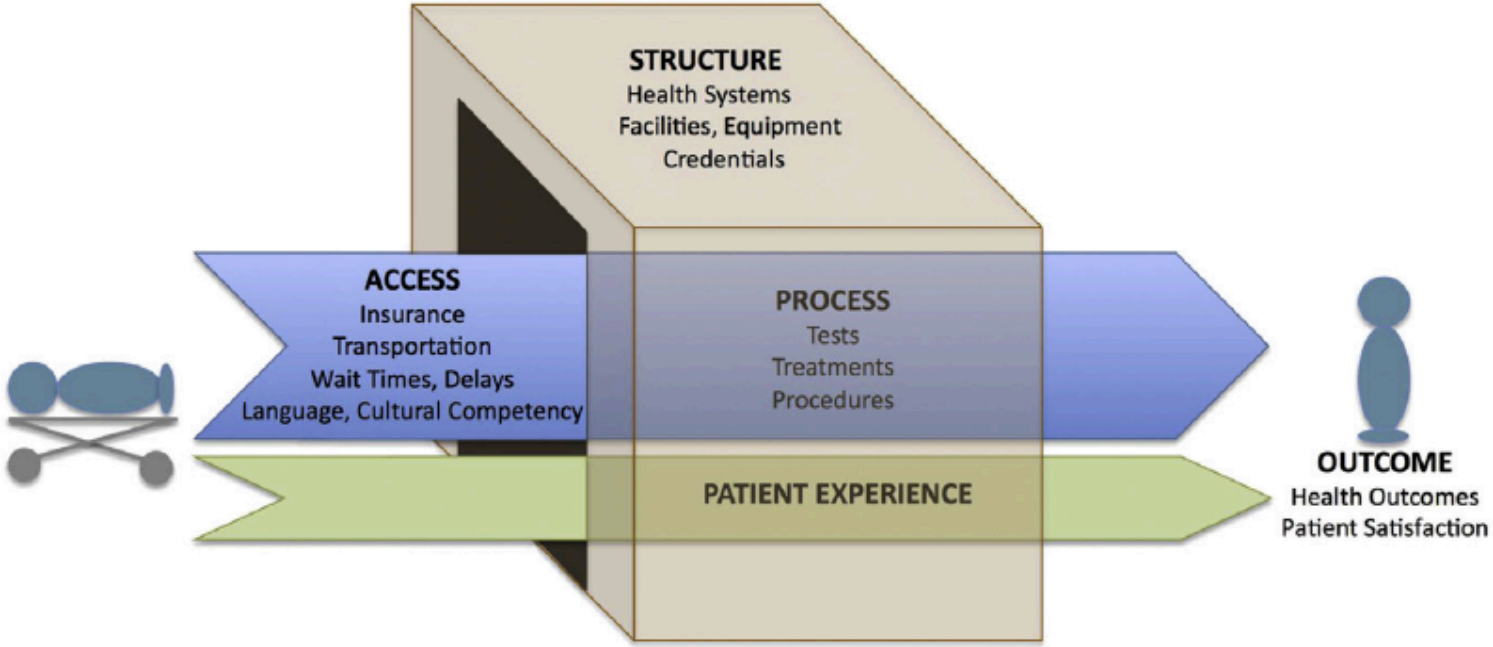
- How will we know that a change is an improvement?
  - Stratified data helps organizations identify inequities, inform action, improve overall performance

- What change can we make that will result in improvement?
  - Identify one strategic measure the organization wants to improve and provide stratified data for that measure to identify opportunities for improvement



IHI Improving Health Equity: Build Infrastructure to Support Health Equity

FIGURE
Five components of health care quality



Agency for Healthcare Research and Quality 5 domains of quality.

SMFM. Measuring quality of care in obstetrics. Am J Obstet Gynecol 2016.

Quality Measures

Can Quality Improvement Work Make a Difference in Racial/Ethnic Disparities in Healthcare

- Study of 99 California hospitals that participated in Ob hemorrhage QI collaborative
- Pre-intervention: highest rate of SMM in black women (28.6%), lowest in white women (19.8%)
- Post-intervention: SMM rate reduced for all races, but benefit among black women exceeded that of white women (9.0% vs 2.1% absolute rate reduction); black-white differences no longer significant following case mix adjustment
- **Conclusion: "Improving access to highly effective treatments has the potential to decrease disparities for care-sensitive acute hospital-focused morbidities. These clinical efforts should be in parallel with efforts to reverse bias and racism in the medical system by treating black women with respect and dignity, better understanding their circumstances, and listening to and acting on their concerns."**

The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

COMMITTEE OPINION

Number 649 • December 2015
(Reaffirmed 2018)

(Replaces Committee Opinion Number 317, October 2005)

Committee on Health Care for Underserved Women

This information should not be construed as dictating an exclusive course of treatment or procedure to be followed.

Racial and Ethnic Disparities in Obstetrics and Gynecology

The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

ACOG COMMITTEE OPINION

Number 729 • January 2018

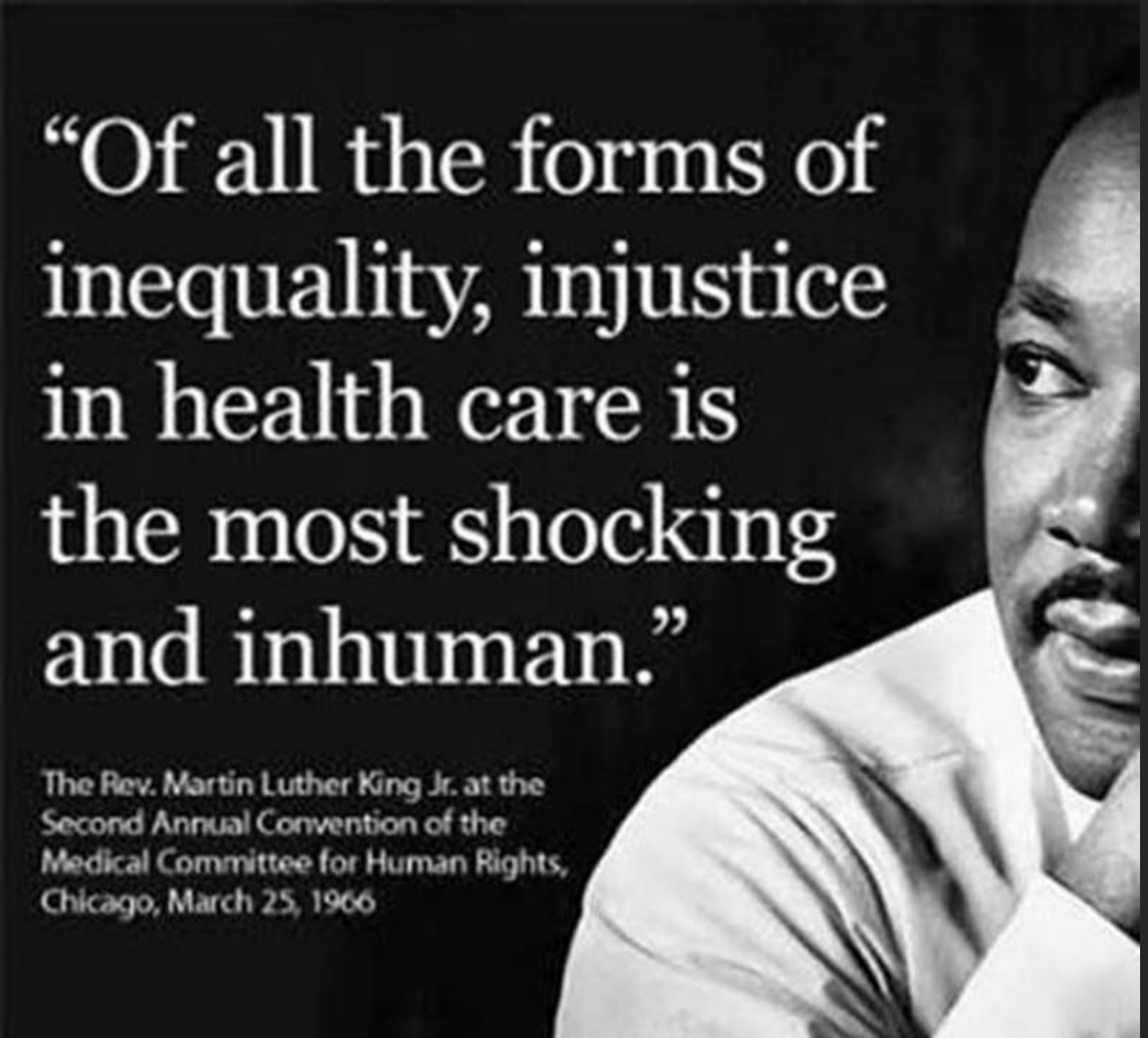
(Replaces Committee Opinion Number 493, May 2011)

Committee on Health Care for Underserved Women

This Committee Opinion was developed by the American College of Obstetricians and Gynecologists' Committee on Health Care for Underserved Women in collaboration with committee members Carolyn Sufrin, MD, PhD, Autumn Davidson, MD, MS, and Glenn Markenson, MD.

Importance of Social Determinants of Health and Cultural Awareness in the Delivery of Reproductive Health Care

Raise	**Awareness about prevalence of racial/ethnic disparities and effect on health outcomes**
Understand	**Role practitioner bias can play in health outcomes and health care**
Adopt	**Federal standards for collection of race/ethnicity information in clinical and administrative data**
Promote	**Research that identifies structural/cultural barriers to care, tests intervention effectiveness**
Educate	**Patients in a culturally sensitive manner**
Recruit	**Ob/Gyn and other health care providers from racial/ethnic minorities**
Inquire	**Inquire about/document social/structural determinants of health**
Maximize	**Referrals to social services**
Provide	**Access to interpreter services**
Acknowledge	**Race, institutionalized racism, and other forms of discrimination serve as SDOH**
Recognize	**Stereotyping patients based on presumed cultural beliefs can negatively affect patient interactions**



THANK YOU

cmdavids@bcm.edu

QI Workshop

Understanding QI Basics

Objectives

- Discuss key QI concepts and principles
- Illustrate the goals and function of QI
- Compare various QI strategies
- Describe various QI tools
- Apply QI tools for health equity

"The pursuit of safety is not so much about preventing isolated failures, either human or technical, as about making the system as robust as is practicable in the face of its human and operational hazards."

– Reason, 2000

Principles of QI

- Focuses on SYSTEMS and PROCESSES
- Focuses on the TEAM
- Focuses on the DATA
- Focuses on the PATIENT and FAMILY

The QI Culture

- Requires leadership COMMITMENT and INVOLVEMENT
- Based on TEAMWORK and COLLABORATION
- Driven by PATIENT SAFETY
- Relies on and supported by DATA stratified by RACE, ETHNICITY, and LANGUAGE

The Health Equity Culture

- Includes HEALTH EQUITY in the organization's MISSION STATEMENT
- Designates a LEADER to CHAMPION disparities reduction
- Measures COST of health disparities
- Empowers EMPLOYEES to implement focused interventions
- Provides training in CULTURAL COMPETENCE

The Health Equity QI Process

- Systematic
  - Guided by methods and tools
- Cyclical and Continual
  - Based on feedback regarding barriers and facilitators
- Incorporates Change Theory and Management

Change Theory

- Resistance and lack of commitment to change
- Need for change is often reactive – unpredictable and discontinuous
- Difficult to implement lasting change

How long does it take for new evidence to be incorporated into practice?


17
Years

What percentage of new evidence actually gets incorporated into practice?


17
Years


30%

How long does it take to implement a change?

17 Years

18-24 Months

30%

17 Years

18-24 Months

30%

How long does it take to root a new change into practice?

17 Years

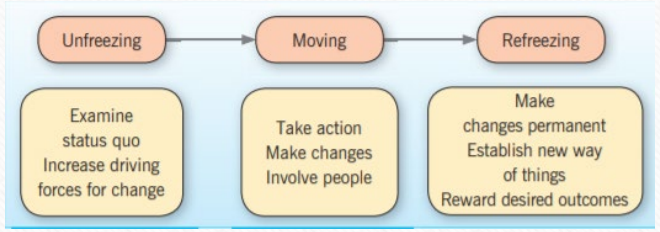
18-24 Months

30%

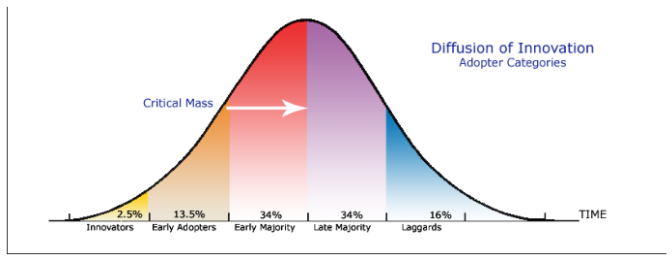
10 years

Early Change Theories

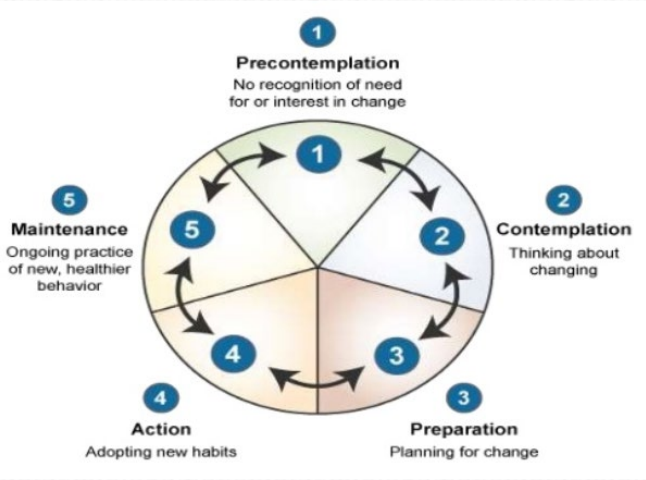
Lewin's
Change Theory



Rogers' Diffusion
of Innovation



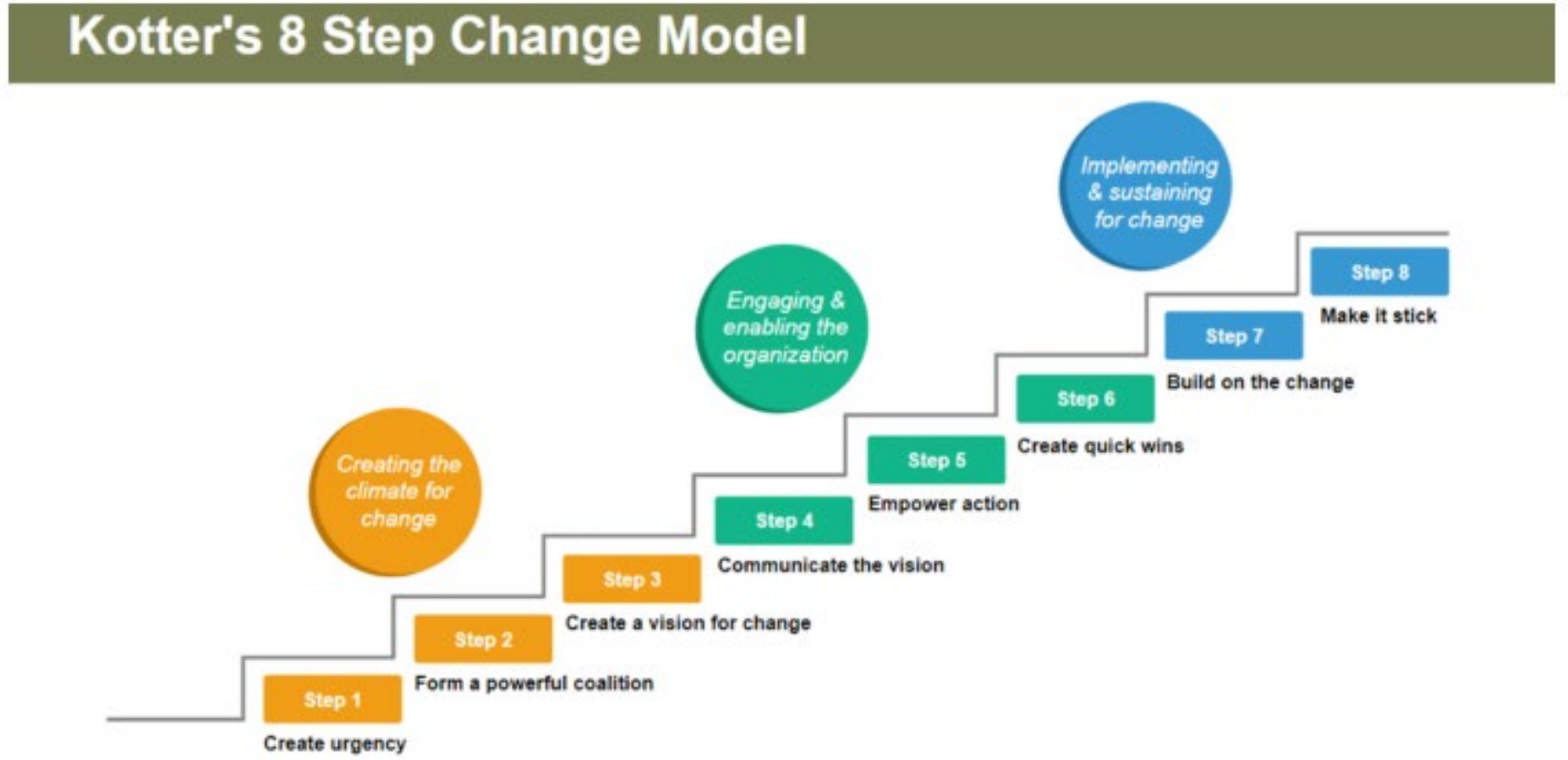
Prochaska's
Transtheoretical Model



Modern Change Models

- Kotter's 8 Steps of Change
- Galpin's Human Side of Change
- Lueke's 7 Steps
- Prosci ADKAR Model
- Kanter's 10 Commandments

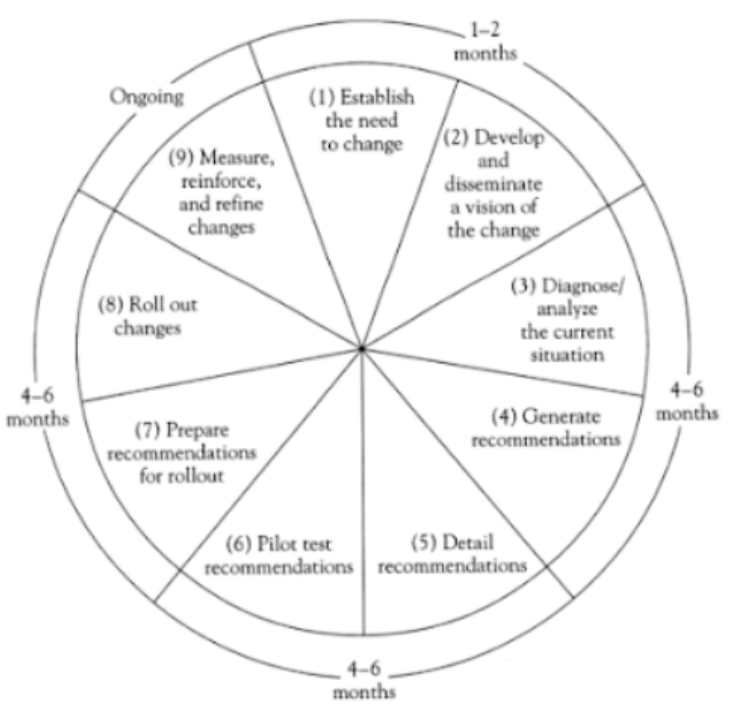
Kotter's 8 Steps of Change



https://daniellock.com/change-management-models/

Galpin's Human Side of Change Model

https://www.praxisframework.org/en/library/galpin



http://e-hrminc.blogspot.com/2013/09/book-review-human-side-of-change.html

Change Models

- No “right” or “best” theory or model
- Specific to the unit, department, or organization
- Not specific to any particular change
- Step-by-step guide for implementing a project

QI Strategies

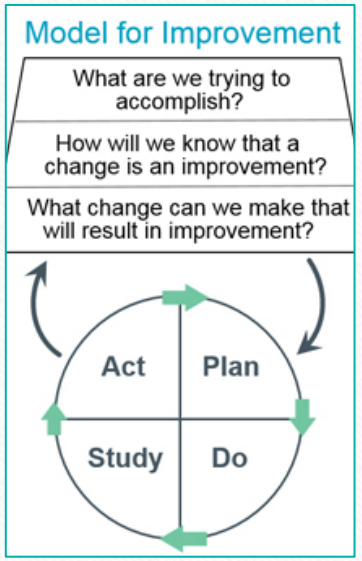
LEAN

https://www.thinkebiz.net/methodologies/

Six Sigma

https://www.qualitymag.com/articles/94429-back-to-basics-six-sigma

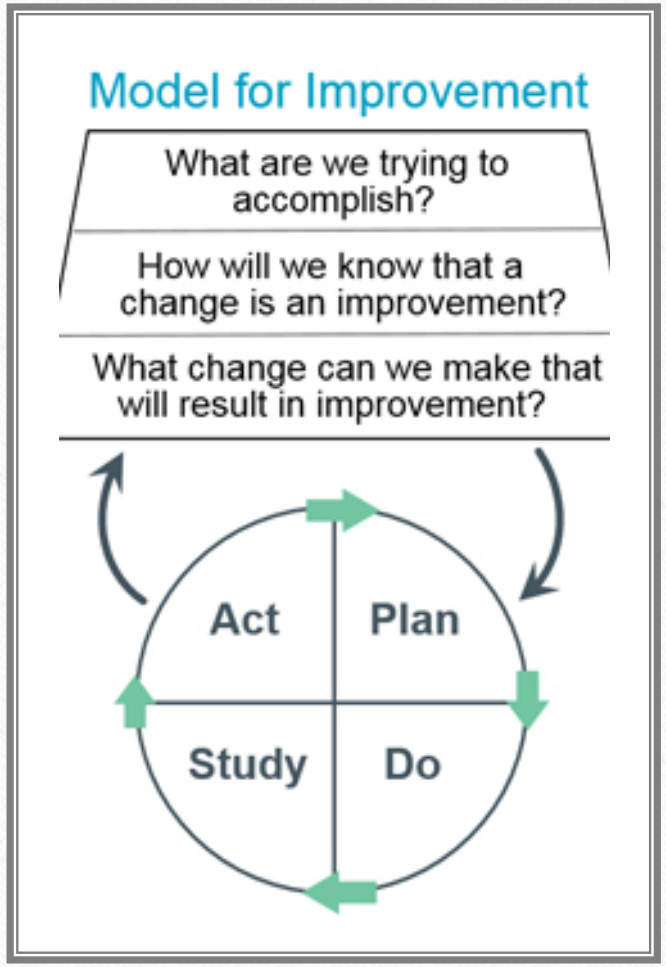
Model for Improvement



Institute for Healthcare Improvement

MAP-IT

Institute for Perinatal Quality Improvement



Institute for Healthcare Improvement

Model for Improvement

- Starts with 3 fundamental questions
- Uses data to make decisions
- Focuses on testing and adapting changes
- Encourages an iterative process

MAP-IT

- Similar to the Model for Improvement
- Recognizes the team may change over time
- Attention to AIM in every cycle

IHI's Health Equity Framework

IHI Framework for Health Care Organizations to Improve Health Equity

- Guide for each of the 5 core elements
- IHI's Improving Health Equity Assessment Tool
  - Evaluates current health equity efforts and identifies where to focus improvement efforts
  - Completed by Senior leadership responsible for health equity within the organization
- Available on IHI's website

Strategies to Make Health Equity a Strategic Priority

Build will to improve health equity

Include equity in strategic plan & department goals

Demonstrate Senior leader commitment to improving health equity

Strategies to Build Infrastructure to Support Health Equity

Create data infrastructure to support health equity

Build organizational capacity to support efforts to improve health equity

- Create infrastructure responsible for health equity
  - **Separate team or department**
  - **Hospital leaders share responsibility**
- Provide training and opportunities to build knowledge on health equity

Collecting Data to Improve Health Equity

- "Although the collection of race, ethnicity and language data does not necessarily result in actions that will reduce disparities and improve care, the absence of the data *guarantees* that *none* of that will occur."

-IOM *Standardization for Health Care Quality Improvement, 2009*

Collecting Data to Improve Health Equity

- REaL Data – Race, Ethnicity, and Language
- Ensure the **same categories** are used across the organization
- Collect from **all** patients; inform them why it's being collected
- Must be **self-reported**, not assigned based on assumptions
  - Ask for this information using a *script*
  - Allow patients to select *more than one*
- Consider adding a question to follow-up surveys assessing how this information was collected to check for compliance

REaL Data Collection Script

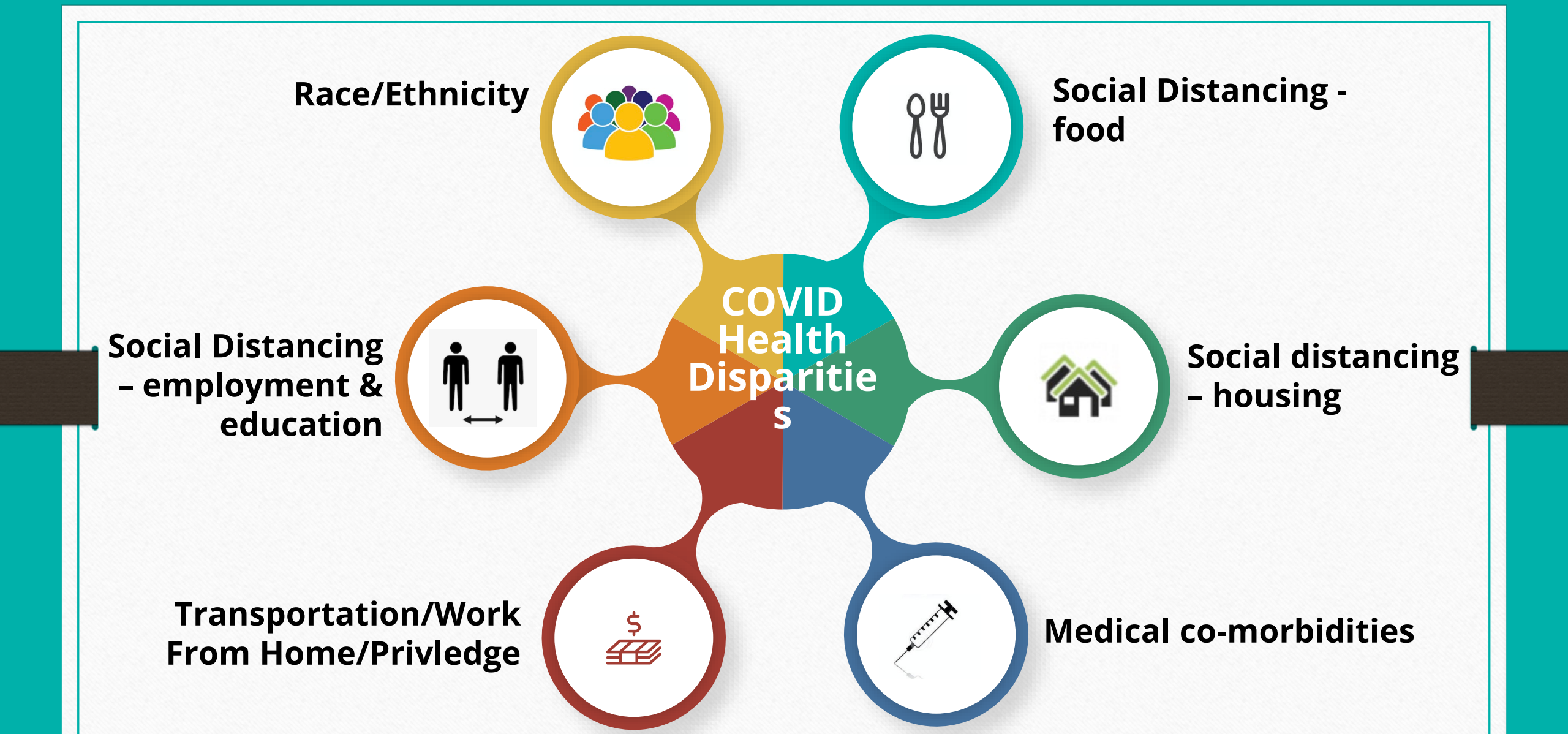
- Ethnicity: “Do you consider yourself Hispanic or Latino?”
- Race: “Which category or categories best describe your race?”
- Language: “What is your preferred language for us to use when communicating with you about your health care?

Strategies to Address the Multiple Determinants of Health

Reduce inequities in clinical care: Stratify data & customize QI efforts

Screen for SDoH and ensure effective access to Social Services

Improve health equity efforts throughout and beyond the health system


Race/Ethnicity
Social Distancing - food
COVID Health Disparities
Social Distancing – employment & education
Social distancing – housing
Transportation/Work From Home/Privledge
Medical co-morbidities

Strategies to Eliminate Racism and Other Forms of Oppression

Understand the historical context

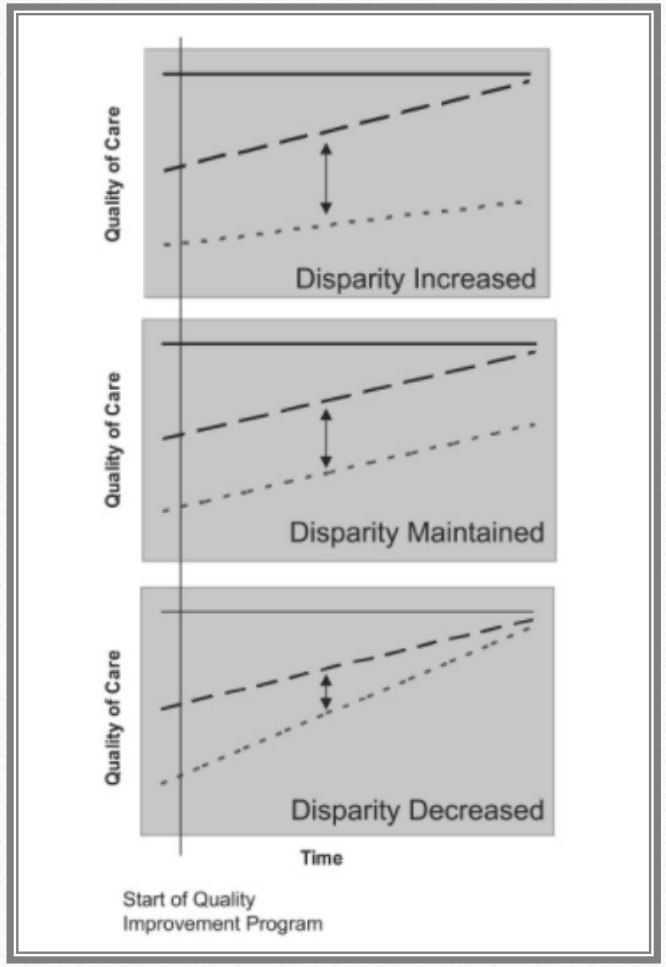
Address institutional racism and its impact through culture and communication

Establish policies practices to promote workforce diversity and racial equity

Strategies to Eliminate Racism and Other Forms of Oppression

Implement business policies and practices that promote racial equity

Improve clinical processes and outcomes to narrow equity gaps



QI Impact on Health Equity

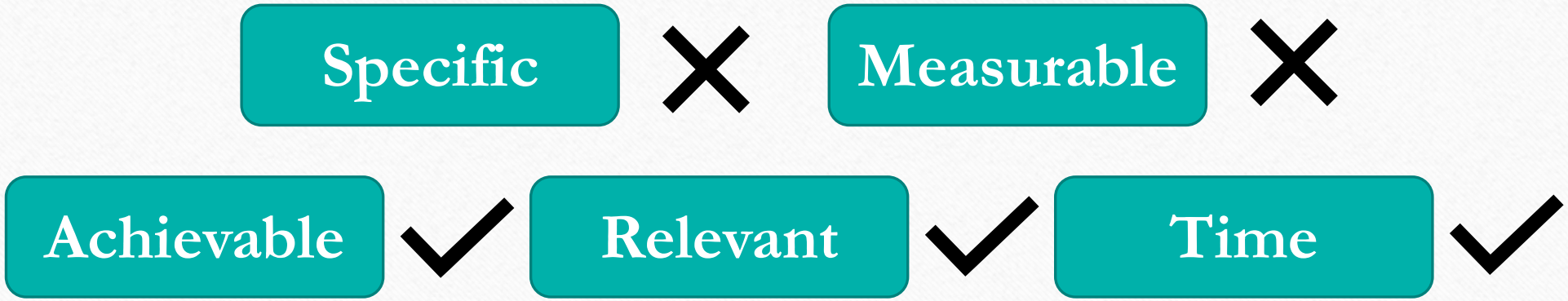
- 3 possible disparity outcomes from QI work that is not intentional in addressing disparities *even if overall outcome is improved*:
  - Disparity increases even more
  - Disparity stays the same
  - Disparity is reduced

SMART Aim

- Specific
- Measurable
- Achievable
- Relevant
- Time

Aim – REaL Data

To collect patient-reported data by June 2021.



SMART Aim – REaL Data Collection

Collect patient-reported race, ethnicity, and language data for 100% of patients admitted to labor & delivery by July 1, 2020.

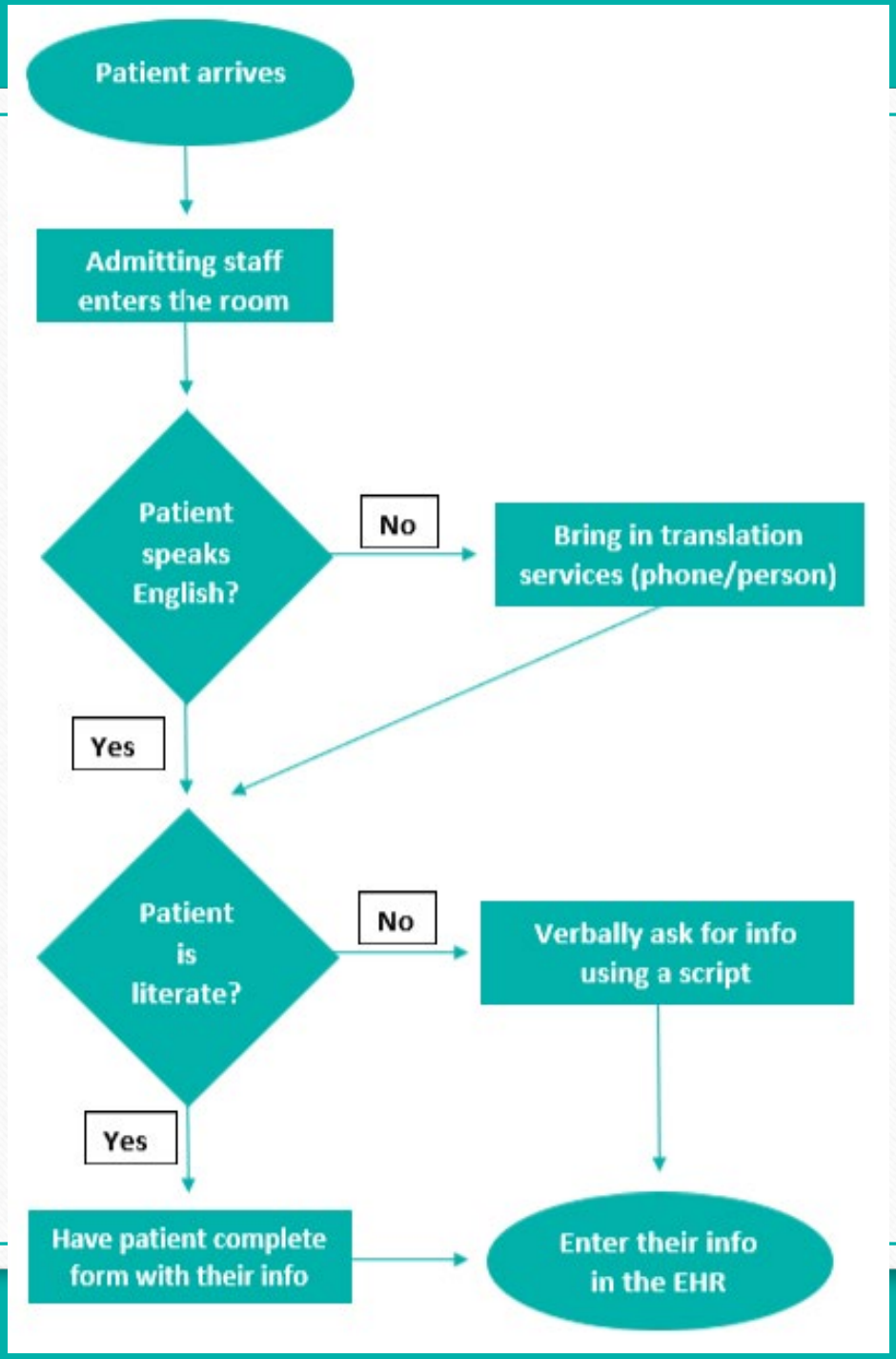
QI Methods and Tools

- Process Mapping
- Affinity Diagram
- Driver Diagram
- Gap Analysis
- Fishbone Diagram
- Tree Diagram
- Failure Modes & Effects Analysis
- Spaghetti Diagram
- Force Field Analysis
- Flow Charts
- Matrix Diagram

QI Methods & Tools

- Process Mapping – makes the activities of a process or system visible
  - Flow Chart
  - Spaghetti Diagram
  - Tree Diagram

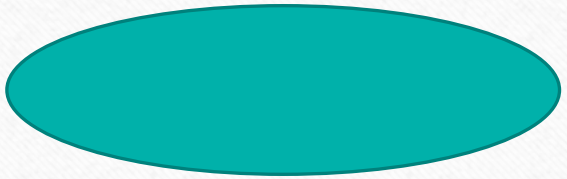
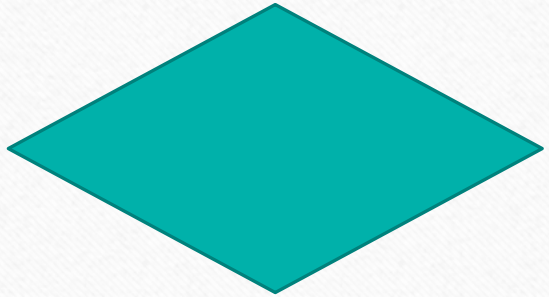
Flow Chart


Patient arrives
Admitting staff enters the room
Patient speaks English?
No
Bring in translation services (phone/person)
Yes
Patient is literate?
No
Verbally ask for info using a script
Yes
Have patient complete form with their info
Enter their info in the EHR

Creating a Flow Chart

- Engage all people involved in the process
- Identify all the steps in a process, arrange them sequentially, and connect them with arrows showing the process flow
- Validate with others involved in the process

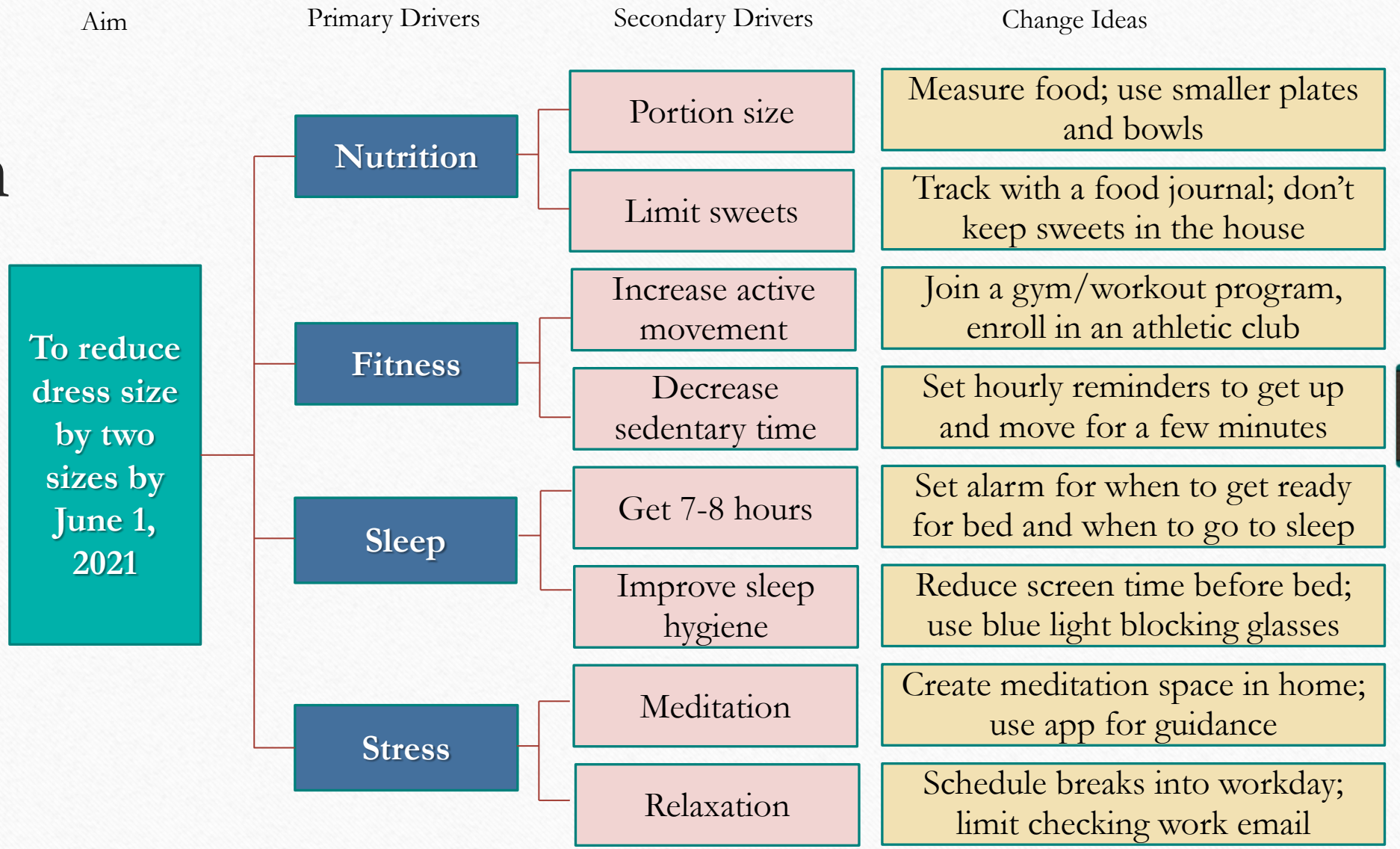
Creating a Flow Chart

-  = Start and End points
-  = Activities or tasks
-  = Decision points (Yes/No)

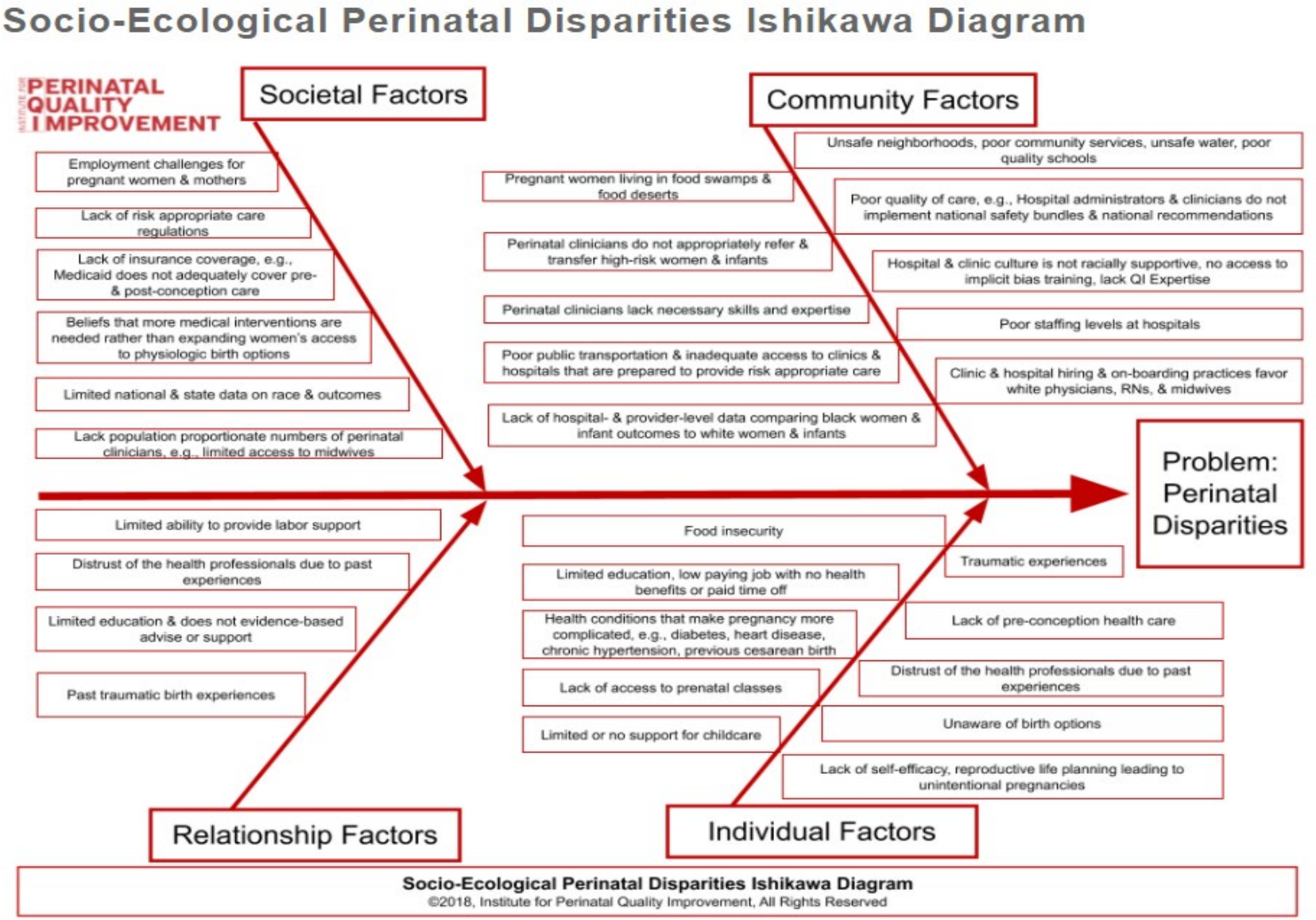
QI Methods & Tools

- Tools for organizing information
  - Driver Diagram
  - Affinity Diagram
  - Cause & Effect Diagram
    - AKA: Fishbone Diagram, Ishikawa Diagram
  - Force Field Analysis

Driver Diagram



Fishbone Diagram



QI Methods & Tools

- Project selection tools
  - Prioritization Matrix
  - Failure Mode & Effects Analysis (FMEA) – a preventative approach to identify and address potential errors
  - Gap Analysis – compares actual performance with desired performance

Prioritization Matrix

- Helps assign priorities based on sum of scores given to various considerations
  - Feasibility
  - Cost
  - Importance

Prioritization Matrix

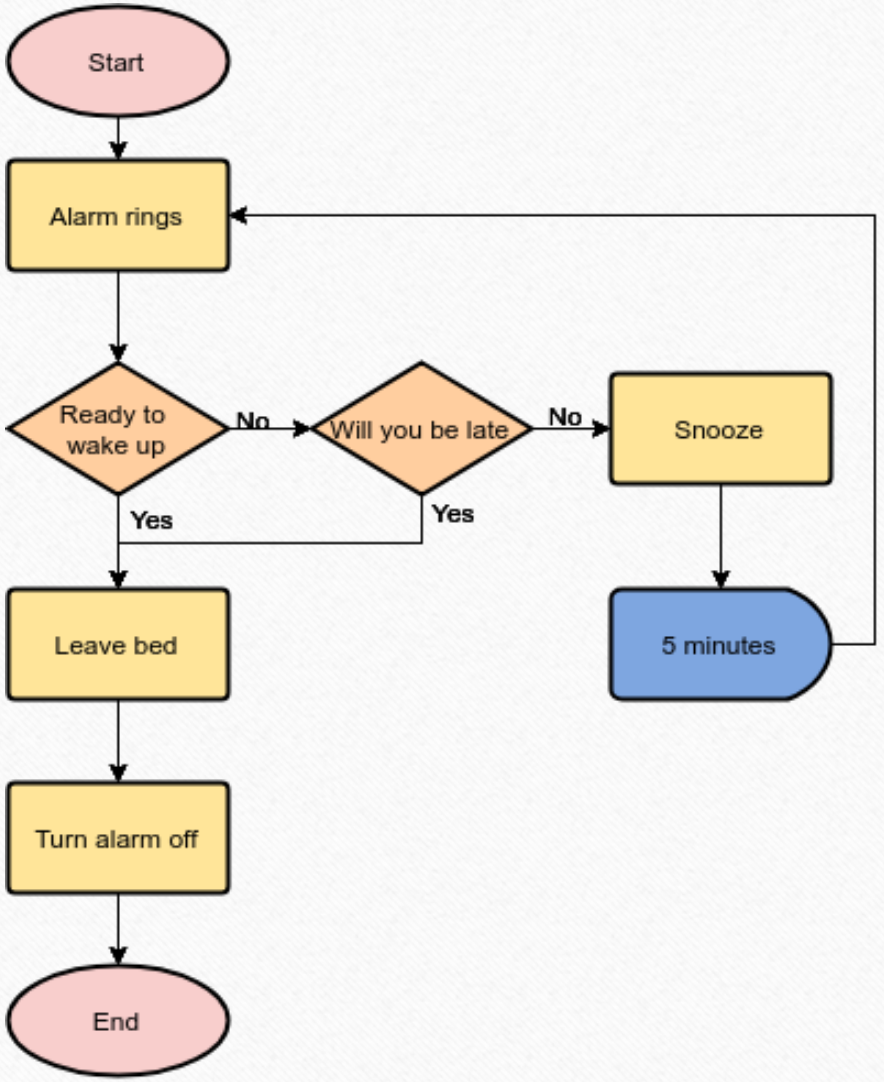
Importance					
	4	*Do next*		*Do first*	
	3				
	2	*Do last*		*Do later*	
	1				
		1	2	3	4
		Feasibility			

Prioritization Matrix

	Ease of Implementing	Cost of Implementing	Support for Implementing	Totals
Option 1	1	2	3	6
Option 2	3	1	4	8
Option 3	4	3	2	9
Option 4	2	4	1	7

Failure Modes & Effects Analysis

- Preventative approach to identify and address potential errors
- Generating an FMEA
  - Create a flow chart and number each step
  - For each step, list all failure modes – anything that could go wrong with that step
  - For each failure mode, calculate a hazard score
    - Based on Severity and Probability
  - https://app.ihi.org/Workspace/tools/fmea/



https://online.visual-paradigm.com/diagrams/templates/flowchart/alarm-clock/

Gap Analysis

- Compares actual performance with desired performance to identify gaps and potential remedies

Best Practice Strategies	How Your Practices Differ from Best Practice	Barriers to Best Practice Implementation	Will you Implement Best Practice (Yes/No, Why/Why Not?)
Best Practice #1: Recognition component of Reduction of Peripartum Racial/Ethnic Disparities bundle			
Provide staff-wide education on implicit bias	Only education on cultural competence is offered; No education on implicit bias	Identifying which implicit bias training to use; potential for pushback	Yes, recognizing our implicit biases is the first step to reducing disparities
Provide convenient access to health records without delay at minimal or no fee in a clear and simple format that summarizes information most pertinent to perinatal care and wellness	Describes current practice	N/A	Already in place
Establish a mechanism for patients, families, and staff to report inequitable care and episodes of miscommunication or disrespect	Nurse leader rounding could provide an opprotunity, but may consider adding questions specific to inequitable care to draw out that information	Staff comfort with asking these types of questions	Yes, it's important to understand from the patient's perspective if they are experiencing any feelings of inequity

PDSA Cycles

- A way of testing and documenting a change
  - Plan: develop a plan to test the change
  - Do: carry out the test
  - Study: observe, analyze and learn from the change
  - Act: determine next action
    - Adopt, Abandon, or Adapt the change
- Able to run concurrent cycles by testing more than one change at a time

PDSA Cycle Process

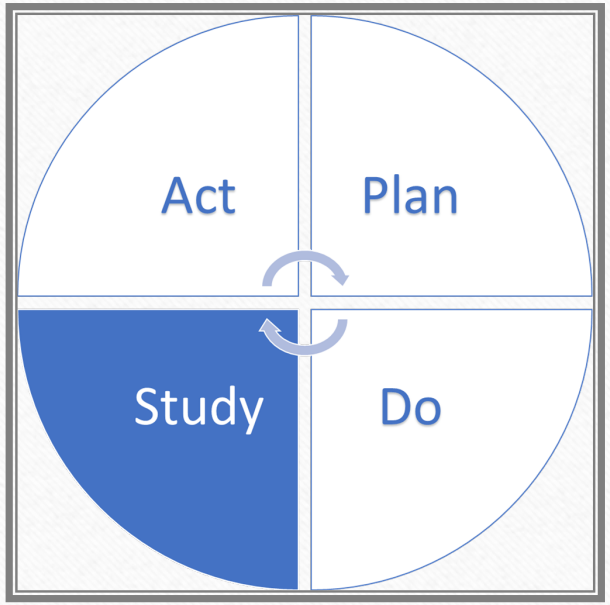
- **Plan**: plan the test, including a plan for collecting data
  - State the objectives of the test – what question do you want to answer?
  - Make predictions about what you think will happen
  - Develop a plan to test the change – Who? What? When? Where?
  - Identify what data you will need to collect

PDSA Cycle Process

- **<u>Do</u>**: Run the test *on a small scale*
  - Carry out the test
  - Document problems and unexpected observations
  - Collect and begin to analyze the data

PDSA Cycle Process

- **<u>Study</u>**: Analyze the results and compare them to your predictions
  - Complete your analysis of the data
    - If possible, do this as a team
  - Compare the data to your prediction
  - Summarize and reflect on what you learned



PDSA Cycle Process

- **<u>Act</u>**: Based on what you learned from the test, make a plan for your next step
  - Choose next action:
    - Adopt the change and test on a larger scale
    - Abandon the change – don't do another test on this change idea and select a new change idea to test
    - Adapt the change – make modifications and run another test
  - Prepare and plan for the next PDSA cycle

QI Workshop

5-Minute Break

QI Workshop

Using QI Data

Objectives

- Differentiate QI from research
- Understand the use of data for QI
- Examine various techniques for collecting data
- Understand the importance of collecting REaL data
- Employ how to depict and use REaL data for QI work

“*In God we trust. All others bring data*.”

– Demming

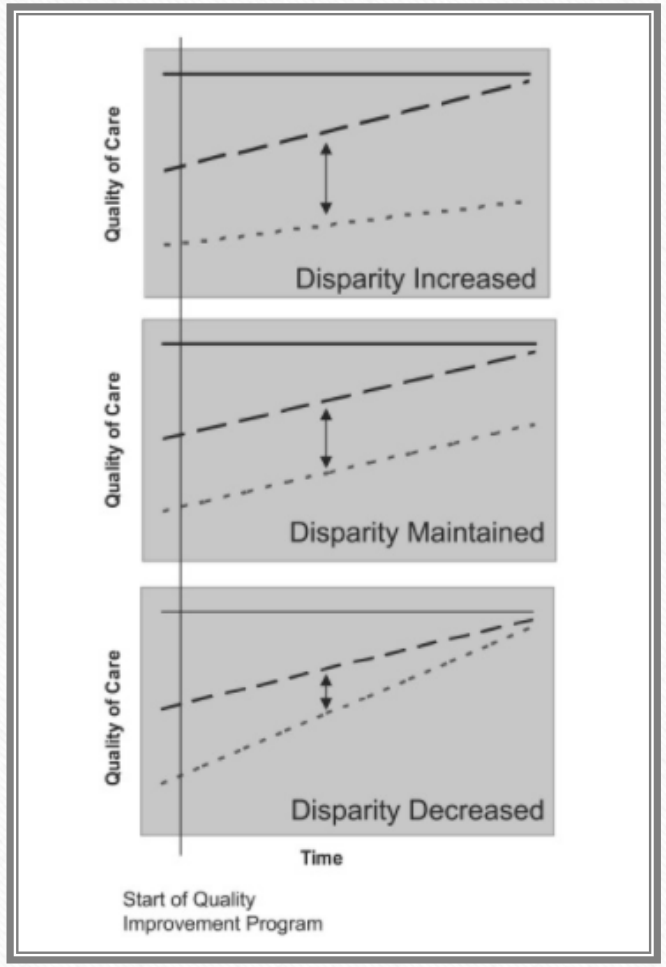
Comparing Research and QI Measurement

	Measurement for Research	Measurement for QI/PPI
Purpose	To discover new knowledge	To bring new knowledge into daily practice
Tests	One large "blind" test	Many sequential, observable test
Biases	Control for as many biases as possible	Stabilize the biases from test to test
Data	Gather as much data as possible, "just in case"	Gather "just enough" data to learn and complete another cycle
Duration	Can take long periods of time to obtain results	"Small tests of significant changes" accelerates the rate of improvement

IHI, 2016

Data for QI

- Foundation of all QI work
- Demonstrates how well systems are working and identifies variations in processes
- Establishes a baseline before changes are implemented
- Shows effect of changes that have been implemented
- Drives decision making



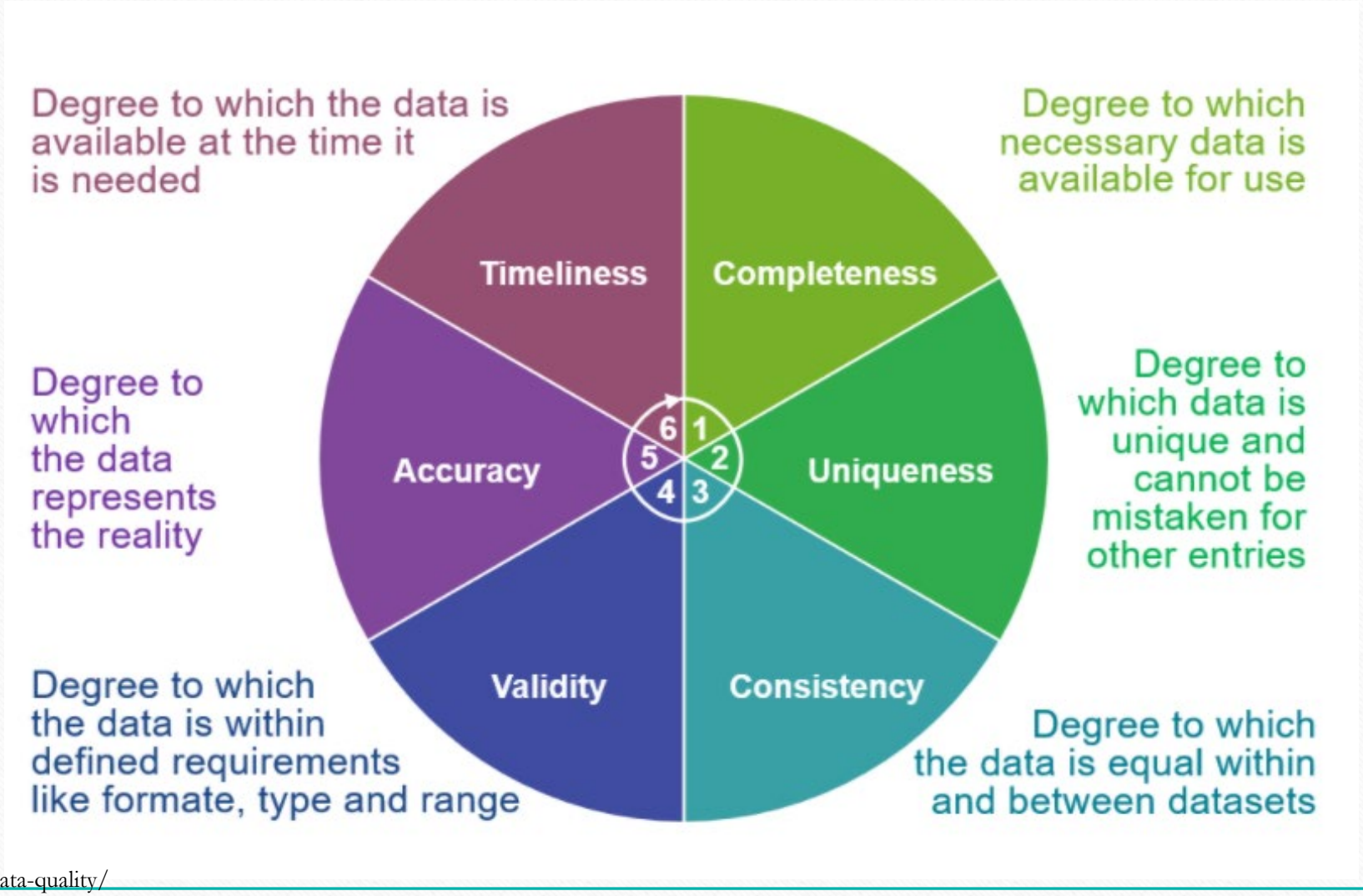
QI Impact on Health Equity

- 3 possible disparity outcomes from QI work that is not intentional in addressing disparities *even if overall outcome is improved*:
  - Disparity increases even more
  - Disparity stays the same
  - Disparity is reduced

REaL Data

- **R**ace, **E**thnicity, and **L**anguage
  - Critical to illuminating the nature of disparities so that they may be addressed, reduced, and eliminated
  - Develop a systematic process for collecting accurate, self-reported REaL Data

6 Dimensions of REaL Data



https://www.lean-data.nl/data-quality/

Barriers to Collecting REaL Data

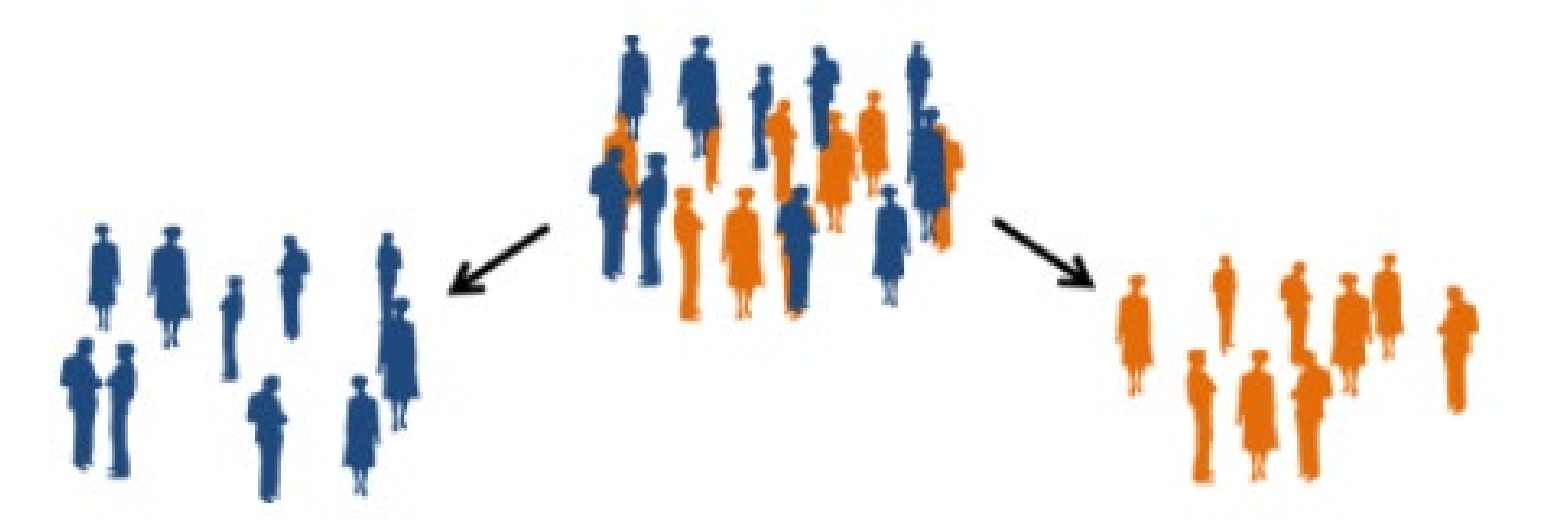
- Lack of standardization of categories
- Information technology limitations
- Lack of staff understanding why it is collected
- Staff discomfort about data collection
- Patient privacy concerns

Collecting REaL Data

- Train staff that collection is to reduce health disparities
- Systemize collection and/or align direct patient tools to collect self-identified REaL data
- Assure patients that collection:
  - Is voluntary and confidential
  - Will be used to improve the quality of care
  - Will NOT be used to determine coverage/payment or discriminate in any other way

Stratifying REaL Data

- Enables you to look at the impact of care on a single subgroup



https://sphweb.bumc.bu.edu/otlt/MPH-Modules/PH717-QuantCore/PH717-Module11-Confounding-EMM/PH717-Module11-Confounding-EMM6.html

Stratifying REaL Data

- Stratification: dividing the data into subgroups that have common properties
  - Race, ethnicity, language, or could be male vs female, smoker vs nonsmoker
  - Combine more than one common property to create more detailed subgroups – Non-Hispanic White, Non-Hispanic Black, Hispanic White, Hispanic Black
- One response variable (those in the subgroup that experienced the outcome) = Numerator
- One or more explanatory variables (total # in the subgroup) = Denominator

How to Stratify REaL Data

Stratification is NOT:

$$\frac{\text{The total number in Subgroup X who experienced the outcome}}{\text{The total number of all patients}}$$

Stratification IS:

$$\frac{\text{The total number in Subgroup X who experienced the outcome}}{\text{The total number of patients in Subgroup X}}$$

How to Stratify REaL Data

- Data Analytics Platforms
  - Multiple automated options for exploring data and generating reports

- Excel
  - Manual process for analyzing data and generating reports; limited to user's skill set with using Excel

How to Analyze REaL Data in Excel

Breakdown by Demographics

Time to treatment in minutes	
	Jun-19
Overall	139.7
Overall-median	19.9
NHB	145.7
NHB-median	68.5
NHW	145.0
NHW-median	29.5
Hispanic	146.0
Hispanic-median	35.0
Goal	60.0
Numerator by Subgroup	
Total Denominator	

Stratified by Demographics

Time to treatment in minutes	
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Overall	139.7
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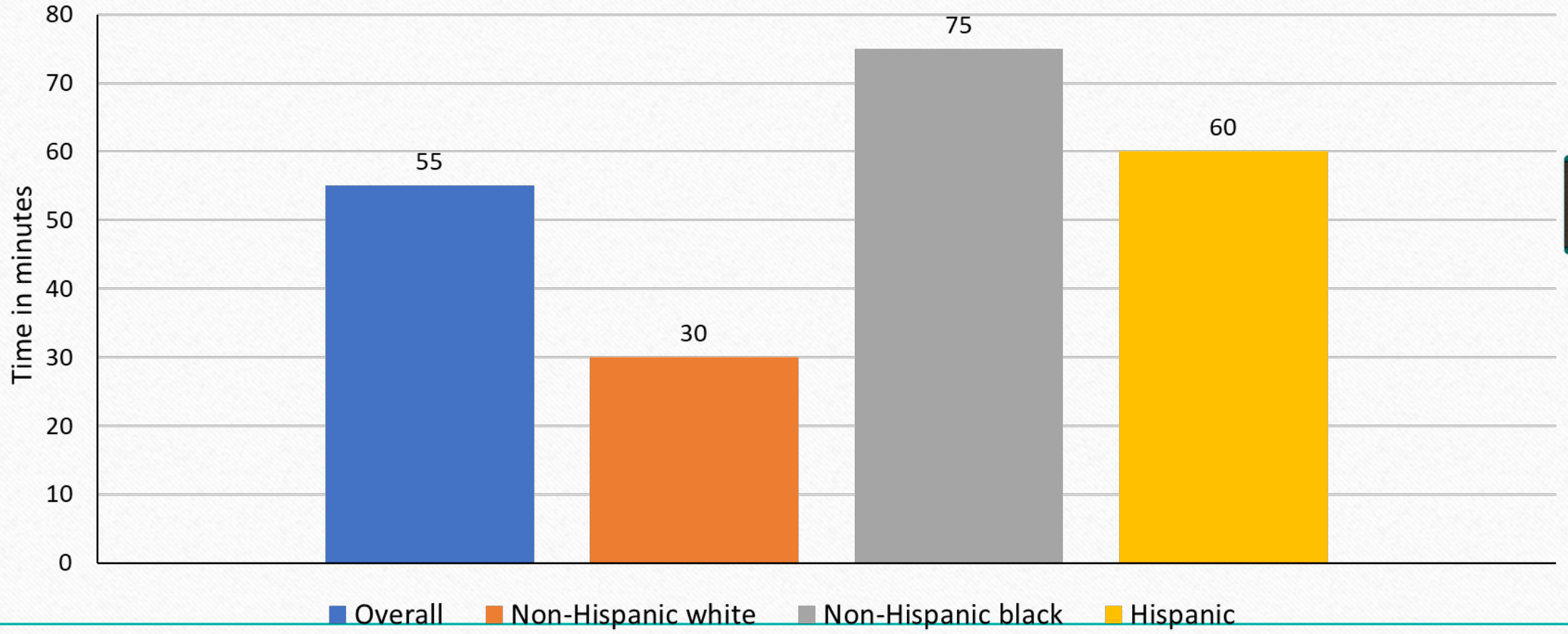
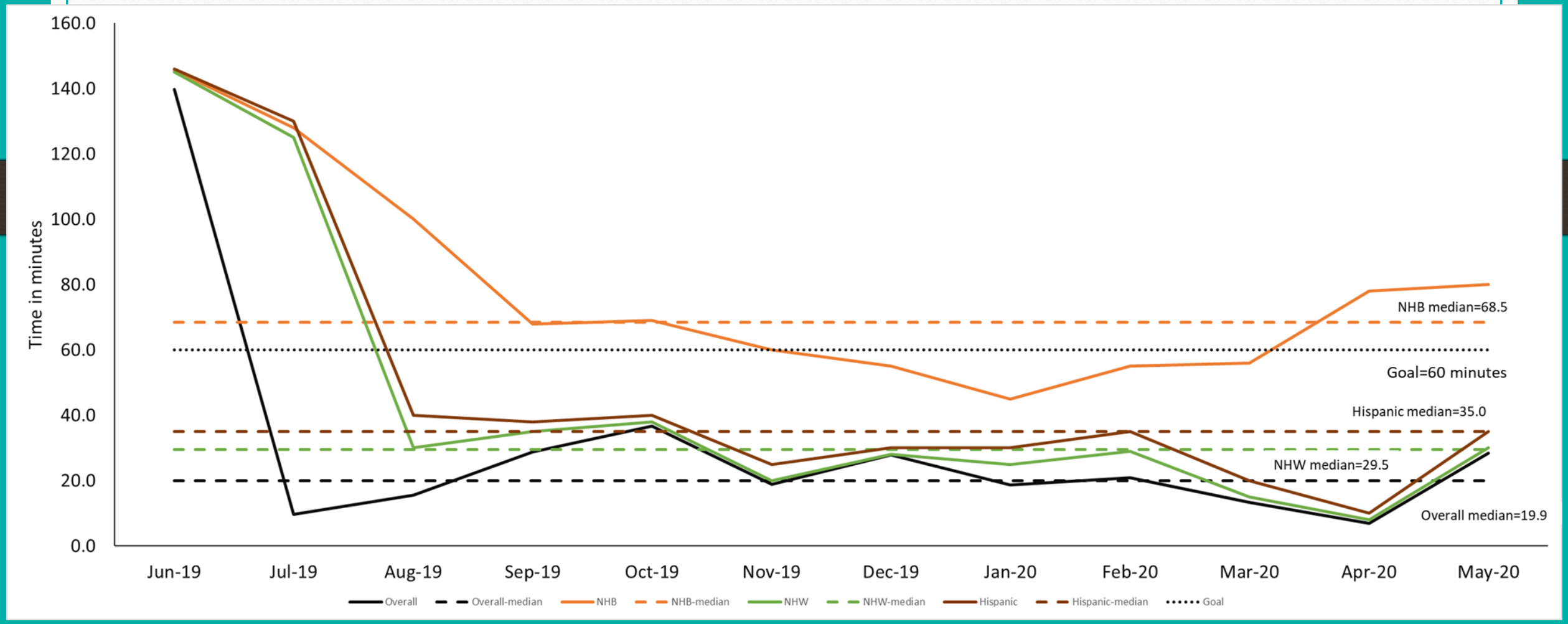
Hispanic-median	35.0
Goal	60.0
Numerator by Subgroup	
Denominator by Subgroup	

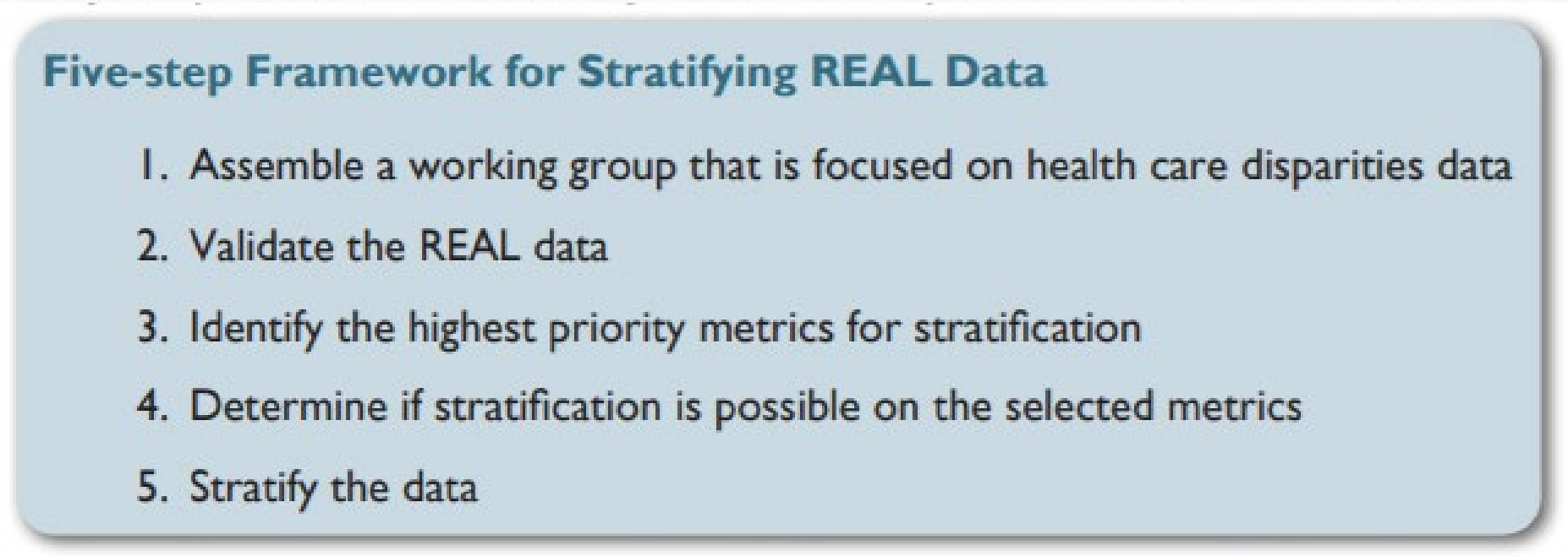
Time from abnormal vital sign to return to non-trigger range: Overall and by race/ethnicity



Time from abnormal vital sign to provider at bedside: Overall and by race/ethnicity



Health Research & Educational Trust Disparities (HRET) Toolkit Framework for Stratifying REaL Data

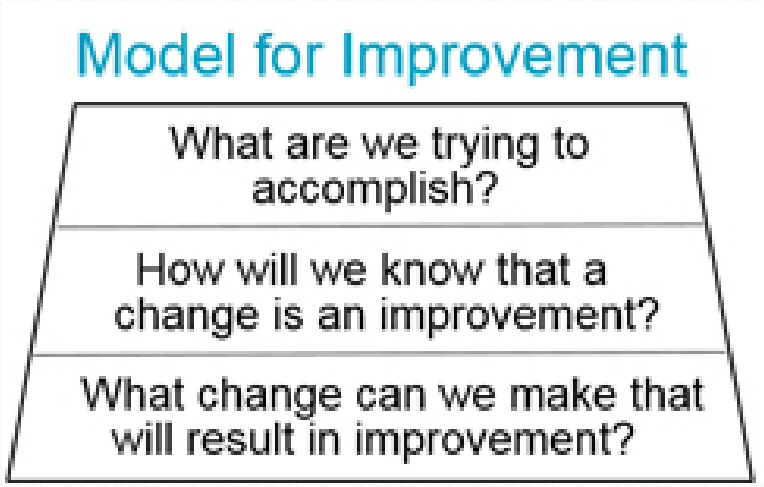


http://www.hpoe.org/Reports-HPOE/REAL-data-FINAL.pdf

Analyzing REaL Data

- Stratify all outcomes data by Race, Ethnicity, and Language to identify disparities
- Multi-disciplinary collaboration to analyze and address health disparities
- Include Race, Ethnicity, and Language data on dashboards
- Share data depicting health disparities with stakeholders

Model for Improvement



- SMART Aim
- Data Strategy
- PDSA Cycles

Types of Data for QI

- Structure measures: the organization's infrastructure, capacity, systems, and processes
- Process measures: the way services are delivered; the activities done to provide care
- Outcome measures: the overall impact or results of the care provided
- Balancing measures: check for unintended outcomes

MEWS Data Metrics

MEWS Measures	
Measure Type	**Measure Titles**
Process measures	Cumulative proportion of OB providers^ completed education program on MEWS protocol
	Cumulative proportion of OB nurses completed education program on MEWS
	All cases that trigger MEWS protocol
	All cases that should have triggered MEWS protocol
	All cases that should have triggered MEWS protocol but did not
	Number of deliveries ≥20 weeks, excluding ectopics and miscarriages
Structural measures	Presence of a MEWS protocol or policy (yes/no)
	MEWS triggers included in hand-off reports (yes/no)
Outcome measures	Time from abnormal vital sign to provider at bedside/activation of standing order set¶
	Time from abnormal vital sign to return to non-trigger range
	Transfusion of ≥ 4 units of PRBCs per 1,000 deliveries
	% Intensive care unit admission

^"Provider" refers to any OB, MFM, midwife, family physician, anesthesiologist, or other provider

¶For rural hospitals, this may be time from abnormal vital sign to standing order activation

*Look at the next tab for AIM ICD-10 delivery identification codes

Data Collection

- Develop a data collection plan or strategy
- Include quantitative and qualitative data
- Run reports from EHR
- Manually collect data and conduct chart audits
  - Data collection tools
  - Random sampling

Quantitative vs. Qualitative Data

Quantitative	**Numeric Data**	
	Count: data that are counted	# of patients, # of fallouts, etc.
	Continuous: data that are measured	height, weight, temperature, etc.
Qualitative	**Nonnumeric Data**	
	Data from observations, interviews, suggestion boxes, etc.	
	Can be converted to quantitative data using Likert scales, coding & analysis, etc.	

Data Collection Plan

- What to measure
  - Purpose of measuring
  - Type of data
  - Operational definition
- Source of data and method for collection
- Who is responsible for collection
- How often and how long to measure

Data Collection Plan

Data to be collected	Type of data	Purpose of collection	Source of data	Frequency of collection	Person responsible	Operational Definition

MEWS Data Strategy

MEWS Measures Categories and Data Submission Information						
Measure Type	Submission Frequency	System for Data Submission	Measure Titles	Data Source	Numerator*	Denominator
MEWS Process Measure	Monthly	REDCap	Cumulative proportion of OB providers^ completed education program on MEWS protocol	Self-reported	Self-reported cumulative proportion over past quarter	
			Cumulative proportion of OB nurses completed education program on MEWS	Self-reported	Self-reported cumulative proportion over past quarter	
			% of patients that triggers the MEWS protocol	Numerator: Medical record, e.g., TCHMB MEWS event tracking tool (chart review/EMR); Denominator: Delivery logbook / DRG codes / Joint Commission measure	All cases that trigger MEWS protocol	Number of deliveries ≥20 weeks, excluding ectopics and miscarriages
			% of missed MEWS among the audited sample	Numerator: Medical record, e.g., TCHMB MEWS event tracking tool (chart review/EMR); Denominator: Delivery logbook / DRG codes / Joint Commission measure	All cases that should have triggered MEWS protocol but did not	Total sample of deliveries ≥20 weeks, excluding ectopics and miscarriages, that were audited (n≥30)
			% of missed MEWS among those that should have triggered the MEWS protocol	Numerator and Denominator: Medical record, e.g., TCHMB MEWS event tracking tool (chart review/EMR)	All cases that should have triggered MEWS protocol but did not	All cases that should have triggered MEWS protocol
MEWS Structural Measures	Monthly	REDCap	Presence of a MEWS protocol or policy (yes/no)	Self-reported	Not applicable	
			MEWS triggers included in hand-off reports (yes/no)	Self-reported	Not applicable	
MEWS Outcome Measures	Monthly	REDCap	Time from abnormal vital sign to provider at bedside/activation of standing order set¶	Medical record, e.g., TCHMB MEWS event tracking tool (chart review/EMR)	Not applicable	
			Time from abnormal vital sign to return to non-trigger range	Medical record, e.g., TCHMB MEWS event tracking tool (chart review/EMR)	Not applicable	
			Transfusion of ≥ 4 units of PRBCs per 1,000 deliveries	Incident report from hospital / Blood bank / Transfusion log book / Transfusions with validation from hospital lab / TCHMB MEWS event tracking tool	All cases with transfusions of ≥4 units of PRBCs (multiplied by 10 for per 1,000 deliveries)	Number of deliveries ≥20 weeks, excluding ectopics and miscarriages
			% Intensive care unit admission	Incident report from hospital / TCHMB MEWS event tracking tool / Billing revenue code data	All cases with an ICU admission	Number of deliveries ≥20 weeks, excluding ectopics and miscarriages

^"Provider" refers to any OB, MFM, midwife, family physician, anesthesiologist, or other provider
*All numerator cases are those from among the denominator
¶For rural hospitals, this may be time from abnormal vital sign to standing order activation

RA(S)CI Model

- **R**esponsible: the person doing the work
- **A**ccountable: the person accountable for the work
- **S**upportive: people who help the person responsible; may or may not be used
- **C**onsulted: people with particular expertise who were consulted on specific decisions
- **I**nformed: people affected by the activity or decision

RA(S)CI Model

	Staff Nurse	Nurse Manager	Nurse Educator	PPI Team	Director of Unit	Chair of Service
Identify need for new tool	C	C	C	R	A	I
Develop new tool	C	S	S	R	A	I
Test new tool	S	S	S	R	A	I
Approve new tool	C	R	C	S	A	I
Disperse new tool	S/I	C	R	S	A	I

Data Collection Tools

- Tally/Tick sheets
- Check sheets & forms
- Observation
- Feedback (verbal or written)
- Questionnaires/interviews

Sampling

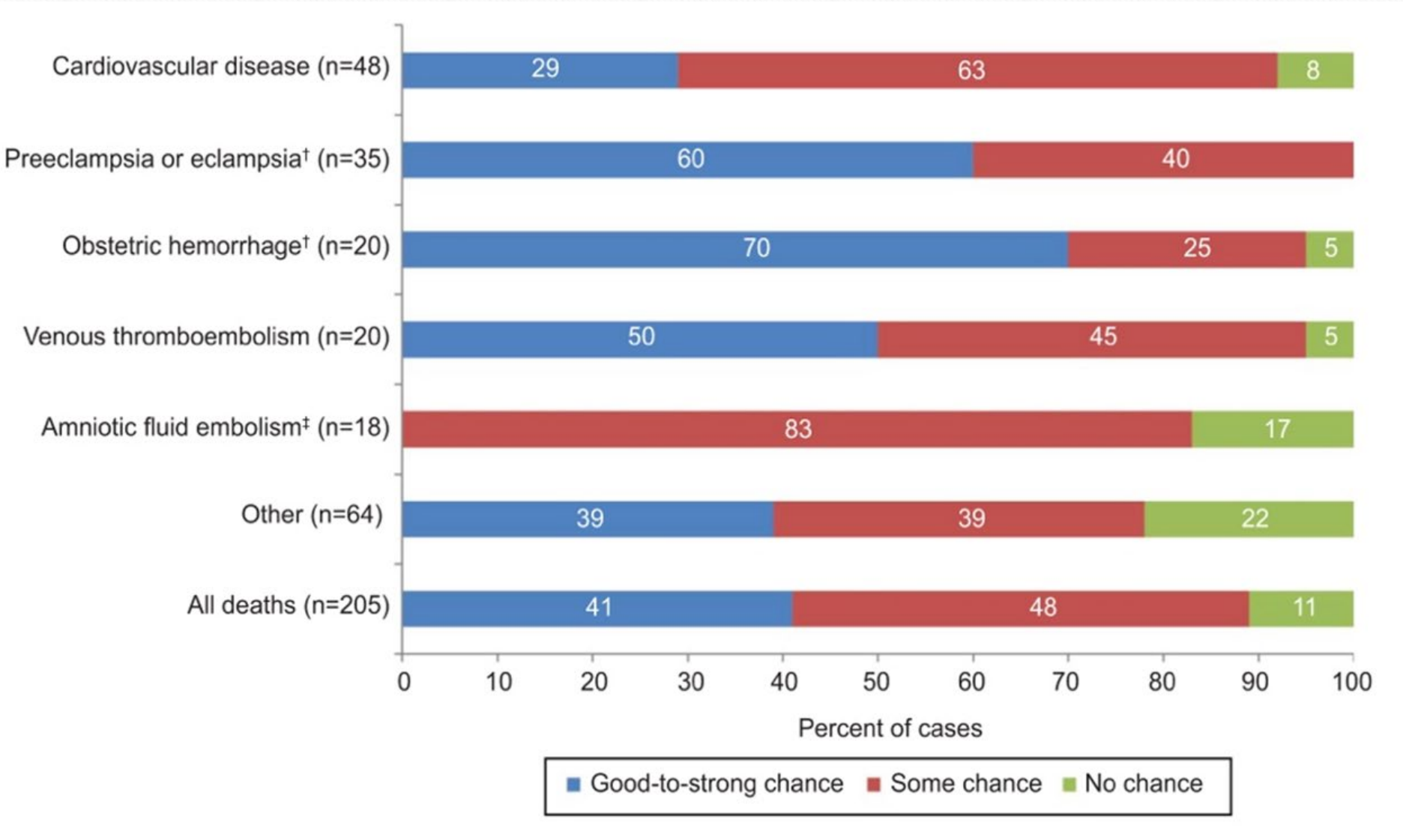
- Probability sample
  - All members of the population have an equal chance of being selected
  - Results can probably be generalized to the population
- Nonprobability sample
  - All members of the population do *not* have an equal chance of being selected
  - Results cannot be generalized to the population

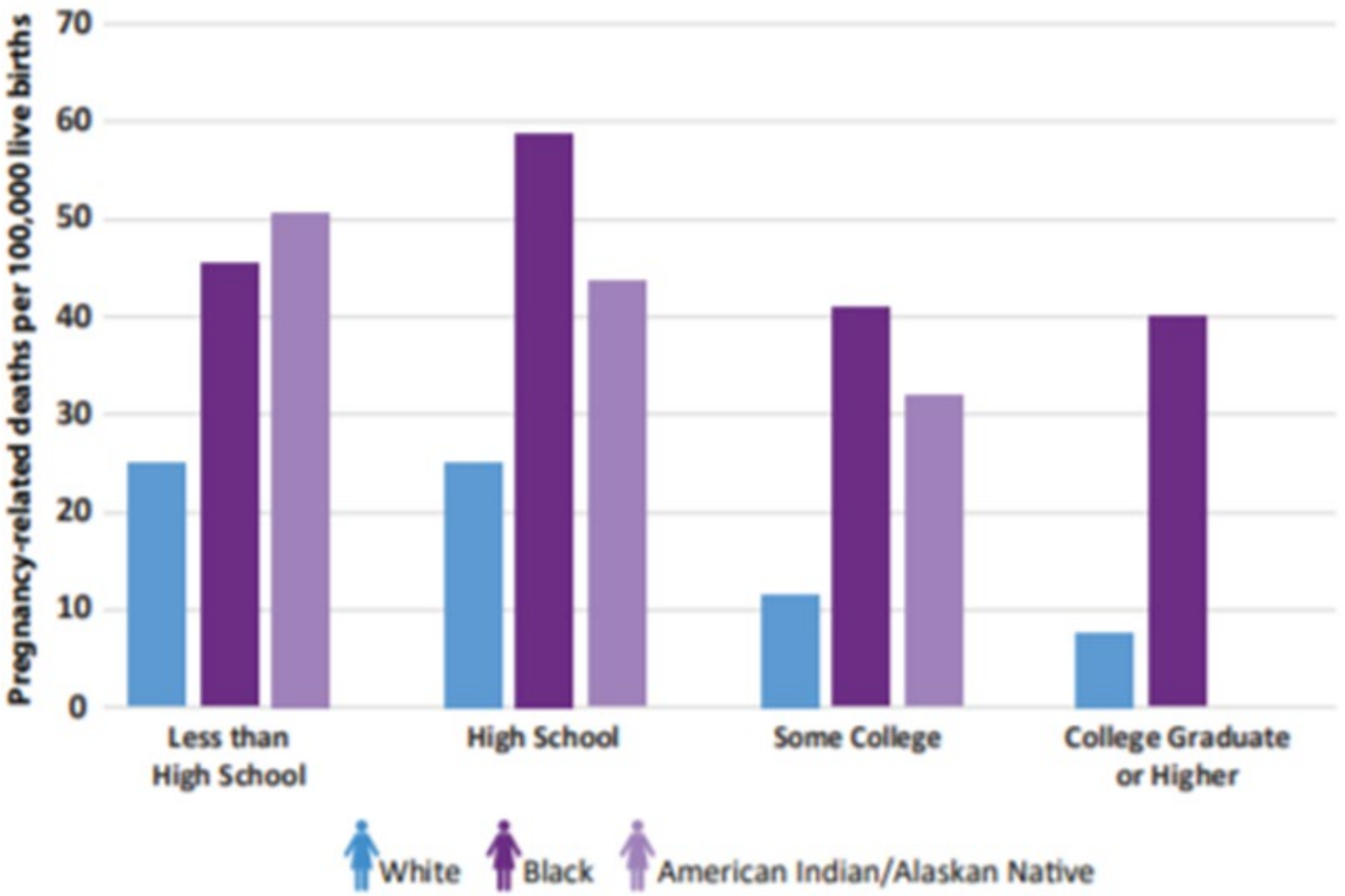
QI Charts and Graphs

- Used to:
  - Establish baseline and assess & prioritize needs
  - Consider processes from different perspectives
  - Understand and analyze results
  - Portray results to stakeholders

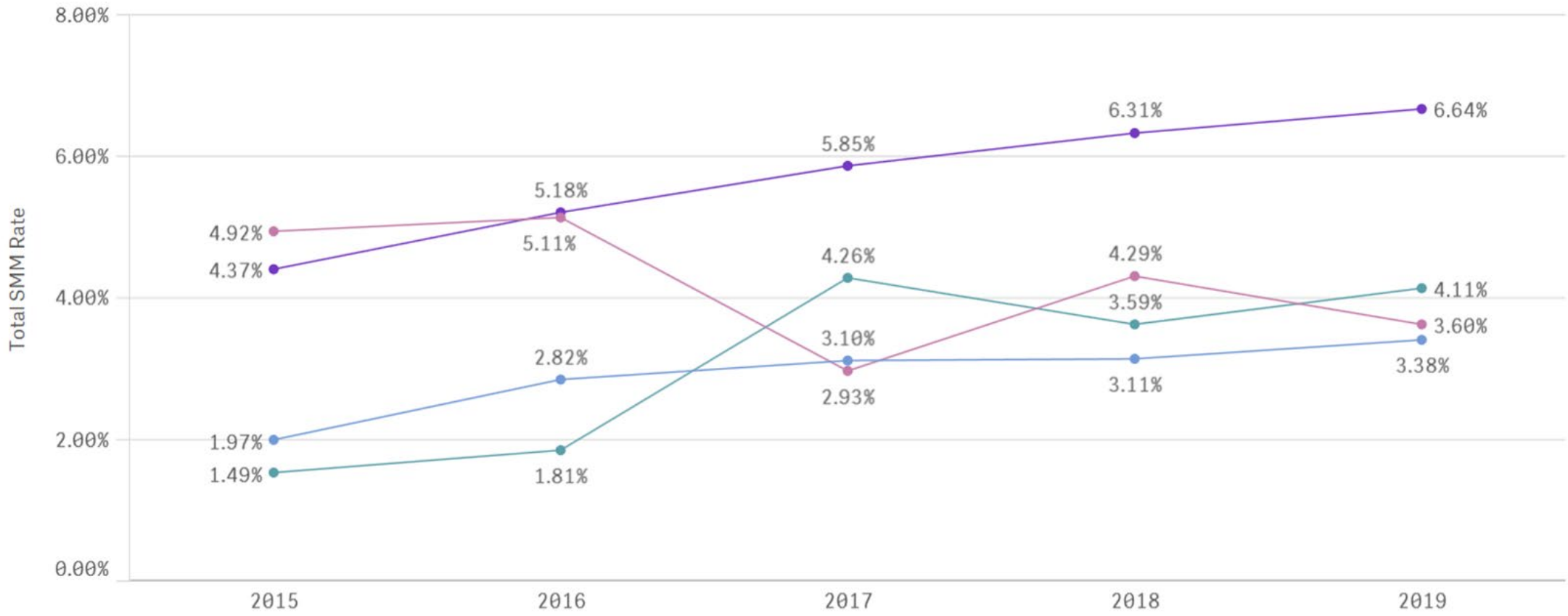
Determine How to Display Data

- Organizing, validating, and summarizing the data will be consistent
- Display will change depending on who the audience is and what they will do with the data
  - Senior leadership want a brief, high-level overview
  - Day-to-day staff want more detailed information
- Choose the display that most clearly depicts the information you want viewers to take away

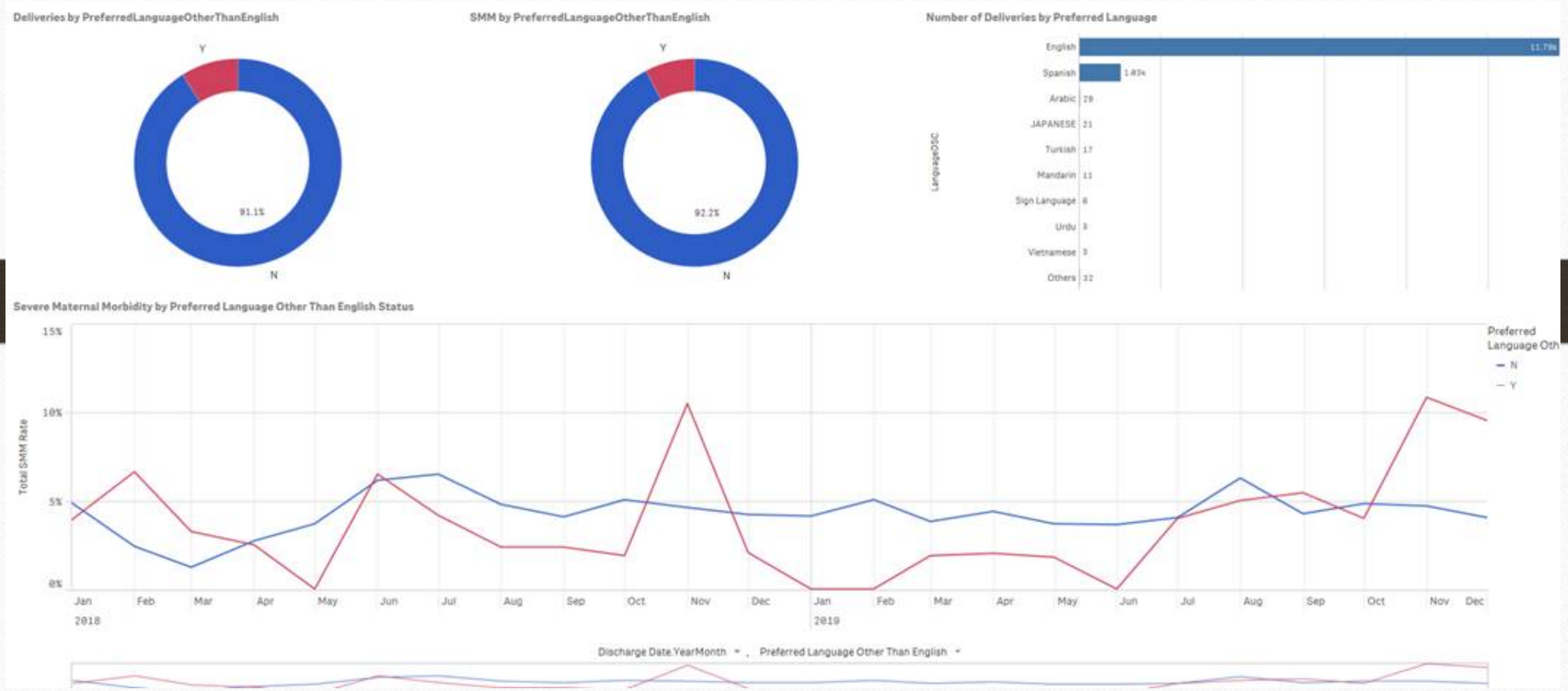

Cardiovascular disease (n=48)
29
63
8
Preeclampsia or eclampsia† (n=35)
60
40
Obstetric hemorrhage† (n=20)
70
25
5
Venous thromboembolism (n=20)
50
45
5
Amniotic fluid embolism‡ (n=18)
83
17
Other (n=64)
39
39
22
All deaths (n=205)
41
48
11
0
10
20
30
40
50
60
70
80
90
100
Percent of cases
Good-to-strong chance
Some chance
No chance


Pregnancy-related deaths per 100,000 live births
70
60
50
40
30
20
10
0
Less than High School
High School
Some College
College Graduate or Higher
White
Black
American Indian/Alaskan Native

Severe Maternal Morbidity Rate by Race/Ethnicity



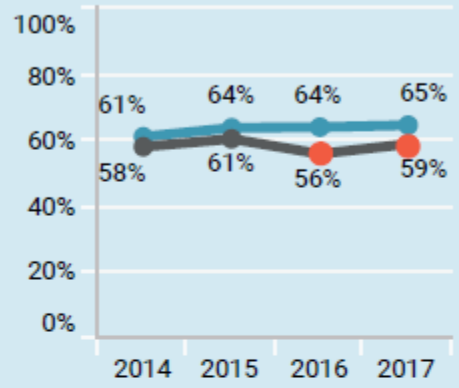
Disparities Dashboard



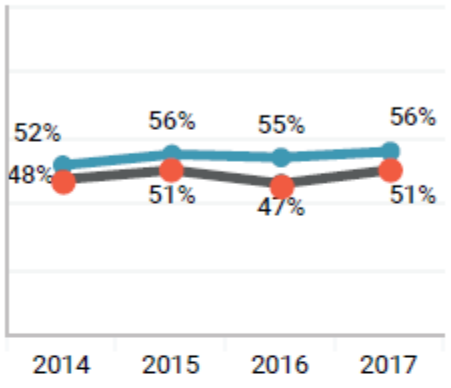
Disparities Dashboard

HCAHPS Composite: Care Transitions by Race and Language, 2014–2017

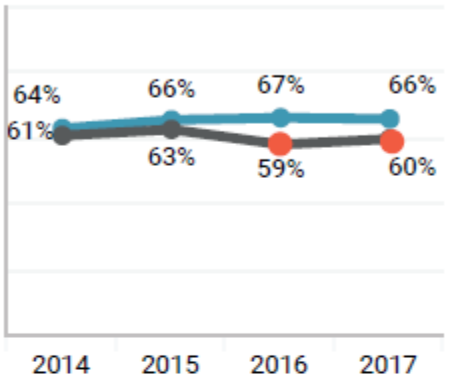
White vs. Non-white (Composite)



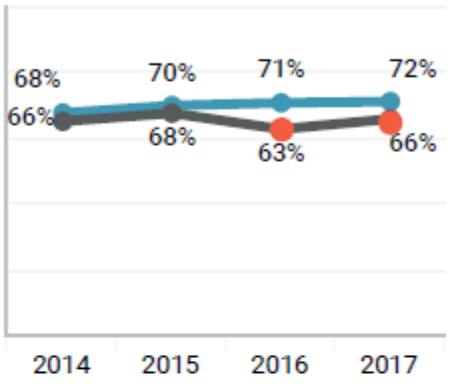
Q: Patient/Family Preferences Taken into Account at Discharge



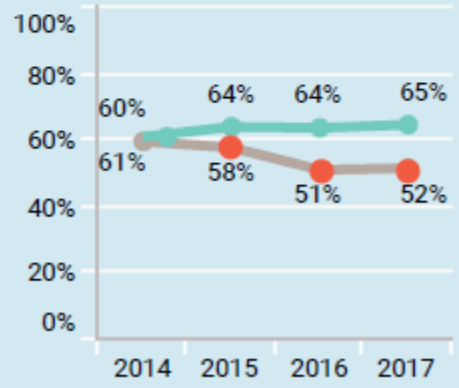
Q: Patient Had Good Understanding of Responsibilities for Managing Health at Discharge



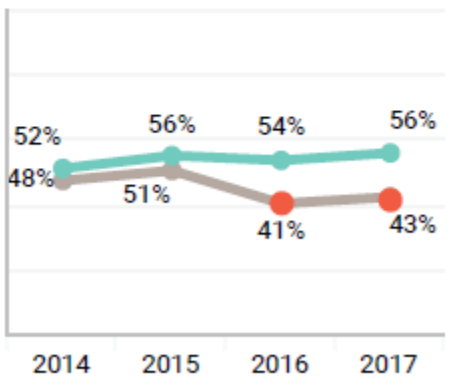
Q: Patient Understood Purpose of Taking Each Medication at Discharge



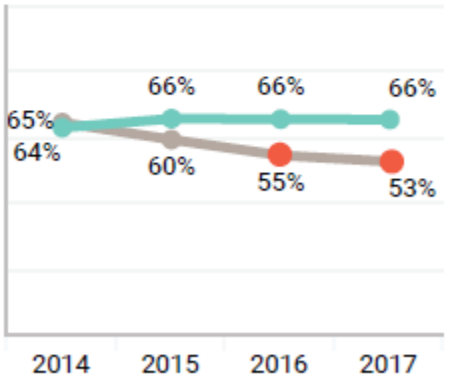
English vs. Non-English (Composite)



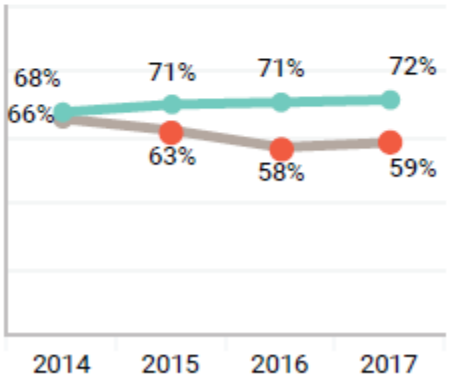
Q: Patient/Family Preferences Taken into Account at Discharge



Q: Patient Had Good Understanding of Responsibilities for Managing Health at Discharge



Q: Patient Understood Purpose of Taking Each Medication at Discharge



White Non-white English Non-English Significant difference from the reference population p < .05

Charts Commonly Used in QI

- Run Charts
- Histograms
- Pie Charts
- Pareto Charts
- Scatter Plots

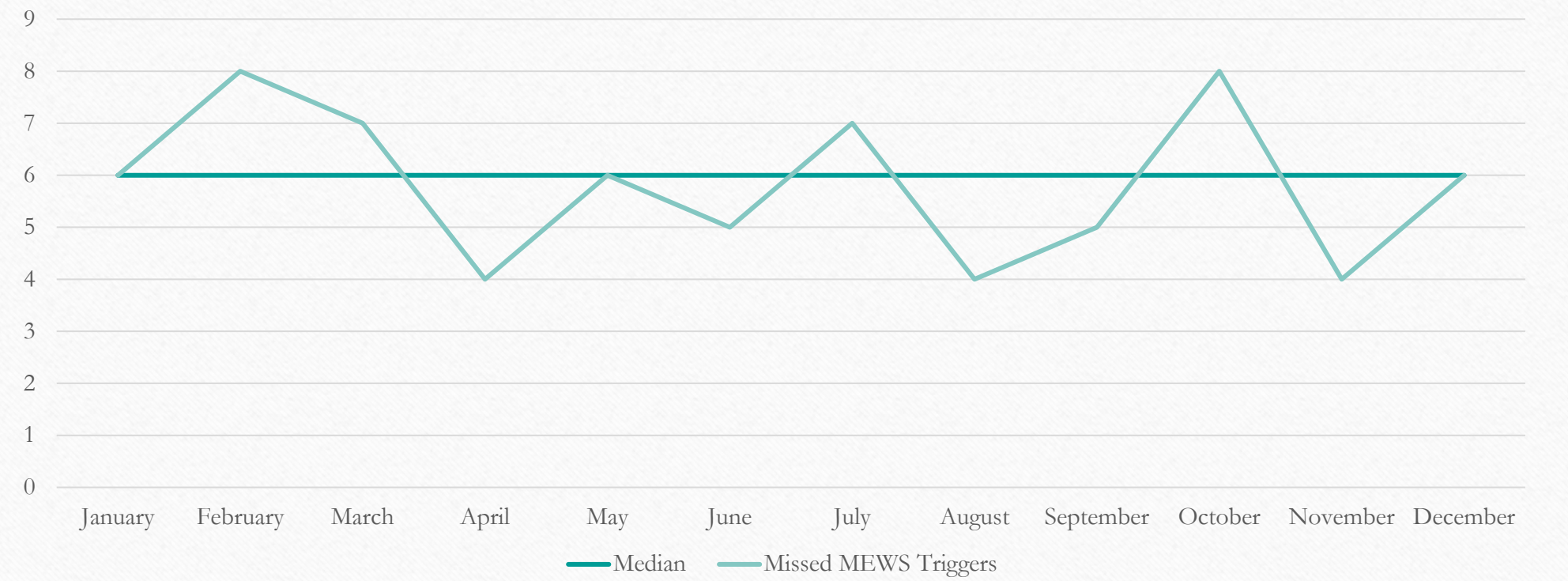
Run Chart

- Line graph of data plotted over time
- Shows how much variation in a process exists or if process is changing significantly over time
- Uses 4 rules to track change (improvement OR degradation)
  - Shifts, trends, runs, and astronomical points

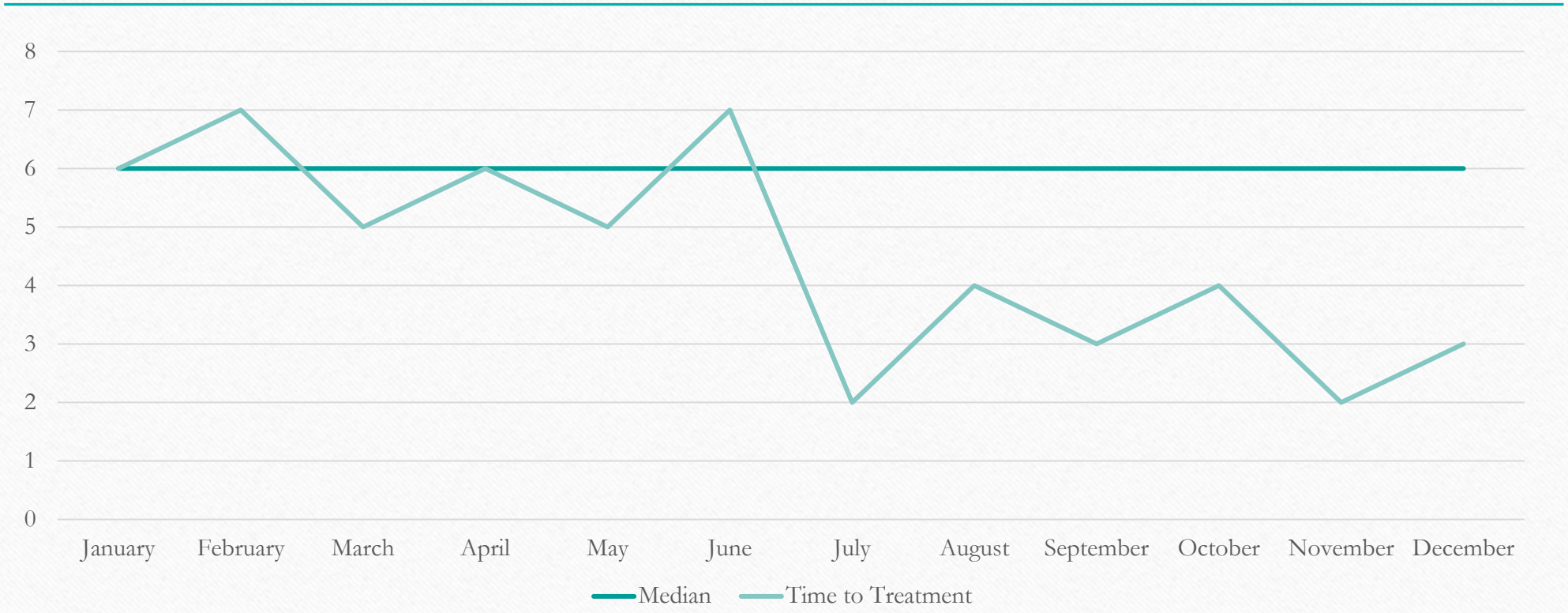
Run Chart

- Measures of Central Tendency
  - Mean: Average of all values
  - Mode: Value that appears most often
  - Median: Middle value
    - If total number of values is an even number, calculate the average of the two middle numbers

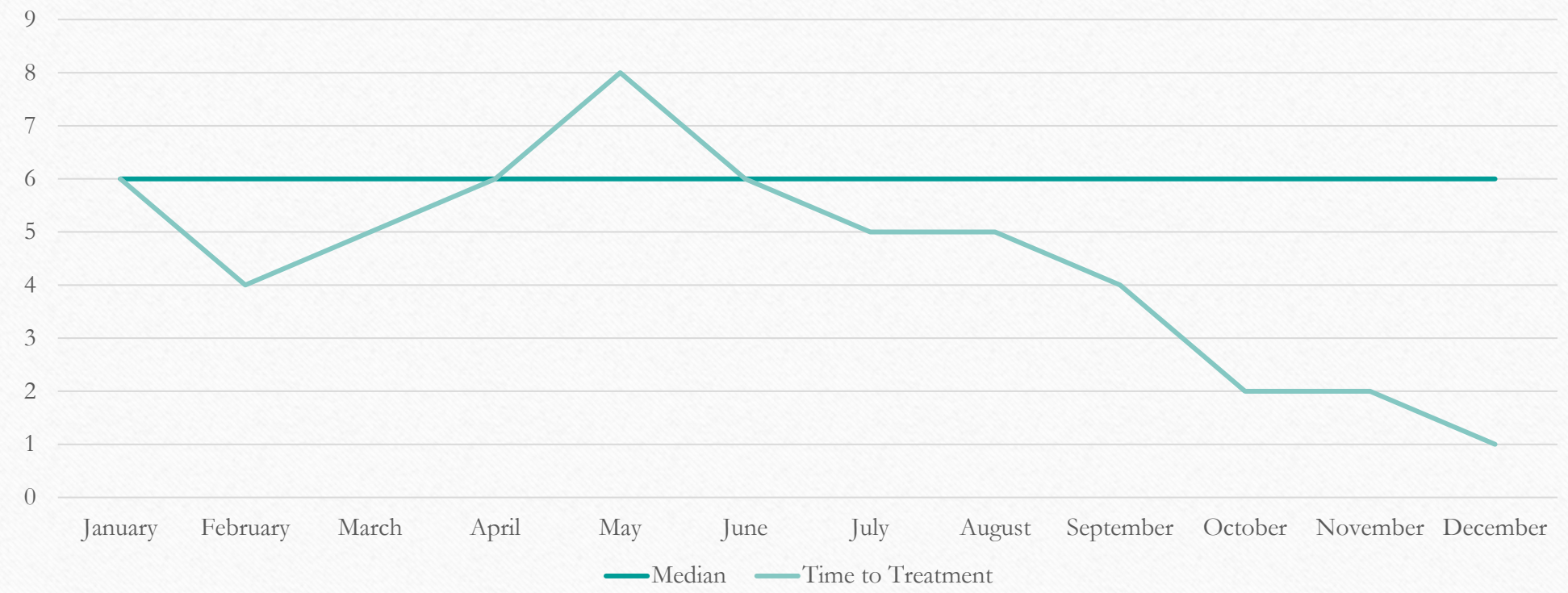
Run Chart


9
8
7
6
5
4
3
2
1
0
January
February
March
April
May
June
July
August
September
October
November
December
Median
Missed MEWS Triggers

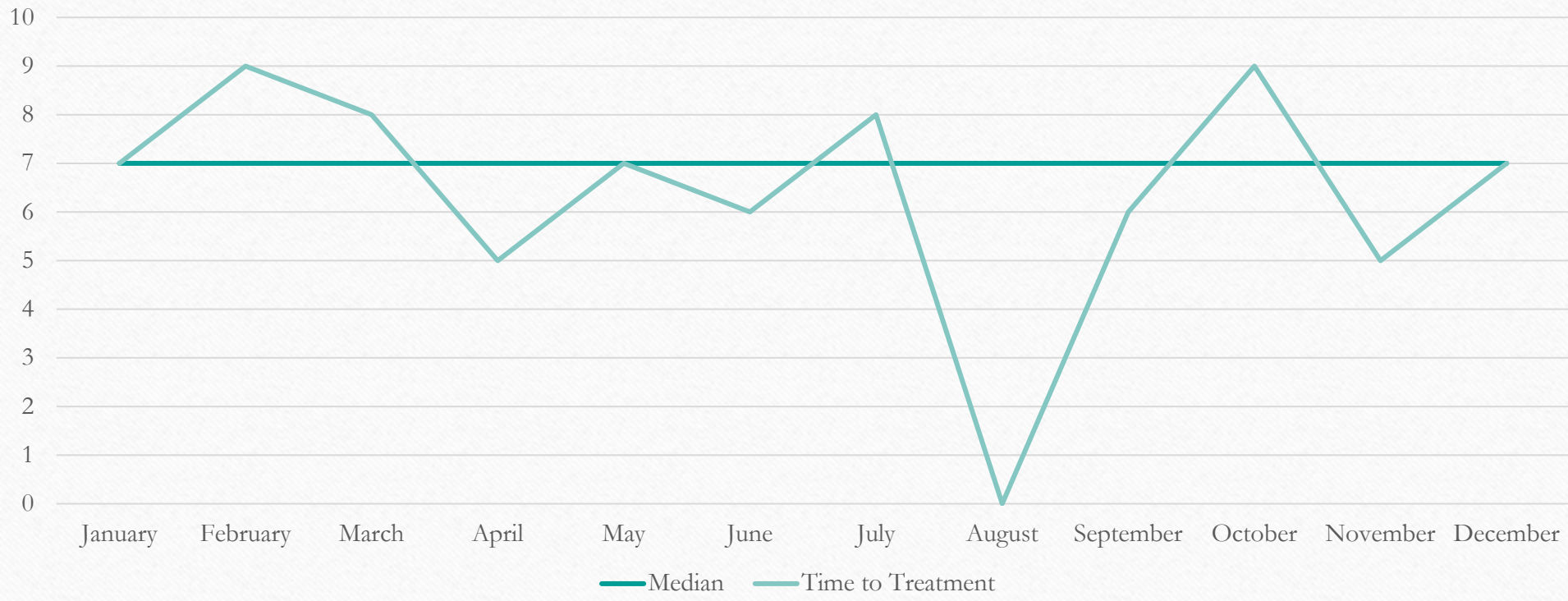
Run Chart - Shift



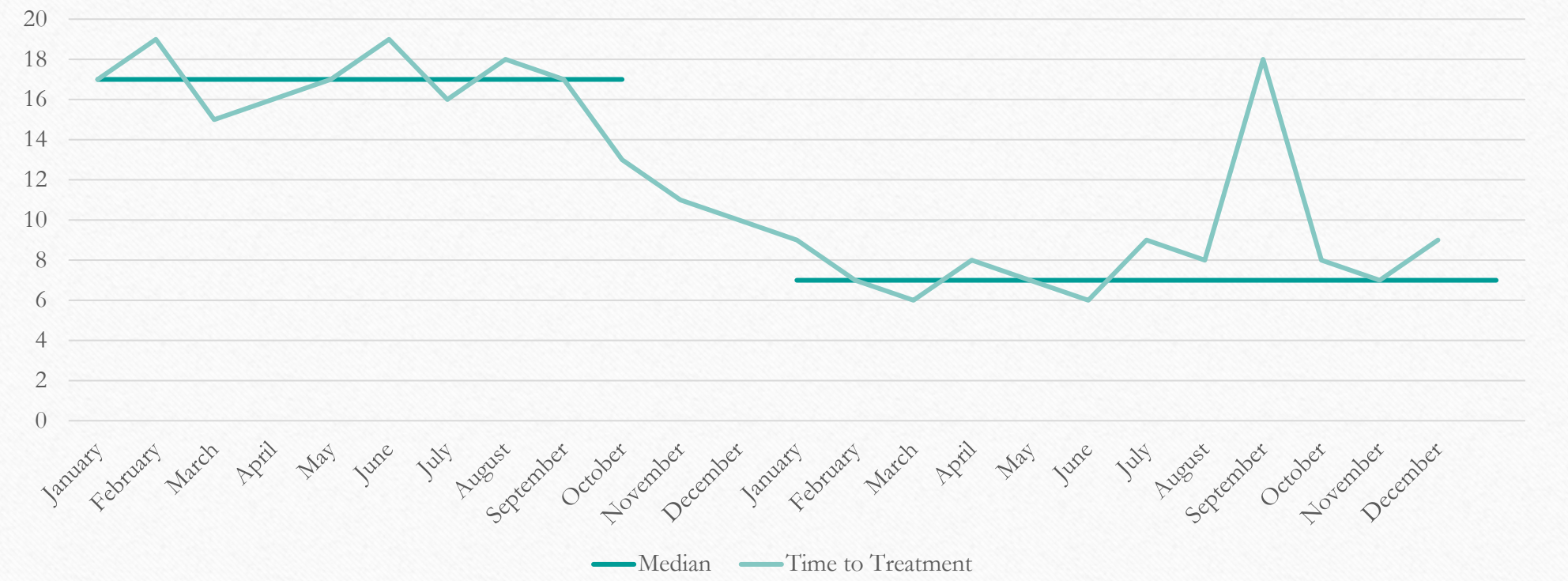
Run Chart - Trend



Run Chart – Astronomical Point

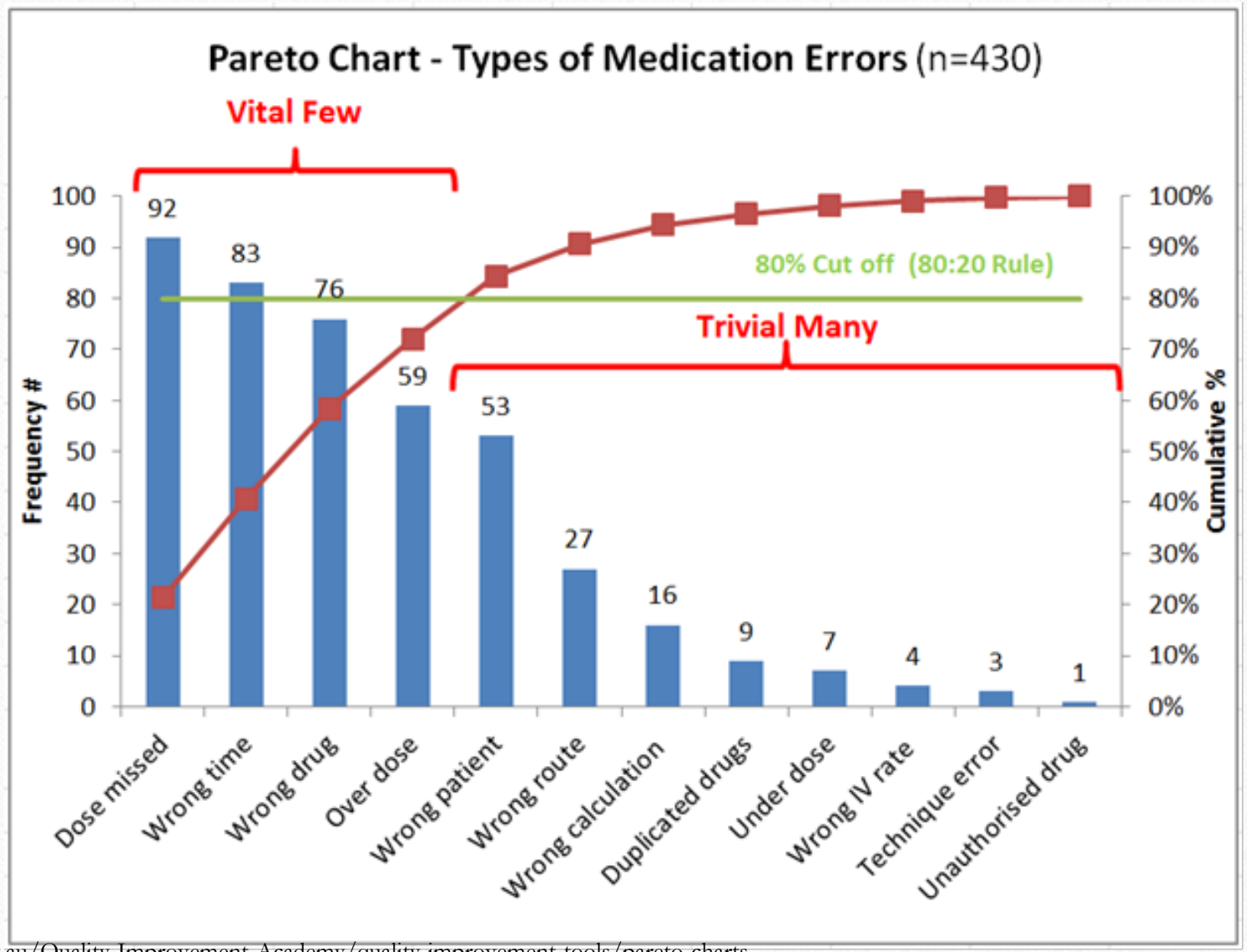


Run Chart Example



Pareto Chart

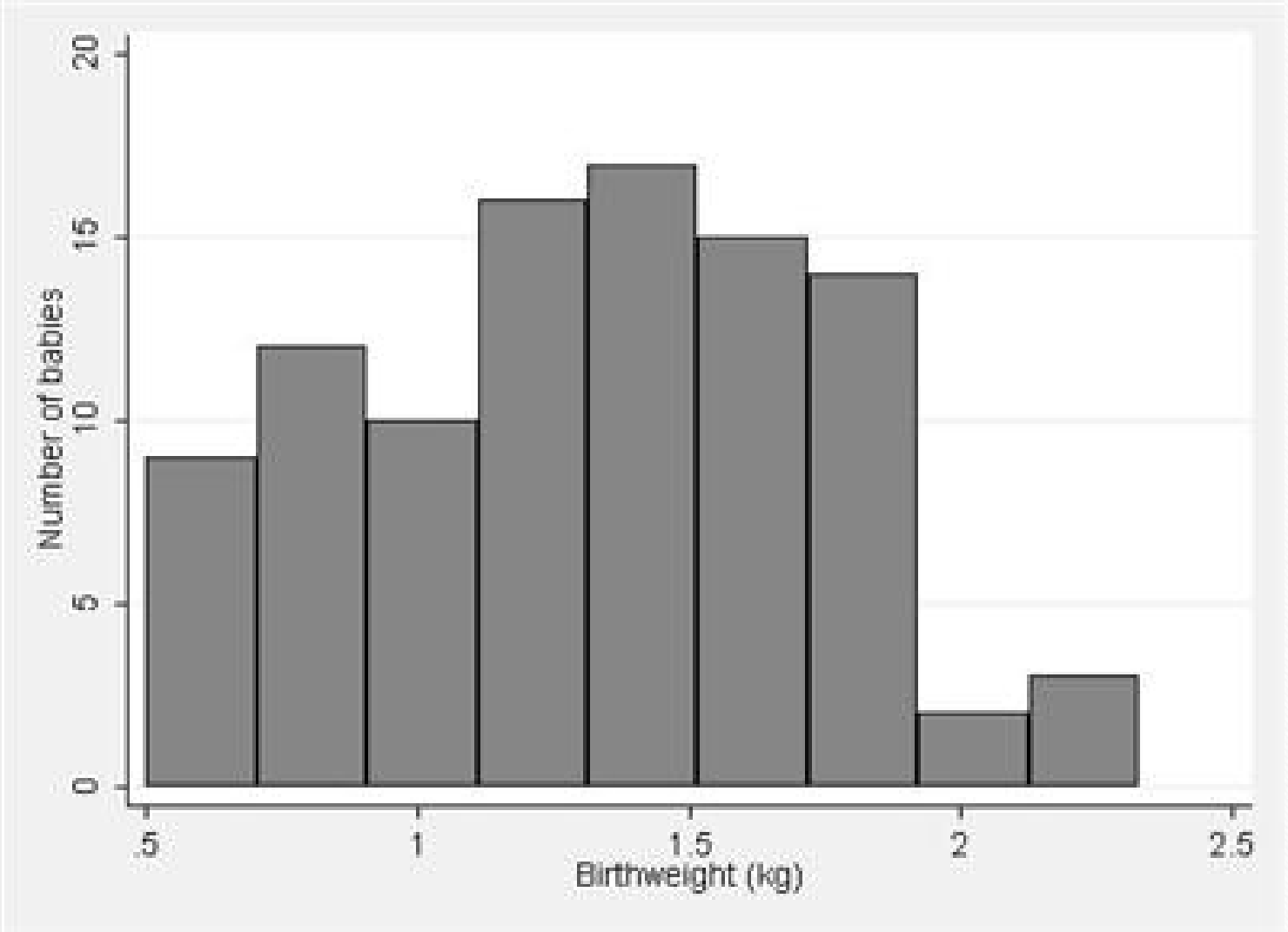
- Bar chart showing frequency distribution of all the variables affecting a process
- Bars are ranked in order from most to least frequent
- Helpful to see what's going on in a system when you don't see any improvement on a run chart
- Look for the 80/20 rule to prioritize focus



https://www.cec.health.nsw.gov.au/Quality-Improvement-Academy/quality-improvement-tools/pareto-charts

Histogram

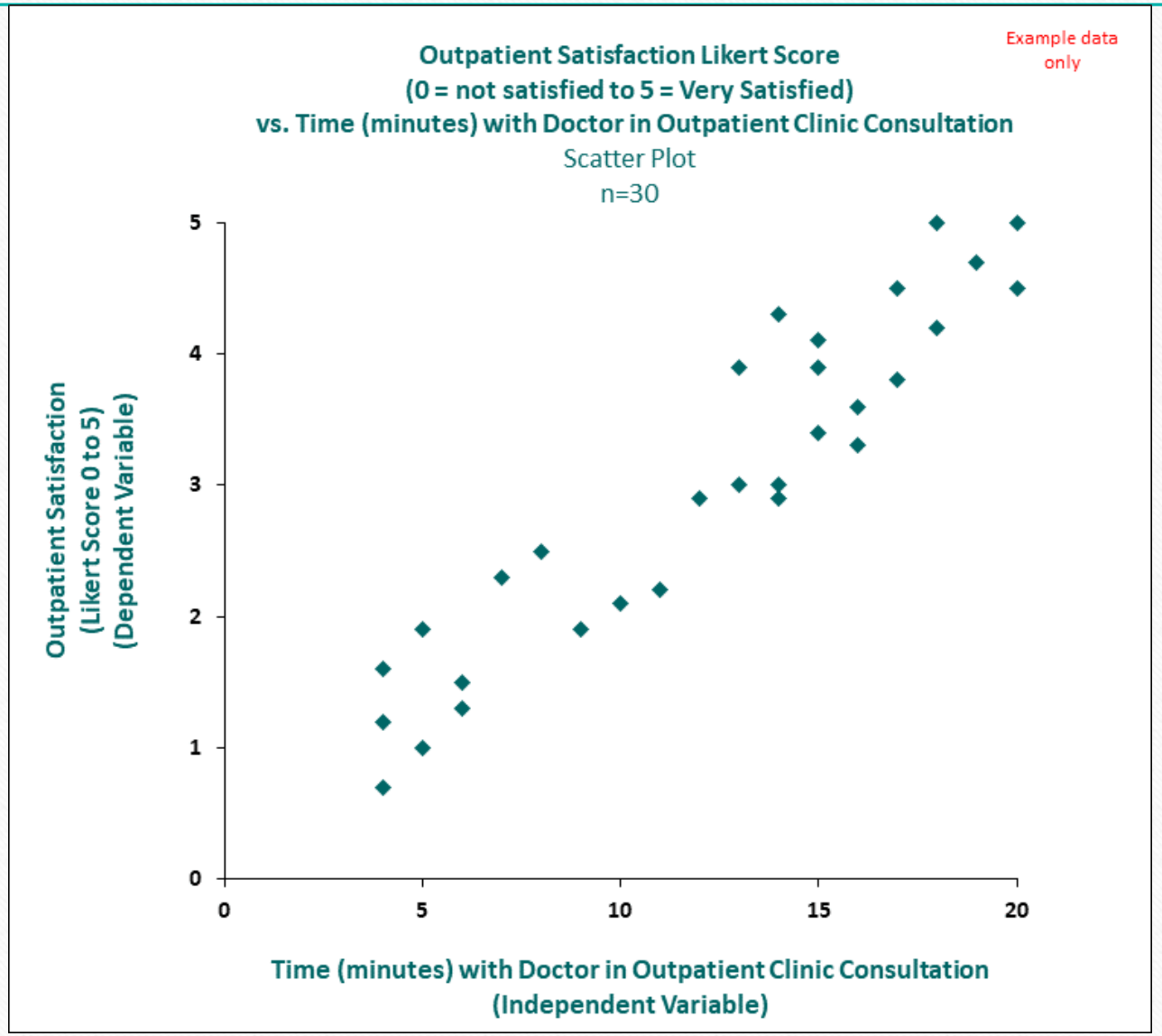
- Bar chart showing frequency distribution of *one* variable affecting a process
- Bars are equal and distinct
- Helpful to see what's going on in a system when you don't see any improvement on a run chart
- Not useful if the process isn't stable



https://www.healthknowledge.org.uk/e-learning/statistical-methods/practitioners/displaying-data

Scatter Plot

- Shows correlation and possible relationship between two variables
- Each dot represents a pair of measures
- Tests if performance of one factor is related to performance of another

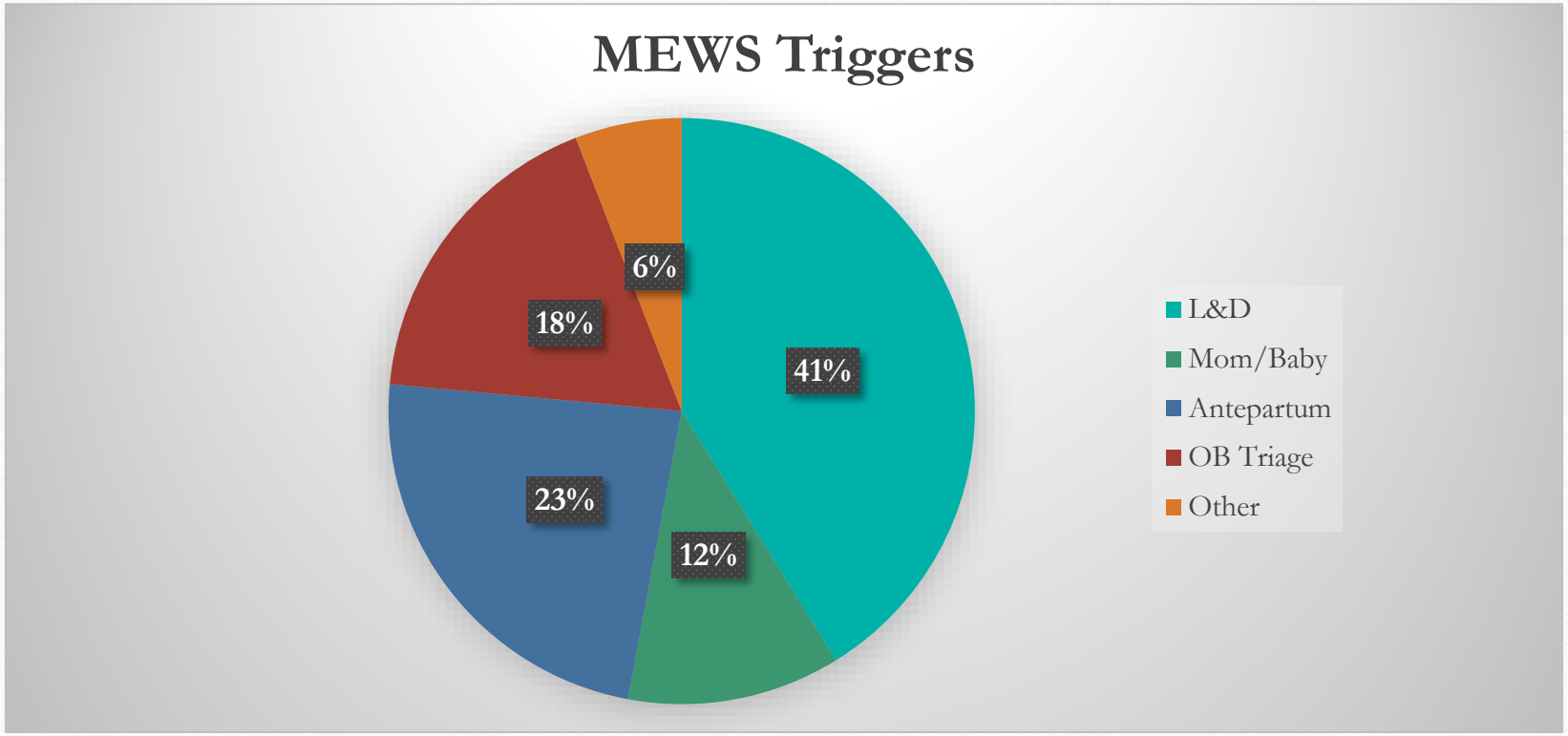


https://www.cec.health.nsw.gov.au/Quality-Improvement-Academy/quality-improvement-tools/scatter-plot

Pie Chart

- Shows all the parts of a whole
- Not helpful when there are numerous different parts
  - About 8 parts at the most
- Not useful to track improvement or change

Pie Chart


MEWS Triggers
41%
12%
23%
18%
6%
L&D
Mom/Baby
Antepartum
OB Triage
Other

QI Workshop

5-Minute Break

QI Workshop

Implementing a QI Project

Incorporating Equity into your Perinatal QI Work

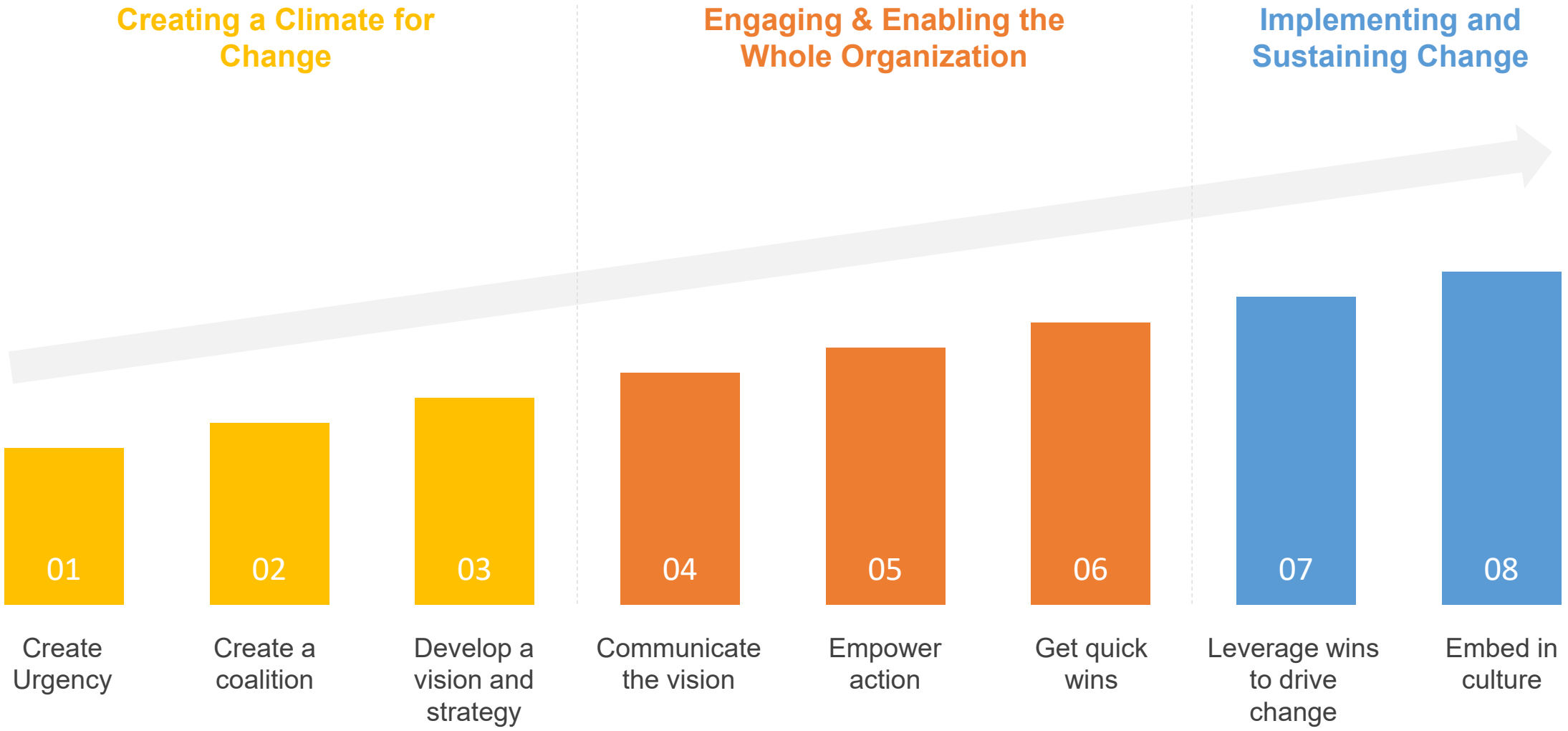
Objectives

Discuss	Important strategies in developing a QI project
Employ	Tools to manage a current project
Employ	QI tools to incorporate equity into a current project
Discuss	How data helps foster stakeholder buy-in
Discuss	How disaggregation of data by race and ethnicity can help address inequity

“A good plan today is better than a perfect plan tomorrow.”

– General George S. Patton

8 Step Kotter Model of Change



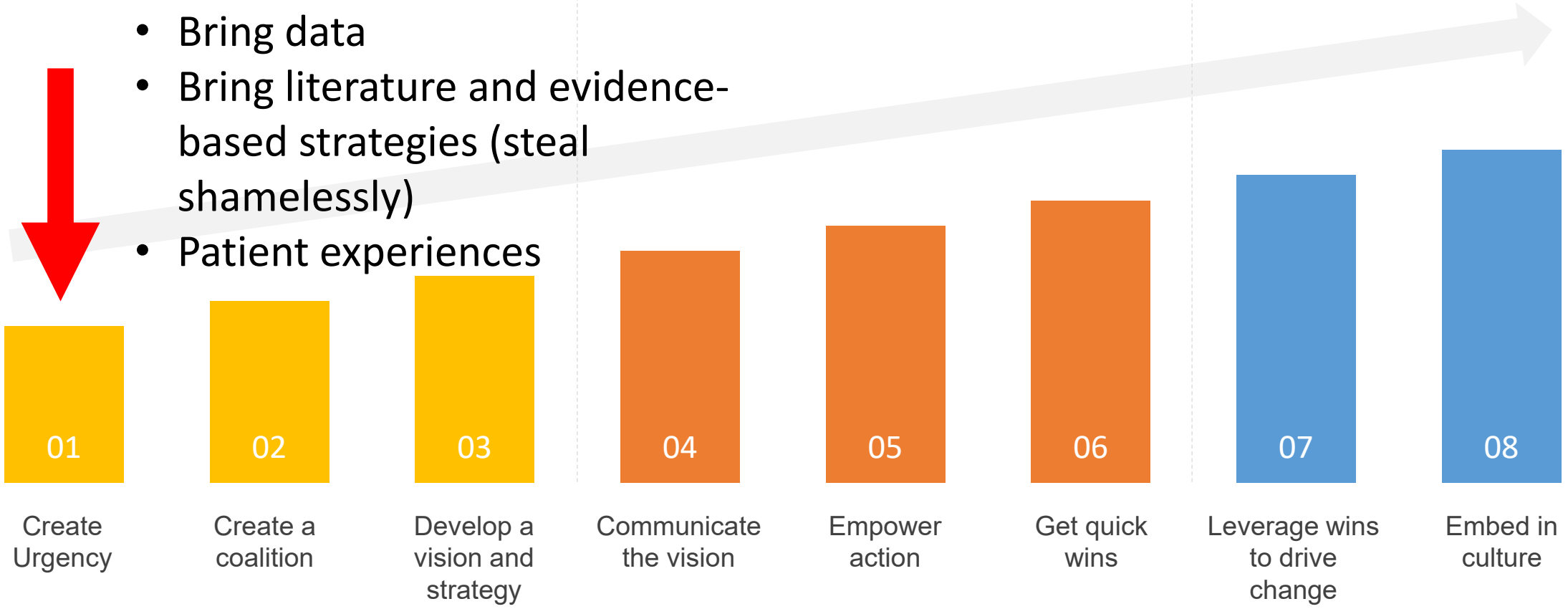
8 Step Kotter Model of Change

Creating a Climate for Change

Engaging & Enabling the Whole Organization

Implementing and Sustaining Change

- Bring data
- Bring literature and evidence-based strategies (steal shamelessly)
- Patient experiences



What is the problem we are trying to solve?

- Morbidity from postpartum hemorrhage
  - Reduction of racial/ethnic inequities in hemorrhage outcomes
- Morbidity from severe hypertension
  - Reduction of racial/ethnic inequities in severe hypertension
- Outcomes and morbidity in pregnant women related to the COVID-19 pandemic
  - Reduction of racial/ethnic inequities in COVID-19

8 Step Kotter Model of Change

The Team

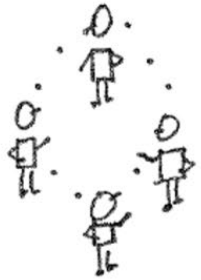
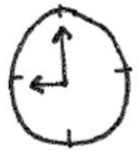
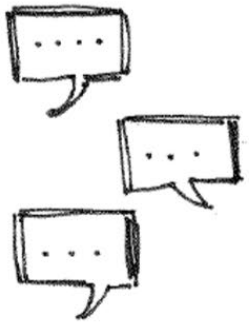
Assemble a team

Establish Role Clarity and Objectives

The Team

- Project sponsor
- Team leader(s)
- Frontline staff
- Champions – nurse and provider
- Educators
- Admissions department
- Data/EMR specialists
- Patient advocate(s)
- Others as needed

Team Norms

Be present	Work collaboratively	Share ideas	Be on time	Stay positive
				
Encourage wild ideas	Communicate	Maintain a safe and brave space	"Yes, and..."	Honor all contributions
				

Source: Manuelito Biag, Carnegie Foundation for the Advancement of Teaching, April 6, 2017

Stakeholders

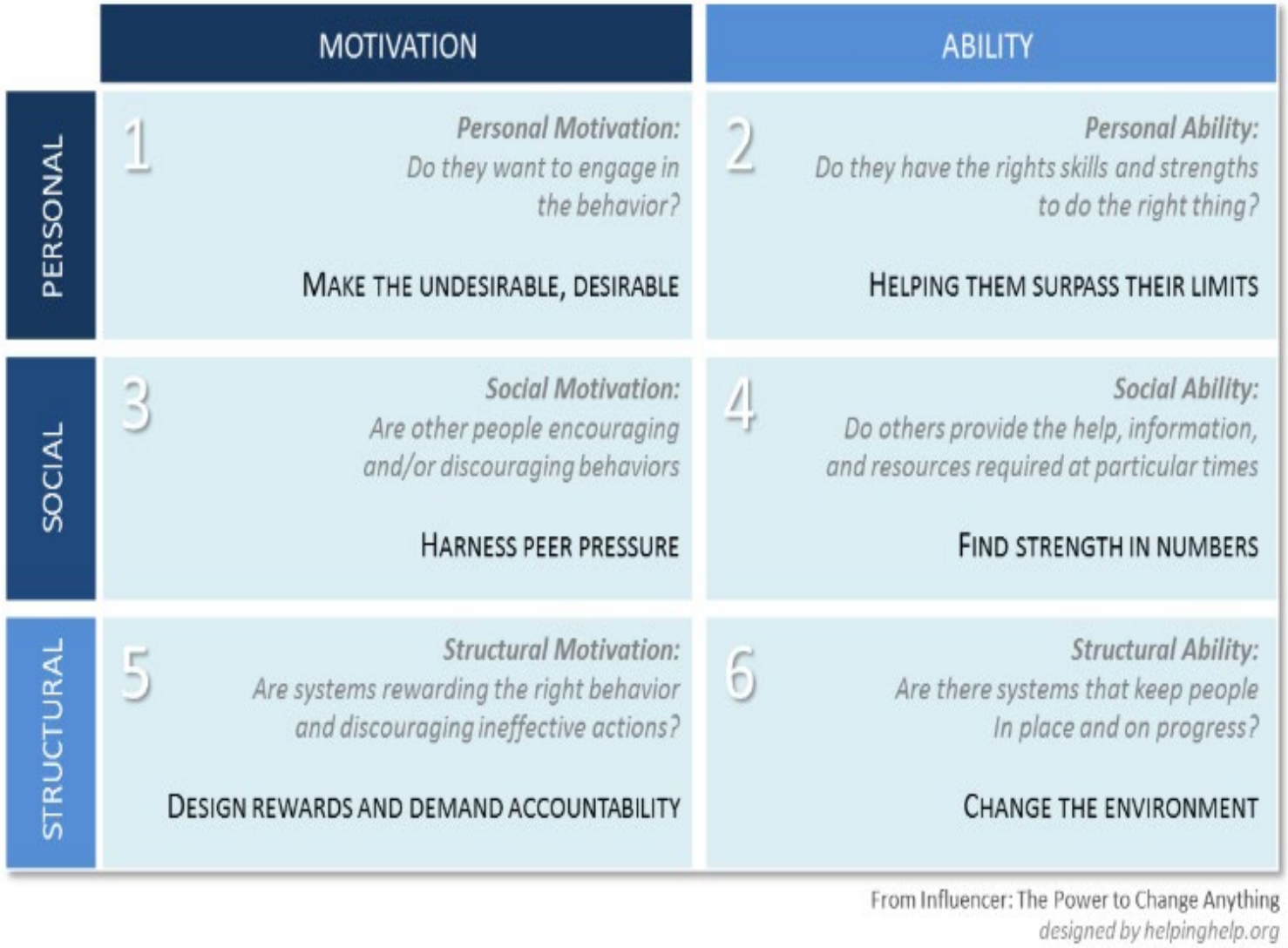
Foster buy-in

Involve them in the process as much as possible

Ask for their input

Culture

Creating a QI Culture: 6 Sources of Influence

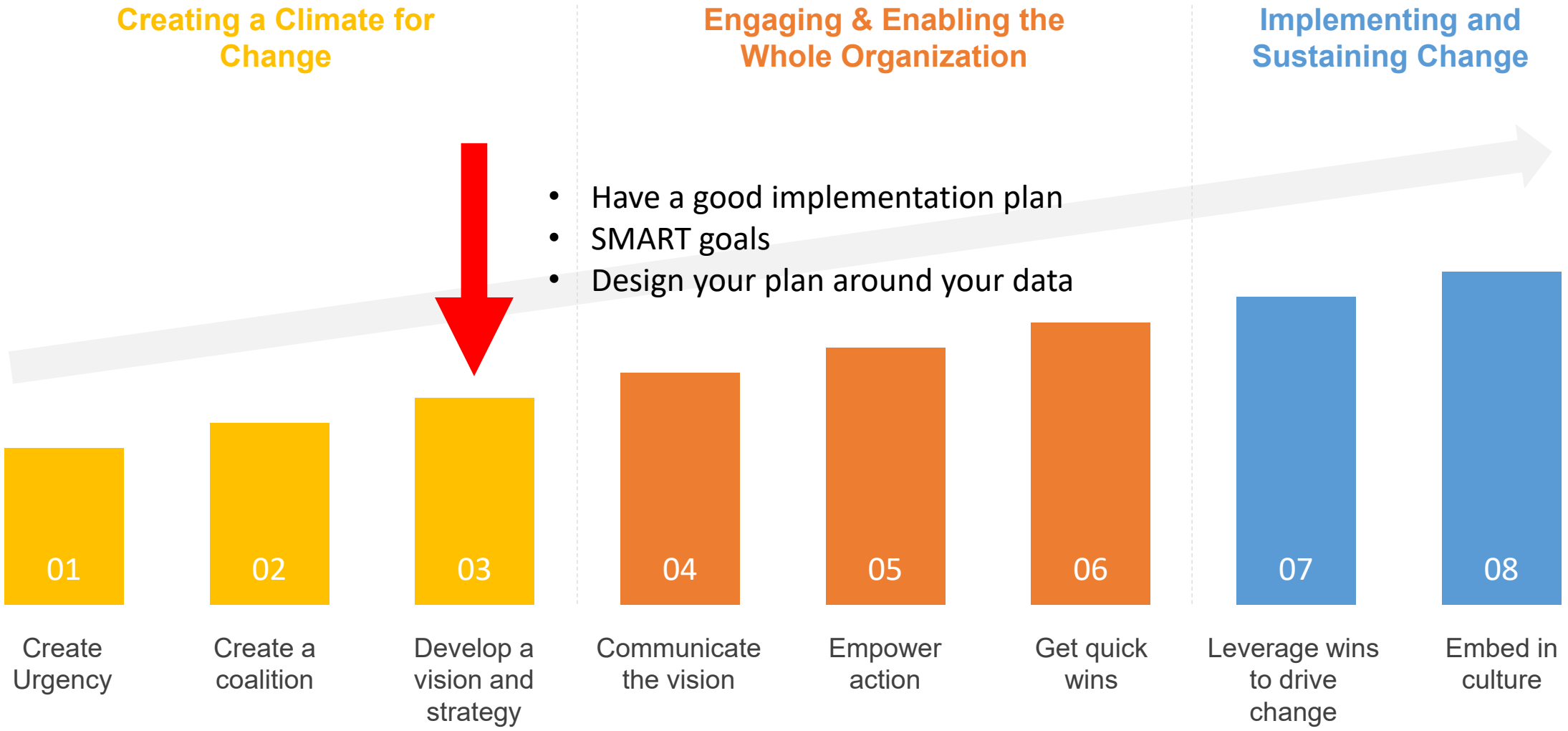


From Influencer: The Power to Change Anything
designed by helpinghelp.org

Six Sources of Influence

Source	Summary
Source 1 – Personal Motivation	• Help team members connect the behavior you want to their own personal values
Source 2 – Personal Ability	• Educate team members • Give them the skills and time to practice what they've learned
Source 3 – Social Motivation	• Engage peers as champions (Peer pressure) • Engage leadership as champions • Seek out opinion leaders with influence and gain their commitment
Source 4 – Social Ability	• Engage groups that will be impacted by your change strategy
Source 5 – Structural Motivation	• Design rewards that mean something intrinsically to us as humans and emphasize the 3 main sources of personal motivation – autonomy, mastery, and purpose
Source 6 – Structural Ability	• Change "things" to achieve the process you want • Make the behavior you want easy and make the behavior you don't want difficult.

8 Step Kotter Model of Change



Project Selection

1

Identify Options

- Gap analysis
- Driver diagram/bundle components

2

Prioritize Options

- Prioritization Matrix

3

Project Selection

Project Management

The plan

- Project Team and Stakeholders
- Project Charter
- Tools needed (policies/protocols)

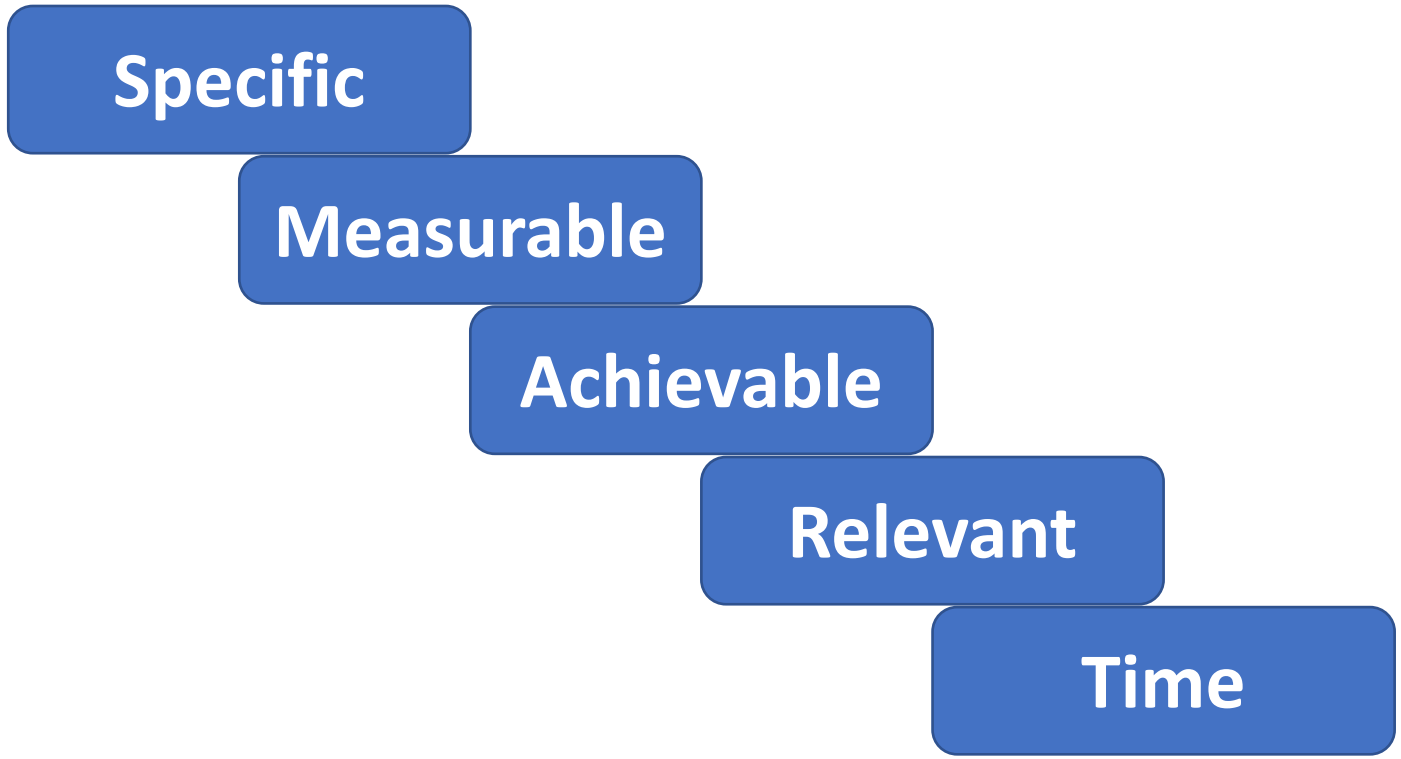
The goals

- SMART AIMS
- Data Measures
- Timelines

Implementation

- PDCA cycles
- Education/Simulation
- Monitoring and Reporting

SMART Aim



Keeping the Project on Pace

- Team meetings
  - Meet as often as practically possible!
    - Weekly meetings for 30 minutes are better than 2 hours/month
  - Start meetings with the AIM
  - Use visual aids and data
  - Foster engagement and discussion
- Set up regular check-ins with your sponsor to provide internal deadlines and urgency for the work

Developing a Protocol

- Use evidence-based research to develop new processes
- Doesn’t have to be perfect, just good enough to start testing
- Test the protocol before finalizing it in a policy

Refining a Protocol

- Use the QI process to test and adapt a protocol
  - PDSA Cycles
  - Use simulation to test the process
  - Establish system for feedback on facilitators and barriers
    - Communal board for comments
    - Routine check-ins with those involved in the tests

Design the Data

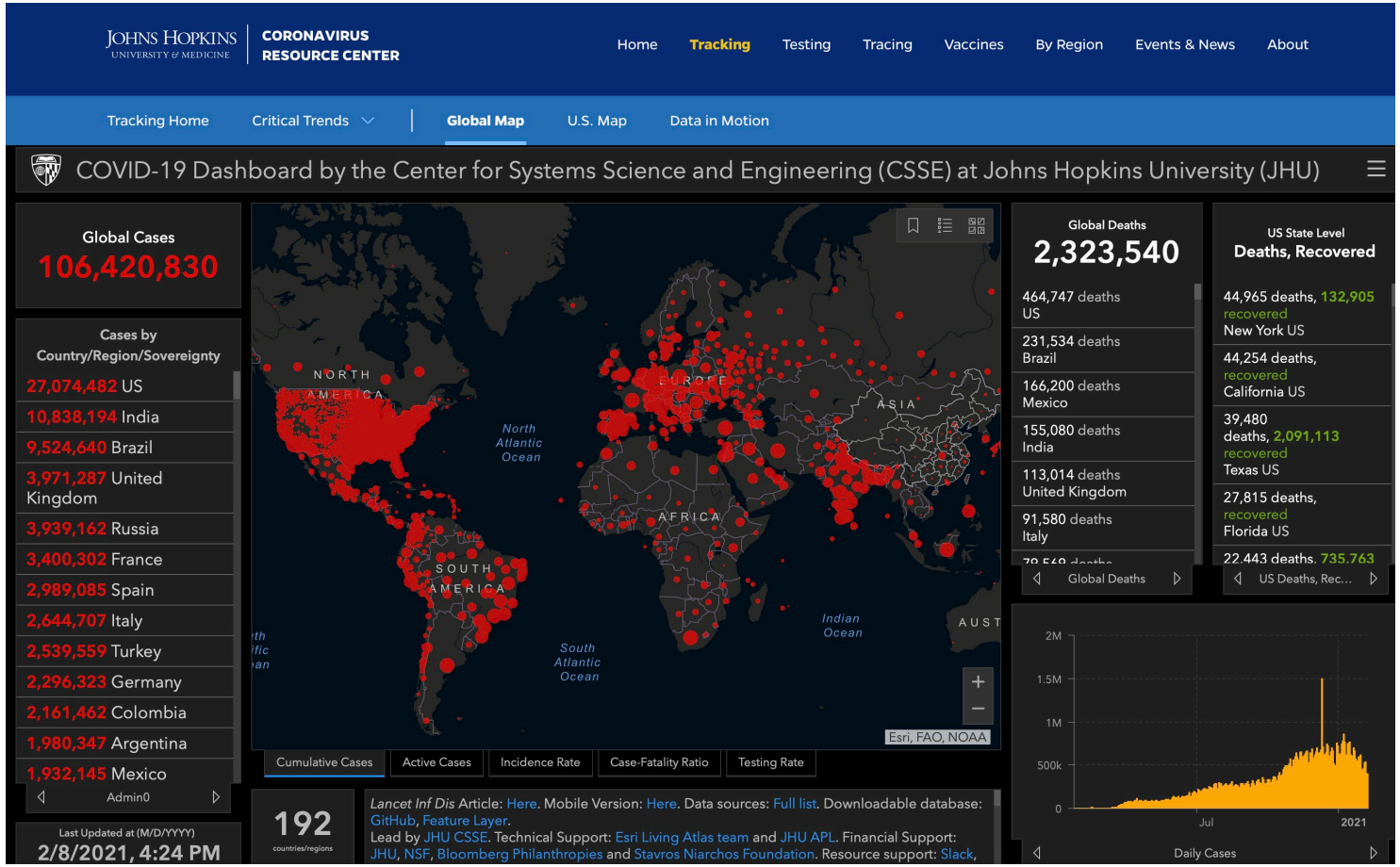
Qualitative data: gives feedback on application of the process changes

Quantitative data: gives feedback on the effect of the process changes

Important to analyze both throughout the project

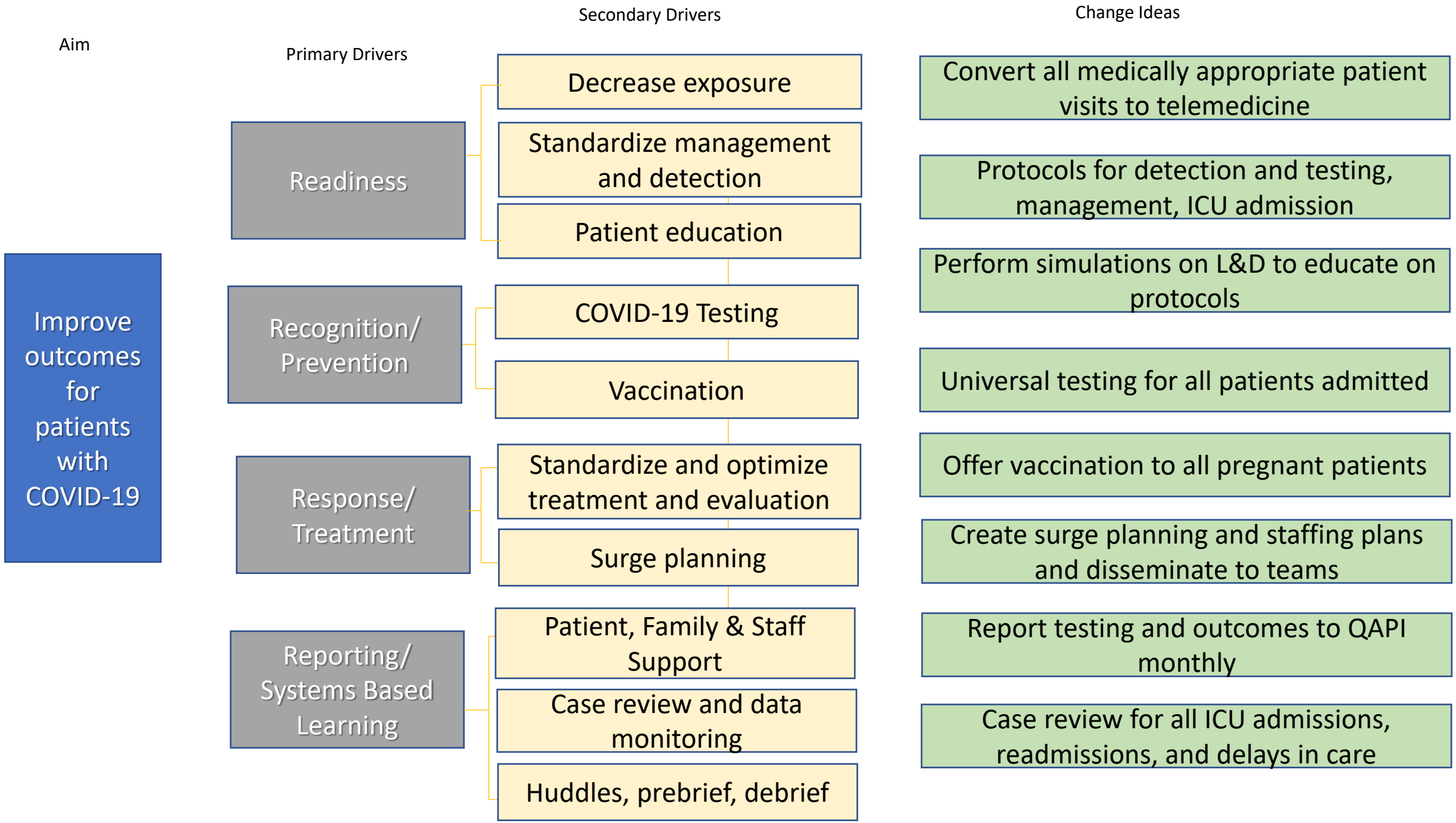
Step 1: Creating a Sense of Urgency

CHECK



Create a Coalition

- Inpatient nursing and physician leadership
- Outpatient nursing and physician leadership
- Clerks
- Administration
- infection prevention
- Pediatrics
- Anesthesia
- Medicine
- Critical Care
- Emergency Department
- Respiratory therapy
- Pathology/lab medicine
- PPE/Equipment
- Environmental Services
- Nurse educators/simulation
- Data analytics
- Patient Experience


Aim
Primary Drivers
Secondary Drivers
Change Ideas
Improve outcomes for patients with COVID-19
Readiness
Recognition/ Prevention
Response/ Treatment
Reporting/ Systems Based Learning
Decrease exposure
Standardize management and detection
Patient education
COVID-19 Testing
Vaccination
Standardize and optimize treatment and evaluation
Surge planning
Patient, Family & Staff Support
Case review and data monitoring
Huddles, prebrief, debrief
Convert all medically appropriate patient visits to telemedicine
Protocols for detection and testing, management, ICU admission
Perform simulations on L&D to educate on protocols
Universal testing for all patients admitted
Offer vaccination to all pregnant patients
Create surge planning and staffing plans and disseminate to teams
Report testing and outcomes to QAPI monthly
Case review for all ICU admissions, readmissions, and delays in care

Data Collection

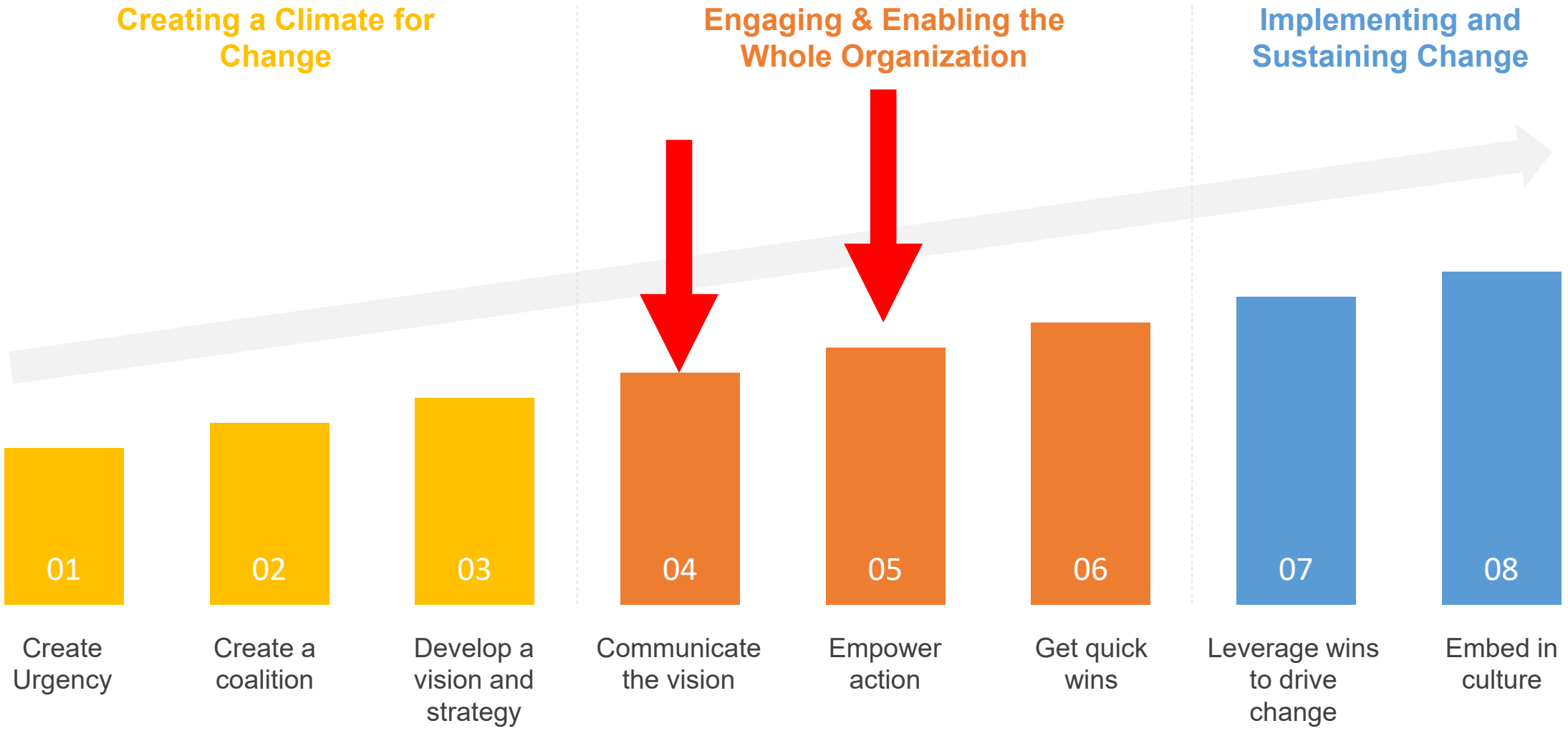
Data/outcome planned for:

- Rates of asymptomatic positivity
- Rates of total positivity
- Patient demographics, illness severity, interventions
- Telemedicine follow up, readmissions

Case Review:

- ICU admissions
- Readmissions
- Delays in treatment or diagnosis

8 Step Kotter Model of Change



Communication

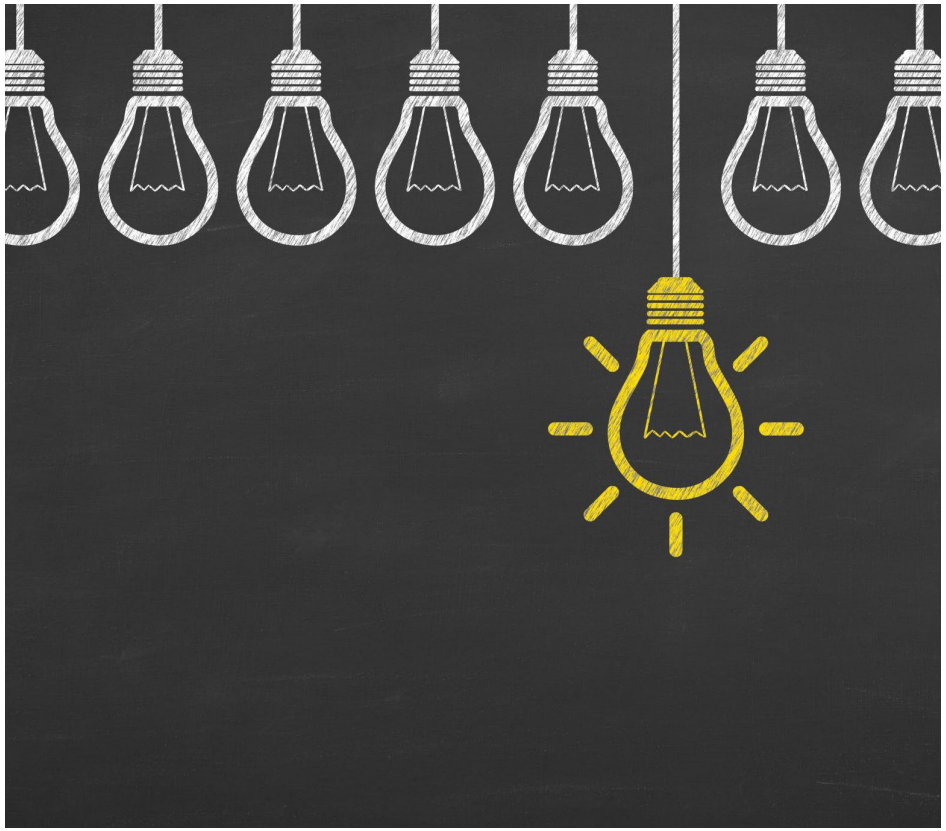
MULTIPLE METHODS

MULTIPLE TIMES

LISTEN TO INPUT

Providing Education

- Explain why
- Give data on current process and discuss goals of creating a new process
- Detail the new process
- Balance between general and specific



Providing Education

- Ongoing education throughout the project
  - Promote changes through simulation
  - Provide feedback on changes
    - What worked
    - What didn’t work
    - What will be tried next

Providing Education

- Final education at the end of a project
  - Education is specific, not general
  - Disseminate final process or policy selected through the testing process throughout the project
  - Create tools to support new process
  - Hardwire education for future new hires

Providing Education: How Matters

- What do adults retain after three months?
  - Lecture-based training (e.g., presentations, videos, demonstrations, discussions) = 10%
  - Learn by doing (e.g., role plays, simulations, case studies) = 65%
  - Practice what was learned in the workplace = ~100%

IBM research; Whitmore, "Coaching for Performance."
http://www.aascu.org/corporatepartnership/McKinseyReport2.pdf

Communication during COVID-19

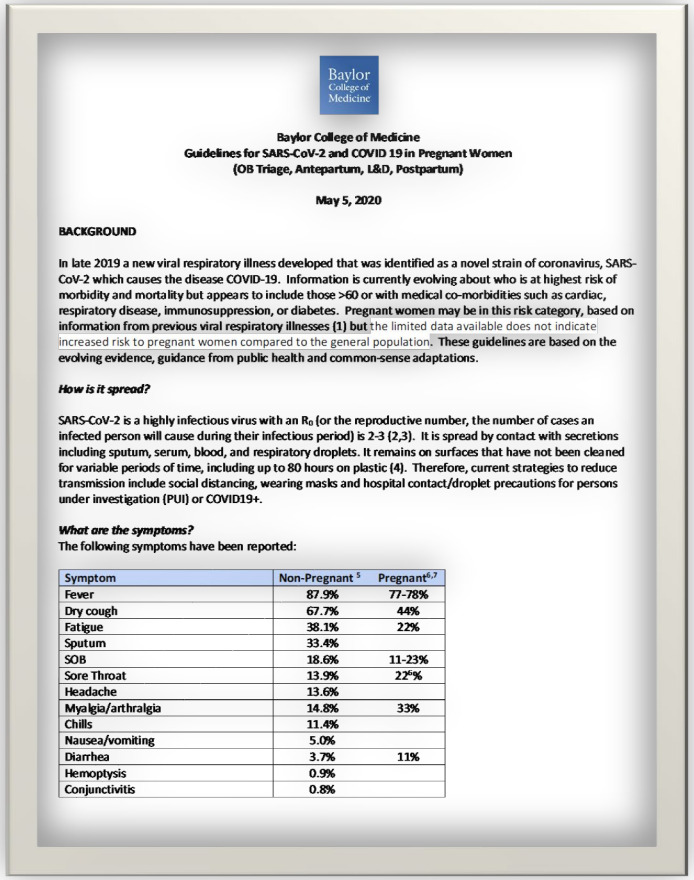
- Virtual platforms
- On L&D daily, in clinics
- Emails, newsletters
- Daily and weekly conference calls
  - Your unit operations teams
  - Your hospital teams
  - Other hospitals and partners
  - TexasAIM platform, PCRs, Regional and national collaboration

Listen and Adapt

- Marathon not a sprint
- Wellness
- Patient and Family Support

Create a protocol

- How many created the perfect COVID-19 protocol on the first try?
- How many times have you adapted your protocol?
- Is it perfect yet?



Baylor College of Medicine

Baylor College of Medicine
Guidelines for SARS-CoV-2 and COVID 19 in Pregnant Women
(OB Triage, Antepartum, L&D, Postpartum)

May 5, 2020

BACKGROUND

In late 2019 a new viral respiratory illness developed that was identified as a novel strain of coronavirus, SARS-CoV-2 which causes the disease COVID-19. Information is currently evolving about who is at highest risk of morbidity and mortality but appears to include those >60 or with medical co-morbidities such as cardiac, respiratory disease, immunosuppression, or diabetes. Pregnant women may be in this risk category, based on information from previous viral respiratory illnesses (1) but the limited data available does not indicate increased risk to pregnant women compared to the general population. These guidelines are based on the evolving evidence, guidance from public health and common-sense adaptations.

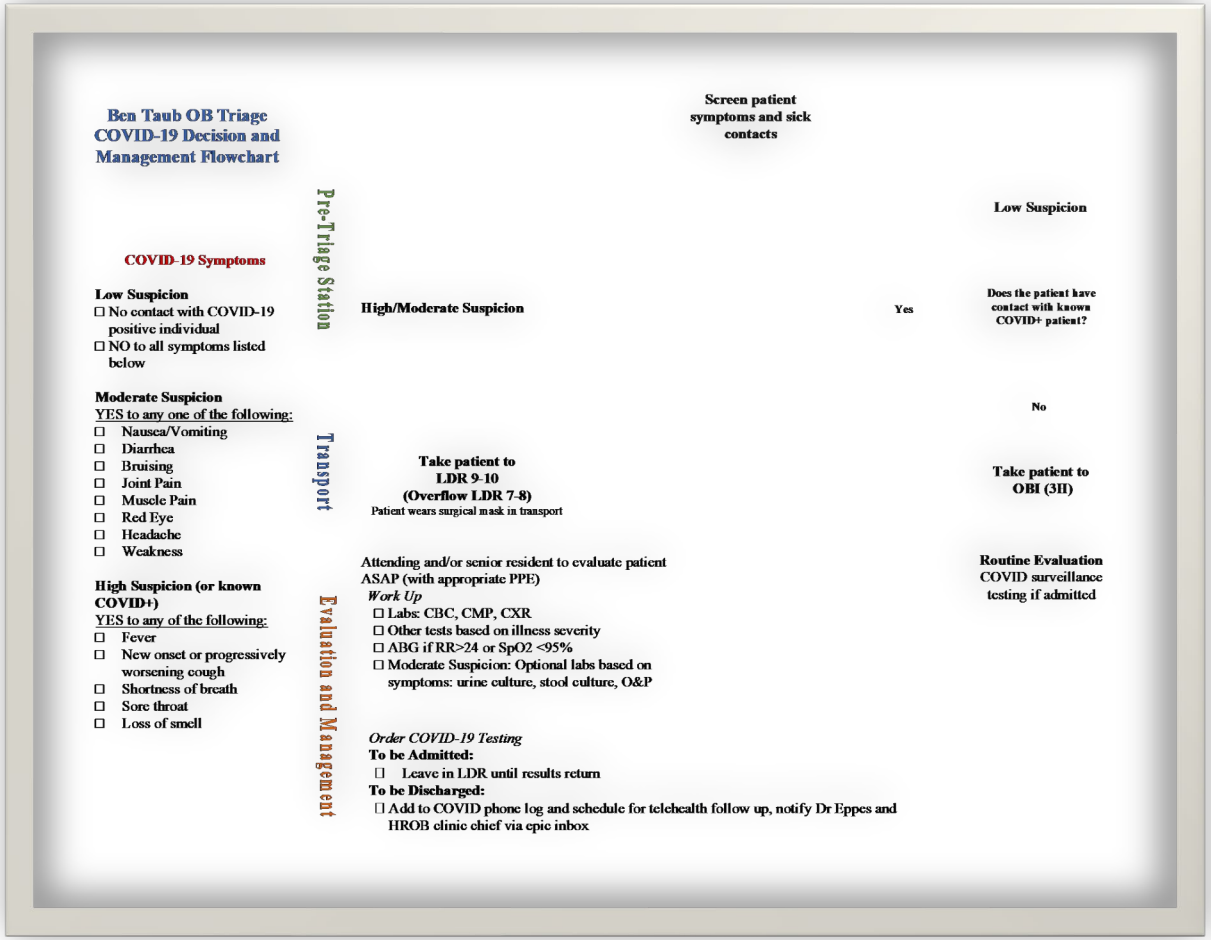
How is it spread?

SARS-CoV-2 is a highly infectious virus with an R_0 (or the reproductive number, the number of cases an infected person will cause during their infectious period) is 2-3 (2,3). It is spread by contact with secretions including sputum, serum, blood, and respiratory droplets. It remains on surfaces that have not been cleaned for variable periods of time, including up to 80 hours on plastic (4). Therefore, current strategies to reduce transmission include social distancing, wearing masks and hospital contact/droplet precautions for persons under investigation (PUI) or COVID19+.

What are the symptoms?
The following symptoms have been reported:

Symptom	Non-Pregnant [5]	Pregnant[6,7]
Fever	87.9%	77-78%
Dry cough	67.7%	44%
Fatigue	38.1%	22%
Sputum	33.4%	
SOB	18.6%	11-23%
Sore Throat	13.9%	22[6]%
Headache	13.6%	
Myalgia/arthralgia	14.8%	33%
Chills	11.4%	
Nausea/vomiting	5.0%	
Diarrhea	3.7%	11%
Hemoptysis	0.9%	
Conjunctivitis	0.8%	

Education plan



Ben Taub OB Triage COVID-19 Decision and Management Flowchart

Screen patient symptoms and sick contacts

Pre-Triage Station

COVID-19 Symptoms

Low Suspicion
- ☐ No contact with COVID-19 positive individual
- ☐ NO to all symptoms listed below

Moderate Suspicion
YES to any one of the following:
- ☐ Nausea/Vomiting
- ☐ Diarrhea
- ☐ Bruising
- ☐ Joint Pain
- ☐ Muscle Pain
- ☐ Red Eye
- ☐ Headache
- ☐ Weakness

High Suspicion (or known COVID+)
YES to any of the following:
- ☐ Fever
- ☐ New onset or progressively worsening cough
- ☐ Shortness of breath
- ☐ Sore throat
- ☐ Loss of smell

Low Suspicion

High/Moderate Suspicion

Yes

Does the patient have contact with known COVID+ patient?

No

Transport

Take patient to LDR 9-10 (Overflow LDR 7-8)
Patient wears surgical mask in transport

Take patient to OBI (3H)

Evaluation and Management

Attending and/or senior resident to evaluate patient ASAP (with appropriate PPE)

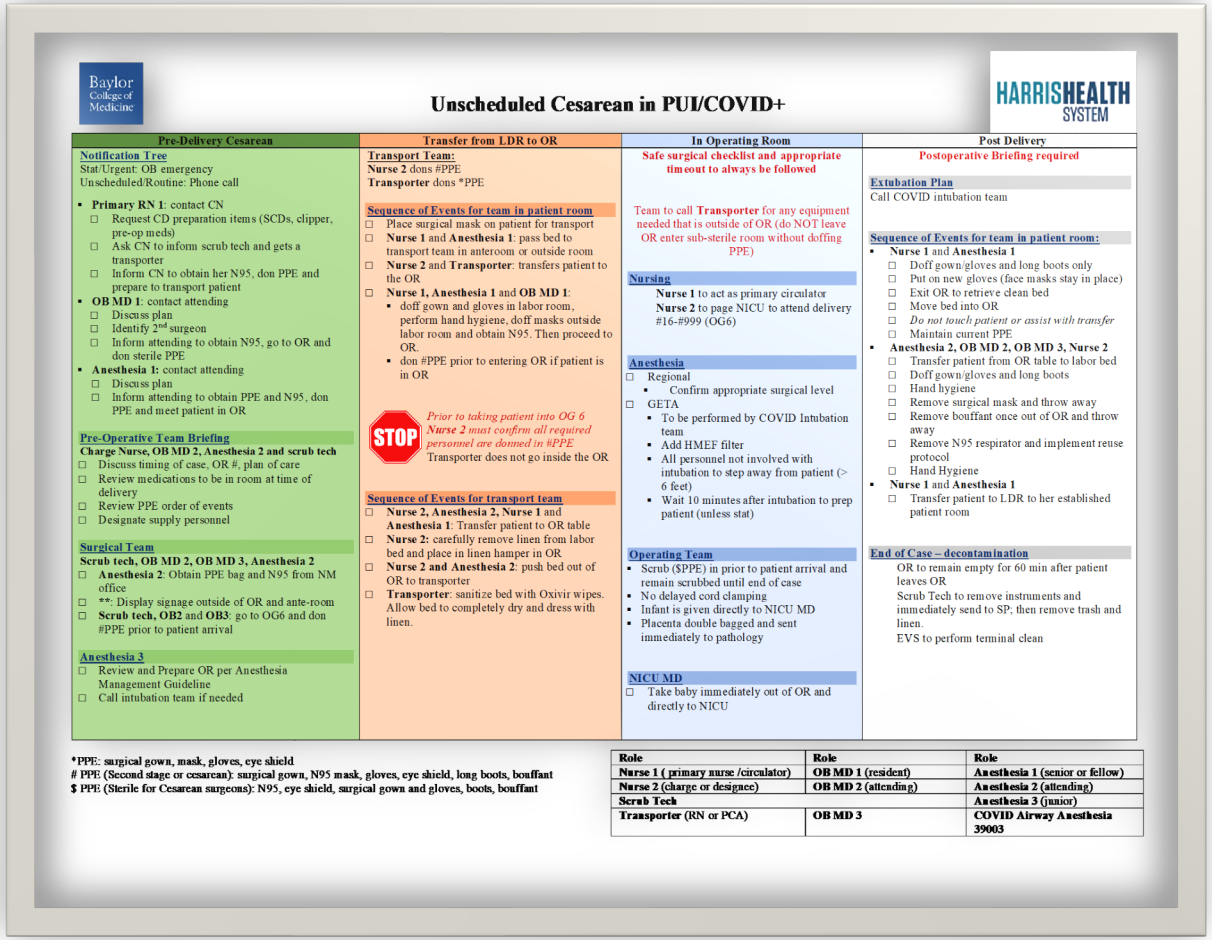
Work Up
- ☐ Labs: CBC, CMP, CXR
- ☐ Other tests based on illness severity
- ☐ ABG if RR>24 or SpO2 <95%
- ☐ Moderate Suspicion: Optional labs based on symptoms: urine culture, stool culture, O&P

Routine Evaluation COVID surveillance testing if admitted

Order COVID-19 Testing

To be Admitted:
- ☐ Leave in LDR until results return

To be Discharged:
- ☐ Add to COVID phone log and schedule for telehealth follow up, notify Dr Eppes and HROB clinic chief via epic inbox



Baylor College of Medicine

Unscheduled Cesarean in PUI/COVID+

HARRISHEALTH SYSTEM

Pre-Delivery Cesarean

Notification Tree
Stat/Urgent: OB emergency
Unscheduled/Routine: Phone call

- **Primary RN 1**: contact CN
  - ☐ Request CD preparation items (SCDs, clipper, pre-op meds)
  - ☐ Ask CN to inform scrub tech and gets a transporter
  - ☐ Inform CN to obtain her N95, don PPE and prepare to transport patient
- **OB MD 1**: contact attending
  - ☐ Discuss plan
  - ☐ Identify 2nd surgeon
  - ☐ Inform attending to obtain N95, go to OR and don sterile PPE
- **Anesthesia 1**: contact attending
  - ☐ Discuss plan
  - ☐ Inform attending to obtain PPE and N95, don PPE and meet patient in OR

Pre-Operative Team Briefing
Charge Nurse, OB MD 2, Anesthesia 2 and scrub tech
- ☐ Discuss timing of case, OR #, plan of care
- ☐ Review medications to be in room at time of delivery
- ☐ Review PPE order of events
- ☐ Designate supply personnel

Surgical Team
Scrub tech, OB MD 2, OB MD 3, Anesthesia 2
- ☐ **Anesthesia 2**: Obtain PPE bag and N95 from NM office
- ☐ ******: Display signage outside of OR and ante-room
- ☐ **Scrub tech, OB2** and **OB3**: go to OG6 and don #PPE prior to patient arrival

Anesthesia 3
- ☐ Review and Prepare OR per Anesthesia Management Guideline
- ☐ Call intubation team if needed

Transfer from LDR to OR

Transport Team:
Nurse 2 dons #PPE
Transporter dons *PPE

Sequence of Events for team in patient room
- ☐ Place surgical mask on patient for transport
- ☐ **Nurse 1** and **Anesthesia 1**: pass bed to transport team in anteroom or outside room
- ☐ **Nurse 2** and **Transporter**: transfers patient to the OR
- ☐ **Nurse 1, Anesthesia 1** and **OB MD 1**:
  - doff gown and gloves in labor room, perform hand hygiene, doff masks outside labor room and obtain N95. Then proceed to OR.
  - don #PPE prior to entering OR if patient is in OR

STOP *Prior to taking patient into OG 6 **Nurse 2** must confirm all required personnel are donned in #PPE*
Transporter does not go inside the OR

Sequence of Events for transport team
- ☐ **Nurse 2, Anesthesia 2, Nurse 1** and **Anesthesia 1**: Transfer patient to OR table
- ☐ **Nurse 2:** carefully remove linen from labor bed and place in linen hamper in OR
- ☐ **Nurse 2 and Anesthesia 2**: push bed out of OR to transporter
- ☐ **Transporter**: sanitize bed with Oxivir wipes. Allow bed to completely dry and dress with linen.

In Operating Room

Safe surgical checklist and appropriate timeout to always be followed

Team to call **Transporter** for any equipment needed that is outside of OR (do NOT leave OR enter sub-sterile room without doffing PPE)

Nursing
Nurse 1 to act as primary circulator
Nurse 2 to page NICU to attend delivery #16-#999 (OG6)

Anesthesia
- ☐ Regional
  - Confirm appropriate surgical level
- ☐ GETA
  - To be performed by COVID Intubation team
  - Add HMEF filter
  - All personnel not involved with intubation to step away from patient (> 6 feet)
  - Wait 10 minutes after intubation to prep patient (unless stat)

Operating Team
- Scrub ($PPE) in prior to patient arrival and remain scrubbed until end of case
- No delayed cord clamping
- Infant is given directly to NICU MD
- Placenta double bagged and sent immediately to pathology

NICU MD
- ☐ Take baby immediately out of OR and directly to NICU

Post Delivery

Postoperative Briefing required

Extubation Plan
Call COVID intubation team

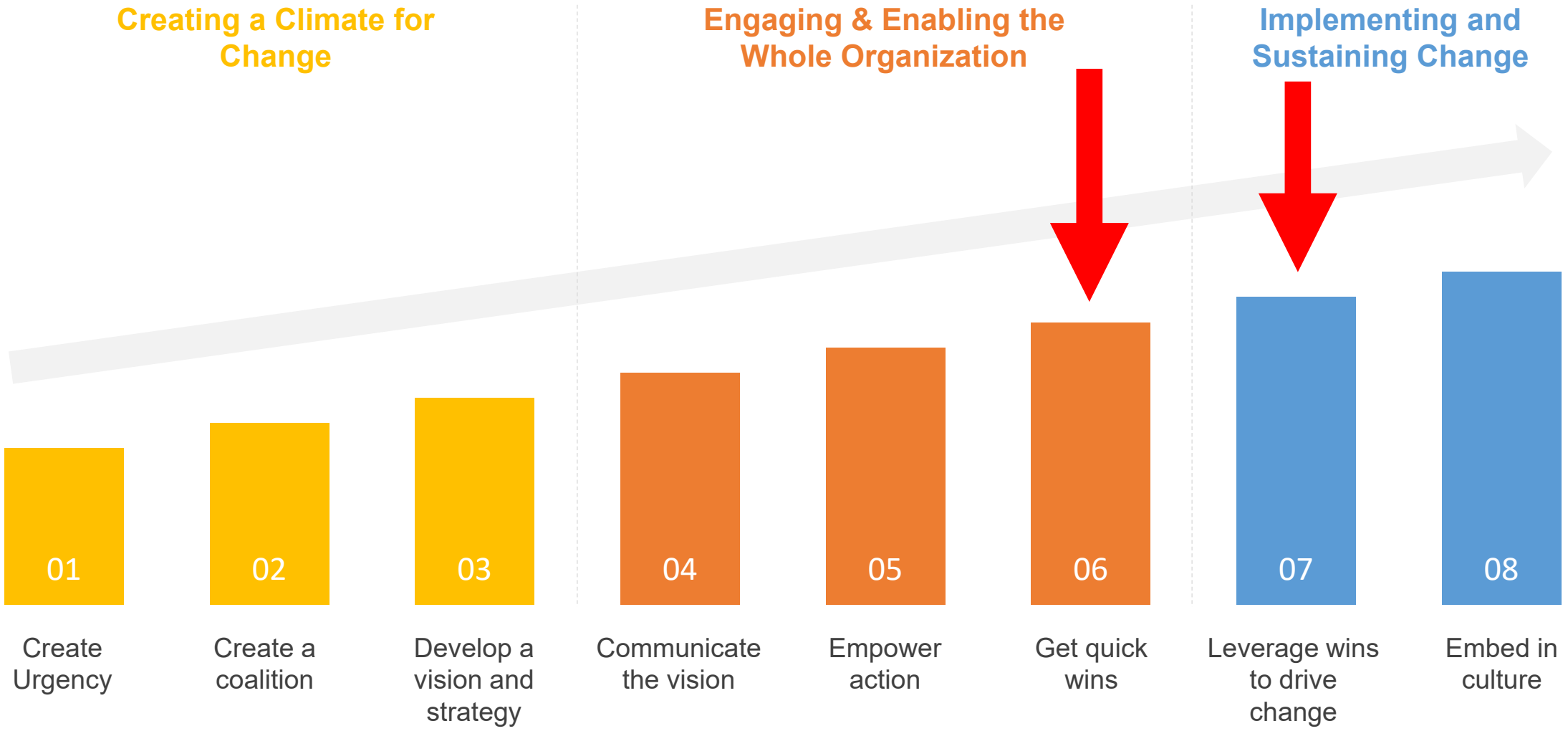
Sequence of Events for team in patient room:
- **Nurse 1** and **Anesthesia 1**
  - ☐ Doff gown/gloves and long boots only
  - ☐ Put on new gloves (face masks stay in place)
  - ☐ Exit OR to retrieve clean bed
  - ☐ Move bed into OR
  - ☐ *Do not touch patient or assist with transfer*
  - ☐ Maintain current PPE
- **Anesthesia 2, OB MD 2, OB MD 3, Nurse 2**
  - ☐ Transfer patient from OR table to labor bed
  - ☐ Doff gown/gloves and long boots
  - ☐ Hand hygiene
  - ☐ Remove surgical mask and throw away
  - ☐ Remove bouffant once out of OR and throw away
  - ☐ Remove N95 respirator and implement reuse protocol
  - ☐ Hand Hygiene
- **Nurse 1** and **Anesthesia 1**
  - ☐ Transfer patient to LDR to her established patient room

End of Case – decontamination
OR to remain empty for 60 min after patient leaves OR
Scrub Tech to remove instruments and immediately send to SP; then remove trash and linen.
EVS to perform terminal clean

*****PPE: surgical gown, mask, gloves, eye shield
PPE (Second stage or cesarean): surgical gown, N95 mask, gloves, eye shield, long boots, bouffant
$ PPE (Sterile for Cesarean surgeons): N95, eye shield, surgical gown and gloves, boots, bouffant

Role	Role	Role
Nurse 1 (primary nurse /circulator)	**OB MD 1** (resident)	**Anesthesia 1** (senior or fellow)
Nurse 2 (charge or designee)	**OB MD 2** (attending)	**Anesthesia 2** (attending)
Scrub Tech		**Anesthesia 3** (junior)
Transporter (RN or PCA)	**OB MD 3**	**COVID Airway Anesthesia 39003**

8 Step Kotter Model of Change



Data Reporting

- “Quick Wins”
  - Improvement in a process or structure measure
- PDCA Cycles
- Anchor in communications and dissemination

Aim

- ❑ Understand performance of current system
- ❑ Draft aim
- ❑ Create numeric theory for reaching aim

Measures

- ❑ Develop initial measures
- ❑ Test measurement strategy
- ❑ Collect baseline
- ❑ Finalize measurement strategy
- ❑ Create data collection plan
- ❑ Begin collecting data
- ❑ Set-up run charts to make plotting data easy

Changes

- ❑ Understand how the current system works (e.g., observation, process flow)
- ❑ Conduct internal/external information gathering (e.g., interview key stakeholders)
- ❑ Develop way to show system (e.g., driver diagram, block diagram)
- ❑ Identify high-leverage PDSA ramps
- ❑ Develop a set of change ideas to begin testing

Testing

- ❑ Develop schedule for testing
- ❑ Run initial PDSAs
- ❑ Identify next PDSAs
- ❑ Run X PDSAs

Establish Team

- ❑ Identify team leadership
- ❑ Identify other team members
- ❑ Recruit team members
- ❑ Develop working agreement with team lead
- ❑ Create norms for team

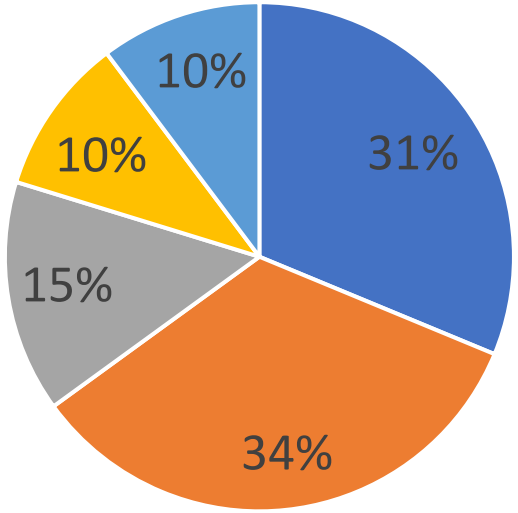
Other

- ❑ Schedule retreat
- ❑ Set-up team meetings
- ❑ Set-up meetings with executive sponsor
- ❑ Develop system to track and record information
- ❑ Communicate about efforts with key stakeholders

Data Reporting and Monitoring

- Schedule PDCA cycles
- Determine what data is reported to your QAPI and with what frequency
- What does sustainability look like?

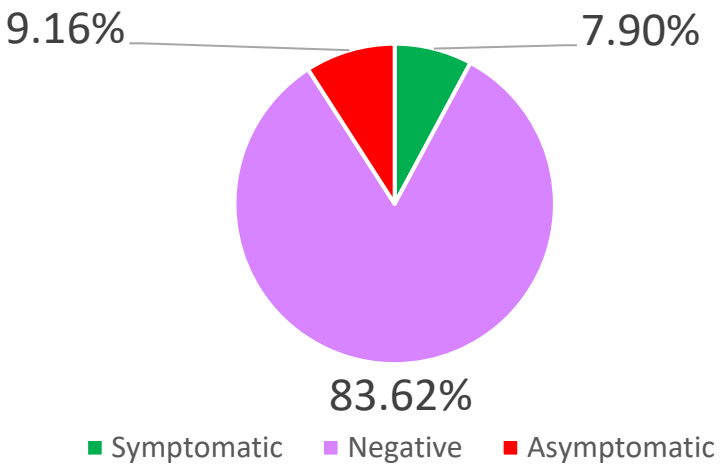
COVID Testing on L&D



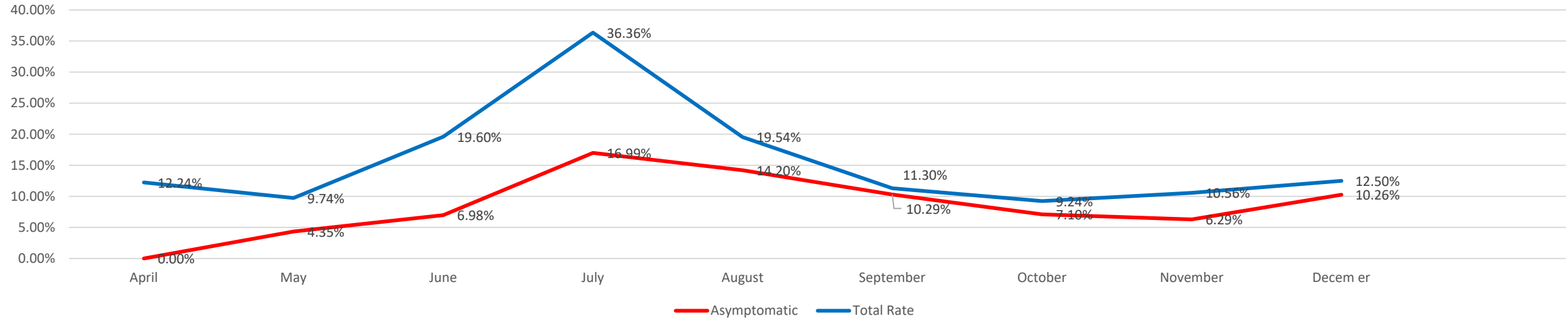
Illness Severity
n=1000

- Asymptomatic
- Mild
- Moderate
- Severe
- Critical

Total L&D Population Tested Since March 2020
Numerator (+) = 222
Denominator=1355



Testing Rates L&D



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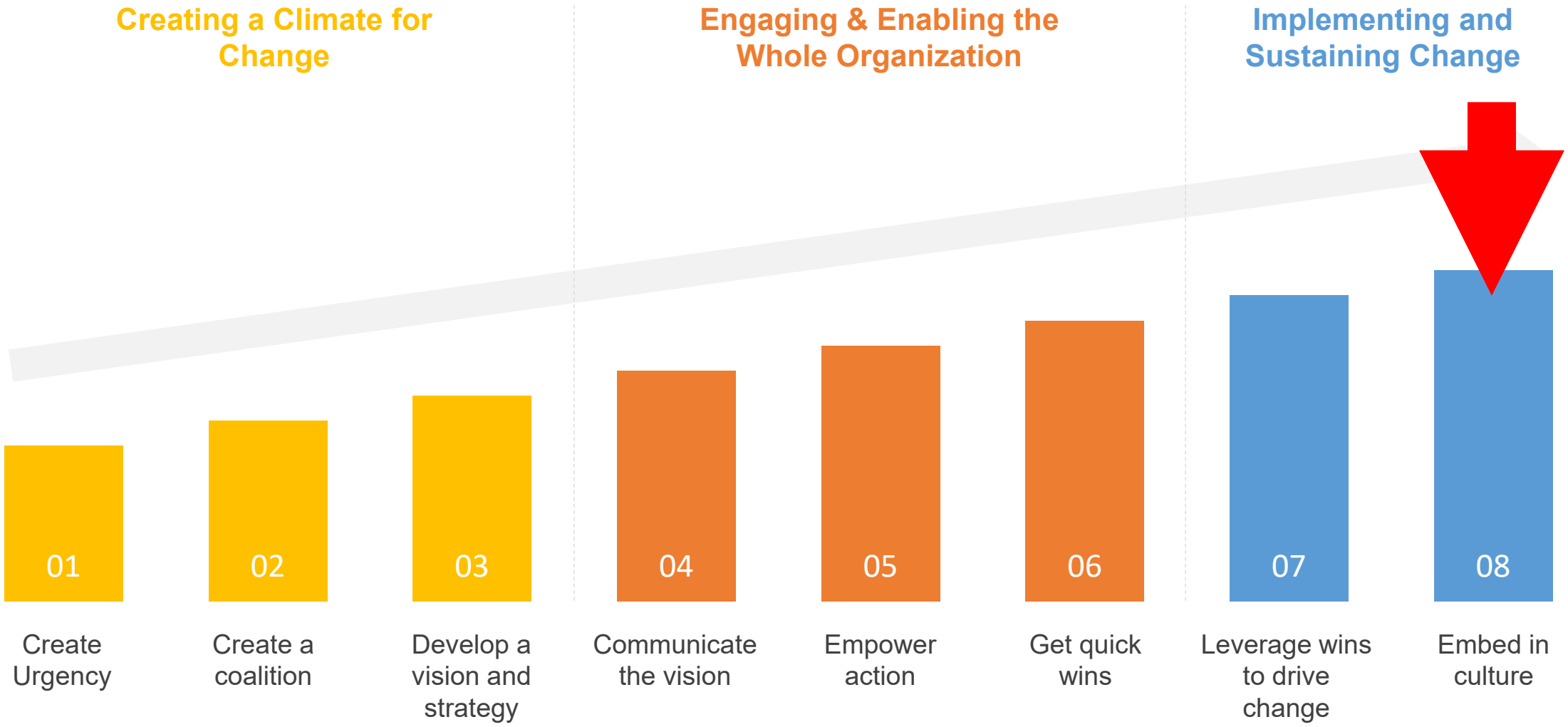


What is sustainability

TEXAS Health and Human Services

Texas Department of State Health Services

- “Holding the gains”
- “Keeping something going over time or continuously”
- “New ways of working and improved outcomes become the norm. Not only have the process and outcome changed, but also the thinking and attitudes behind them are fundamentally altered and the systems surrounding them are transformed in support.
- “Further, it has been able to withstand challenge and variation; it has co-evolved with other changes in the context, and perhaps has actually continued to improve over time.”

6 critical success factors for successfully improving healthcare

TEXAS Health and Human Services

Texas Department of State Health Services

- Strong Leadership – at all levels
- Supportive culture and infrastructure to support improvement
- Physician involvement and accountability
- Frontline staff involvement and accountability
- Use of data to measure performance and drive improvement
- Effective communication strategies

Source: AQHR

How do you transition from implementation to sustained results?

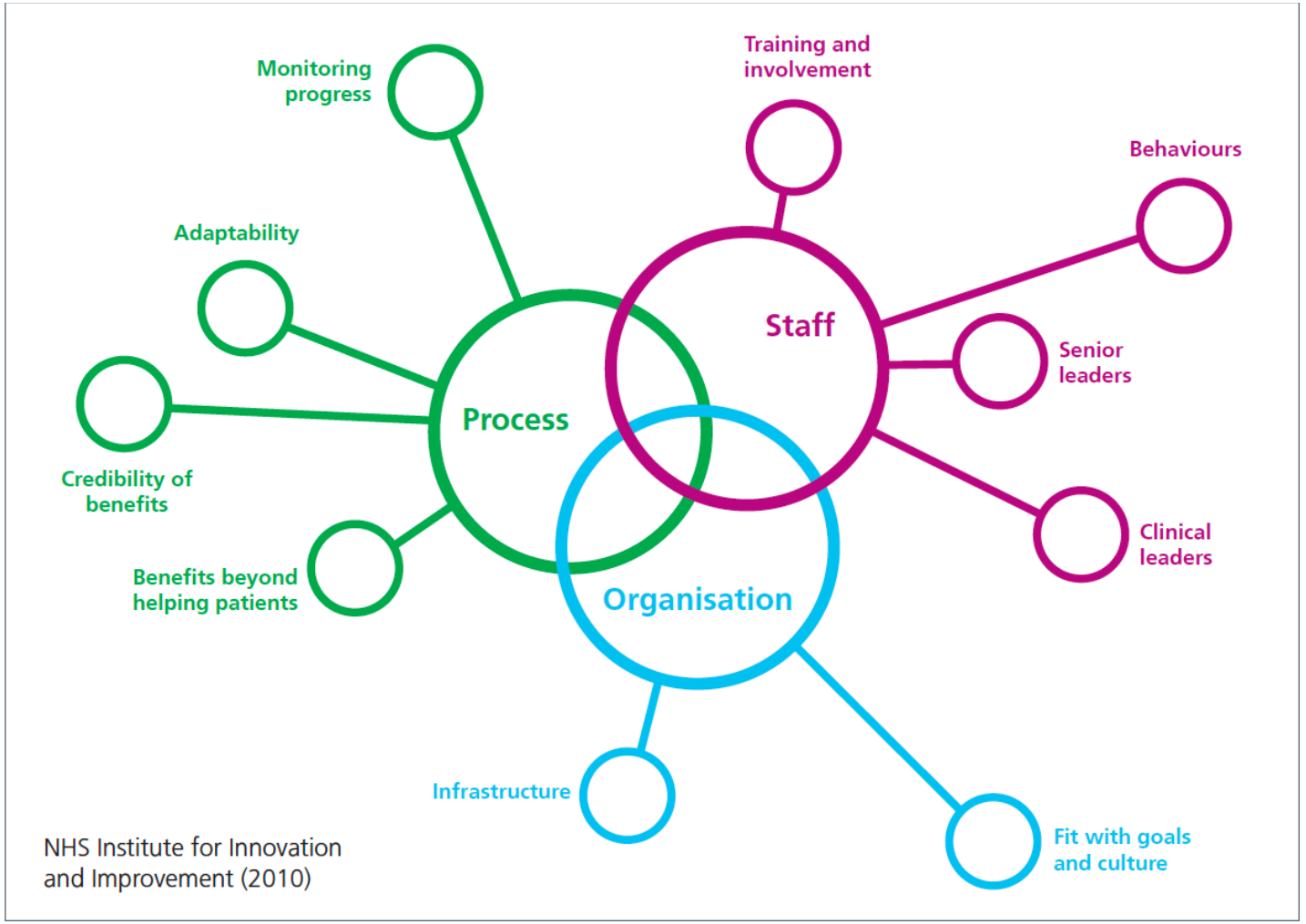
What will we continue to measure?

What will we stop measuring?

Are our changes increasing the overall workload to the system?

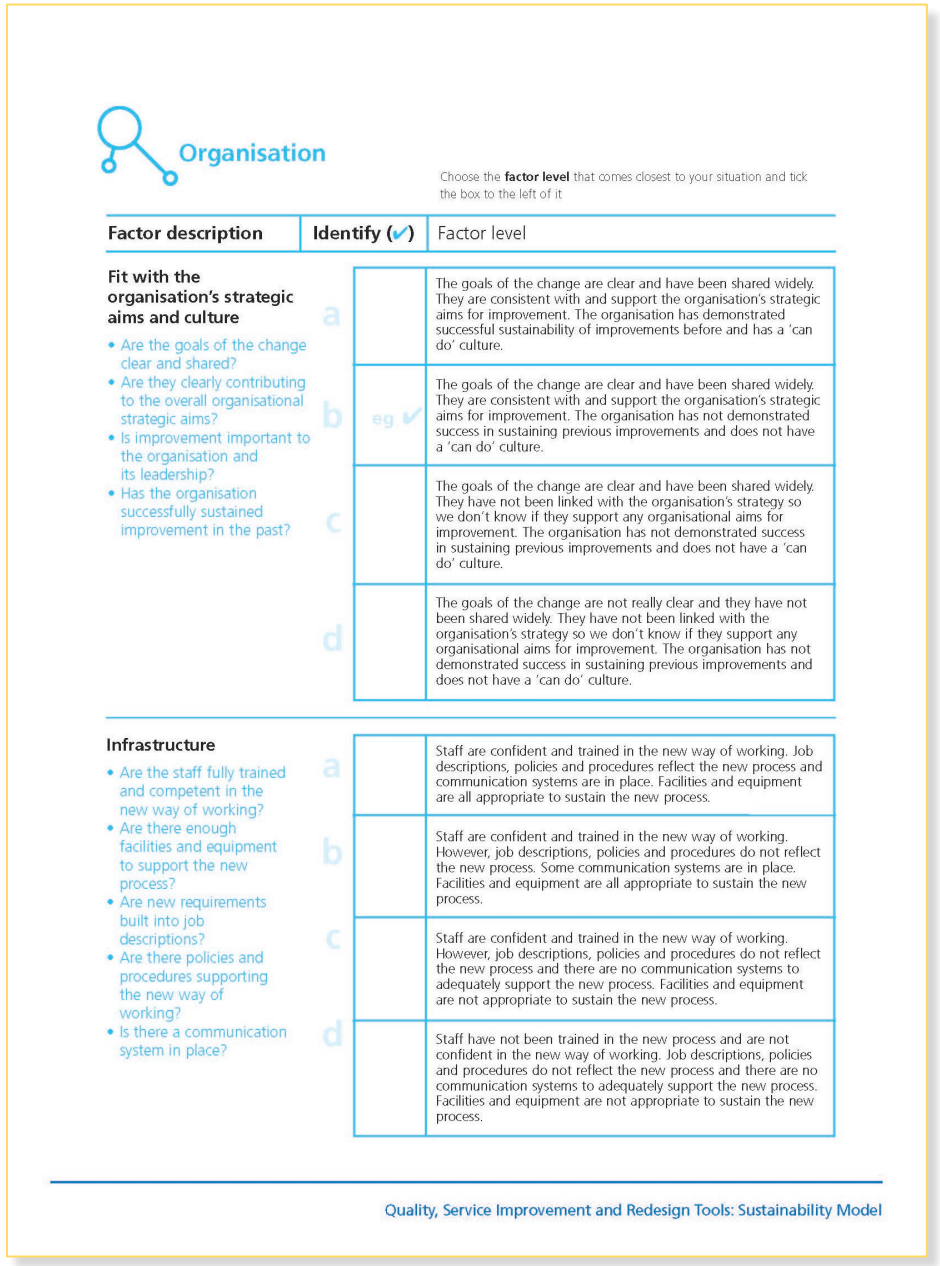
Sustainability Model

From NHS ACT Academy Online library of quality, Service improvement tools: Sustainability Model



Organizational level

- Are the goals of the change clear and shared?
- Are they clearly contributing to the overall organizational strategic aims?
- Is improvement important to the organization and its leadership?
- Has the organization successfully sustained improvement in the past?



Organisation

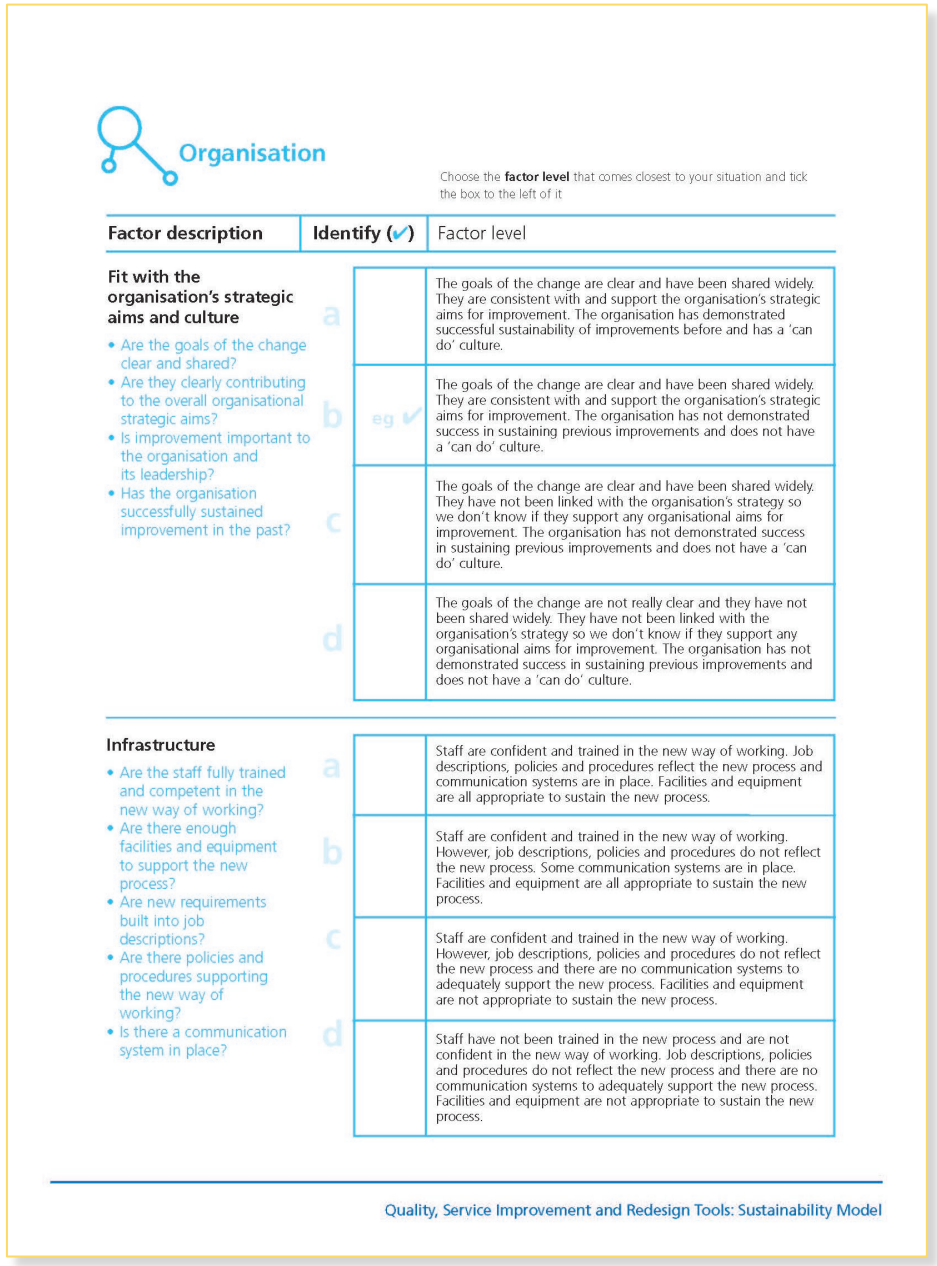
Choose the **factor level** that comes closest to your situation and tick the box to the left of it

Factor description		Identify (✔)	Factor level
Fit with the organisation's strategic aims and culture • Are the goals of the change clear and shared? • Are they clearly contributing to the overall organisational strategic aims? • Is improvement important to the organisation and its leadership? • Has the organisation successfully sustained improvement in the past?	a		The goals of the change are clear and have been shared widely. They are consistent with and support the organisation's strategic aims for improvement. The organisation has demonstrated successful sustainability of improvements before and has a 'can do' culture.
	b	eg ✔	The goals of the change are clear and have been shared widely. They are consistent with and support the organisation's strategic aims for improvement. The organisation has not demonstrated success in sustaining previous improvements and does not have a 'can do' culture.
	c		The goals of the change are clear and have been shared widely. They have not been linked with the organisation's strategy so we don't know if they support any organisational aims for improvement. The organisation has not demonstrated success in sustaining previous improvements and does not have a 'can do' culture.
	d		The goals of the change are not really clear and they have not been shared widely. They have not been linked with the organisation's strategy so we don't know if they support any organisational aims for improvement. The organisation has not demonstrated success in sustaining previous improvements and does not have a 'can do' culture.
Infrastructure • Are the staff fully trained and competent in the new way of working? • Are there enough facilities and equipment to support the new process? • Are new requirements built into job descriptions? • Are there policies and procedures supporting the new way of working? • Is there a communication system in place?	a		Staff are confident and trained in the new way of working. Job descriptions, policies and procedures reflect the new process and communication systems are in place. Facilities and equipment are all appropriate to sustain the new process.
	b		Staff are confident and trained in the new way of working. However, job descriptions, policies and procedures do not reflect the new process. Some communication systems are in place. Facilities and equipment are all appropriate to sustain the new process.
	c		Staff are confident and trained in the new way of working. However, job descriptions, policies and procedures do not reflect the new process and there are no communication systems to adequately support the new process. Facilities and equipment are not appropriate to sustain the new process.
	d		Staff have not been trained in the new process and are not confident in the new way of working. Job descriptions, policies and procedures do not reflect the new process and there are no communication systems to adequately support the new process. Facilities and equipment are not appropriate to sustain the new process.

Quality, Service Improvement and Redesign Tools: Sustainability Model

Organizational level - Infrastructure

- Are the staff fully trained and competent in the new way of working?
- Are there enough facilities and equipment to support the new process?
- Are new requirements built into job descriptions?
- Are there policies and procedures supporting the new way of working?
- Is there a communication system in place?



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Quality, Service Improvement and Redesign Tools: Sustainability Model

Master scoring systems: Enter your scores

Process

	Write your score in the circle	
Benefits beyond helping patients		a 8.5 b 4.7 c 4.0 d 0.0
Credibility of the evidence		a 9.1 b 6.3 c 3.1 d 0.0
Adaptability of improved process		a 7.0 b 3.4 c 2.4 d 0.0
Effectiveness of the system to monitor progress		a 6.5 b 3.3 c 2.4 d 0.0

Staff

	Write your score in the circle	
Staff involvement and training to sustain the process		a 11.4 b 6.3 c 4.9 d 0.0
Staff behaviours toward sustaining the change		a 11.0 b 5.1 c 5.1 d 0.0
Senior leadership engagement		a 15.0 b 6.2 c 5.7 d 0.0
Clinical leadership engagement		a 15.0 b 6.7 c 5.5 d 0.0

Organisation

	Write your score in the circle	
Fit with the organisation's strategic aims and culture		a 7.0 b 3.5 c 3.3 d 0.0
Infrastructure for sustainability		a 9.5 b 4.4 c 3.3 d 0.0

Calculate your total scores

Process total score: Write your score in the circle

Staff total score: Write your score in the circle

Organisation total score: Write your score in the circle

Sustainability total score: Write your score in the circle

To calculate your score, use the master score system on the previous page. Add the **process**, **staff** and **organisation** scores together and place in the **sustainability total score** box above. **Now go to the bar chart and portal diagram on pages 28–31 and plot your scores.**

Interpreting your scores

We do advocate that you use the Sustainability Model at the beginning of your improvement initiative as it can provide you with a valuable understanding of where you can strengthen your work in order to maximise the potential for sustainability. You need to note that at this stage it is normal to have low scores in one or two of the factors. For example; infrastructure often has a low score initially as the tasks of fully training staff in the new process and reviewing role descriptions are usually undertaken later in the project. With each score teams

Improving Outcomes in Obstetric Patients with COVID-19

Incorporating Health Equity into Your QI Project

COUNCIL ON PATIENT SAFETY IN WOMEN'S HEALTH CARE

safe health care for every woman

READINESS

Every health system

- Establish systems to accurately document self-identified race, ethnicity, and primary language.
  - Provide system-wide staff education and training on how to ask demographic intake questions.
  - Ensure that patients understand why race, ethnicity, and language data are being collected.
  - Ensure that race, ethnicity, and language data are accessible in the electronic medical record.
  - Evaluate non-English language proficiency (e.g. Spanish proficiency) for providers who communicate with patients in languages other than English.
  - Educate all staff (e.g. inpatient, outpatient, community-based) on interpreter services available within the healthcare system.
- Provide staff-wide education on:
  - Peripartum racial and ethnic disparities and their root causes.
  - Best practices for shared decision making.
- Engage diverse patient, family, and community advocates who can represent important community partnerships on quality and safety leadership teams.

RECOGNITION

Every patient, family, and staff member

- Provide staff-wide education on implicit bias.
- Provide convenient access to health records without delay (paper or electronic), at minimal to no fee to the maternal patient, in a clear and simple format that summarizes information most pertinent to perinatal care and wellness.
- Establish a mechanism for patients, families, and staff to report inequitable care and episodes of miscommunication or disrespect.

PATIENT SAFETY BUNDLE

Reduction of Peripartum Racial/Ethnic Disparities

COUNCIL ON PATIENT SAFETY IN WOMEN'S HEALTH CARE

safe health care for every woman

RESPONSE

Every clinical encounter

- Engage in best practices for shared decision making.
- Ensure a timely and tailored response to each report of inequity or disrespect.
- Address reproductive life plan and contraceptive options not only during or immediately after pregnancy, but at regular intervals throughout a woman's reproductive life.
- Establish discharge navigation and coordination systems post childbirth to ensure that women have appropriate follow-up care and understand when it is necessary to return to their health care provider.
  - Provide discharge instructions that include information about what danger or warning signs to look out for, whom to call, and where to go if they have a question or concern.
  - Design discharge materials that meet patients' health literacy, language, and cultural needs.

REPORTING & SYSTEMS LEARNING

Every clinical unit

- Build a culture of equity, including systems for reporting, response, and learning similar to ongoing efforts in safety culture.
- Develop a disparities dashboard that monitors process and outcome metrics stratified by race and ethnicity, with regular dissemination of the stratified performance data to staff and leadership.
- Implement quality improvement projects that target disparities in healthcare access, treatment, and outcomes.
- Consider the role of race, ethnicity, language, poverty, literacy, and other social determinants of health, including racism at the interpersonal and system-level when conducting multidisciplinary reviews of severe maternal morbidity, mortality, and other clinically important metrics.
  - Add as a checkbox on the review sheet: Did race/ethnicity (i.e. implicit bias), language barrier, or specific social determinants of health contribute to the morbidity (yes/no/maybe)? And if so, are there system changes that could be implemented that could alter the outcome?

PATIENT SAFETY BUNDLE

Reduction of Peripartum Racial/Ethnic Disparities

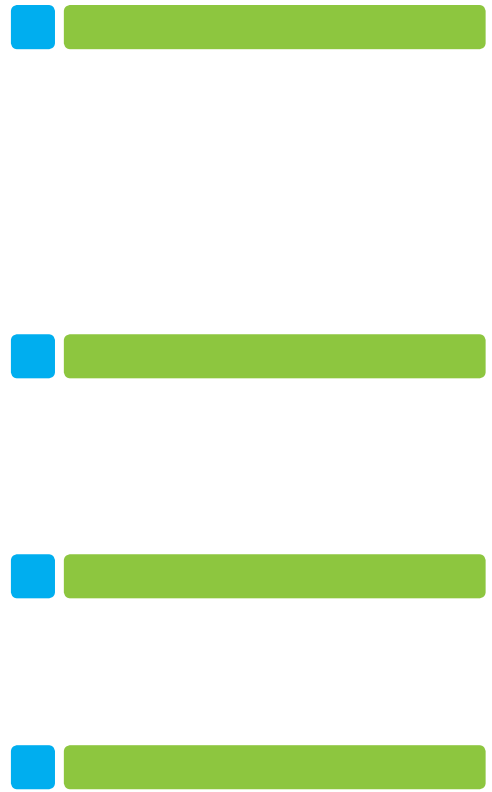
- Provide Staff Wide education about the importance of racial and ethnic disparities and their origin
- Establish systems to collect data at the patient level related to race, ethnicity, language, SDoH
- Ensure all readiness strategies are applied equitably in all populations

- Provide staff-wide education about implicit bias

- Create systems that minimize or eliminate bias in response
- Use shared—decision making

- Disaggregate data by race, ethnicity, language, payer status in all outcomes and process measures
- Include SDoH in case reviews

COUNCIL ON PATIENT SAFETY
IN WOMEN'S HEALTH CARE

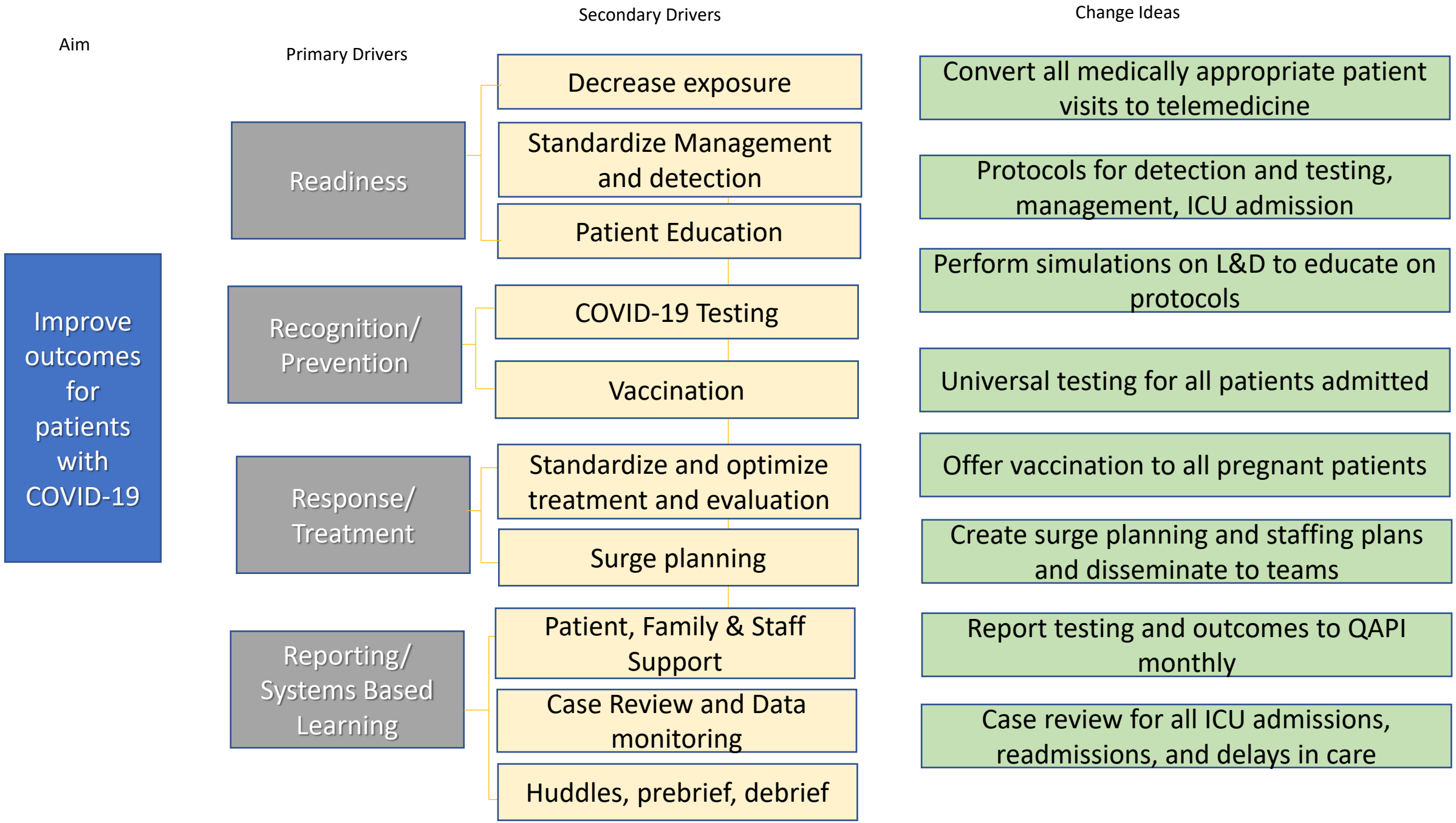


les for high risk patients and post-event debriefs to identify successes and opportunities
- Multidisciplinary review of serious hemorrhages for systems issues
- Monitor outcomes and process metrics in perinatal quality improvement (QI) committee

Assumptions

- You have a process in place to assess race, ethnicity, language, literacy, social determinants of health
- You can disaggregate/stratify data by race ethnicity
- You have a culture that is engaged in the impact of healthcare disparities

Creating a Health Equity Culture


Aim
Primary Drivers
Secondary Drivers
Change Ideas
Improve outcomes for patients with COVID-19
Readiness
Recognition/ Prevention
Response/ Treatment
Reporting/ Systems Based Learning
Decrease exposure
Standardize Management and detection
Patient Education
COVID-19 Testing
Vaccination
Standardize and optimize treatment and evaluation
Surge planning
Patient, Family & Staff Support
Case Review and Data monitoring
Huddles, prebrief, debrief
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Universal testing for all patients admitted
Offer vaccination to all pregnant patients
Create surge planning and staffing plans and disseminate to teams
Report testing and outcomes to QAPI monthly
Case review for all ICU admissions, readmissions, and delays in care

Data Collection

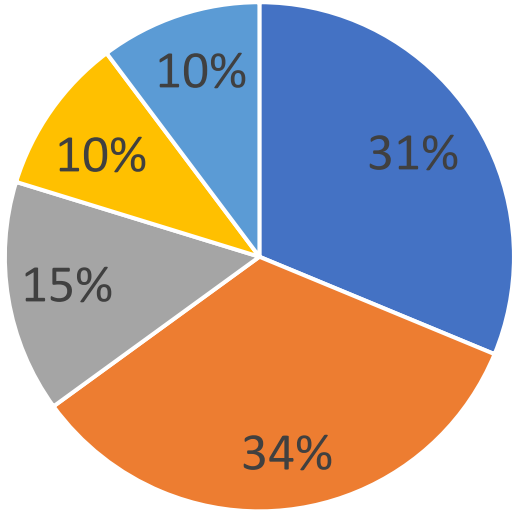
Data/outcome planned for:

- Rates of asymptomatic positivity
- Rates of total positivity
- Patient demographics, illness severity, interventions
- Telemedicine follow up, readmissions

Case Review:

- ICU admissions
- Readmissions
- Delays in treatment or diagnosis

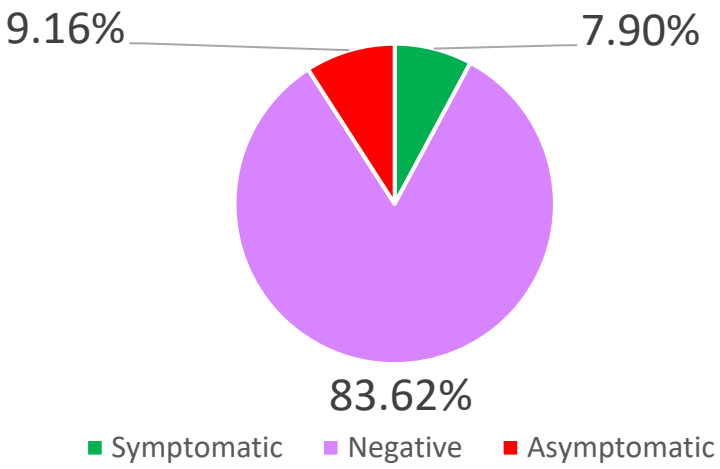
COVID Testing on L&D



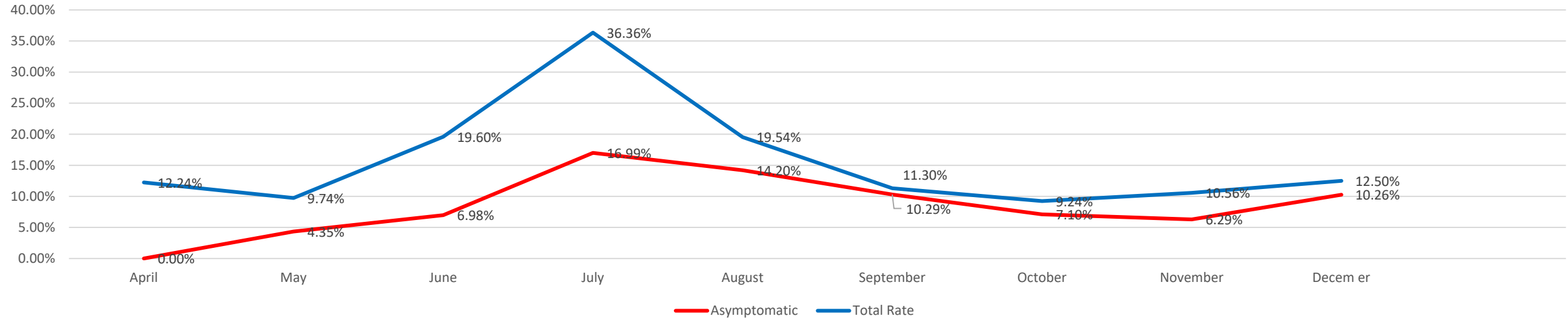
Illness Severity
n=1000

- Asymptomatic
- Mild
- Moderate
- Severe
- Critical

Total L&D Population Tested Since March 2020
Numerator (+) = 222
Denominator=1355



Testing Rates L&D



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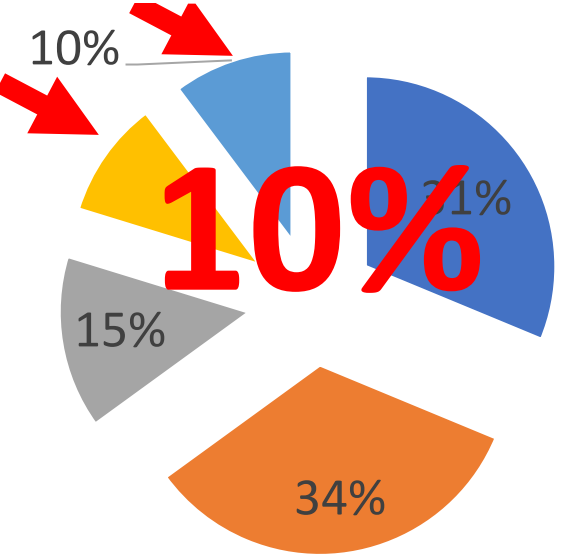

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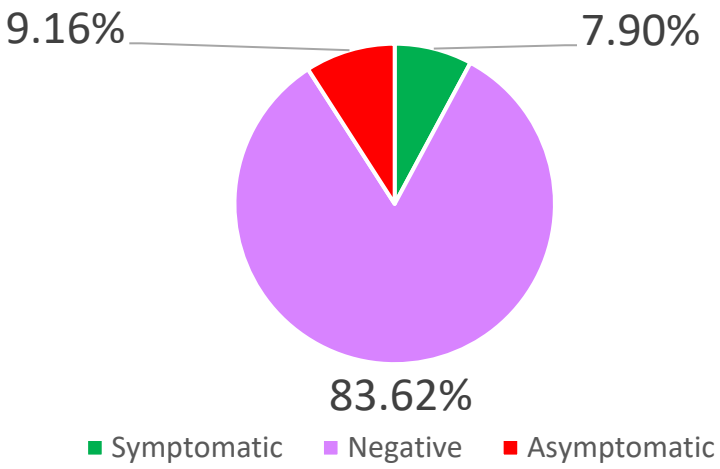

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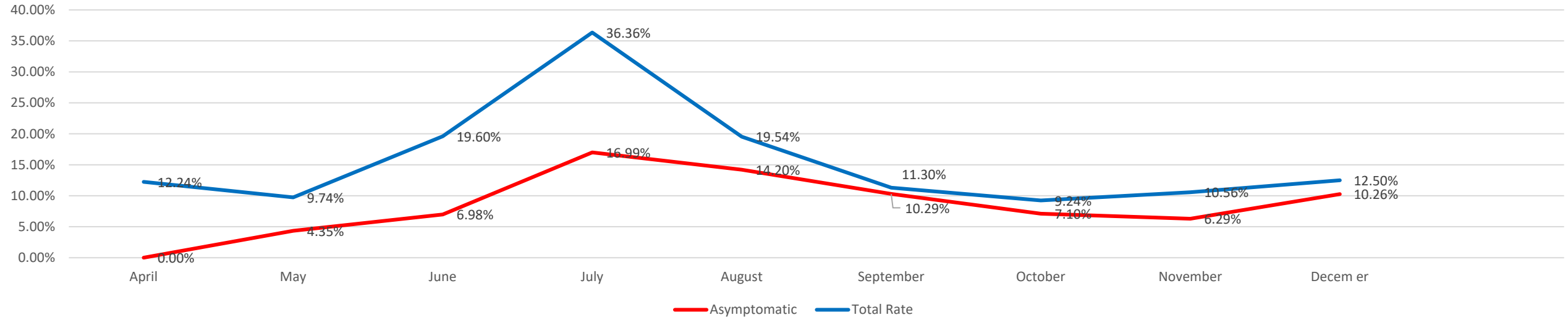


PDSA Cycles

- Re-evaluate your approach to providing care for patients with COVID-19
- Your team gathers for a planned PDCA cycle and reviews the data

PDSA Cycles

- Rates of ICU admissions/critical illness are higher than that reported in the literature for obstetric patients
- New goal: reduction of ICU admission in COVID-19 patients by 50% by April 2021

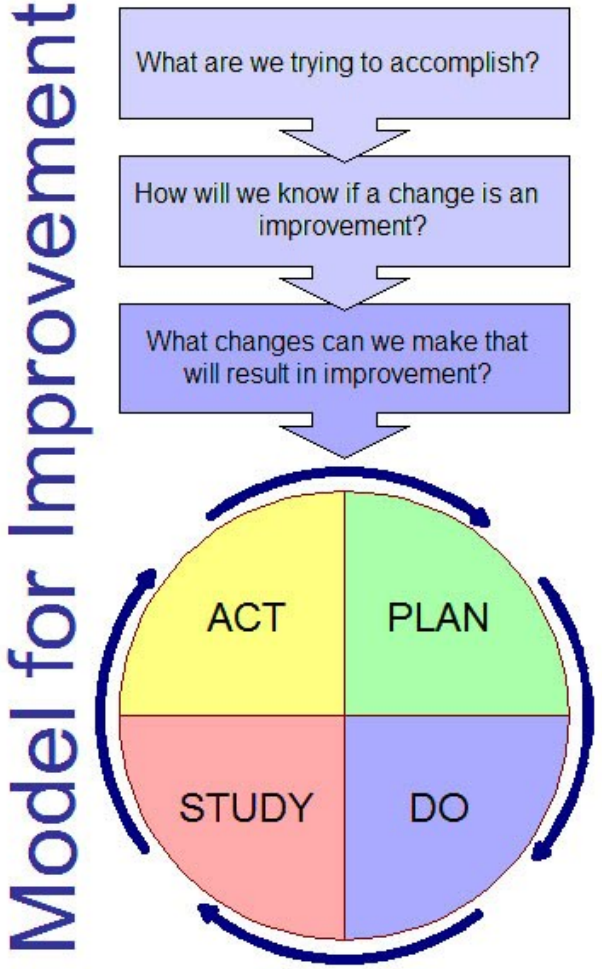
What are possible features of your plan that lead to disparate outcomes?

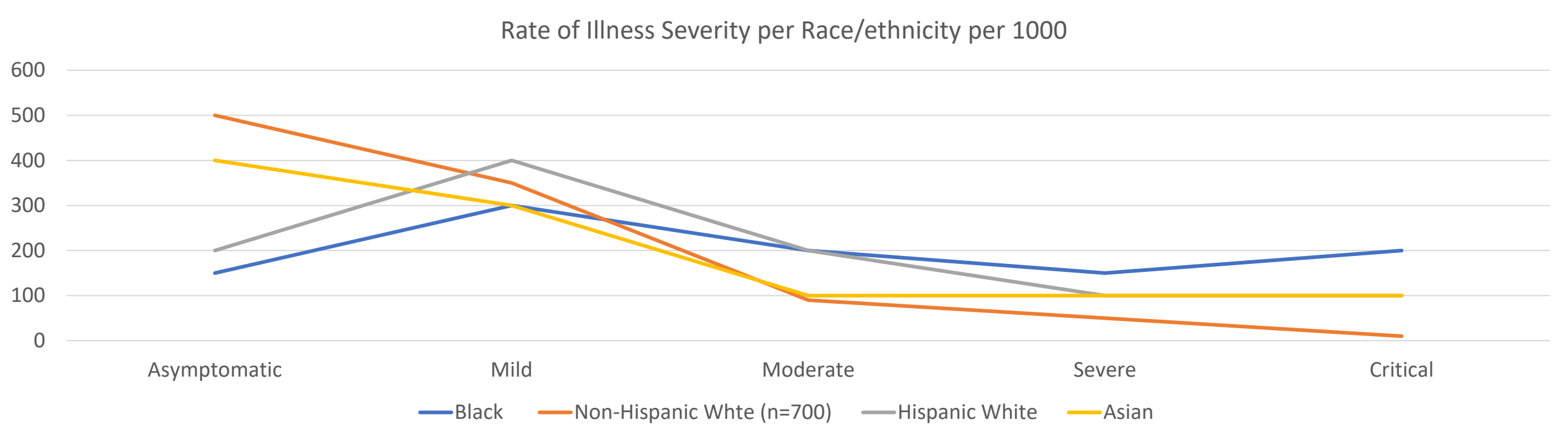
PDSA: Using Data Stratification to Improve Health Equity

- What are we trying to accomplish?
  - Provide organizational leaders with strategic measures stratified by race, ethnicity, language to reveal disparities that can be reduced/eliminated to improve care

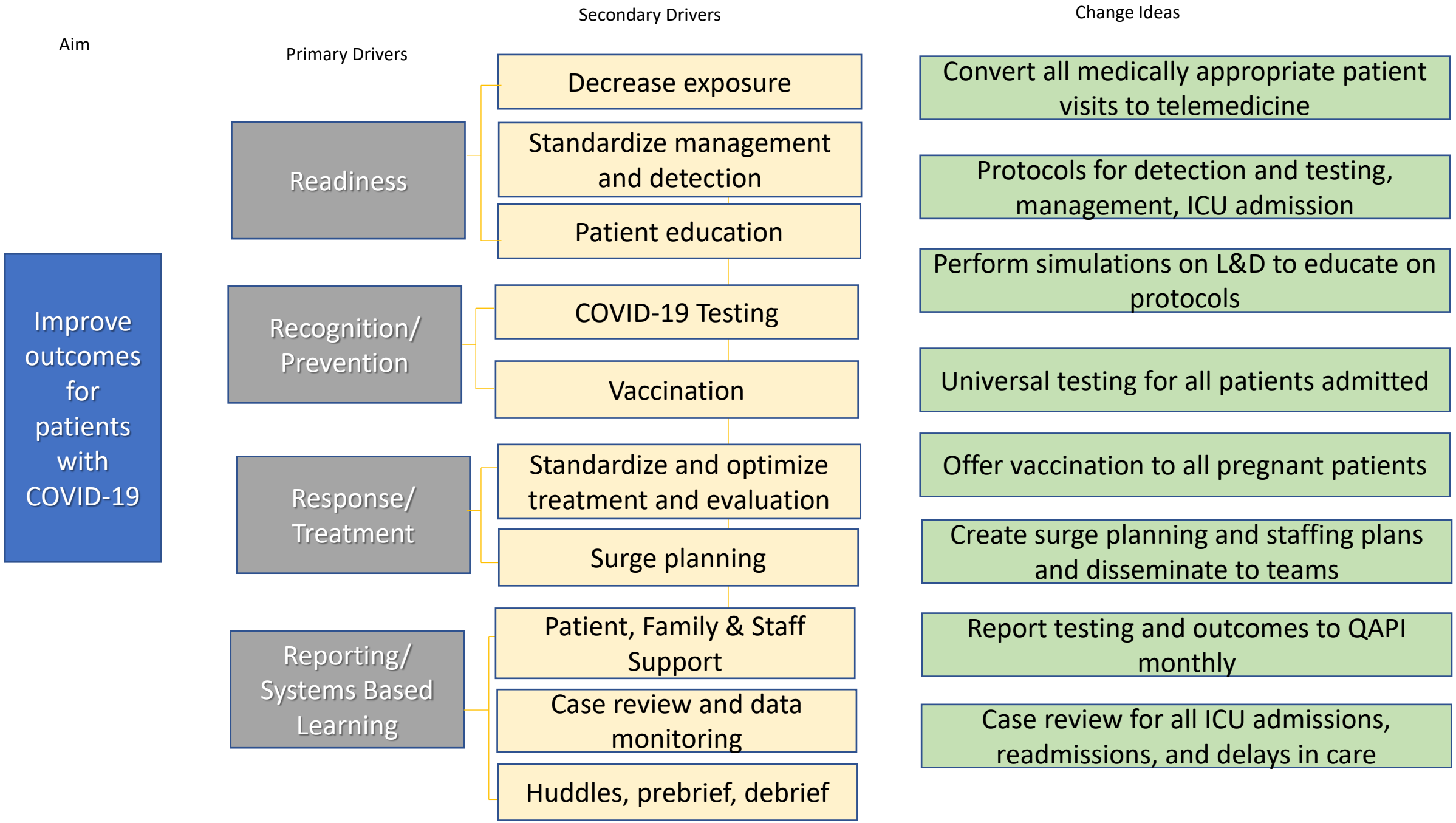
- How will we know that a change is an improvement?
  - Stratified data helps organizations identify inequities, inform action, improve overall performance

- What change can we make that will result in improvement?
  - Identify one strategic measure the organization wants to improve and provide stratified data for that measure to identify opportunities for improvement





Illness Severity	Black	Non-Hispanic White	Hispanic White	Asian
Asymptomatic	15%	50%	20%	40%
Mild	30%	35%	40%	30%
Moderate	20%	9%	20%	10%
Severe	15%	5%	10%	10%
Critical	20%	1%	10%	10%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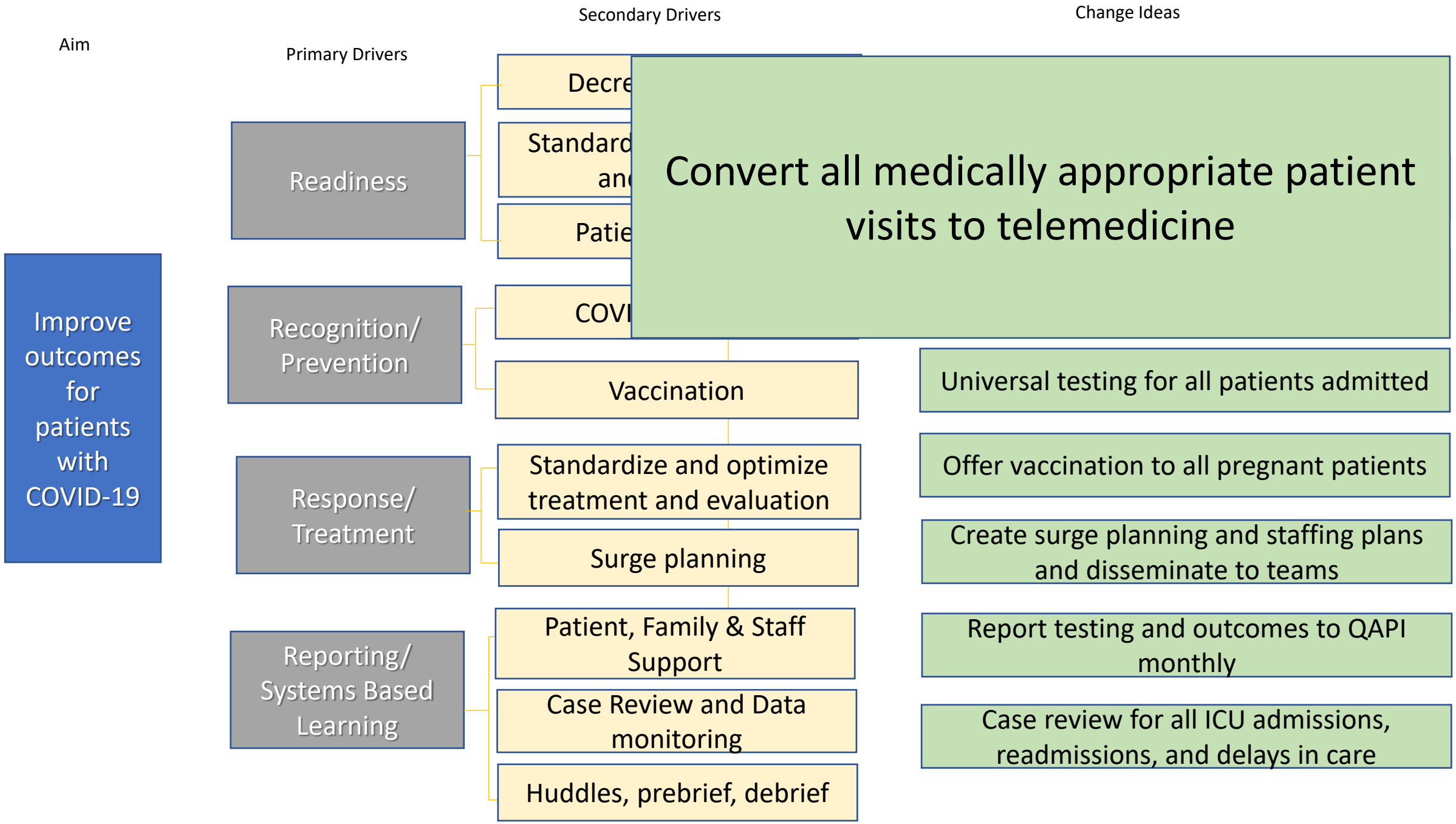
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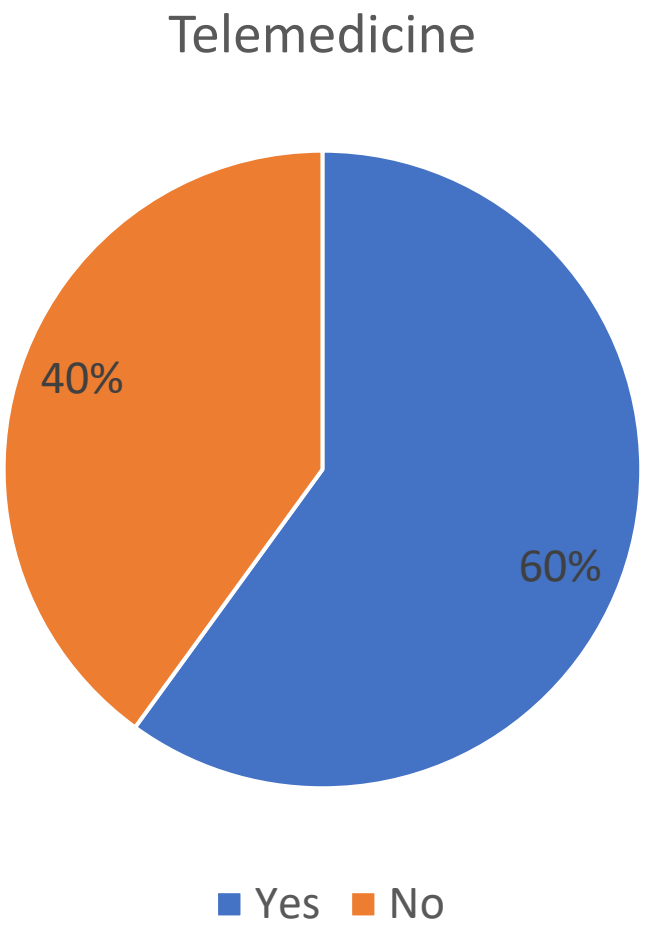
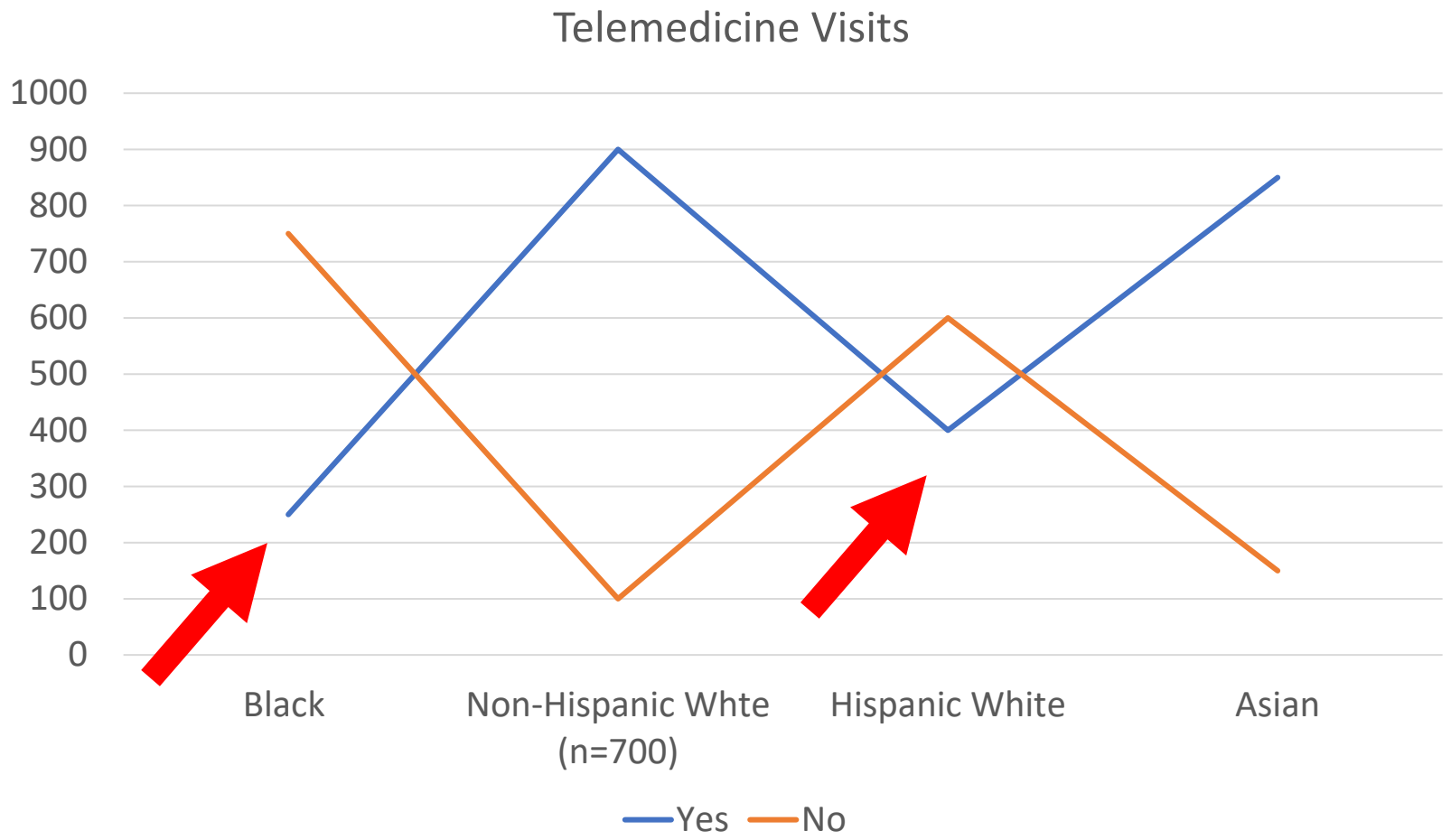
Telemedicine Uptake





ICU admissions

- Evaluate illness severity at presentation, diagnosis timing, therapy timing in your case review process
- Promote education to patient groups that may be disproportionately impacted
- Tailor patient education, discharge instructions, and follow up to provide equitable care

PDSA Cycle Process

- **<u>Revised SMART goal</u>**
  - Reduce healthcare related exposures to COVID by reducing telemedicine disparities between black pregnant women and white women by 50% by June 2021

Who needs to be on your team?

OUTPATIENT CHARGE NURSE OR NURSE MANAGER

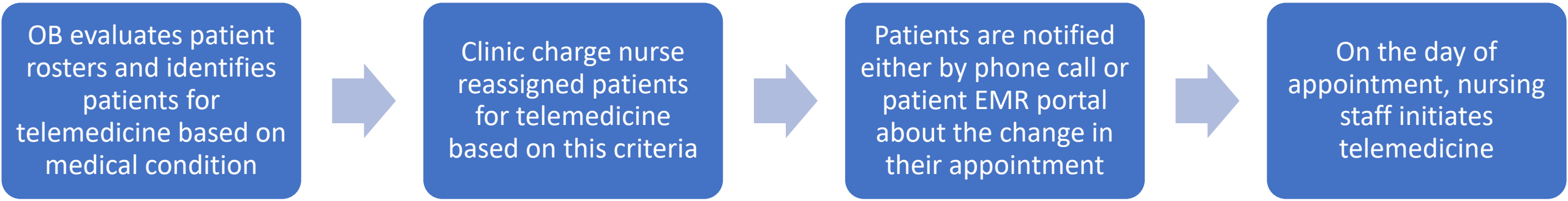
SCHEDULER OR CLERK

OBSTETRIC PROVIDER (CNM, MD, NP)

PATIENT ADVOCATE

DATA SPECIALIST

Process Map of Telemedicine

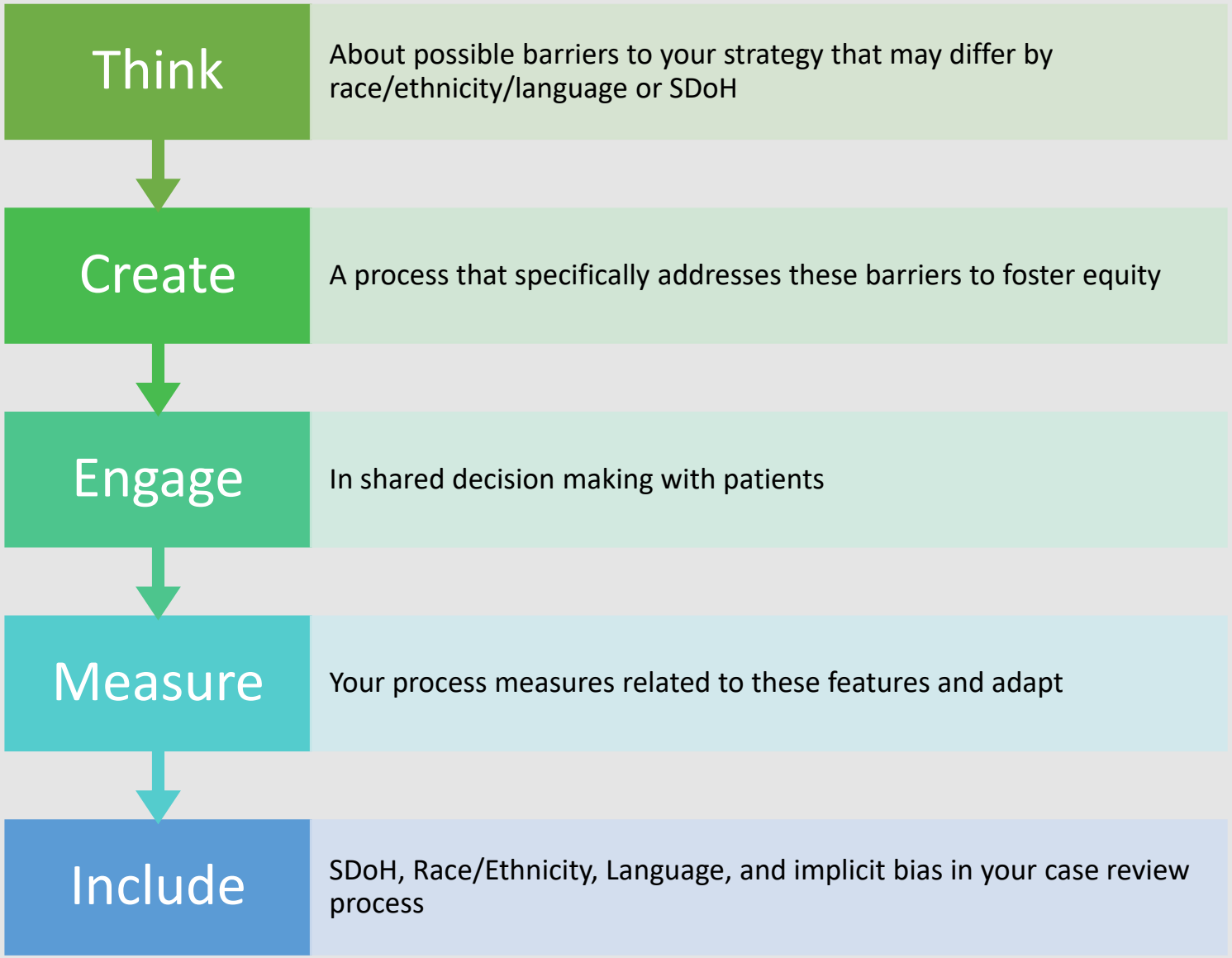


Process Map of Telemedicine

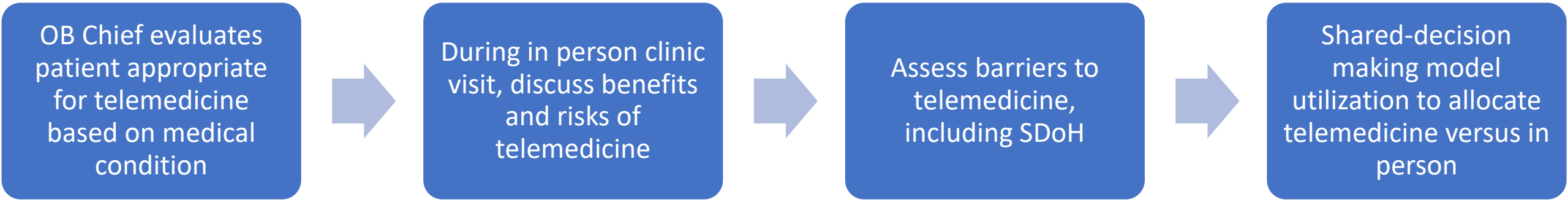
If patient answers → Connected to MD and telemedicine continues

If patient doesn't answer → Visit is rescheduled and patient notified → After 2 unsuccessful visits, patients is converted to in person visit

Developing Telemedicine during COVID-19



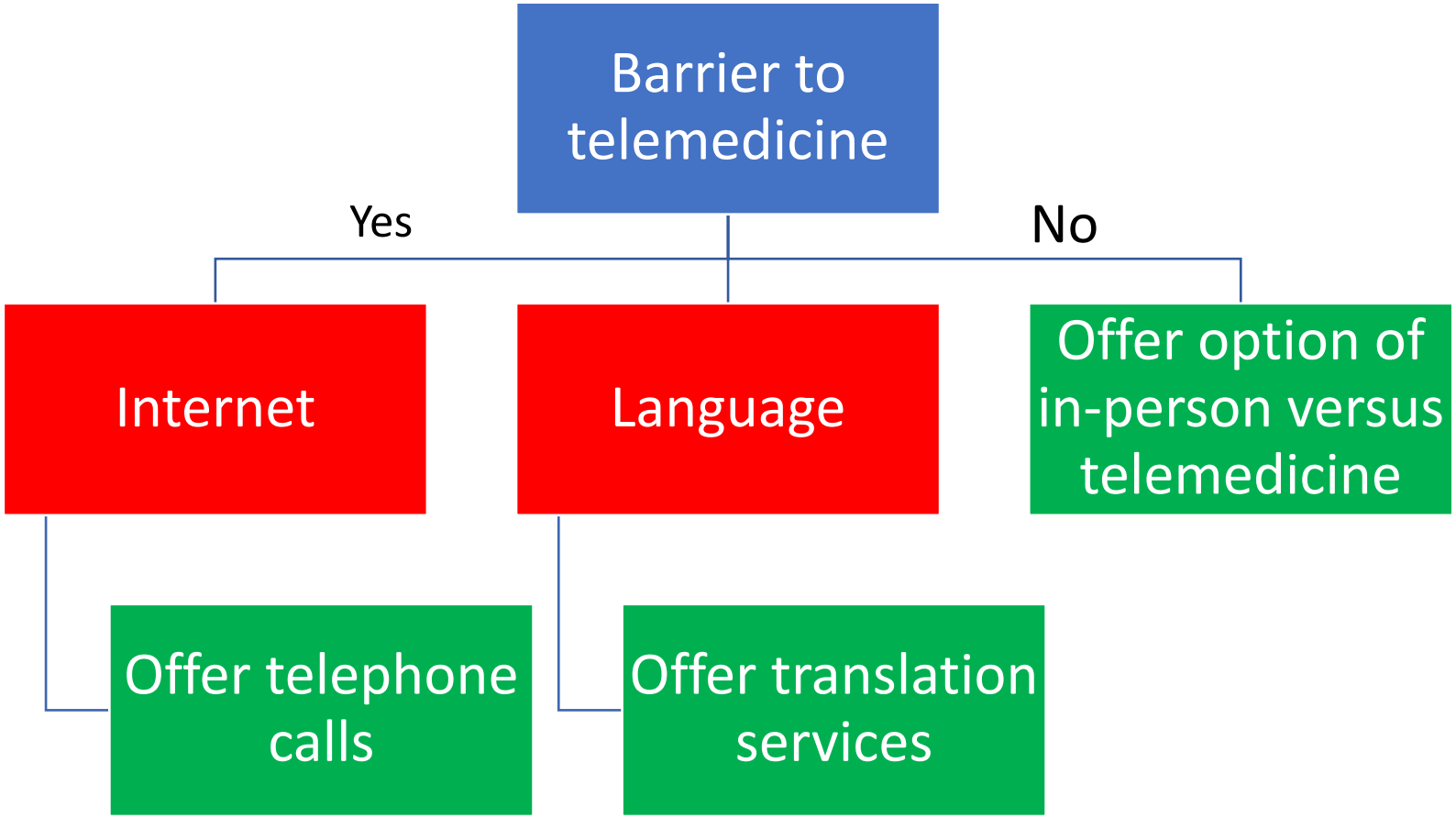
Process Map of Telemedicine



Specific patient education, individualization

Include social determinants of health and strategies to assist patients to mitigate these barriers

Strategies to distribute telemedicine more equitably



Communication

Staff meetings

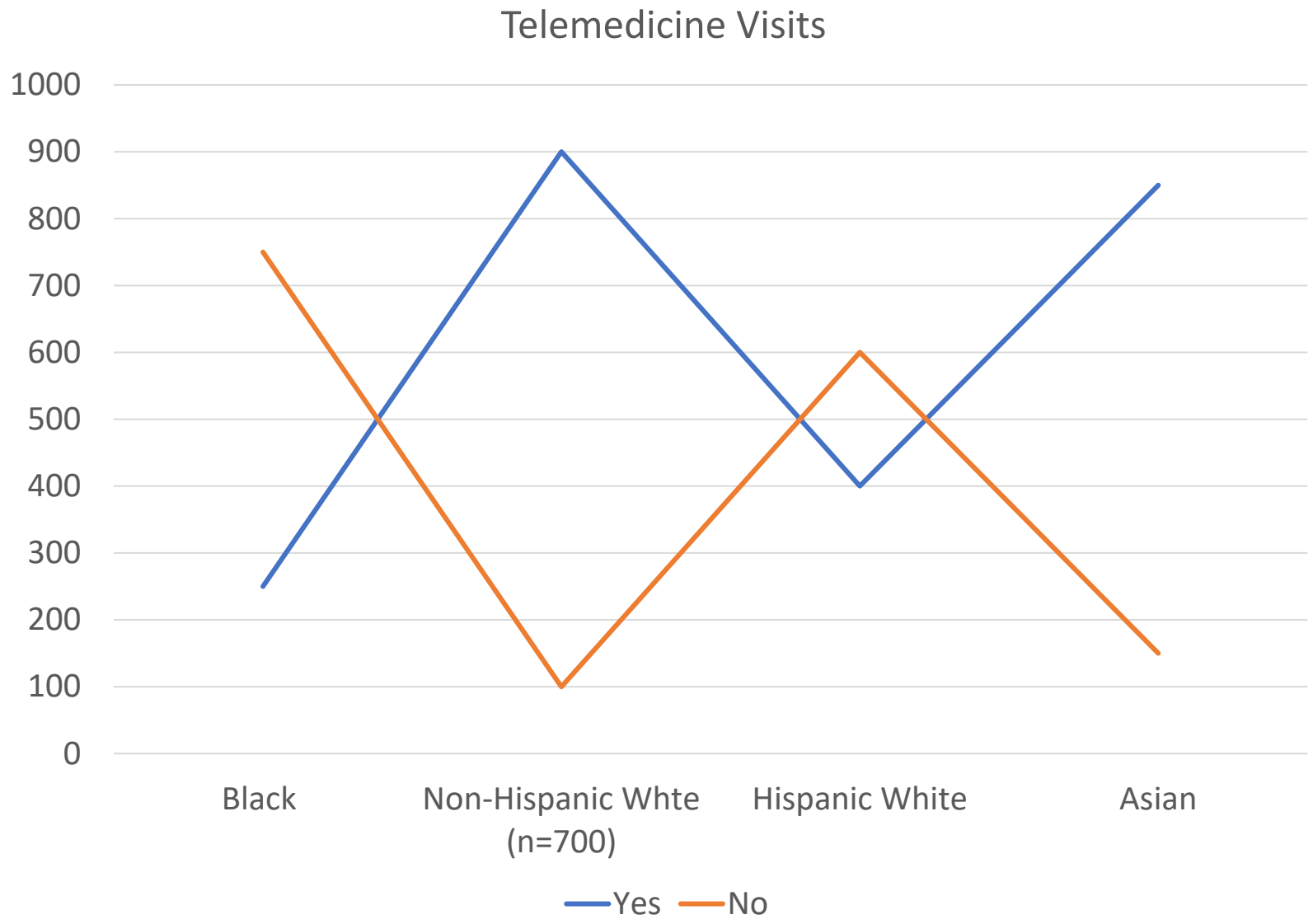
Email

QAPI

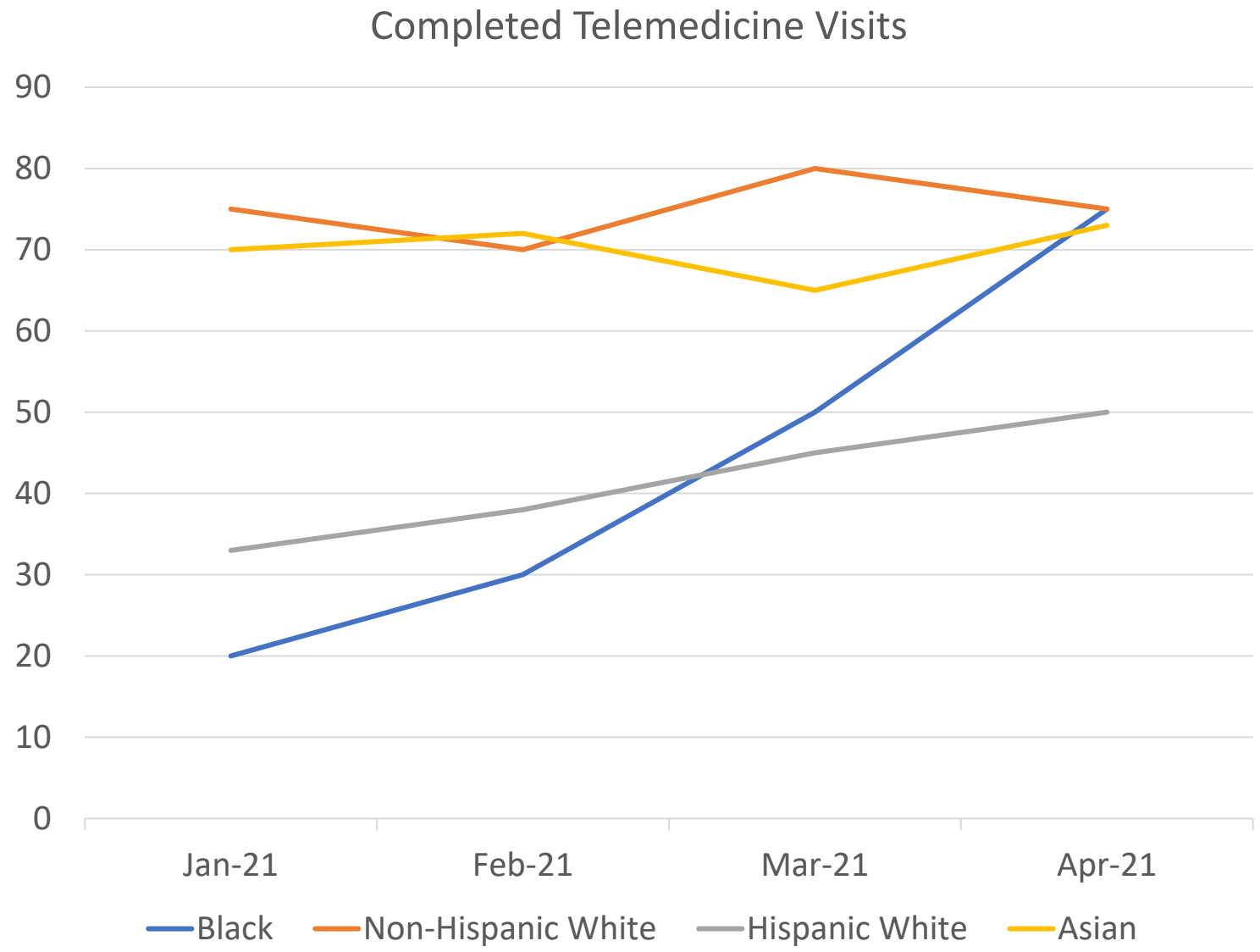
Education

Changes in case review process and data/outcome review

Monthly PDSA Cycles and Data Review



Monthly PDSA Cycles and Data Review

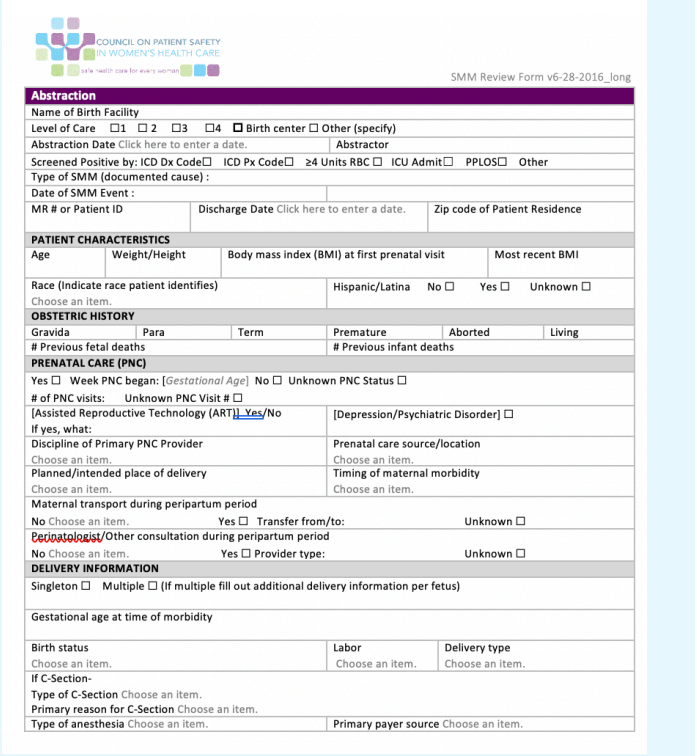


Modify Case Review Process

Source: NEJM Catalyst Innovations in Care Delivery

- Illness severity at presentation
- Were they using telemedicine?
- Social determinants of health
- Race/ethnicity and implicit bias

Case Review Forms



COUNCIL ON PATIENT SAFETY IN WOMEN'S HEALTH CARE

SMM Review Form v6-28-2016_long

Abstraction

Name of Birth Facility

Level of Care ☐1 ☐2 ☐3 ☐4 ☐ Birth center ☐ Other (specify)

Abstraction Date Click here to enter a date. | Abstractor

Screened Positive by: ICD Dx Code☐ ICD Px Code☐ ≥4 Units RBC ☐ ICU Admit☐ PPLOS☐ Other

Type of SMM (documented cause) :

Date of SMM Event :

MR # or Patient ID | Discharge Date Click here to enter a date. | Zip code of Patient Residence

PATIENT CHARACTERISTICS

Age | Weight/Height | Body mass index (BMI) at first prenatal visit | Most recent BMI

Race (Indicate race patient identifies) Choose an item. | Hispanic/Latina No ☐ Yes ☐ Unknown ☐

OBSTETRIC HISTORY

Gravida | Para | Term | Premature | Aborted | Living

Previous fetal deaths | # Previous infant deaths

PRENATAL CARE (PNC)

Yes ☐ Week PNC began: [*Gestational Age*] No ☐ Unknown PNC Status ☐

# of PNC visits: Unknown PNC Visit # ☐

[Assisted Reproductive Technology (ART)] Yes/No
If yes, what: | [Depression/Psychiatric Disorder] ☐

Discipline of Primary PNC Provider Choose an item. | Prenatal care source/location Choose an item.

Planned/intended place of delivery Choose an item. | Timing of maternal morbidity Choose an item.

Maternal transport during peripartum period
No Choose an item. Yes ☐ Transfer from/to: Unknown ☐

Perinatologist/Other consultation during peripartum period
No Choose an item. Yes ☐ Provider type: Unknown ☐

DELIVERY INFORMATION

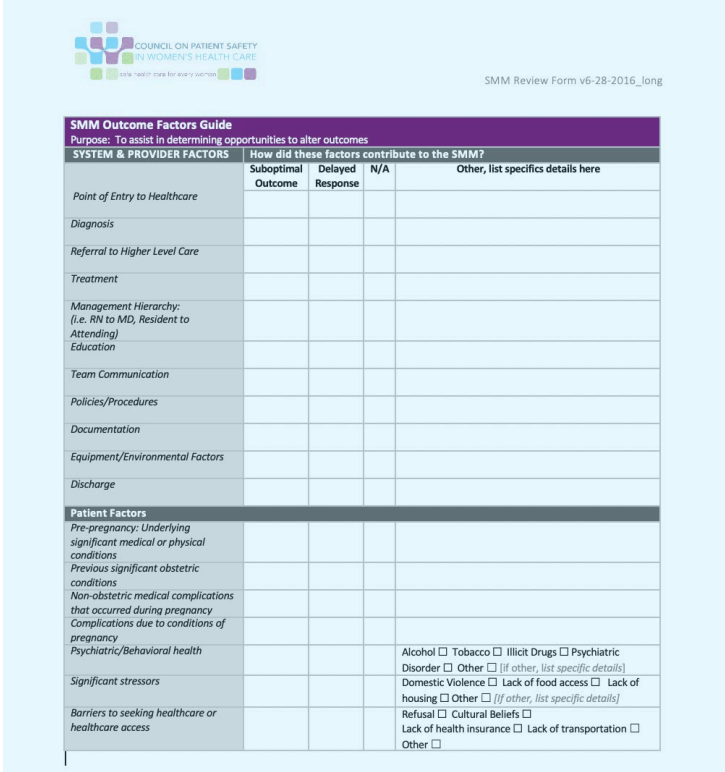
Singleton ☐ Multiple ☐ (If multiple fill out additional delivery information per fetus)

Gestational age at time of morbidity

Birth status Choose an item. | Labor Choose an item. | Delivery type Choose an item.

If C-Section-
Type of C-Section Choose an item.
Primary reason for C-Section Choose an item.

Type of anesthesia Choose an item. | Primary payer source Choose an item.



COUNCIL ON PATIENT SAFETY IN WOMEN'S HEALTH CARE

SMM Review Form v6-28-2016_long

SMM Outcome Factors Guide
Purpose: To assist in determining opportunities to alter outcomes

SYSTEM & PROVIDER FACTORS	How did these factors contribute to the SMM?			
	Suboptimal Outcome	Delayed Response	N/A	Other, list specifics details here
Point of Entry to Healthcare				
Diagnosis				
Referral to Higher Level Care				
Treatment				
Management Hierarchy: (i.e. RN to MD, Resident to Attending)				
Education				
Team Communication				
Policies/Procedures				
Documentation				
Equipment/Environmental Factors				
Discharge				
Patient Factors				
Pre-pregnancy: Underlying significant medical or physical conditions				
Previous significant obstetric conditions				
Non-obstetric medical complications that occurred during pregnancy				
Complications due to conditions of pregnancy				
Psychiatric/Behavioral health				Alcohol ☐ Tobacco ☐ Illicit Drugs ☐ Psychiatric Disorder ☐ Other ☐ *[if other, list specific details]*
Significant stressors				Domestic Violence ☐ Lack of food access ☐ Lack of housing ☐ Other ☐ *[if other, list specific details]*
Barriers to seeking healthcare or healthcare access				Refusal ☐ Cultural Beliefs ☐ Lack of health insurance ☐ Lack of transportation ☐ Other ☐

- Were they using telemedicine?
- Illness severity at presentation
- Social determinants of health
  - Access to Care
- Race/ethnicity/Language and implicit bias

Questions?

tchmb
Texas Collaborative for Healthy Mothers & Babies

Attendance and Evaluation

To receive CE credits you must attend the entire session.

If you are requesting CE credits, you must complete the Continuing Education Evaluation by 02/17/21 that will be emailed to you this afternoon. You can also find the evaluation on our TCHMB website at **http://tchmb.org/2021-summit**. The link is also being shared in the chat box.