An Improved Standard of Care: The Effects of Social and Behavioral Factors on Maternal Mortality and Morbidity

PRESENTERS

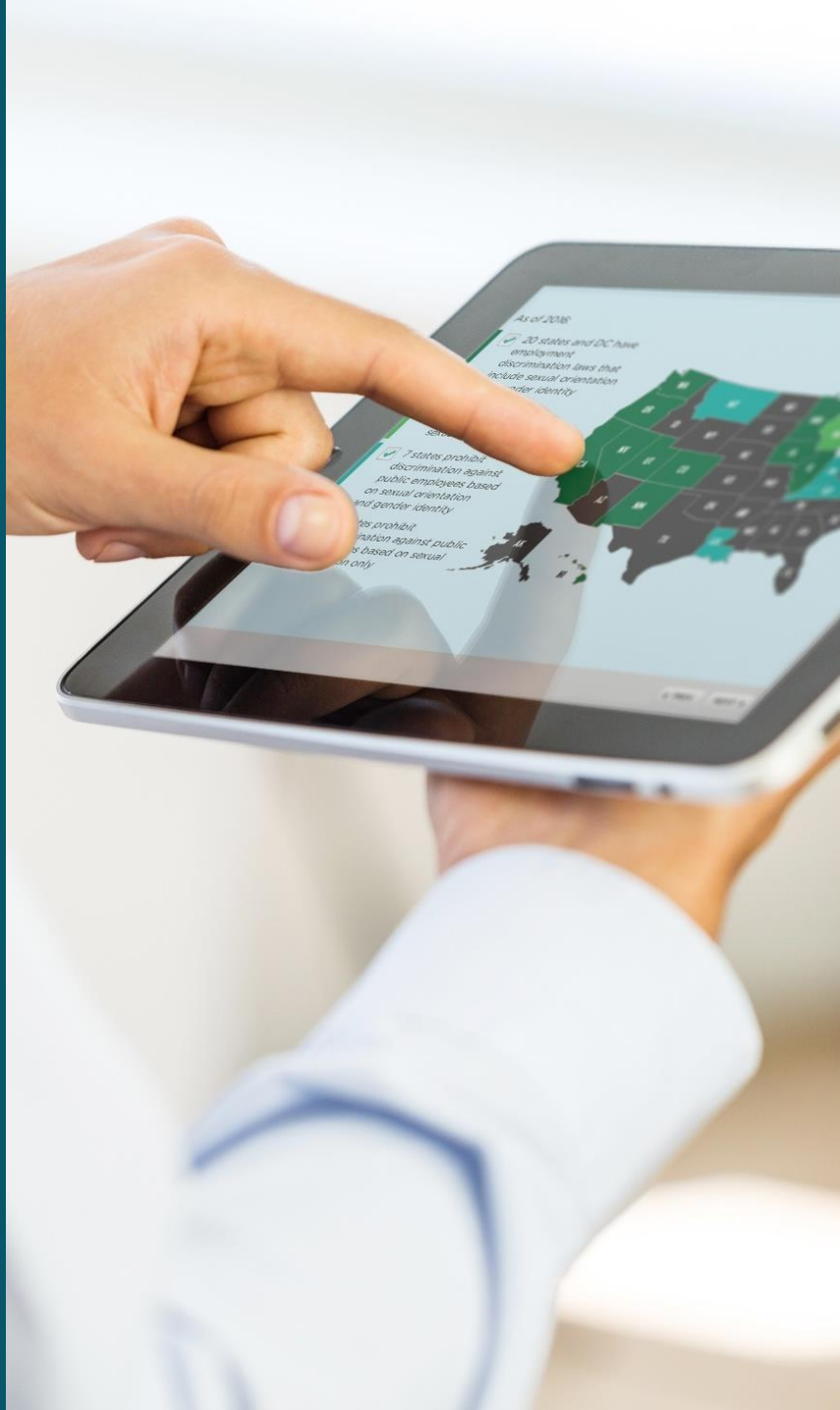
Lora Sparkman, MHA, RN, BSN | Partner, Patient Safety & Quality

Rola Aamar, Ph.D. | Principal, Behavioral Health Solutions

RELIAS

Agenda:

- Findings on maternal mental health, social determinants, and racial disparities
- Understand Peripartum Depression and discuss screening standards
- The reality of screening data and actions to consider when adopting new practices or extending capabilities



Context

Historically acute care has had a heavy focus on clinical protocols and reduction in practice variation. Now it's time to bring a holistic view of the mother's healthcare experience, clinical and behavioral, as it is a critical and often overlooked component to the mother's outcome.

Relias at a Glance

We are a global team of healthcare and industry experts working to help more than 11,000 healthcare and human services customers improve care outcomes through talent and lifelong workforce management.

Recruit qualified healthcare talent quickly and easily.

Deliver expert learning that drives employee satisfaction and retention.

Improve competency and care quality for better patient outcomes.

Reduce risk and achieve compliance efficiently.

Maternal Mortality- MMRC Data: Clinical and Behaviora Health

Timeline on Reactions to Maternal Mortality

2015

Lancet Journal Article

2016-2017

USA Today, Boston Globe, & NY Times Articles and more

2018

Preventing Maternal Deaths Act

2019

MOMMA's Act & Congressional Inquiry

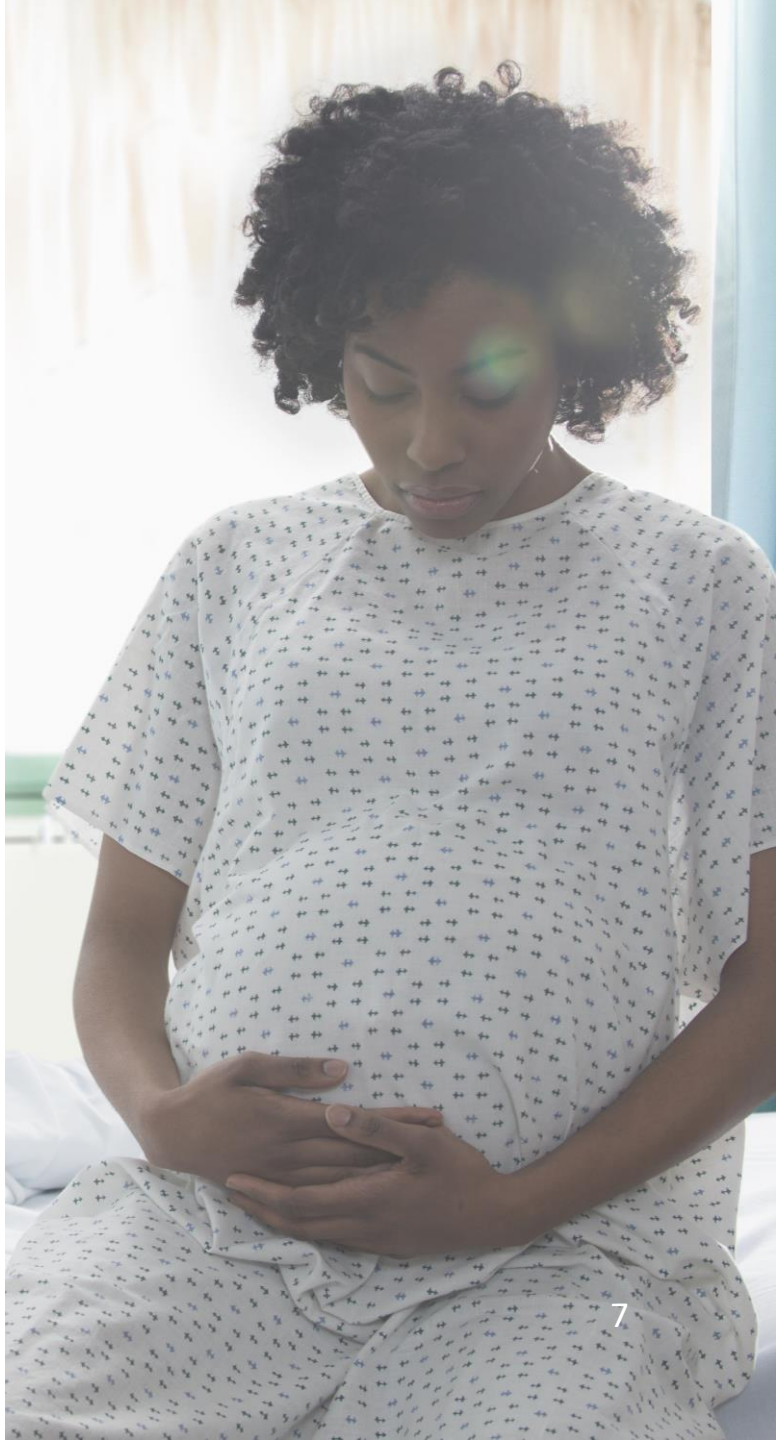
2020

Joint Commission Maternal Safety Standards

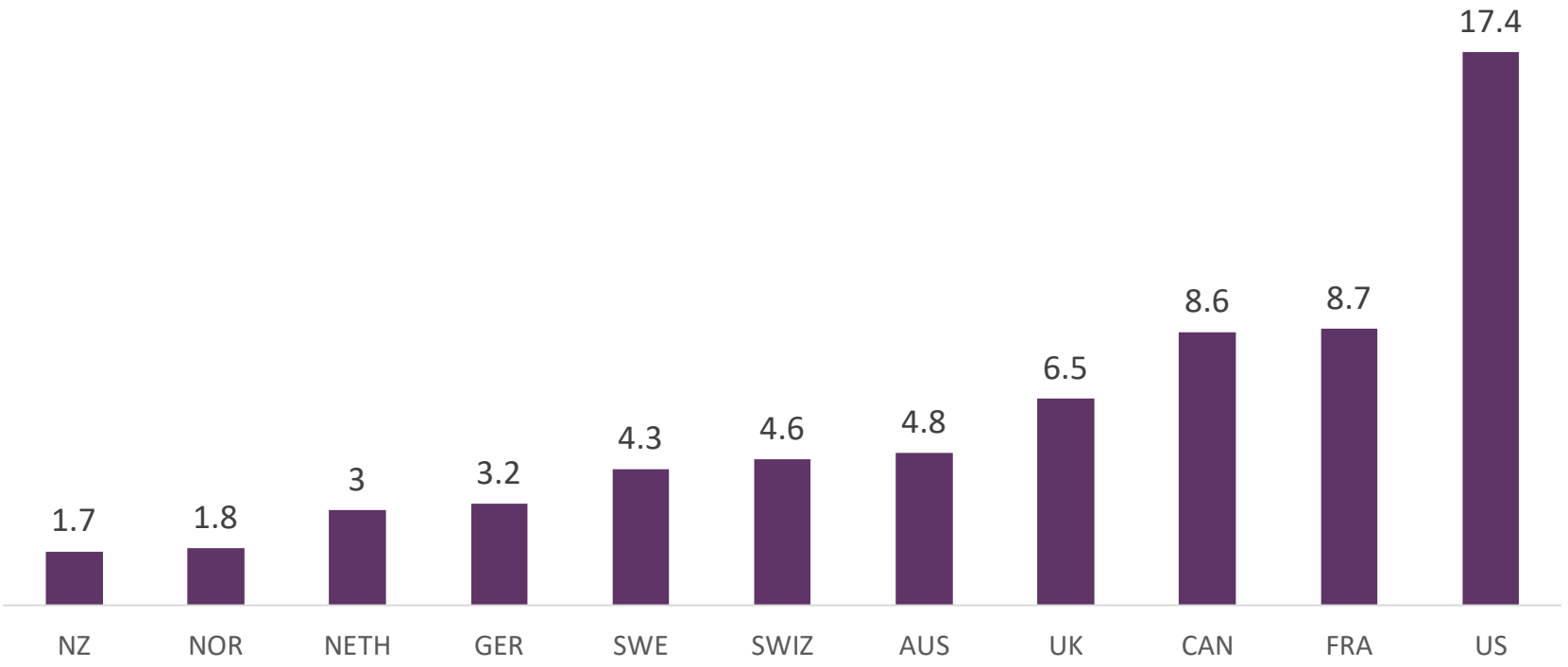
CDC Hear Her Campaign

2021...

CDC MMRC Reports Expanded Work on Maternal Mental Health & SDOH



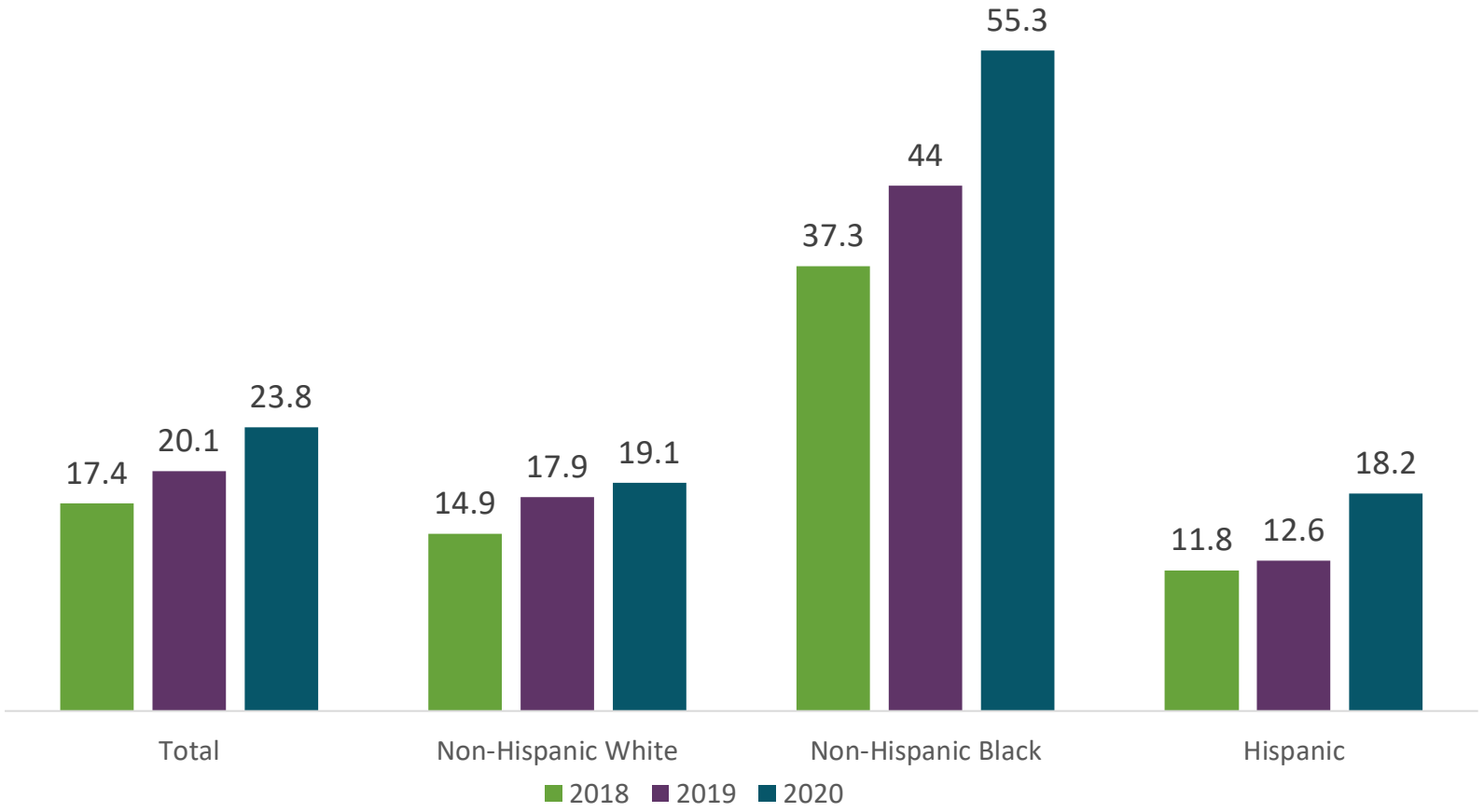
U.S. Mortality Rate is more than **2x the rate in 10 other high-income countries**



Maternal Mortality Ratios in Selected Countries 2018 or Latest
per 100,000 live births

Source
Tikkanen, R., Gunja, M.Z., Fitzgerald, M., & Zephyrin, L. (2020) https://www.commonwealthfund.org/publications/issue-briefs/2020/nov/maternal-mortality-maternity-care-us-compared-10-countries

During Pandemic Years, **Mortality Rates in Black Women were 3x the mortality rates of White Women**

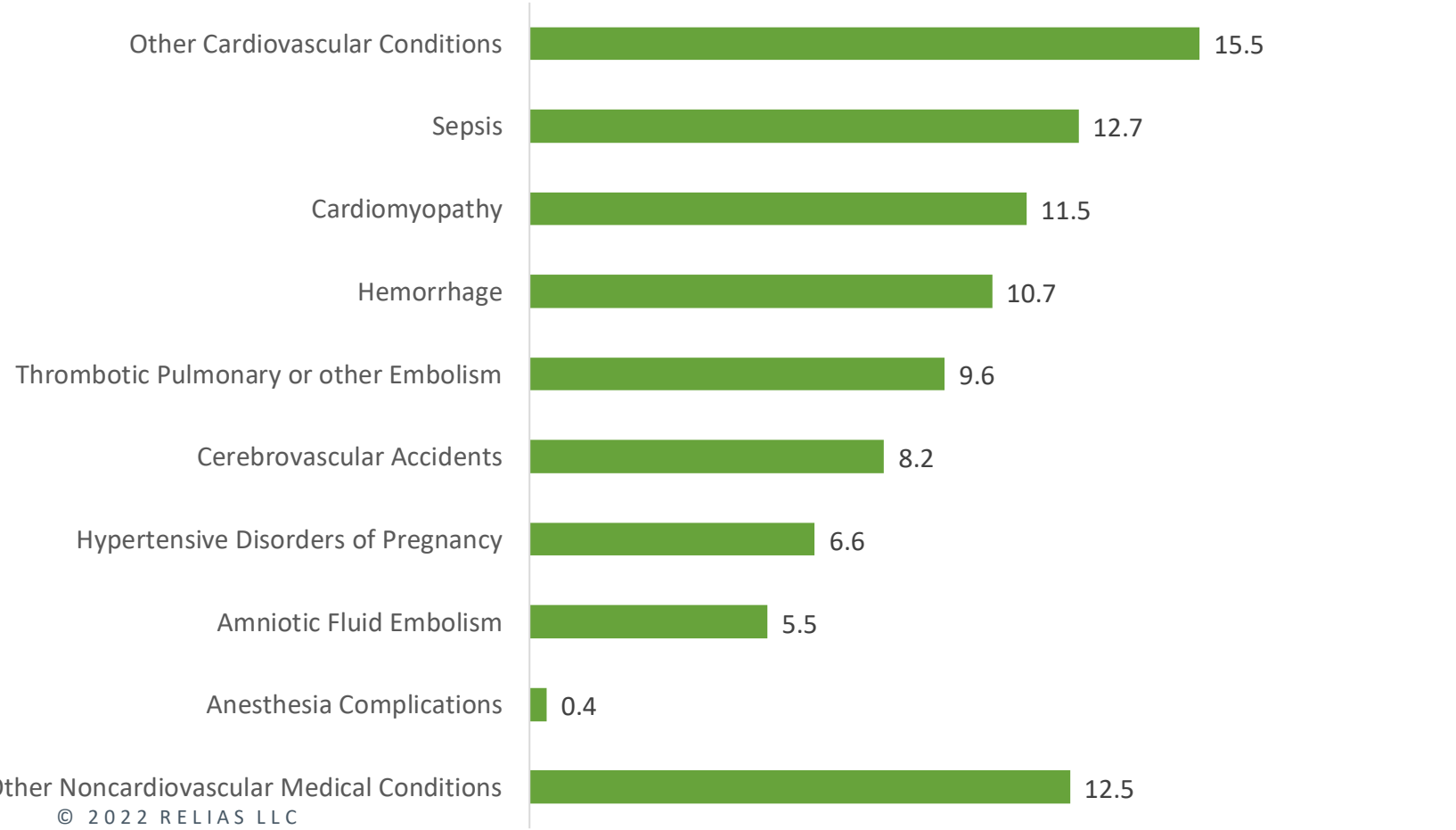


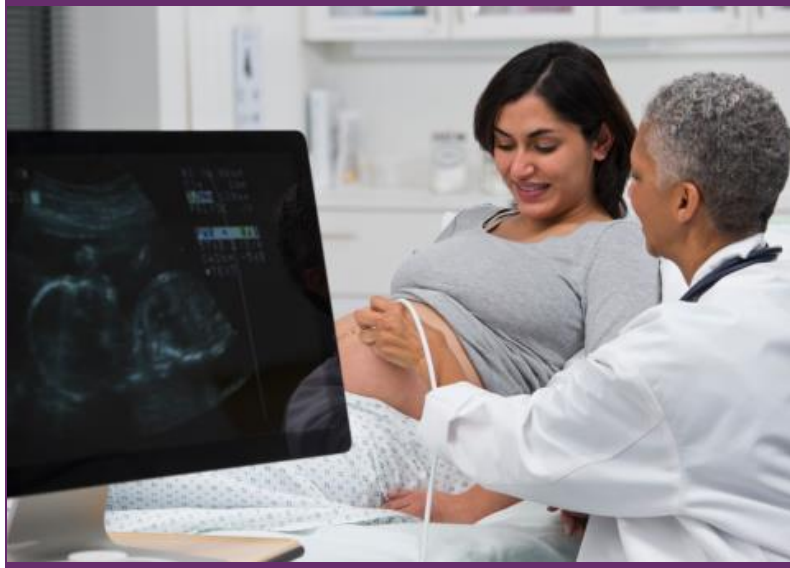
Maternal Mortality Rates by race-ethnicity US 2018-2020 per 100,000 live births

Source
CDC 2020 https://www.cdc.gov/nchs/data/hestat/maternal-mortality/2020/maternal-mortality-rates-2020.htm

Evidence-Based Protocols and Reduction in Practice Variance are used to **address High Risk Areas in Obstetrics**

% of pregnancy-related deaths in the US 2014-2017

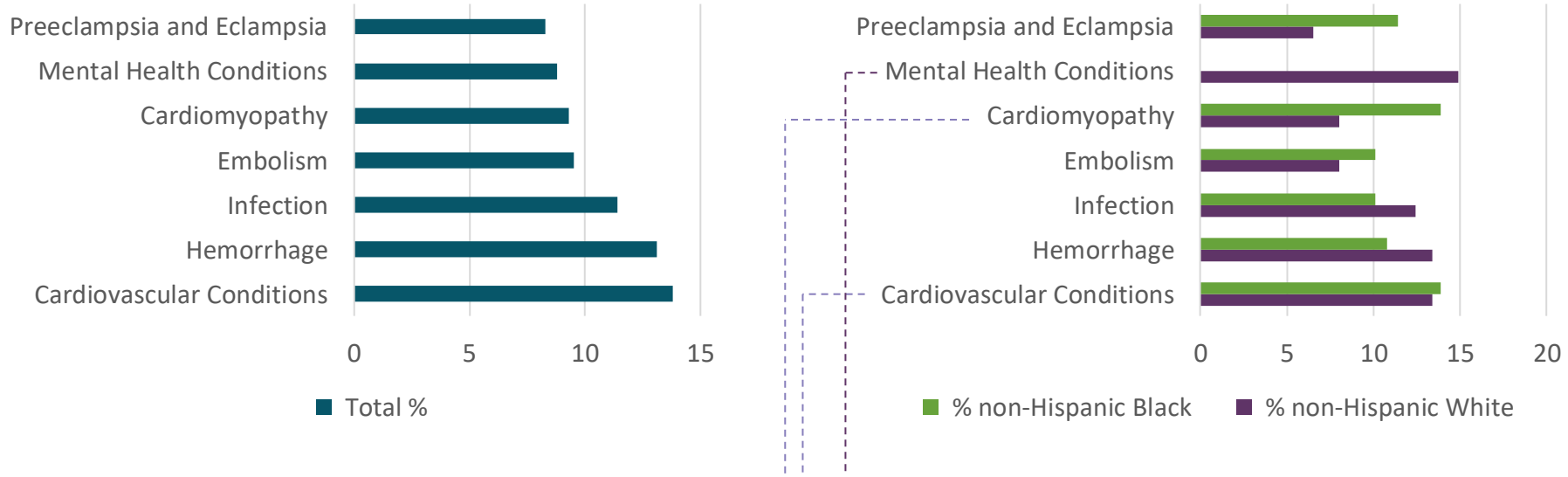




Source
CDC 2020 https://www.cdc.gov/reproductivehealth/maternal-mortality/pregnancy-mortality-surveillance-system.htm

Mental Health as a cause of death is as significant as other High-Risk causes of Maternal Mortality

Table 3. Leading underlying causes of pregnancy-related deaths, overall and by race-ethnicity, data from 14 maternal mortality review committees, 2008-2017.*



13.9%

In non-Hispanic Black population, **Cardiovascular** and **Cardiomyopathy** were the leading underlying causes

14.9%

In non-Hispanic White population, **Mental Health** was the leading underlying cause

Poll

At what period in time after pregnancy is the highest rate of death for women?

1. 0 - 42 days
2. 43 - 150 days
3. 43 – 365 days

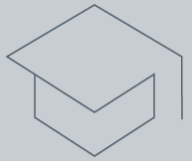
Age, Education, Timing of Death are significant considerations for Maternal Mortality

Characteristics of pregnancy-related deaths
data from 14 maternal mortality review committees, 2008–2017 (N=454)

	N	%
Age at death		
15–19	21	4.8
20–24	92	20.9
25–29	98	22.2
30–34	117	26.5
35–39	77	17.5
≥40	36	8.2
Education		
High school or less	229	53.5
Some college	86	20.1
Associate or Bachelor degree	77	18.0
Advanced degree	36	8.4
Timing of Death		
During pregnancy	91	23.9
Day of delivery	59	15.5
1–6 days postpartum	70	18.4
7–42 days postpartum	71	18.6
43–365 days postpartum	90	23.6

3 in 4
died between pregnancy and first 42 days Post-Partum

47.9%
Aged **15–29** years old



53.5%
High School Degree or less

Mental Health Conditions

Was identified as an underlying cause for **20–29** age group

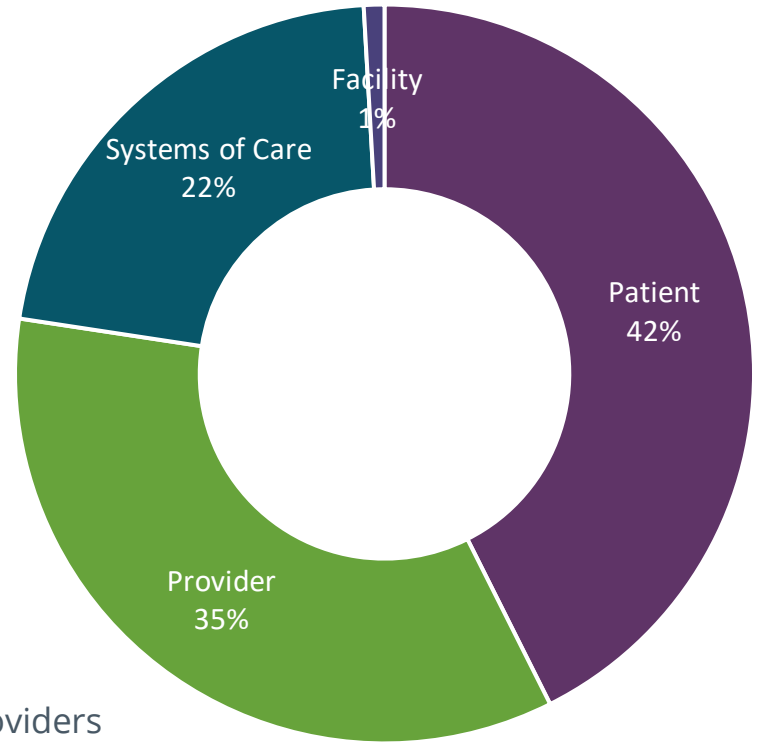
Distribution of **Critical Factors** among Pregnancy-Related Deaths

System of Care Factors

+ Lack of coordination in patient management
+ Lack of communication between patient providers

Provider Factors

+ Failure to perform clinical assessment
+ Wrong or delayed diagnosis, delayed treatment
+ Lack of communication between patient and providers
+ Lack of follow-up by the providers



Patient Factors

+ Absence of social support systems
+ Inability to recognize the need to seek care
+ Disruptive relationships and housing
+ Lack of adherence to medication(s)

MMRC: Take a Holistic View of a Patient's Lived Experiences

421 Deaths from 2008–2017

46 deaths were attributed to mental health with the distribution:

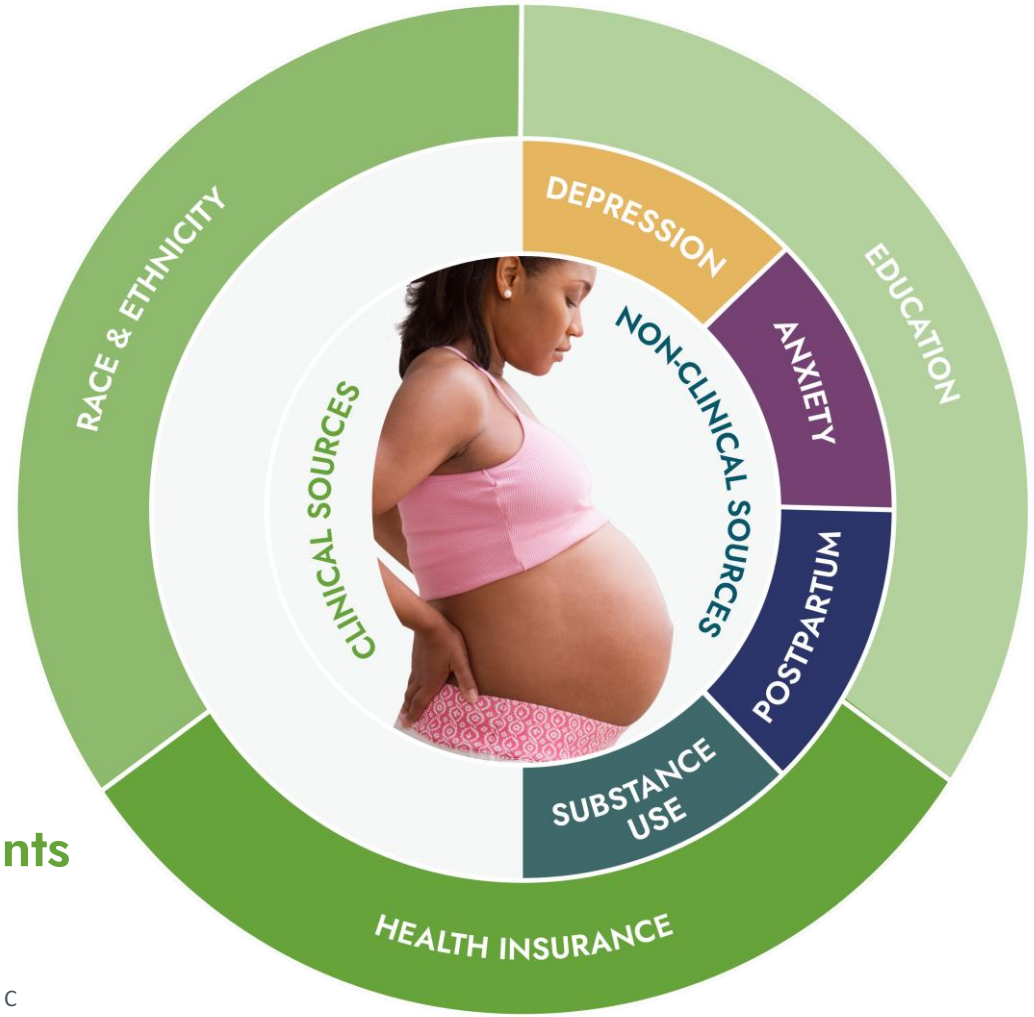
- **62%:** suicides
- **24%:** unintentional poisonings/overdoses
- **67%:** history/current substance use

43 days to **365 days** post partum

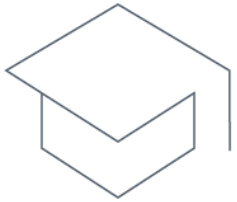
How Social Determinants of Health **Affect Maternal Mortality**

Social Determinants of Health

Relationship between **SDOH and Maternal Outcomes**



Social Determinants of Health



High School Degree holders or less have a mortality rate that is **2x** that of **College Degree holders**

Lack of insurance is associated with **higher risk** of **cardiovascular**, **respiratory**, and **severe sepsis-related** death, and **in-hospital mortality**

Non-Hispanic Black women, are dying at nearly **3x the rate of non-Hispanic white women**

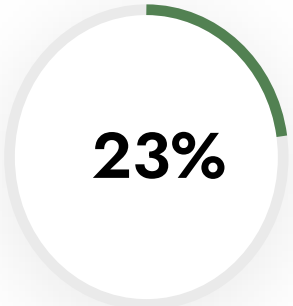
Peripartum Depression and Mental Health

Poll

Do you follow up with mothers that are at risk?

1. We follow up with all mothers
2. We follow up only with mother that identified with risk factors
3. We do not follow up after discharge

Peripartum Depression



Common but underdiagnosed

Often not recognized

+ Changes in sleep, appetite, and libido may be attributed to normal pregnancy
+ Providers lack awareness
+ Screening not routinely implemented
+ Stigma and shame can make mothers less likely to report symptoms

Complications

+ Impaired maternal-infant bonding
+ Suicide (2 - 3.7 per live birth)
+ Unlikely to remit spontaneously

Source
Meurk, C., et al. (2021). Suicidal behaviours in the peripartum period: a systematic scoping review of data linkage studies. Archives of women's mental health 24(4): 579-593.

Economic Impact of PPD

Perinatal mood and anxiety disorders

+ $31,800 per mother-child pair
+ $14 billion for the US as a whole

Higher annual direct total all-cause medical and pharmaceutical spending

+ $19,611 versus $15,410
+ Driven primarily by more outpatient visits

Financial Impact on Affected vs Unaffected Households

+ $36,049 versus $29,448 medical and pharmaceutical spending during the first year following childbirth
+ Average of 16 more more outpatient visits

Source
Luca, D. L., et al. (2020). Financial Toll of Untreated Perinatal Mood and Anxiety DisordersAmong 2017 Births in the United States.American Journal of Public Health 110(6): 888-896.

Epperson, C. N., et al. (2020). Healthcare resource utilization and costs associated with postpartum depression among commercially insured households.Current MedicalResearch and Opinion 36(10): 1707-1716.

Screening for PPD

U.S. Preventive Services TASK FORCE

2016 Recommendation

+ Conduct depression screening for the general population
+ Including pregnant and postpartum women

ACOG
The American College of Obstetricians and Gynecologists

Recommendation

+ Screen at least once during perinatal period for depression and anxiety

On-the-Ground Reality

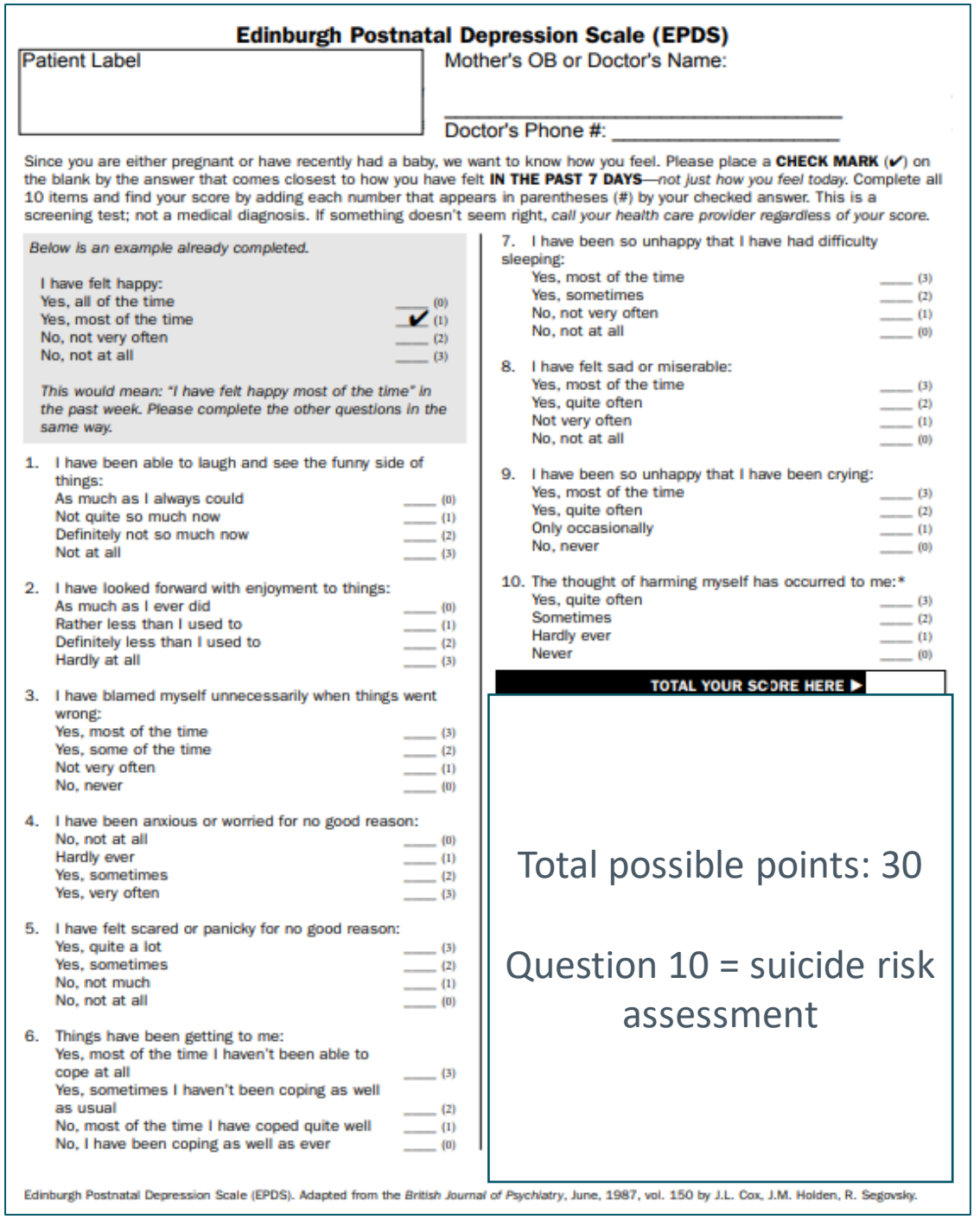
+ Screening is sporadic
+ Less than 2 in 3 mothers are screened

Source
Connor, E., et al. (2016). Screening for Depression in Adults: An Updated Systematic Evidence Review for the U.S. Preventive Services Task Force, Agency for Healthcare Research and Quality (US), Rockville (MD).

Sidebottom, A., et al. (2021). Perinatal depression screening practices in a large healthsystem: identifying current state and assessing opportunities to provide more equitable care.Archives of women's mental health 24(1): 133-144.

Screening for Mental Health with the EPDS

RELIAS



Edinburgh Postnatal Depression Scale (EPDS)

Patient Label

Mother's OB or Doctor's Name:

Doctor's Phone #: _____

Since you are either pregnant or have recently had a baby, we want to know how you feel. Please place a **CHECK MARK** (✔) on the blank by the answer that comes closest to how you have felt **IN THE PAST 7 DAYS**—*not just how you feel today.* Complete all 10 items and find your score by adding each number that appears in parentheses (#) by your checked answer. This is a screening test; not a medical diagnosis. If something doesn't seem right, *call your health care provider regardless of your score.*

Below is an example already completed.

I have felt happy:
Yes, all of the time ___ (0)
Yes, most of the time ✔ (1)
No, not very often ___ (2)
No, not at all ___ (3)

This would mean: "I have felt happy most of the time" in the past week. Please complete the other questions in the same way.

1. I have been able to laugh and see the funny side of things:
As much as I always could ___ (0)
Not quite so much now ___ (1)
Definitely not so much now ___ (2)
Not at all ___ (3)

2. I have looked forward with enjoyment to things:
As much as I ever did ___ (0)
Rather less than I used to ___ (1)
Definitely less than I used to ___ (2)
Hardly at all ___ (3)

3. I have blamed myself unnecessarily when things went wrong:
Yes, most of the time ___ (3)
Yes, some of the time ___ (2)
Not very often ___ (1)
No, never ___ (0)

4. I have been anxious or worried for no good reason:
No, not at all ___ (0)
Hardly ever ___ (1)
Yes, sometimes ___ (2)
Yes, very often ___ (3)

5. I have felt scared or panicky for no good reason:
Yes, quite a lot ___ (3)
Yes, sometimes ___ (2)
No, not much ___ (1)
No, not at all ___ (0)

6. Things have been getting to me:
Yes, most of the time I haven't been able to cope at all ___ (3)
Yes, sometimes I haven't been coping as well as usual ___ (2)
No, most of the time I have coped quite well ___ (1)
No, I have been coping as well as ever ___ (0)

7. I have been so unhappy that I have had difficulty sleeping:
Yes, most of the time ___ (3)
Yes, sometimes ___ (2)
No, not very often ___ (1)
No, not at all ___ (0)

8. I have felt sad or miserable:
Yes, most of the time ___ (3)
Yes, quite often ___ (2)
Not very often ___ (1)
No, not at all ___ (0)

9. I have been so unhappy that I have been crying:
Yes, most of the time ___ (3)
Yes, quite often ___ (2)
Only occasionally ___ (1)
No, never ___ (0)

10. The thought of harming myself has occurred to me:*
Yes, quite often ___ (3)
Sometimes ___ (2)
Hardly ever ___ (1)
Never ___ (0)

TOTAL YOUR SCORE HERE ▶

Total possible points: 30

Question 10 = suicide risk assessment

Edinburgh Postnatal Depression Scale (EPDS). Adapted from the *British Journal of Psychiatry*, June, 1987, vol. 150 by J.L. Cox, J.M. Holden, R. Segovsky.

Intervening on Depression & Suicide Risk

EPDS Score	Depression Risk	Follow Up
<8	Low	Psychoeducation
9-11	Moderate	Psychoeducation, rescreen in 2 weeks, community services
12-13	High	Psychoeducation, rescreen in 2 weeks, further assessment, treatment plan, refer for services
>14	Probably present	All of the above and establish continuity of care
+ Question 10	Suicide Risk	Complete full suicide risk screening and safety plan

- Psychoeducation
- Referrals for outpatient treatment
- Integrated treatment plan pre-discharge
- Referral to psychiatry for medication management
- Suicide risk assessment via Columbia Scale
- Safety planning

Integrating Behavioral Health Clinicians in the Treatment Team

Case Management

- Identify and connect patient with community resources
- May facilitate referral to outpatient mental health services
- May complete some basic assessments, not typically responsible for diagnose or treatment intervention

VS.

Behavioral Health

- Primary responsibilities include assessing, diagnosing, intervening, and treatment planning
- Can provide on-site therapy services
- Responsible for documenting patient condition and following up as needed
- Integrated psychotherapy be effective in as little as 15 minute

Contributing Factors + Health Outcomes

Economic Stability

- Employment
- Income
- Expenses
- Debt
- Medical Bills
- Support

Neighborhood + Physical Environment

- Housing
- Transportation
- Safety
- Parks
- Playgrounds
- Walkability
- Zip Code/Geography

Education

- Literacy
- Language
- Early Childhood Education
- Vocational Training
- Higher Education

Food

- Hunger
- Access to Healthy Options

Community + Social Context

- Social Integration
- Support Systems
- Community Engagement
- Discrimination
- Stress

Health Care System

- Health Care Coverage
- Provider Availability
- Provider Linguistic + Cultural Competency
- Quality of Care

Health Outcomes | Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status + Functional Limitations

(Kaiser Family Foundation, 2020)

Screening Tools

Edinburgh Postnatal Depression Scale (EPDS)

The Patient Health Questionnaire (PHQ-9)

Columbia Suicide Risk Severity Scale

CMS Accountable Health Communities Health-Related Social Needs (HCRSN) Screening Tool

KEY

+ Prioritize patient health and safety
+ Minimize friction with patient
+ Remove administrative burden

Source
The management of depression during pregnancy: a report from the American Psychiatric Association and the American College of Obstetricians and Gynecologists. General hospital psychiatry 31(5): 403-413

Behavioral Health Practice Considerations

- Inequity and disparities between highly-resourced and under-resourced communities
- Assessing and diagnosing practices
- Documentation practices
- Intervention and treatment recommendations

(CDC, 2021; World Economic Forum, 2020; Kaiser Family Foundation, 2020)

Treatment Options

Existing

+ Antidepressants
+ Psychotherapy
+ Connecting to resources
+ Group therapy

Challenges

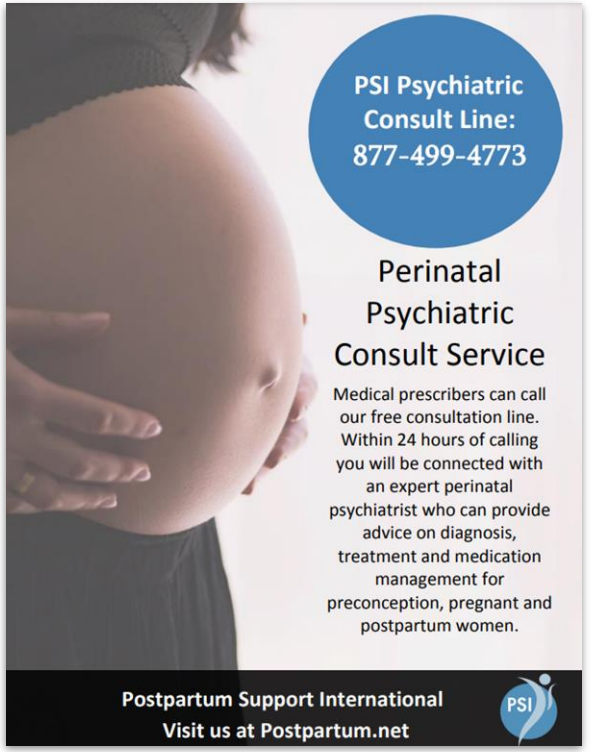
+ Shortage of mental health providers
+ Reluctance to accept referral due to stigma

Managing Gaps in Mental Health Services

- Examine scope of mental health and psychiatric services
- Expand number of behavioral health clinic
- Increase training on mental health for all staff
- Review mental health documentation practices and ensure BH and medical documentation are in the same system

Mental Health Resource Toolkit

- Mental health crisis number: 988
- National, Local and Facility Resources
- Emergency/hotline numbers
- Local mental health resources
- Support Groups
- Lactation Support
- Parenting Classes
- Food and Clothing



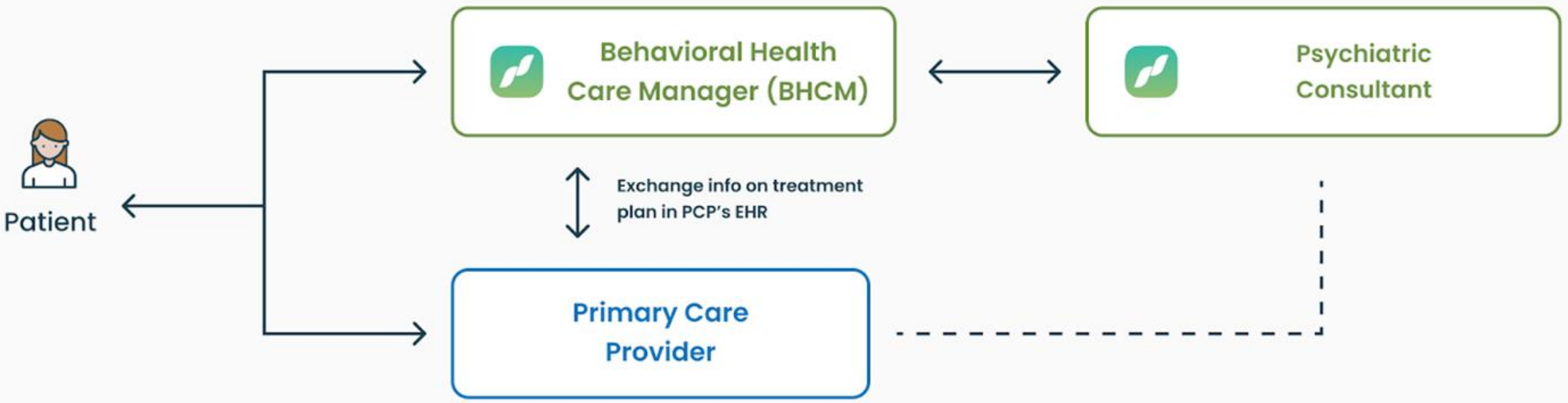
PPD Screening Data Directs Actions and Opportunities to Improve Outcomes

Poll

Do you have a list of community resources/referrals related to PPD, suicide ideation, food and clothing, SUD readily available to give with the mother at discharge?

1. Yes
2. No
3. Unsure

An Overview of CoCM



Collaborative Care (CoCM)

Initiate treatment at Primary Care Setting

+ Evidence-based model
+ Addresses barriers upfront
+ Utilizes a familiar setting

5 Key Components

+ Population-based care
+ Measurement-based treatment to target
+ Care management
+ Psychiatric consultations
+ Brief psychological therapies

Success with CoCM

+ Shown success in women's health settings in 2 randomized trials
+ Shown increased Provider satisfaction and confidence to manage behavioral health problems

Source
The management of depression during pregnancy: a report from the American Psychiatric Association and the American College of Obstetricians and Gynecologists. General hospital psychiatry 31(5): 403-413

CMS and "Birthing Friendly" Designation

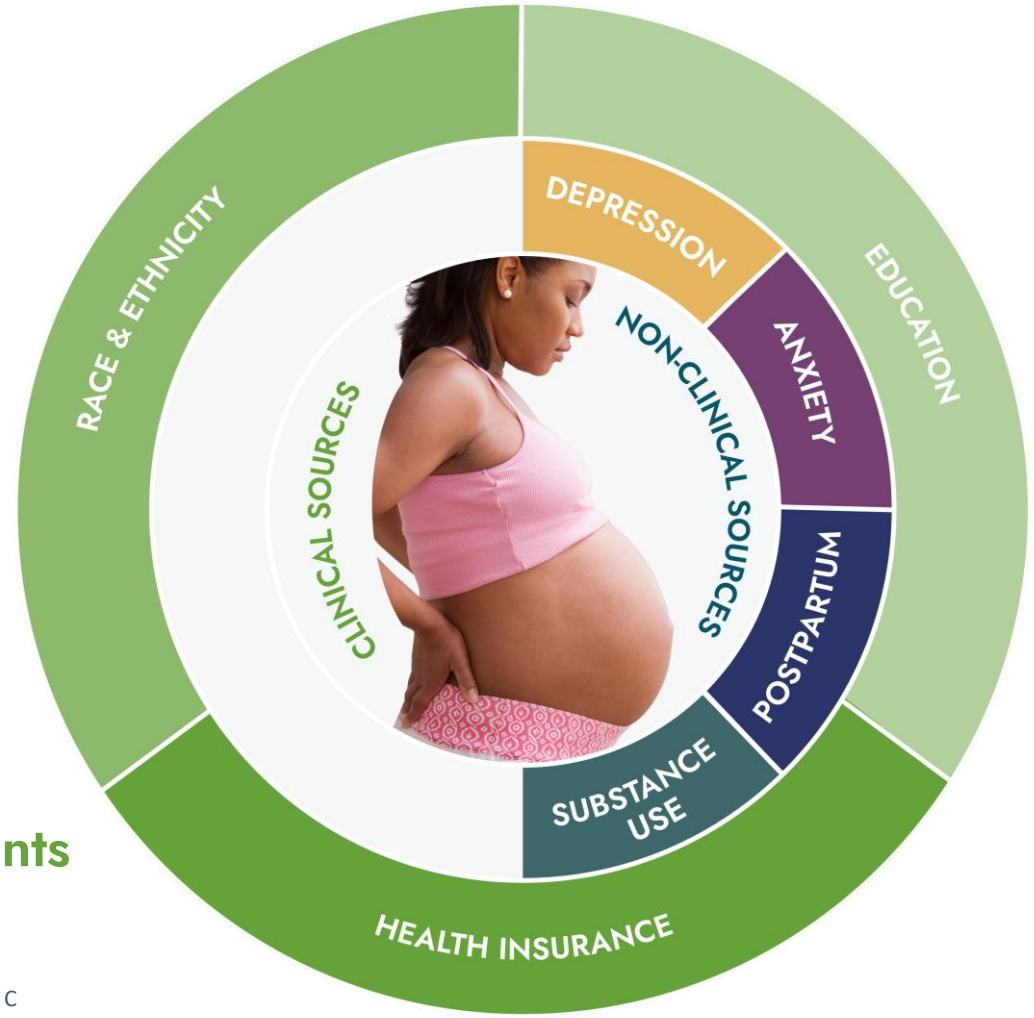
HHS through CMS is taking critical steps to improving maternal mortality and morbidity.

1. Under this proposal, CMS would initially give this designation to hospitals that report "Yes" to the *Maternal Morbidity Structural Measure.* The *Maternal Morbidity Structural Measure* is an attestation specified to capture whether hospitals are: (1) participating in a structured state or national Perinatal Quality Improvement (QI) Collaborative; and (2) implementing patient safety practices or bundles as part of these QI initiatives.

2. CMS is proposing the collection and screening of social drivers of health, health equity measures, two perinatal eCQMs—Cesarean Birth and Severe Obstetric Complications—available for self-selection beginning with the CY 2023 reporting period/FY 2025 payment determination followed by mandatory reporting beginning with the CY 2024 reporting period/FY 2026 payment determination.

CMS Announces Key Actions to Reduce Maternal Mortality and Morbidity | CMS

Time to Act is Now!



Social Determinants of Health

Know Your Patients, Know Your Data

Integrate Universal mental health screening and coordination of care into obstetric care

Take a closer look at the late postpartum period.

Know your communities

Educate your staff

Questions?

Please use the Q&A widget to submit questions.

THANK YOU

RELIAS