

**SDOH in Pregnancy Outcomes**  
NNEPQIN AIM/ERASE Maternal Mortality Monthly Webinar

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April 8, 2021

**ERASE MM**

**AIM**  
ALLIANCE FOR INNOVATION ON MATERNAL HEALTH

**NNEPQIN**  
NORTHERN NEW ENGLAND PERINATAL QUALITY IMPROVEMENT NETWORK

No Disclosures

## Objectives

*At the end of this session participants will be able to:*

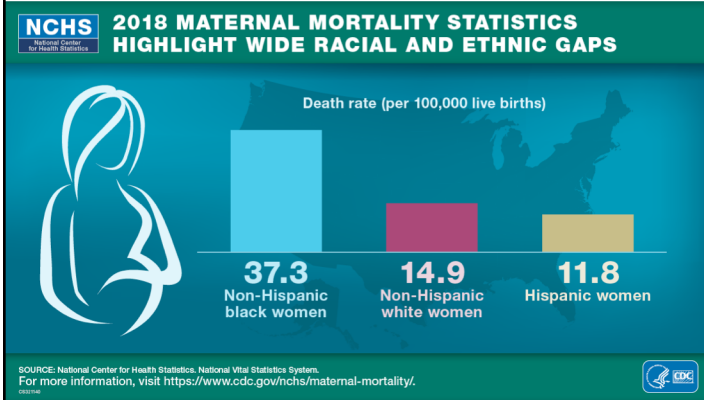
- Name at least one upstream contributor or determinant of health
- Identify at least one potential midstream point of intervention
- List at least one equity-promoting strategy we can implement



“It’s common to blame women for their own deaths. Many scientific publications have cited that women are coming to pregnancy older (called advanced maternal age, or geriatric pregnancy), sicker (with hypertension, diabetes or other chronic illnesses) and fatter (that is, suffering from obesity).”

<https://www.scientificamerican.com/article/to-prevent-women-from-dying-in-childbirth-first-stop-blaming-them/>

# Health Disparities

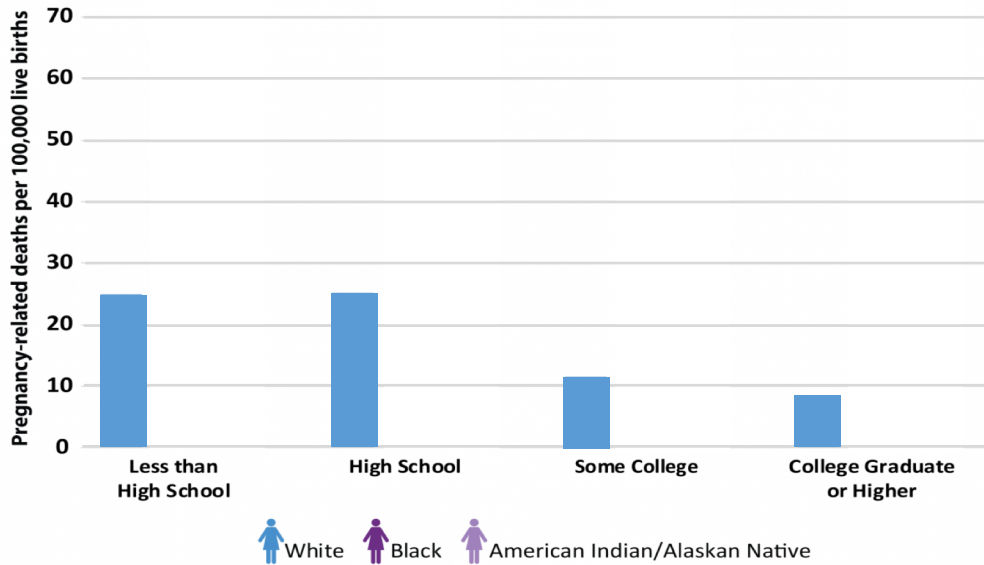


Health Disparities are the *metrics* we use to measure progress toward achieving health equity

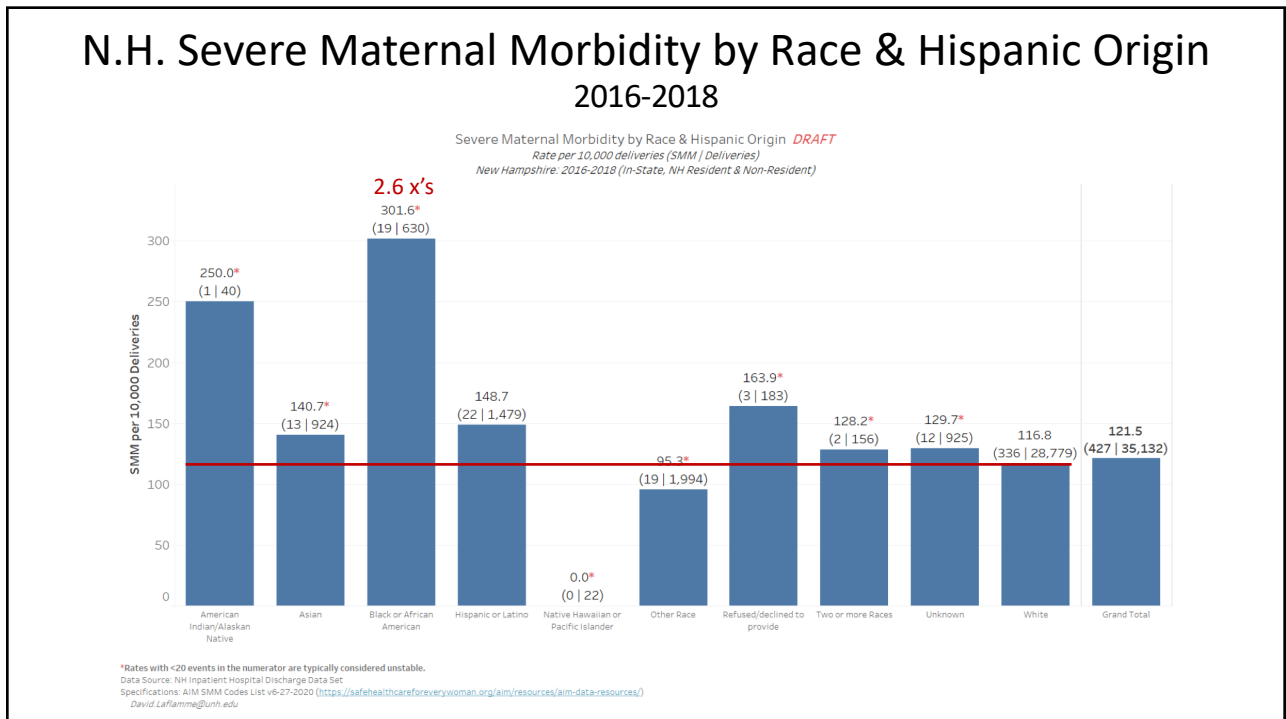
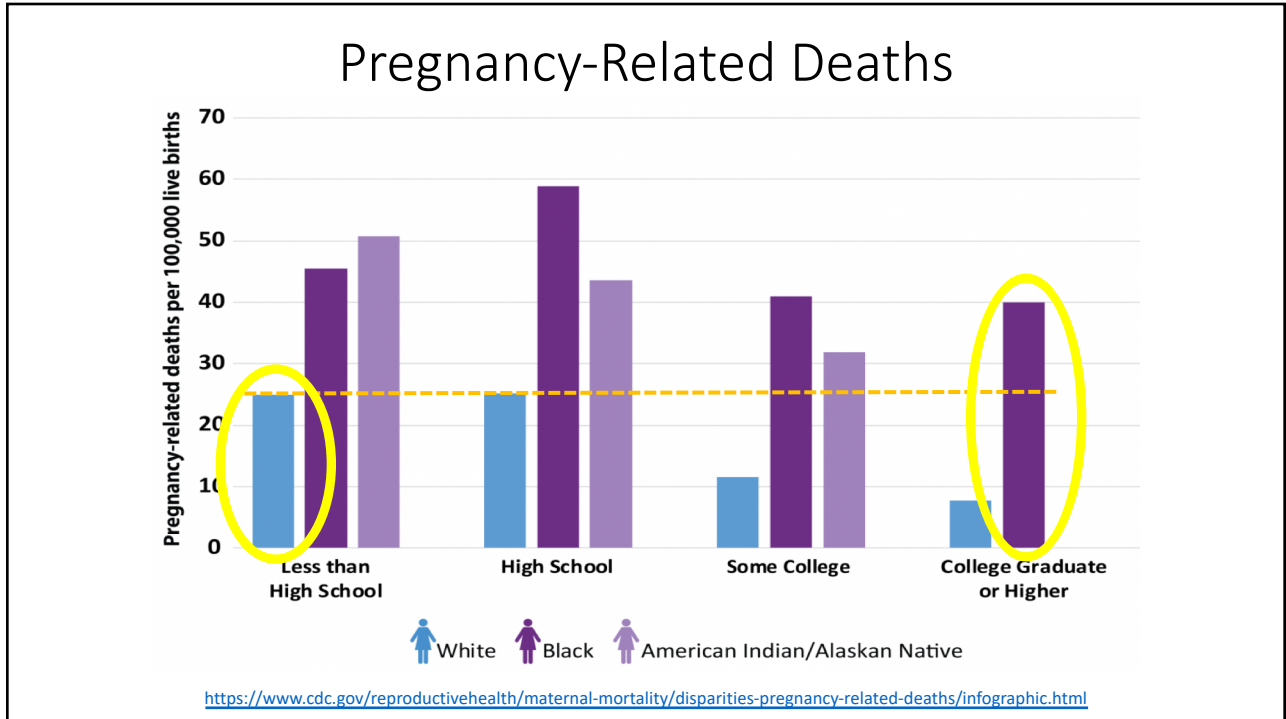
- Paula Braveman and Laura Gottlieb

<https://www.cdc.gov/nchs/maternal-mortality/index.htm>

## Pregnancy-Related Deaths, 2007-2016



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





## IOM's Six Dimensions of Quality

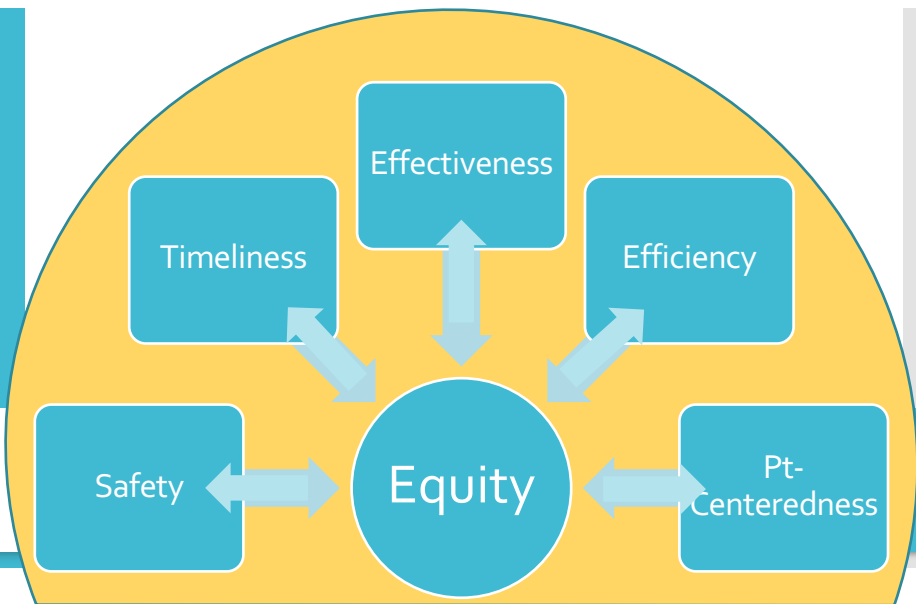
Health Care Should Be:

- Safe
- Effective
- Patient Centered
- Timely
- Efficient
- Equitable

IOM, Crossing the Quality Chasm: A New Health System for the 21st Century (2001)

## Health Care Quality

There can be no *quality* without **equity!**

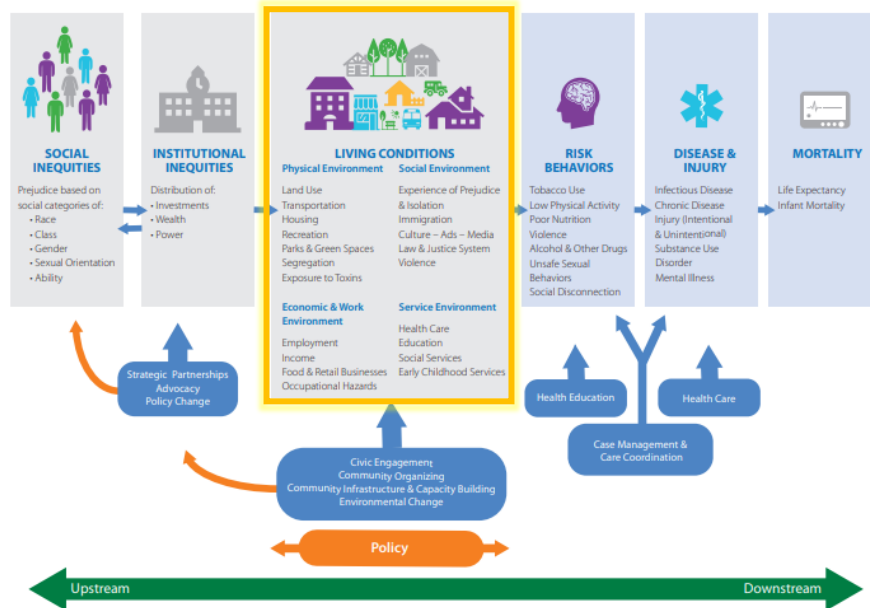


Health equity means that everyone has a fair and just opportunity to be as healthy as possible.

Braveman P, Arkin E, Orleans T, Proctor D, and Plough A. *What Is Health Equity? And What Difference Does a Definition Make?* Princeton, NJ: Robert Wood Johnson Foundation, 2017  
<https://www.rwjf.org/en/library/research/2017/05/what-is-health-equity.html>

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A Public Health Framework for Reducing Health Inequities



– Adapted from the Bay Area Regional Health Inequities Initiative

Vermont State Health Improvement Plan • 2019-2023, <https://www.healthvermont.gov/about-us/how-are-we-doing/state-health-improvement-plan>

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Health equity means that everyone has a fair and just opportunity to be as healthy as possible.

To achieve this, we must remove obstacles to health — such as **poverty, discrimination**, and deep power imbalances — and their consequences, including lack of **access to good jobs** with fair pay, **quality education** and housing, safe environments, and health care.

Human Impact Partners' HealthEquityGuide.org <https://healthequityguide.org/about/defining-health-equity/>

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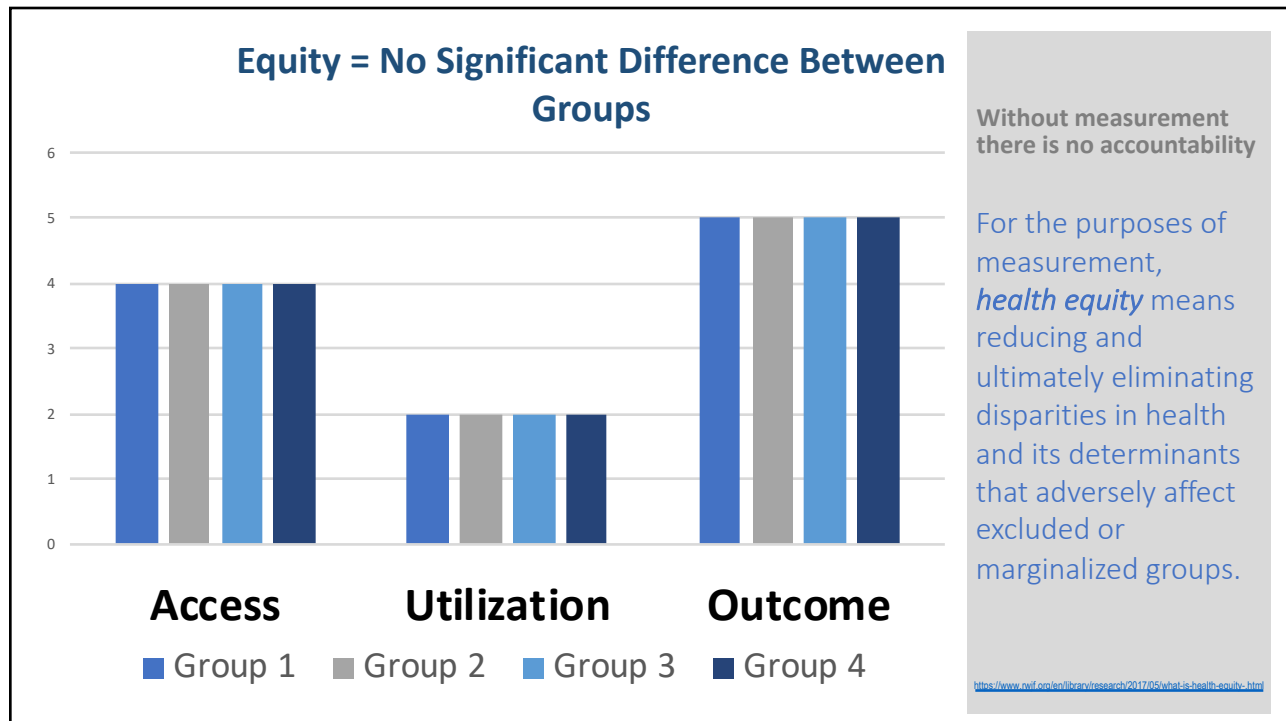
## What Is Health Equity?

*The following should be added when the definition is used to guide measurement; **without measurement there is no accountability:***

For the purposes of measurement, health equity means reducing and ultimately eliminating disparities in health and its determinants that adversely affect excluded or marginalized groups.

Braveman P, Arkin E, Orleans T, Proctor D, and Plough A. *What Is Health Equity? And What Difference Does a Definition Make?*  
Princeton, NJ: Robert Wood Johnson Foundation, 2017  
<https://www.rwjf.org/en/library/research/2017/05/what-is-health-equity-.html>

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**Capacity to disaggregate data to identify disparities depends on our *collection* of those demographic/SES/**SDOH** identifiers!**

- ...by age
- ...by geography
- ...by insurance status
- ...by sexual orientation
- ...by gender identity
- ...by race/ethnicity
- ...by language
- ...by veteran status
- ...by disability status
- ...by migrant status
- ...by access to housing
- ...by income
- ...by employment status
- ...by education level
- ...by incarceration history
- ...by distance to service

**And those identifiers need to be collected *correctly* and *consistently*!**

# Health Equity [Data] Organizational Assessment

HRET 2018

- 1) Data collection: self-reporting methodology
- 2) Data collection training
- 3) Data validation
- 4) Data stratification
- 5) Communicate findings: equity dashboard
- 6) Address and resolve gaps in care: implement interventions
- 7) Organizational infrastructure and culture: cultural and linguistic competence, leadership, policies



[http://www.wsha.org/wp-content/uploads/Health-Equity-Metric-Guidance\\_WSHA.pdf](http://www.wsha.org/wp-content/uploads/Health-Equity-Metric-Guidance_WSHA.pdf)

## Potential Quality Metrics: Sample Dashboards

### Clinical

Figure 2. Dashboard displaying race and ethnicity associated with 30-day readmissions

30-day Readmissions	White	Hispanic	African-American	American Indian	Asian	Unknown/Other	Overall
Overall rate	###.##%	###.##%	###.##%	###.##%	###.##%	###.##%	###.##%
Overall volume	#	#	#	#	#	#	#
Heart failure rate	###.##%	###.##%	###.##%	###.##%	###.##%	###.##%	###.##%
Heart failure volume	#	#	#	#	#	#	#
AMI rate	###.##%	###.##%	###.##%	###.##%	###.##%	###.##%	###.##%
AMI volume	#	#	#	#	#	#	#
Pneumonia rate	###.##%	###.##%	###.##%	###.##%	###.##%	###.##%	###.##%
Pneumonia volume	#	#	#	#	#	#	#
COPD rate	###.##%	###.##%	###.##%	###.##%	###.##%	###.##%	###.##%
COPD volume	#	#	#	#	#	#	#

### Patient Satisfaction

Figure 4. Template dashboard displaying race and ethnicity by HCAHPS score

HCAHPS (Inpatient)	Non-Hispanic White N=	Hispanic N=	Black/African-American N=	Asian N=	American Indian N=	Pacific Islander N=	Multiple Races N=
Overall rating	#	#	#	#	#	#	#
Overall hospital recommendation	#	#	#	#	#	#	#
Nurse communication	#	#	#	#	#	#	#
Doctor communication	#	#	#	#	#	#	#
Quiet at night	#	#	#	#	#	#	#
Room cleanliness	#	#	#	#	#	#	#
Pain control	#	#	#	#	#	#	#
Medication information	#	#	#	#	#	#	#
Discharge information	#	#	#	#	#	#	#
Staff responsiveness	#	#	#	#	#	#	#

Equity of Care: A Toolkit for Eliminating Health Care Disparities 2015, p. 35, <http://www.hcoa.org/Reports-HPOE/equity-of-care-toolkit.pdf>

## Potential Respectful Maternity Care Indicators for Quality Improvement

### Dignified care

1. Women treated with respect (subject to women's/local interpretation)
2. Providers introduce themselves to women
3. Women treated in a friendly manner (subject to women's/local interpretation)
4. Women called by name

### Privacy and confidentiality

5. Physical privacy ensured (e.g., examined behind screens or curtains and other physical visual barriers)
6. Auditory privacy ensured (Private patient health information not heard by others)
7. Patient records and medical files are kept confidential (not accessible to people not involved in care provision)

### No abuse

8. No verbal abuse (insults, intimidation, shouting, scolding, threatening)
9. No physical abuse (slapping, hitting, pushing, pinching, restraining, or otherwise beating the patient)
10. No episiotomy given or sutured without anesthesia

### Autonomy

11. Providers explain to women what to expect and any medications administered, or procedures performed
12. Women give informed consent prior to procedures and examinations
13. Women and family involved in care (e.g., decision making on treatment and procedures)
14. Women allowed to assume position of choice during labor and delivery

### Communication

15. Women encouraged to and able to ask questions
16. Providers speaks to women in a language and at a language-level that they understand

### Supportive care

17. Women allowed to have choice of companion during labor and delivery
18. Not denying women care (e.g., refusing care for any reason)
19. Not abandoning women during labor and delivery (e.g., not responding to woman's call for help)
20. Providers ask about emotional feelings and concerns of women
21. Women trust staff (subject to women's interpretation)<sup>1</sup>

[A Rapid Review of Available Evidence to Inform Indicators for Routine Monitoring and Evaluation of Respectful Maternity Care](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7108935/)  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7108935/>



Focus on better understanding underlying contributors, including:

- Lack of data
- Not educating pts about signs and sx's -- and not believing them when they speak up
- Errors made by health care providers
- Poor communication among different health care teams

Interventions effective in improving maternal health outcomes, such as:

- Midwifery
- Group prenatal care
- Social and doula support

<https://www.scientificamerican.com/article/to-prevent-women-from-dying-in-childbirth-first-stop-blaming-them/>

# Quality Improvement Approach to Eliminate Disparities in Perinatal Morbidity and Mortality



Debra Bingham, DrPH, RN<sup>a,b,\*</sup>, David K. Jones, PhD<sup>c</sup>, Elizabeth A. Howell, MD, MPP<sup>d</sup>

**KEYWORDS**

- Quality improvement • Perinatal • Disparities • Maternal mortality
- Maternal morbidity • Implementation • Equity • Population health

**KEY POINTS**

- Women and infants of color are disproportionately affected by health care disparities.
- The Socio-Ecological Perinatal Disparities Ishikawa Diagram outlines numerous modifiable factors that can be addressed to reduce societal, community, relationship, and individual factors that contribute to perinatal disparities.
- Quality and safety principles can be used to guide national, state, and hospital-based efforts to eliminate disparities and ensure equity for all women and newborns.

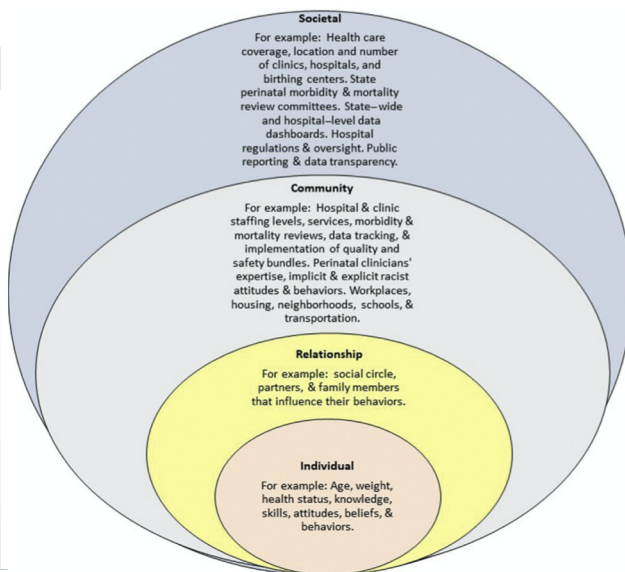
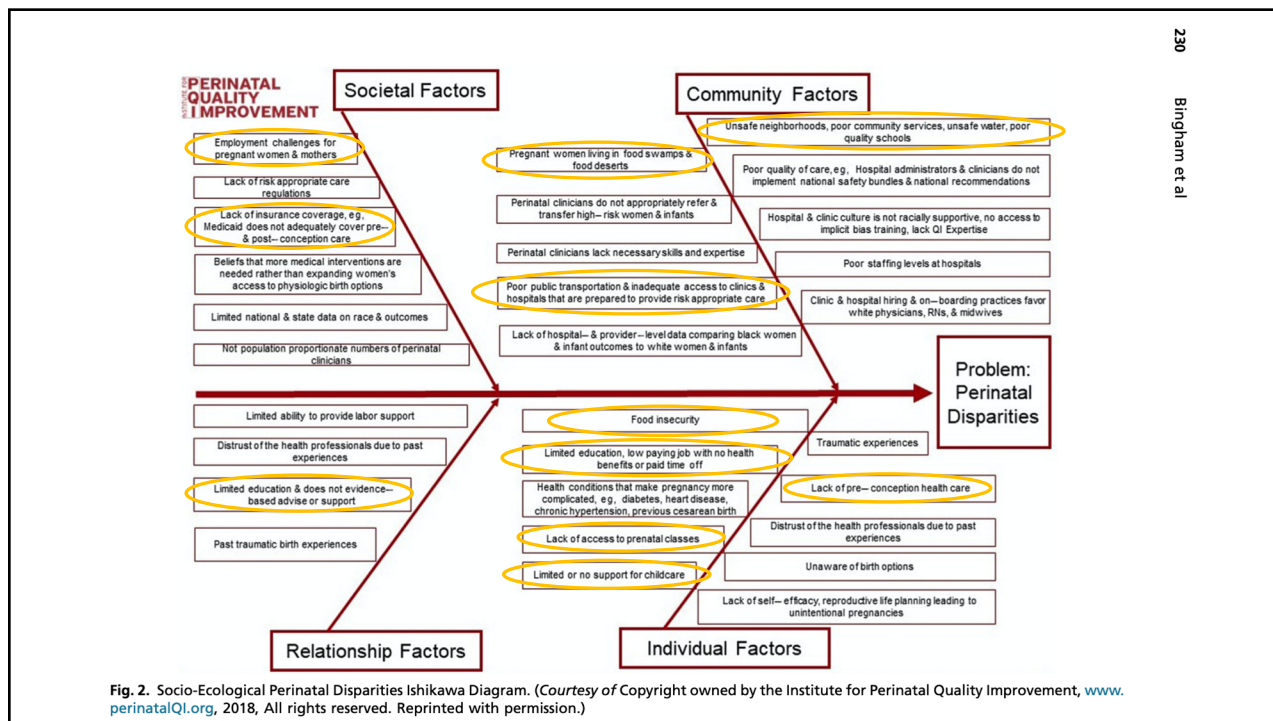


Fig. 1. Socio-Ecological Model.



Where can we intervene?

# Operationalizing SDOH Screening

## PRAPARE Pre-Screener
















- Pre-screener developed
- Partnership with community-based organization

Patient initials: \_\_\_\_\_  
Date of Service: \_\_\_\_\_

Health starts – long before illness – in our homes, schools, and jobs. The more we know about you the better health care we can provide. We want to support your health and wellness.

Please circle the areas you would like assistance with. We cannot guarantee assistance in all areas, but will do our best to respond to your priorities.

**I am having a hard time getting access to and/or paying for:**

HOUSING 	UTILITIES (electricity, phone, heat, etc.) 	FOOD 	PHYSICAL SAFETY 	MENTAL HEALTH 
TRANSPORTATION 				HEALTH INSURANCE 
EMPLOYMENT 				LEGAL ASSISTANCE 
MATERIAL GOODS (clothing, furniture, diapers, etc.) 	HEALTH SUPPLIES (glasses, medicine, etc.) 	EDUCATION 	CHILD CARE 	SOCIAL SUPPORT 

Would you like to be contacted by a member of our health care team about this survey?

<https://www.nachc.org/wp-content/uploads/2020/10/NACHC-AAPCHO-Adapting-SDOH-Data-Collection-Workflows-during-COVID-10.8.20.pdf> slide 35



# What questions are in PRAPARE?

Core	
1. Race*	10. Education
2. Ethnicity*	11. Employment
3. Veteran Status*	12. Material Security
4. Farmworker Status*	13. Social Isolation
5. English Proficiency*	14. Stress
6. Income*	15. Transportation
7. Insurance*	16. Housing Stability
8. Neighborhood*	
9. Housing Status*	

Optional	
1. Incarceration History	3. Domestic Violence
2. Safety	4. Refugee Status
Optional Granular	
1. Employment: How many hours worked per week	3. Insurance: Do you get insurance through your job?
2. Employment: # of jobs worked	4. Social Support: Who is your support network?

\* UDS measures are automatically populated into PRAPARE EHR templates. You do NOT need to ask those questions multiple times!

Find the tool at [www.nachc.org/prapare](http://www.nachc.org/prapare)

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<https://www.nachc.org/wp-content/uploads/2020/10/NACHC-AAPCHO-Adapting-SDOH-Data-Collection-Workflows-during-COVID-10.8.20.pdf> slide 23

**PRAPARE**  
Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences

**PRAPARE®: Protocol for Responding to and Assessing Patient Assets, Risks, and Experiences**  
Paper Version of PRAPARE® for Implementation as of September 2, 2016

**Personal Characteristics**

1. Are you Hispanic or Latino?  
Yes No I choose not to answer this question

2. Which race(s) are you? Check all that apply  
Asian Native Hawaiian  
Pacific Islander Black/African American  
White American Indian/Alaskan Native  
Other (please write):  
I choose not to answer this question

3. At any point in the past 2 years, has season or migrant farm work been your or your family's main source of income?  
Yes No I choose not to answer this question

4. Have you been discharged from the armed forces of the United States?  
Yes No I choose not to answer this question

5. What language are you most comfortable speaking?  
I have housing  
I do not have housing (staying with others, in a hotel, in a shelter, living outside on the street, on a beach, in a car, or in a park)  
I choose not to answer this question

**Family & Home**

6. How many family members, including yourself, do you currently live with?  
I choose not to answer this question

7. What is your housing situation today?  
I have housing  
I do not have housing (staying with others, in a hotel, in a shelter, living outside on the street, on a beach, in a car, or in a park)  
I choose not to answer this question

8. Are you worried about losing your housing?  
Yes No I choose not to answer this question

9. What address do you live at?  
Street: \_\_\_\_\_  
City, State, Zip code: \_\_\_\_\_

**Money & Resources**

10. What is the highest level of school that you have finished?  
Less than high school degree High school diploma or GED  
More than high school I choose not to answer this question

11. What is your current work situation?  
Unemployed Part-time or temporary work Full-time work  
Otherwise unemployed but not seeking work (ex. student, retired, disabled, unpaid primary care giver)  
Please write: \_\_\_\_\_  
I choose not to answer this question

12. What is your main insurance?  
None/uninsured Medicaid  
CHIP Medicaid Medicare  
Other public insurance (not CHIP) Other Public Insurance (CHIP)  
Private Insurance

13. During the past year, what was the total combined income for you and the family members you live with? This information will help us determine if you are eligible for any benefits.  
I choose not to answer this question

**PRAPARE**  
Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences

**PRAPARE®: Protocol for Responding to and Assessing Patient Assets, Risks, and Experiences**  
Paper Version of PRAPARE® for Implementation as of September 2, 2016

14. In the past year, have you or any family members you live with been unable to get any of the following when it was really needed? Check all that apply.  
Yes No Food Yes No Clothing  
Yes No Utilities Yes No Child Care  
Yes No Medicine or Any Health Care (Medical, Dental, Mental Health, Vision)  
Yes No Phone Yes No Other (please write):  
I choose not to answer this question

15. Has lack of transportation kept you from medical appointments, meetings, work, or from getting things needed for daily living? Check all that apply.  
Yes, it has kept me from medical appointments or  
Yes, it has kept me from non-medical meetings, appointments, work, or from getting things that I need  
No  
I choose not to answer this question

**Social and Emotional Health**

16. How often do you see or talk to people that you care about and feel close to? (For example: talking to friends on the phone, visiting friends or family, going to church or club meetings)  
Less than once a week 1 or 2 times a week  
3 to 5 times a week 5 or more times a week  
I choose not to answer this question

17. Stress is when someone feels tense, nervous, anxious, or can't sleep at night because their mind is troubled. How stressed are you?  
Not at all A little bit  
Somewhat Quite a bit  
Very much I choose not to answer this question

**Optional Additional Questions**

18. In the past year, have you spent more than 2 nights in a row in a jail, prison, detention center, or juvenile correctional facility?  
Yes No I choose not to answer this question

19. Are you a refugee?  
Yes No I choose not to answer this question

20. Do you feel physically and emotionally safe where you currently live?  
Yes No Unsure  
I choose not to answer this question

21. In the past year, have you been afraid of your partner or ex-partner?  
Yes No Unsure  
I have not had a partner in the past year  
I choose not to answer this question

<https://www.nachc.org/wp-content/uploads/2020/04/PRAPARE-One-Pager-9-2-16-with-logo-and-trademark.pdf>

Take Action!



**Black Maternal Health Week**  
April 11 - 17, 2021

BLACK MAMAS MATTER:  
CLAIMING OUR POWER, RESILIENCE & LIBERATION

Join us April 11-17 for a week of activism and community building for Black Mamas! In solidarity with National Minority Health Month and the International Day for Maternal Health and Rights, **Black Mamas Matter Alliance** founded BMHW to raise awareness, inspire activism, and strengthen organizing for Black maternal health. Join the conversation: **#BMHW21** and **#BlackMaternalHealthWeek**

[www.blackmamasmatter.org/bmhw](http://www.blackmamasmatter.org/bmhw)

Thank you!

Trinidad Tellez, MD

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