MSPQC
Mississippi Perinatal Quality Collaborative

MSPQC POSTPARTUM DISCHARGE TRANSITION TOOLKIT

December 2023

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HOW TO USE THIS TOOLKIT

This toolkit is organized according to the 5-R's of the Alliance for Innovation on Maternal Health (AIM) Postpartum Discharge Transition Patient Safety Bundle:

- **R**eadiness
- **R**ecognition & Prevention
- **R**esponse
- **R**eporting/Systems Learning
- **R**espectful, Equitable Care and Supportive Care

The MSPQC Steering Committee has selected key resources from AIM and existing toolkits that may be adopted and adapted by each facility to drive quality improvement initiatives. This is not an exhaustive compilation of tools; however, it does provide the core components needed to successfully implement processes to optimize the health outcomes of women and infants through postpartum transitions. We fully encourage providers and hospitals to review and utilize the resources from the following organizations in addition to the MSPQC, as they each offer valuable tools and guidance for promoting evidence-based best practices to support postpartum transition.

In addition to the AIM Safety Bundle, resources within this toolkit are from Florida's PACC Initiative and the Kansas Perinatal Quality Collaborative' s Fourth Trimester Initiative.

Key references for this toolkit include:

AIM: https://safehealthcareforeverywoman.org/aim/

ACOG: https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/05/optimizing-postpartum-care

Florida Perinatal Quality Collaborative PACC Initiative: https://cms.health.usf.edu//-/media/Files/Public-Health/Chiles-Center/FPQC/PACC-Toolkit-Final-12-14-2022.ashx

Kansas Perinatal Quality Collaborative Fourth Trimester Initiative: https://kansaspqc.org/initiatives/fourth-trimester-initiative/

Alliance for Innovation on Maternal Health

The Alliance for Innovation on Maternal Health, or AIM, is a national, cross-sector commitment designed to support best practices that make birth safer, improve maternal health outcomes and save lives. The AIM National Team at the American College of Obstetricians and Gynecologists (ACOG) provides technical assistance and capacity building to interested and enrolled multidisciplinary state and jurisdiction teams to implement AIM-developed patient safety bundles via rapid cycle quality improvement. AIM promotes evidence-based practice to reduce maternal mortality and severe maternal morbidity (SMM) in the United States.

To date, AIM is made up of the 49 states and the District of Columbia and over 1,900 participating birth facilities.

AIM develops patient safety bundles as a structured way of improving care processes and patient outcomes. Each safety bundle includes the 5 Rs and when implemented together and consistently have been proven to improve outcomes.

AIM's Core Patient Safety Bundles are listed below:

- Obstetric Hemorrhage
- Severe Hypertension in Pregnancy
- Safe Reduction of Primary Cesarean Birth
- Cardiac Conditions in Obstetrical Care
- Care for Pregnant and Postpartum People with Substance Use Disorder
- Sepsis in Obstetric Care
- Perinatal Mental Health Conditions
- Postpartum Discharge Transition

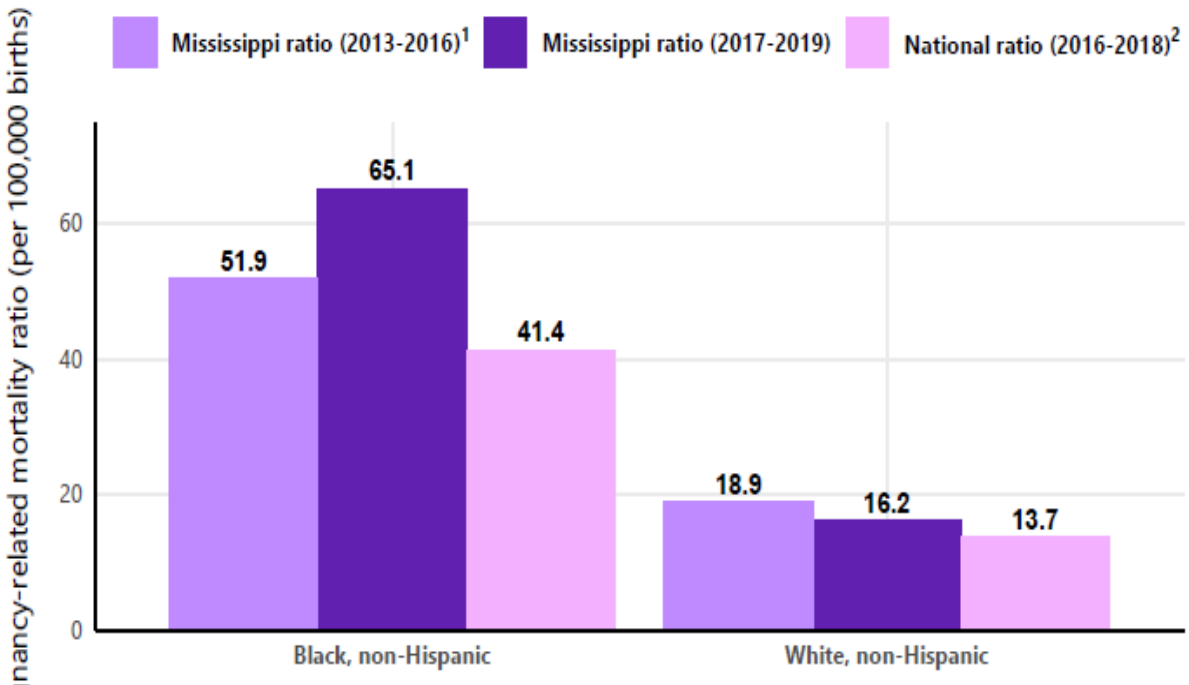
PARTNERS OF AIM

https://saferbirth.org/about-us/

Project Overview

This document is a resource for the quality improvement project for the Mississippi Perinatal Quality Collaborative and Blue Cross & Blue Shield of Mississippi, *Postpartum Discharge Transition*. The goal of the initiative is to support healthcare teams in implementing evidence-based practices that facilitate a comprehensive postpartum care visit; provide access to treatment and resources following birth; support early intervention to decrease maternal morbidity and mortality; eliminate racial and ethnic disparities; and ensure optimal outcomes in all populations.

Mississippi's maternal mortality rate is higher than the national average based on findings from the Mississippi State Department of Health, Mississippi Maternal Mortality Report 2013-2016.



[1]Mississippi State Department of Health, Mississippi Maternal Mortality Report 2013-2016. https://msdh.ms.gov/msdhsite/index.cfm/31,8127,299,pdf/MS_Maternal_Mortality_Report_2019_Final.pdf

[2]CDC Pregnancy Mortality Surveillance System (PMSS) Pregnancy-Related Mortality Ratio by Race/Ethnicity: 2016-2018 https://www.cdc.gov/reproductivehealth/maternal-mortality/pregnancy-mortality-surveillance-system.htm

In alignment with national statistics on racial/ethnic disparities in maternal health outcomes, Black, non-Hispanic women in Mississippi had a maternal mortality rate 4 times higher than White, non-Hispanic women (65.1 vs 16.2).

	Pregnancy-related		Pregnancy-associated, not related		Pregnancy-associated, unable to determine relatedness			
Race/ethnicity	Count	Ratio[1]	Count	Ratio[1]	Count	Ratio[1]	Total	Births
Black, non-Hisp.	31	65.1	23	48.3	6	12.6	60	47,587
White, non-Hisp.	9	16.2	20	36.0	3	5.4	32	55,514
Other, non-Hisp.	0	0.0	0	0.0	0	0.0	0	2,890
Hispanic[2]	0	0.0	1	19.9	0	0.0	1	5,022
Total	40	36.0	44	39.6	9	8.1	93	111,013

[1] Maternal mortality ratios calculated as deaths per 100,000 live births
[2] Hispanic race/ethnicity includes Black, White, and other races

In the report nearly 60% of maternal deaths occurred during pregnancy or within the first 60 days after delivery while 42.5% occurred more than 60 days but less than one year after delivery.

Implementation of the AIM Postpartum Discharge Transition Patient Safety Bundle aligns with key recommendations outlined in the Maternal Mortality Report. Key recommendations are listed below.

Key Recommendations from the Mississippi Maternal Mortality Report 2013-2016:

For State Leaders:

• Policy makers should improve access to healthy environments, healthy food, and establish goals to improve overall health for neighborhoods with high prevalence of chronic disease and obesity, which contribute to cardiovascular conditions.

• Mississippi should make efforts to ensure insurance coverage before pregnancy and ensure patients receive options for ongoing insurance beyond the one-year postpartum period. The State of Mississippi should extend Medicaid coverage from 60 days postpartum to at least one year.

• Mental health services should be broad to tailor to various cultures, age groups, locations and conditions. If local in-person access is not available, access should be expanded by phone and telehealth.

For Hospitals:

• Standardized treatment systems for severe maternal hypertension and peripartum cardiovascular conditions should be standardized for all OB units and Emergency Departments.

• Hospital facilities should train all team members in maternal early warning signs with a clear chain of command for escalating concerns. Treatment algorithms for the management of symptoms such as shortness of breath in a high-risk postpartum patient should be included in hospital training and protocols.

• A coordinated response system is needed from the point of the 911 call about the fastest method of transport, the closest capable location, and needed expertise to support local providers.

For Providers:

• Perinatal social services should be seamlessly integrated in with clinical care in order to facilitate complex medical and social care coordination, provide psychosocial support and minimize multiple referrals and additional visits for patients to obtain psychosocial support. A perinatal social worker could be embedded within clinical practices and hospitals and facilitate care coordination as well as provide at home support.

• Medical providers should be aware of how dismissal of patient concerns is more common in women and people of color leading to higher rates of misdiagnosis and under-treatment of conditions.

• All clinicians caring for pregnant and postpartum people or addressing cardiopulmonary concerns in a pregnant or postpartum person should have completed education on peripartum cardiomyopathy, its symptoms, diagnosis, and treatment within the last five years.

This initiative was developed in alignment with the Alliance for Innovation on Maternal Health Postpartum Discharge Transition Patient Safety Bundle, the American College of Obstetricians and Gynecologists Optimizing Postpartum Care Recommendations and the Florida Perinatal Quality Collaborative PACC toolkit. Each of these resources provides best practices shown to optimize postpartum care, transitions and outcomes.

Participation

Successful implementation of the Postpartum Discharge Transition Patient Safety Bundle will require development of a multidisciplinary Project Team, a group of key stakeholders from the outpatient clinic, community and hospital settings that are actively engaged in leading and supporting the initiative. It is expected that all team members actively participate in project activities and attend team meetings/webinars.

Below is a list of recommended roles and associated responsibilities of the Project Team:

Project Lead. *The hospital official making the commitment for hospital participation, will be the Hospital Team Leader for the initiative, and the main contact. This person should have influence to drive change and ultimate project oversight and management to ensure implementation objectives and timelines are met.*

OB Lead. *Must be a leader willing to engage colleagues on this issue and attend your hospital team's meetings regarding this initiative.*

Hospital and Clinic Nurse Lead. *Must be a leader willing to engage colleagues on this issue and attend your hospital team's meetings regarding this initiative.*

Data Lead. *Will be responsible for submitting monthly data to the AIM Data Portal.*

Hospital and Clinic Administrator. *Is responsible for full administrative support for this initiative.*

Information Technology Lead. *Is responsible for EMR integration of recommended tools (i.e. order sets).*

Community Liaison. *Is responsible for providing community resources or links to community resources to address postpartum needs including but not limited to access to mental health resources, reproductive life planning, social driver needs and substance use treatment.*

Mississippi Perinatal Quality Collaborative (MSPQC) and Blue Cross & Blue Shield of Mississippi (BCBSMS) Initiative Support Team. *MSPQC and BCBSMS have a shared goal of improving the health status and outcomes of mothers and babies in Mississippi. AIM Safety Bundles function as a comprehensive guide for hospital systems to implement MSPQC quality improvement initiatives effectively. Implementation of the AIM Patient Safety Bundles is also a key component of the BCBSMS Maternity Quality Model. Network Hospitals' progress with implementing the Bundle Components will be monitored by BCBSMS through progress updates entered in the AIM Data Portal by Network Hospital teams and the quarterly Maternity Quality Model Performance Review. MSPQC and BCBSMS will be a part of the multidisciplinary team that will provide guidance, feedback, and educational opportunities to participating hospitals on executing improvement strategies via collaborative coaching calls, learning session webinars, and in-person trainings.*

Implementation

Implementation of AIM Patient Safety Bundle components will be accomplished in 3 Phases throughout the initiative. Hospital teams are welcomed and encouraged to utilize available resources to move at a faster pace or expand upon the proposed activities. Ensuring Respectful, Equitable and Supportive Care will be addressed throughout all phases of the initiative with a focus on education, data collection, and patient engagement.

Below is a description of the 3 Phases of Implementation and key roles and responsibilities.

Phase I - Readiness

(Implement November - January)

Team Engagement and Education

Introduction of the Postpartum Discharge Transition Patient Safety Bundle occurs through MSPQC annual conference and AIM Safety Bundle Regional meetings. Hospital teams are encouraged to participate in meetings to share current state of care within their facilities and communities, share perceived challenges to bundle implementation and discuss potential solutions. These meetings will provide an overview of the patient safety bundle and guide teams on essential next steps.

In the Readiness phase, teams are expected to develop a multidisciplinary group of stakeholders to establish postpartum clinical care pathways and standardize discharge processes through collaboration between the inpatient and outpatient settings.

Patient, Hospital and Clinic education in this phase will focus on life threatening postpartum warning signs and developing a list of referral and community resources to enhance post-discharge services and support postpartum women.

Expected participation by the following key stakeholder(s):

- Project Lead
- OB Physician Lead and other OB Providers from your Network Hospital
- Clinic Lead
- Nursing Lead
- Community Lead
- Data Lead

Expected responsibilities:

- Establish a multidisciplinary team of inpatient and outpatient stakeholders
- Develop discharge processess and postpartum clinical care pathways that screen for life threatening postpartum conditions and optimize timely and appropriate postpartum care
- Develop a standard discharge summary form for distribution to all patients
- Attend AIM Safety Bundle Regional meetings and monthly MSPQC webinars as scheduled

Phase II - Recognition and Prevention

(Implement February - April)

Chart auditing and establishing multidiscipinary case reviews will be reviewed during monthly MSPQC webinars. This time can be used to serve as a resource for helping hospital teams establish a process to perform case reviews as needed. Case reviews that are multidisciplinary will allow educational opportunities to be identified and aid in recognizing gaps in resources that impact postpartum care. The AIM Safety Bundle Multidisciplinary Case Reviews focus on timeliness of postpartum visit scheduling, discharge education and availability of necessary resources.

Expected participation by the following key stakeholder(s):

- **Project Lead**
- **OB Physician Lead and other OB Providers from your Network Hospital**
- **Clinic Lead**
- **Nursing Lead**
- **Community Lead**
- **Data Lead**

Expected responsibilities:

- Complete 10 chart audits per month (or more if you choose)
- Attend monthly MSPQC webinars as scheduled
- Establish and maintain a process within your facility for quarterly Case Reviews

Phase III - Response

(Implement May - July)

The Response Phase is the action/implementation phase where you use the standardized discharge process that you developed in the readiness phase. In this phase, teams will be expected to implement a comprehensive discharge plan for all patients that will include education to patients and their support person, if applicable, on pregnancy and postpartum warning signs and self-care, and also how to communicate with patients their symptoms. This phase also includes providing patients care plans they should follow after leaving the hospital, including their postpartum visits with OB and any other specialty follow up. It will be important that these tasks have been documented in the patient's chart to assist with data collection.

Expected Participation in this phase includes:

- Obstetrics Team
- Nursing Staff
- Social Workers

Any Specialties needed by the patient (Cardiology, Nephrology, Neurology, etc.)

Phase IV - **R**eporting/Systems Learning

(Implement August – October)

Reporting and Systems Learning focuses on the quality measures that are recorded as part of the implementation process. This information is then analyzed and used internally for quality improvement by the identification of systemic barriers to successful implementation and areas of system inefficiency that hinder optimal patient care and/or contribute to suboptimal outcomes. Through in-depth analysis, this data will lead to process improvements that ultimately improve patient care, facilitate team functioning, and decrease health disparities.

Expected participation in this phase includes:

- **Obstetrics Team (physicians, nurses)**
- **Hospital leadership (Quality improvement/ CMO)**

Expected responsibilities:

- Regualr reporting and data collection
- Establish and maintain a process within your facility for utilizing data to improve patient care

Respectful and Equitable Care

(To be implemented throughout the bundle)

Engaging in open, transparent, and empathetic communication with pregnant and postpartum people and their identified support network to helps to create an atmosphere that improves patient understanding and reduces miscommunication between patients, their families and medical care providers leading to better outcomes and compliance.

All persons involved with patient care should complete education related to respectful and equitable care. Education should involve not only written but video-based content.

Expected participation by the following key stakeholder(s):

- **Everyone involved in patient care**

Expected responsibilities:

- Place placards in visible areas
- Establish and maintain a process within your facility for regular education

Key Tasks and Timeline

Tasks	Key Stakeholder	Timeframe
Attend BCBSMS/MSPQC Regional Meetings in your area	OB Physician Lead and Nurse Lead	August, September and November 2023
Introduce the Postpartum Discharge Transition AIM Safety Bundle to your Hospital Leadership Team and Women's Services department with an educational session, department meeting or other event/announcement Engage affiliated Clinic team to introduce Safety Bundle	Administration, Physician Lead, Nurse Lead	November 2023
Establish your multidisciplinary inpatient/outpatient Project Team and develop a timeline for progression	Designated Project Lead	December 2023
Establish a schedule for routine touchpoints throughout the Project for your Project Team to discuss implementation progress and opportunities for improvement (suggested monthly)	Designated Project Lead	December 2023
Attend MSPQC monthly support webinar based meetings for collaboration and advice (includes sharing successes/challenges of Bundle implementation)	Project Team	November 2023 – October 2024
Complete staff education of postpartum complications	OB and Clinic Physicians, Nurses	November 2023 – January 2024
Establish a list of referral resources and communication pathways related to postpartum services	Project Team	November 2023 – January 2024
Establish and implement a process for scheduling postpartum care and specialty referral visits based on screening of individual needs	Project Team	February 2024 – April 2024
Develop and implement a standardized patient discharge education form including	Project Team	April 2024 – June 2024

key elements listed in the *Element Implementation Details*		
Develop and implement a standardized patient discharge summary including key elements listed in the *Element Implementation Details*	Project Team	April 2024 – June 2024
Establish key components for a comprehensive postpartum visit	Project Team	April 2024 – June 2024
Establish a system for accurate racial and ethnicity data collection and evaluation for project measures	Project Team	July 2024 – September 2024
Establish and implement a process for tracking and reporting postpartum quality measures	Project Team	July 2024 – September 2024
Submit monthly updates on Bundle implementation to the AIM Data Portal	Data Lead	November 2023 – October 2024

Readiness

There are five domains of Readiness to be addressed by every facility to facilitate safe, appropriate, and timely postpartum transitions. While ideally all elements of a patient safety bundle would be implemented in all relevant settings, this may be aspirational for some settings based on capacity and resources. For this reason, elements that are considered foundational to addressing morbidity and mortality in the postpartum period are **bolded** below.

Recommendations for Every Patient, Provider and Facility:

1. **Develop and maintain a set of referral resources and communication pathways between obstetric providers, community-based organizations, and state and public health agencies to enhance services and supports for pregnant and postpartum families.***

2. **Establish a multidisciplinary care team to design coordinated clinical pathways for patient discharge and a standardized discharge summary form to give to all postpartum patients prior to discharge.**

3. Provide multidisciplinary staff education to clinicians and office staff on optimizing postpartum care, including why and how to screen for life-threatening postpartum complications.*

4. Develop trauma-informed protocols and trainings to address health care team member biases to enhance quality of care.

5. Educate outpatient care setting staff on how to use a standardized discharge summary form to review patient data and ensure that recommendations made for outpatient follow-up and community services/resources have been carried out.

See Postpartum Discharge Element Implementation Details

Consensus Statement

Consensus Bundle on Postpartum Care Basics

From Birth to the Comprehensive Postpartum Visit

Alison M. Stuebe, MD, MSc, Susan Kendig, JD, WHNP-BC, Patricia D. Suplee, PhD, RNC-OB, and Robyn D'Oria, MA, RNC

In the weeks after childbirth, a woman navigates multiple challenges. She must recover from birth, learn to care for herself and her newborn, and cope with fatigue and postpartum mood changes as well as chronic health conditions. Alongside these common morbidities, the number of maternal deaths in the United States continues to increase, and unacceptable racial inequities persist. One third of pregnancy-related deaths occur between 1 week and 1 year after delivery, with a growing proportion of these deaths due to cardiovascular disease; one fifth occur between 7 and 42 days postpartum. In addition, pregnancy-associated deaths due to self-harm or substance misuse are increasing at an alarming rate. Rising maternal mortality and morbidity rates, coupled with significant disparities in outcomes, highlight the need for tailored interventions to improve safety and well-being of families during the fourth trimester of pregnancy, which includes the period from birth to the comprehensive postpartum visit. Targeted support for growing families during this transition can improve health and well-being across generations.

(Obstet Gynecol 2021;137:33–40)
DOI: 10.1097/AOG.0000000000004206

In the months after birth, women navigate multiple challenges, ranging from headaches to sleep deprivation (Fig. 1).[1] Although women are primarily concerned about daily functioning, health care professionals focus more on uncommon, but highly morbid, complications.[2] The cesarean delivery rate in the United States remains high compared with other industrialized countries, contributing to maternal morbidity. Supporting postpartum well-being requires a holistic approach, from preparation before birth through longitudinal care that encompasses multiple intersecting domains (Fig. 2).[3] Moreover, unacceptable racial inequities in severe morbidity and

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The authors thank the following members of our workgroup for sharing their expertise in the development of this safety bundle: Tom Johnston DNP, RNCNM, IBCLC (Methodist University); Lisa Kleppel MPH, PMP; Ruth Mielke PhD, CNM, FACNM, WHNP-BC (California State University, Fullerton); Mishka Terplan MD, MPH, FACOG, DFASAM (Friends Research Institute).

Each author has confirmed compliance with the journal's requirements for authorship.

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Financial Disclosure
Alison M. Stuebe disclosed that ACOG funded her travel to Washington, DC, to participate in the bundle development process. She is a coinvestigator for a Janssen Research and Development study, Optimizing Clinical Screening and Management of Maternal Mental Health: Predicting Women at Risk for Perinatal Depression. UNC received funding for her efforts on this study. She also served as an unpaid member of the board of the Society for Maternal-Fetal Medicine and is president of the Academy of Breastfeeding Medicine. In the past 36 months, she has received honoraria for grand rounds presentations at the University of Virginia, the University of Missouri, Beth Israel Deaconess Medical Center and Massachusetts General Hospital. She has received honoraria and travel reimbursement for CME presentations hosted by the Australian Breastfeeding Association Health Professional Seminars, the Pennsylvania Chapter of the American Academy of Pediatrics, the 34th Annual Gravens Conference, the California Breastfeeding Summit, the Mississippi Perinatal Quality Collaborative, the Marcé of North America 2019 Conference, CityMatCH Maternal and Child Health Leadership Conference, Reaching Our Sisters Everywhere Breastfeeding Summit and the National Perinatal Association Conference. She has received research funding from NIH, HRSA, and PCORI. Susan Kendig was compensated for her travel to Washington, DC, to participate in the bundle development process by ACOG. Patricia D. Suplee disclosed money was paid to her as an AWHONN consultant. She was compensated for her travel to Washington, DC, to participate in the bundle development process by ACOG. She received royalties from a textbook from Jones and Bartlett and disclosed that she is a Board member of the Perinatal Quality Institute (no compensation). Robyn D'Oria disclosed that money was paid to her institution by ACOG to facilitate the AIM Postpartum Workgroup and she was compensated for her travel to Washington, DC. She also disclosed money was paid to her as an AWHONN consultant and that she is a Board member of the Institute for Perinatal Quality Improvement and the Preeclampsia Foundation (no compensation for either organization).

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mortality require community-informed approaches that center reproductive justice.[4]

More than half of maternal deaths occur after the day of delivery, with one fifth occurring between 7 and 42 days and one third between 1 week and 1 year postpartum.[5] During the first week postpartum, leading causes of death include hemorrhage, hypertension, and infection; cardiomyopathy is the leading cause of death from 6 weeks to 1 year postpartum.[5] Many postpartum serious complications are underrecognized and similarly, management of less emergent conditions, such as flu-like symptoms in the setting of mastitis, can be delayed if the health care professional does not consider the woman's postpartum state.[6] Asking women whether they have been pregnant within the past year provides valuable information in formulating differential diagnoses during this timeframe.

Scheduled postpartum care is underused, with 16–23% of postpartum women not attending a visit between 21 and 56 days after delivery.[7] Postpartum visit attendance is even lower among marginalized women.[8] Multiple factors, such as transportation and childcare, can disrupt postpartum engagement.[9] Moreover, fragmented systems do not address the intersecting needs of mother and infant.

Recognizing the increasing burden of maternal mortality and morbidity during the postpartum period, the Alliance of Innovation in Maternal Health convened an interdisciplinary workgroup to develop a maternal safety bundle to address this issue. The group convened for a day-long, in-person planning meeting and refined bundle elements through a series of conference calls. This "Consensus Bundle on Postpartum Care Basics: From Birth to the Comprehensive Postpartum Visit," consistent with prior Alliance of Innovation in Maternal Health bundles, presents a set of strategies that health care professionals can apply to improve the health and well-being of postpartum women through Readiness, Recognition, Response, and Reporting (https://safehealthcareforeverywoman.org/aim/patient-safety-bundles/maternal-safety-bundles/postpartum-care-basics-for-maternal-safety-from-birth-to-the-comprehensive-postpartum-visit-aim/).

READINESS

Women can benefit from anticipatory guidance, and health care professionals and systems can establish support for women in the early postpartum period.

Every Woman

1. Engages with a health care provider during prenatal care to develop a comprehensive personalized postpartum care plan. The plan includes designation of a postpartum medical home for the period between birth and the comprehensive postpartum visit.

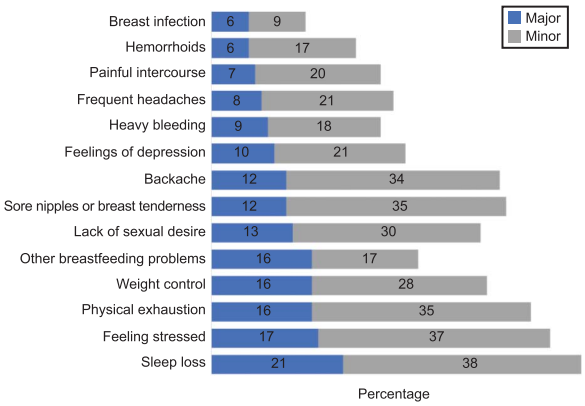

Fig. 1. Leading maternal health problems within two months of delivery. Data from Declercq ER, Sakala C, Corry MP, Applebaum S, Herrlich A (2013). Listening to Mothers III: New mothers speak out. New York, NY: Childbirth Connection.

Stuebe. Postpartum Care Bundle. Obstet Gynecol 2020.

In the postpartum care plan,[10] the patient and her health care team address social support, recovery from birth, plans for infant care and feeding, desire for future pregnancies and contraception use, chronic health concerns, and emotional well-being. A recent survey found that one in four women were unsure whom to call for themselves or their infants after discharge from maternity care[1]; to address this gap, the

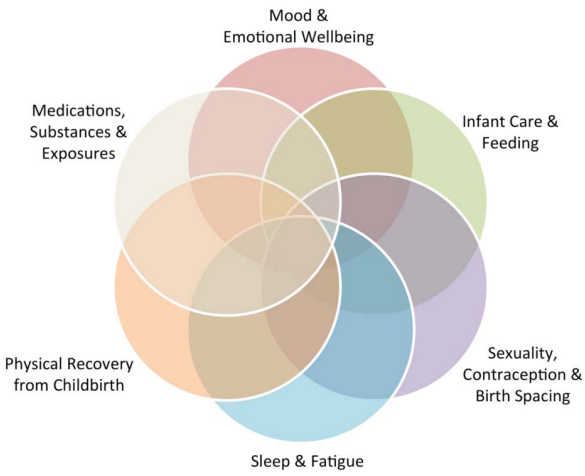

Fig. 2. Domains of health concerns women experience in the fourth trimester. Reprinted from Tully KP, Stuebe AM, Verbiest SB. The fourth trimester: a critical transition period with unmet maternal health needs. Am J Obstet Gynecol. 2017 Jul; 217 (1):37–41. Copyright 2017, with permission from Elsevier.

Stuebe. Postpartum Care Bundle. Obstet Gynecol 2020.

postpartum plan identifies a primary postpartum health point of contact.

2. Receives woman-centered counseling and anticipatory guidance regarding medical recommendations for breastfeeding to make an informed feeding decision.

All medical organizations recommend 6 months of exclusive breastfeeding, followed by continued breastfeeding through the infant's first year and beyond as mutually desired.[11–13] Substantial racial inequities exist in breastfeeding initiation and duration, and health care professionals should take care to counsel each woman individually, eschewing assumptions about her feeding intentions.[11] Direct-to-consumer marketing of formula is pervasive, and distribution of marketing materials in health care settings reduces duration of exclusive breastfeeding[14,15]; thus marketing materials should be excluded from health care settings. During antenatal care, health care professionals should engage the woman in discussions regarding the health effects of infant feeding, risk factors for lactation difficulties, and barriers, such as early return to work, that may constrain infant feeding options, so that each woman can make an informed decision. Ultimately, each woman should determine whether breastfeeding, formula feeding, or mixed feeding is optimal for her and her infant.

3. Receives woman-centered counseling regarding medical recommendations for birth spacing and the range of available contraceptive options.

Reproductive justice is "the human right to maintain personal bodily autonomy, have children, not have children, and parent the children we have in safe and sustainable communities."[16] For women who are sexually active with men, access to desired contraception is necessary, but not sufficient, to attain reproductive justice. The history of family planning is fraught by coercive tactics to incentivize sterilization and contraceptive implants among marginalized groups,[17,18] and this context affects conversations about birth spacing and contraception, particularly with women of color. Beginning discussions by asking, "Might you want to have another baby? If so, when?" centers counseling on the woman's goals and preferences, respecting her autonomy to decide whether and when to have more children and aligning contraceptive options with her preferences. Although the American College of Obstetricians and Gynecologists (ACOG) recommends that women avoid pregnancy intervals of less than 18 months, the causal association between birth interval and outcome is unclear and, thus, counseling about optimal birth interval should not be dogmatic.[10]

4. Identifies a postpartum care team, inclusive of friends and family, to provide medical, material, and social support in the weeks after birth.

Many cultural traditions include a postpartum period of confinement for 30–40 days after birth, during which mothers are cared for by family and friends.[19] During this transition, each woman needs a care team, inclusive of her given and chosen family. Other team members include her obstetric health care professional, her infant's health care professional, and other team members, such as home visitors, lactation consultants, care managers, and specialty consultants. Home-visiting programs have shown promise for improving coordination, reducing emergency department utilization, and improving outcomes.[20,21]

Every Health Care Provider

5. Ensures that each woman has a documented postpartum care plan and care team identified in the prenatal period.

Prenatal health care professionals should engage with each woman to develop her postpartum care plan and identify her care team.[22] Plans should consider each woman's strengths and vulnerabilities. For example, for women with substance use disorder, the postpartum period is particularly vulnerable, as they navigate new parenthood and less frequent health care contact. Further, many women lose pregnancy Medicaid coverage at 60 days after birth, disrupting medication assisted treatment for opioid dependence and behavioral counseling.

6. Develops and maintains a working knowledge of evidence-based evaluation and management of common issues facing the mother–infant dyad.

Comprehensive postpartum care requires multiple competencies (Fig. 2). All health care professionals who interact with recently pregnant women should be aware of symptoms that may presage morbid complications, for example, a headache before eclamptic seizure. Issues such as breastfeeding difficulties and postpartum depression[23] benefit from joint management of mother and infant. Health care professionals should understand medication selection in lactation to avoid iatrogenic disruption of breastfeeding.

Every Clinical Setting

7. Develops and optimizes models of woman-centered postpartum care and education, using adult learning principles when possible and embracing the diversity of family structures, cultural traditions, and parenting practices.

Didactic, top-down teaching is ineffective for adult learning; we learn best in the context of teachable moments that apply new concepts in real time.[24] In a randomized trial, actionable anticipatory guidance regarding common postpartum symptoms reduced the likelihood that women screened positive

for depression through 6 months postpartum[25] or discontinued breastfeeding.[26] Guidance should adhere to health literacy principles and incorporate cultural factors such as race, ethnicity, language, nationality, income level, and sexual orientation.[27] Postpartum education should be tailored for contexts such as mothers of infants that remain hospitalized, stillbirth, adoption, and various discharge settings, including shelters, halfway houses, and the criminal justice system.

8. Develops systems to connect families with community resources for medical follow up and social and material support.

Postpartum families require both emotional and instrumental support.[28] "Emotional support is what individuals do or say to make other individuals feel loved, supported, or encouraged. Instrumental support is when individuals provide needed material resources or assist with or complete a task for another individual."[28] Material needs are common: one study of urban, low-income families found that 30% did not have enough diapers to change their infants as often as needed.[29]

9. Optimizes counseling models, clinical protocols and reimbursement options to enable timely access to desired contraception.[30]

For women who want to prevent pregnancy, long-active reversible contraception (LARC) and postpartum tubal ligation are markedly more effective than other methods.[31] Desired postpartum tubal ligation are often not performed: In an 18-month study, one third of women did not undergo desired postpartum tubal ligation, and half became pregnant in the next year.[32] Logistical barriers may also prevent women from receiving desired LARC before hospital discharge. Systems should be optimized to ensure that each woman can access her desired contraception method at a time that is convenient for her.[30]

10. Develops systems to ensure timely, relevant communication between inpatient and outpatient health care professionals.

Reliable, actionable discharge summaries are needed for continuity of care and appropriate follow-up. Substantial gaps exist: in a systematic review, one third of primary care professionals did not receive a discharge summary within a week of hospital discharge.[33]

11. Develops protocols for screening and treatment for postpartum concerns, including depression and substance use disorders, and establishes relationships with local specialists for comanagement or referral.

Routine screening can identify unmet health needs, particularly around sensitive topics such as depression,[34] substance use,[35] violence, or incontinence.[36] Guidelines exist for mental health screening[37] and other common women's health concerns.[38] If screening is performed, clinical settings should be prepared to treat or refer identified needs. To assist with more complex cases, it may be useful to establish specialty collaboratives. For example, the Massachusetts Child Psychiatry Access Project for Moms[39] provides protocols as well as real-time consultation and care coordination.

RECOGNITION AND PREVENTION

Every Woman

12. Is respected as the expert in her own needs and is empowered to trust her instincts and access care as early and frequently as needed in the weeks after birth.

Postpartum care is an ongoing process, not a single encounter.[10] Health care professionals can encourage and empower each woman to trust her instincts regarding her physical and emotional needs,[40] tailoring timing of contact to complications and emerging needs. The American College of Obstetricians and Gynecologists recommends that all women have contact with a maternal health care provider within the first 3 weeks postpartum and ongoing care as needed, culminating in a comprehensive postpartum visit no later than 12 weeks after birth.[10]

13. Reviews her postpartum care plan with her health care provider before discharge from maternity care, revising as needed. The care plan should include a list of warning signs and responses for life-threatening postpartum complications, a list of lactation support resources, a "first call" phone number for her postpartum medical home, including a contact for breastfeeding issues, and the time and date of postpartum visits.

All postpartum women should receive written instructions such as the AWHONN "Post Birth Warning Signs: Save Your Life" handout.[41] Appointment reminder notices can improve visit attendance and reduce cost.[42,43]

14. Attends a comprehensive postpartum visit, scheduled at an interval tailored to the needs of the mother–infant dyad.

New guidance recommends touchpoints for timely assessment of postpartum needs, with the comprehensive postpartum visit occurring no later than 12 weeks postpartum.[13] For many women, multiple clinical encounters may be needed to optimize postpartum health. The comprehensive postpartum visit addresses all the components in the woman's postpartum care plan, through both verbal and written education.[24]

Every Clinical Setting

15. Determines guidelines for patient education, discharge from inpatient maternity care and indications for early postpartum visits.

Readiness for discharge includes both the mother's physical and emotional health and her readiness to care for herself and her infant.[22] Women who are unready for discharge have poorer health outcomes and increased health care utilization.[44] Guidelines for early postpartum visits should consider chronic conditions (ie, hypertensive disorders, diabetes, seizure disorders, substance use disorder) and risk for postpartum issues such as wound complications, breastfeeding difficulties, or postpartum depression.[10]

16. Coordinates ongoing care between inpatient and outpatient settings and between the maternal and infant health care professionals to facilitate the health and well-being of the dyad. This includes coordination for issues related to breastfeeding.

Care coordination is needed among obstetric and pediatric health care professionals, nurses, lactation specialists, and mental health care professionals. For example, prescription of opioids for postcesarean delivery pain control requires coordinated transfer from inpatient to outpatient care. A multimodal approach is recommended, with counseling regarding the risk of potential addiction and infant sedation via opiate exposure in breast milk.[45]

17. Screens for and treats common morbidities, including mental health issues, smoking, and substance use, as well as concerns such as unstable housing and food insecurity.

For postpartum depression, three states have mandated screening and nine others have developed educational awareness programs or have task forces currently examining the problem.[46] Although most women quit or cut back on tobacco, alcohol, and other substance use during pregnancy, more than 80% resume use postpartum.[47] Brief interventions can increase awareness of relapse risk and support continued abstinence. Support for women with opioid use disorder should include overdose prevention education of the patient and support persons, as well as naloxone coprescribing.

18. Ensures that each woman has identified a source of ongoing primary care.

At the conclusion of the comprehensive visit, women should be engaged with a primary care provider and community resources for ongoing care, and relevant medical records should be shared with her primary medical home.

RESPONSE

Every Clinical Setting

19. Implements treatment protocols and either provides desired care or facilitates timely referral to an appropriate resource. Whenever feasible, a warm hand-off is provided, via a face-to-face introduction to the specialist to whom the patient is being referred.

When referrals are made, follow-up mechanisms are needed to assure that the woman attended the visit and to implement any recommendations.

20. Maintains an up-to-date inventory of community resources to assist with unmet needs, such as 24-hour hotlines, food banks, diaper banks, lactation support groups, and home visiting programs.

Although each practice may not have the resources to maintain a comprehensive resource inventory, such information may be available through local health departments, maternal child health coalitions, or other community agencies. In many communities, United Way's 211 program can connect families to local community resources, such as housing, supplemental food, and other services.[48]

Postpartum home visiting services can also assist. Home visiting can address perinatal depression,[49] provide breastfeeding education and related referrals,[50] and support safe parenting practices[51] while providing linkage to community-based services. Healthy Start, a federally funded initiative to improve pregnancy and birth outcomes, provides direct outreach to community members including case management, health education, interconceptional care, and depression screening.[52] Opportunities exist to more explicitly incorporate maternal health needs into home visiting programs.[53]

Every Health Care Provider

21. Develops strategies to reach women who do not attend the comprehensive postpartum visit.

22. Every identified need is assessed for acuity using a tiered response. If life-threatening, the identifying health care provider facilitates transportation to an appropriate facility for immediate care.

Life-threatening issues, such as hypertensive crisis, suspected pulmonary embolism, or suicidal ideation warrant immediate intervention. Just as outpatient settings have plans in place for precipitous delivery, clinics need protocols to transfer women with urgent needs to an appropriate setting, including an immediate action protocol for suicidal ideation.[54]

If nonacute, the need is addressed by the woman and her health care provider in a woman-centered, shared-decision making discussion, honoring each woman's self-sufficiency and autonomy.

Culturally appropriate, patient-centered counseling enables women to make informed decisions in multiple postpartum domains. Addressing these intersecting issues requires respect for each woman's values and preferences. Health care professionals are experts in the clinical evidence and knowledge, whereas the patients are experts in their own experiences and what matters most to them.[55] For example,

LARC is a highly effective method of contraception and can help women achieve recommended interpregnancy intervals. Although efficacy is important, it is not the only feature that women value; other considerations include side effects, invasiveness, and duration.[56] Furthermore, directive LARC counseling may be perceived as coercive in the context of a history of punitive use of Norplant and forced sterilization among women of color.[17,18]

REPORTING

Every Health System

23. Convenes inpatient and outpatient professionals to share successful strategies and identify opportunities for improvement.

When adverse postpartum outcomes occur, it is critical to consider outpatient and community stakeholders, expanding the conversation beyond the reviews and debriefs which are often conducted by hospitals.[57] Perinatal collaboratives may provide an avenue for dissemination of aggregated findings and sharing of quality improvement opportunities.

24. Identifies and monitors postpartum quality measures, such as postpartum emergency department utilization and readmission rates.

Within the past decade, postpartum readmissions have risen, with many occurring within the first 10 days after delivery. Monitoring emergency department utilization and readmissions data can inform interventions to improve discharge planning and follow-up.[58]

25. Works toward quality metrics that compare postpartum outcomes with prenatal intentions, such as receipt of intended contraception or attainment of desired breastfeeding duration.

Measuring postpartum outcomes as a function of maternal intention is important for preference-sensitive decisions. Such measures can be difficult to capture, as evidenced by the Joint Commission's Perinatal Care (PC-05), exclusive breast milk feeding considering mother's initial feeding plan, which was retired because of the substantial effort required to determine maternal feeding preference. Capture of maternal intentions as discrete data in a care plan before birth may improve reporting of patient-centered outcome measures.[59]

26. Conducts quality improvement projects to reduce preventable postpartum morbidity.

Projects that monitor follow-up care can support strategies to improve maternal outcomes. Attendance at the postpartum visit is defined as "the percentage of deliveries that had a postpartum visit on or between 21 and 56 days after delivery."[7] This metric was developed before ACOG's 2018 recommendation that all women have contact with their postpartum health care provider within 3 weeks of birth and undergo a comprehensive postpartum visit within 12 weeks of birth.[10] To monitor adherence with ACOG recommendations for contact within 3 weeks, process measures are needed to quantify both face-to-face and virtual contacts. Timing of comprehensive follow-up can inform drivers of women's attendance at the postpartum visit. Quality measures should also index indicated follow-up, such as glucose screening for women with a history of gestational diabetes mellitus.[38]

27. Collaborates with the community to maintain a clearinghouse for resources that address the needs of women during the postpartum period.

Owing to the varying landscape of resources available in different areas, it is important to maintain a central, regularly updated repository of community resources that include the agency name, address and phone number, name of a known contact person if available, hours of operation, and types of documentation, such as proof of address, or written referral, that may be required by the agency. Several social service directory platforms have recently emerged to meet this need, including Aunt Bertha, Healthify, Health Leads, Now Pow, One Degree, and Unite Us.

28. Ensures that reimbursement policies do not disincentivize postpartum visits.

The global reimbursement for prenatal, intrapartum, and postpartum care includes one postpartum visit for vaginal births and two postpartum visits for cesarean births;[60] however, global reimbursement is provided even if the patient does not attend the postpartum visit(s). Unbundling of postpartum care may support more comprehensive services in this critical time period. Innovative approaches also include coverage for evidence-based postpartum home visiting services.[61] In those states without Medicaid expansion, access to insurance is limited to 60 days postdelivery, and may be limited to conditions directly related to pregnancy, thus constraining access continuing care. In 2018, Missouri became the first state to enact legislation to extend postpartum coverage for substance use disorder and related mental health treatment.[62] Payment reform that aligns financial and nonfinancial incentives across the care continuum can improve postpartum care.[63]

CONCLUSION

During the postpartum period, a woman faces significant physiologic, emotional, and social changes. As she recovers from pregnancy and birth, navigates her role as a mother and transitions to well woman care, she needs holistic, patient-centered support. Although members of the health care team possess medical expertise, women are experts on their own needs and

experience. These bundle elements provide a framework to improve health and well-being during this critical transition in women's lives.

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Putting the team together

Optimizing postpartum care takes collaboration from the hospital, clinic and community. Engaging key stakeholders is an initial step in the Readiness section of safety bundle implementation. The following is a list of recommended roles to include in a multidisciplinary care team to design coordinated clinical pathways for patient discharge and a standardized discharge summary form to give to all postpartum patients prior to discharge.

1. Director of the clinic
2. IT- Data collector
3. Hospital Nurse Leadership/Administration
4. Women's Services or L&D manager
5. ED manager
6. Charge nurse on night and days
7. The OB providers nurses
8. Provider/Physician champion
9. Social Services/Case Manager
10. Community resource

**Adapted from the Kansas Perinatal Quality Collaborative Fourth Trimester Initiative; Accessed at https://kansaspqc.org/wp-content/uploads/2022/05/April-2022-LF-PowerPoint.pdf*

Recognition & Prevention

There are five domains of Recognition and Prevention to be addressed by every facility to facilitate safe, appropriate, and timely postpartum transitions. While ideally all elements of a patient safety bundle would be implemented in all relevant settings, this may be aspirational for some settings based on capacity and resources. For this reason, elements that are considered foundational to addressing morbidity and mortality in the postpartum period are **bolded** below**.**

Recommendations for Every Event:

1. **Establish a system for scheduling the postpartum care visit and needed immediate specialty care visit or contact (virtual or in-person visit) prior to discharge or within 24 hours of discharge.**

2. **Screen each patient for postpartum risk factors and provide linkage to community services/ resources prior to discharge.**

3. **In all care environments assess and document if a patient presenting is pregnant or has been pregnant within the past year.**

4. Offer reproductive life planning discussions and resources, including access to a full range of contraceptive options in accordance with safe therapeutic regimens.

5. Facilitate and assure linkage to relevant services in outpatient settings for care identified for postpartum risk factors.

The Fourth Trimester of Pregnancy: Committing to Maternal Health and Well-Being Postpartum

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ABSTRACT

The postpartum period is a time of significant challenge and need as women adapt to hormonal and physical changes, recover from delivery, experience shifting family responsibilities, and endure sleep deprivation, all while caring for and nourishing their newborn.[1–4] It is also a period of significant maternal health risk. Recent data on U.S. maternal mortality indicate a shift in the timing of maternal deaths over the past 10 years, with the majority of maternal deaths now occurring postpartum, from one day to one year after delivery.[5,6] Postpartum care also marks a period of transition, as women shift from pregnancy-centered care to interpregnancy and primary care, yet current systems of care are marked by poor coordination of care between providers and patient care settings.[4,7] Suboptimal postpartum follow-up is particularly worrisome for women with chronic health conditions or pregnancy complications who face both short- and long-term health risks.[8,9] Given known challenges and medical risks, the single, 6-week postpartum visit women receive is woefully inadequate in addressing maternal health needs. Postpartum visits often fail to address the unique postpartum needs identified by mothers[1,3,4], inadequately connect women with primary care services, and have low attendance.[1,7] Recognition of these unmet needs of "the Fourth Trimester" have led national organizations, including the American College of Obstetricians and Gynecologists (ACOG), to call for a restructuring of postpartum care to reduce postpartum and long-term morbidity and improve postpartum well-being.[2,7,10] Rhode Island has several recent initiatives with the potential to improve outcomes for mother-baby dyads including the Baby Friendly Hospital Initiative (BFHI), the provision of long-acting reversible contraception (LARC) immediately postpartum, and the addition of HPV immunization postpartum. These initiatives remove barriers of access to care and provide vital women's health services prior to discharge. The Fourth Trimester provides a rich opportunity for maternal risk reduction and health promotion at a time when women are motivated and engaged with health care.

ADDRESSING MATERNAL RISK POSTPARTUM

Maternal mortality in the United States is increasing and more than doubled from 1982 to 2012.[5,6] Over this same period, the causes and timing of pregnancy-related deaths have shifted; deaths due to maternal hemorrhage and infection, which typically occur at the time of delivery, have proportionally decreased, while deaths from cardiovascular disease, which can result in more distant postpartum deaths, have increased.[11] Postpartum deaths, which includes deaths between 1 day and 1 year after birth, represent more than half of all maternal deaths, and underscore the significant health risks faced by postpartum women.[5,6] Though maternal deaths remain rare, 65,000 women experience severe maternal morbidity annually in United States, which increasingly occurs postpartum and is due to chronic medical conditions.[11] Both maternal morbidity and mortality affect minorities disproportionately; black women experience maternal mortality 3-4 times more frequently than white women and experience severe maternal morbidity two times more frequently.[5,12–14] Rising rates of postpartum morbidity suggest that women face significant unmet medical needs after delivery and has led to a renewed focus on care in the fourth trimester.[1,2,7,10,15]

A central role for postpartum care is maternal health risk reduction, both in the immediate postpartum period and long-term, yet the ability of current postpartum services to improve maternal outcomes is limited by only a single dedicated visit. Both providers and patients report that current postpartum visit schedules are inadequate.[1,3,4] Towards the end of pregnancy, women are routinely seen in the office weekly, and more often if the pregnancy is complicated. In contrast, most women are seen only once in the first-year postpartum and not until 6 weeks after delivery. This gap in care is not biologically logical nor practical from a public health perspective. Newborns are seen within days of discharge from the hospital because of the physiologic changes that occur in the first few weeks of life. Similar changes are occurring to the postpartum woman, yet no similar appointments occur. Furthermore, even the currently recommended appointments are not always used. While increasing attendance at postpartum visits is a goal of Healthy People 2020, between 10 and 40% of women do not attend a postpartum visit 4-12 weeks after delivery[7] with lower attendance rates reported among women in low-resource settings, contributing to health disparities.[8,9,16]

In a review of postpartum utilization, Chu et al describe the postpartum visit as an "opportunity to assess the physical and psychosocial well-being of the mother, counsel her on infant care and family planning, and detect and give appropriate referrals for preexisting or developing chronic conditions such as diabetes, hypertension or obesity."[17] Most postpartum women will become pregnant again, though many will not see an ob/gyn until the subsequent pregnancy. As such, preconception counseling is also a vital part of postpartum care. Women should be advised of evidence-based interventions to reduce complications in subsequent pregnancies, such as daily baby aspirin for hypertensive diseases of pregnancy and 17-hydroxyprogesterone for women with a history of preterm birth.[7] Medications which are appropriate to continue in pregnancy should be reviewed, and women should be encouraged to continue safe medications as prescribed. As is evident from the list above, postpartum care addresses immediate health needs and serves as the foundation for interconception health and well-woman care.

A central component of fourth trimester care is the need to arrange appropriate follow-up for chronic conditions and pregnancy complications and to communicate the implications of these risks to both the patient and the care providers who will be assuming their care.[7] Lack of consistent communication between providers may contribute to inadequate recognition and under emphasis of these risks.

Suboptimal postpartum follow-up is particularly troubling when pregnancies are complicated by common morbidities such as diabetes or hypertension. For women with chronic health conditions, the postpartum period often calls for changes in disease management and a coordinated transition from obstetric to primary care or subspecialty providers – a process which is often untimely and inadequate, with only 69.6% of women with preexisting diabetes and 57.0% of women with hypertensive disorders attending a primary care visits within 1 year of delivery.[7–9]

Pregnancy complications can serve as a "window to future health" due to their implications for the development of chronic disease. This is the case for hypertensive diseases of pregnancy (including gestational hypertension, preeclampsia, and eclampsia) and gestational diabetes (GDM), which both confer risks of future cardiovascular disease (CVD) and type 2 diabetes (T2DM). Preeclampsia remains a leading cause of maternal mortality and morbidity and ACOG recommends early postpartum follow-up for women with hypertensive disorders of pregnancy and counseling for recurrent preeclampsia in future pregnancies and long-term CVD risk. ACOG also recommends screening for diabetes 6 weeks and 1 year postpartum for women who had GDM (who are at risk for developing T2DM and CVD), yet a study of insurance claims data showed that only 56% of women with pregnancy complications attended primary care visits in the year following delivery.[9] A single-center study of women with gestational diabetes found that women were three times more likely to completed recommended postpartum screening if they attended a postpartum visit[9], yet even at an academic institution with high rates of postpartum primary care visits (>80%), pregnancy complications were not associated with a postpartum healthcare visit and nearly 20% of women with pregnancy complications were never seen in the year following delivery.[8]

For many women, pregnancy serves as the first encounter with the health care system in adulthood and as a result, obstetric providers may be the first provider to diagnose and address chronic health conditions such as hypertension, obesity, and substance dependence. While obstetric providers may manage pregnancy complications and chronic conditions independently during pregnancy, uncoordinated transitions from obstetric to primary care can result in women failing to receive care that may mitigate long-term risks for diabetes, hypertension, and cardiac disease.[8,9]

PROMOTING MATERNAL WELLBEING IN THE FOURTH TRIMESTER

It is critical that women's voices contribute to our understanding of postpartum health needs, voices.[1,3,4,18] Surveys and focus groups tell us that women feel unprepared for the emotional, biological, and social changes that occur postpartum and less than half of women report receiving adequate information regarding postpartum depression, nutrition, physical activity and weight loss, or changes in sexuality and emotional response.[1,3,7] A disconnect is described between the areas of concern for clinicians, such as signs of infection or bleeding, and those of mothers, who experience significant disruption in their daily lives from symptoms considered "normal" by providers, such as sleep deprivation, discomfort and pain, and emotional changes.[1,4] Considering this feedback is critical as we strive to improve health outcomes for women through a recommitment to maternal postpartum care. By listening to and anticipating women's needs, the patient-provider relationship is strengthened, increasing the likelihood of postpartum follow-up. This commitment to patient-centered care should improve both maternal health outcomes and maternal and infant well-being throughout the life course.

Anticipatory guidance on common postpartum problems can be provided antepartum, including information on urinary incontinence, sleep changes, emotional response and sexuality, expected weight loss, and recommendations for exercise and healthy eating.[3,4,10] As women are often uncomfortable broaching these topics themselves, providers should ask about common symptoms specifically during both postpartum and primary care visits during the first year. Written or multimedia aids like handouts, videos, or websites can provide women with postpartum resources that can be referred to after discharge, a request often voiced in focus groups.[3,4]

Prior to discharge from the hospital, all women should receive counseling on warning signs and symptoms postpartum that should prompt medical attention and written instructions should be provided on who to contact with common postpartum problems. In qualitative studies, women report being unsure who to contact with questions

or concerns, particularly when questions arise that overlap provider expertise, such as those pertaining to lactation and medication use.[1] The Association of Women's Health, Obstetric and Neonatal Nurses' (AWHONN) proposes a postpartum discharge education program which includes a patient handout with descriptions of warning signs and an education checklist for nurses to review with patients prior to discharge.[15] While the initiative has been well received by nurses, efficacy studies are pending.[10,15]

FORMULATING A POSTPARTUM CARE PLAN

While several studies document the unmet needs of postpartum women[1,3,4], few have established evidence-based approaches to improving maternal health outcomes. In their recent Committee Opinion on Optimizing Postpartum Care, ACOG recommended that patients and their obstetric providers formulate postpartum care plans during antepartum visits to identify, discuss, and plan for the postpartum transition period.[7] In addition to identifying the members of the postpartum care team and providing written information on the timing of postpartum visits, this plan should include discussions on infant feeding, reproductive life plans and contraceptive needs, mental health risks of the postpartum period, pregnancy complications, chronic health conditions, and anticipatory guidance on common postpartum problems.[7] When available, risk reduction strategies for future pregnancies should be reviewed with the patient and her primary-care provider. ACOG recommends early postpartum follow up for women with hypertensive disorders of pregnancy and those at high risk for complications. This includes first-time mothers and women with a history of depression and anxiety who are at higher risk for severe postpartum depression and may benefit from an early postpartum visit. Studies have also suggested that postpartum phone support can reduce depression scores.[7]

Women choosing to breastfeed should be provided with community support resources, such as WIC, Lactation Warm Lines, and local breastfeeding support groups. Additional resources should be provided as women prepare to return to work, including prescriptions for breast-pumps and education on frequency and methods of breastmilk expression.[7,19] While conditions suffered at higher rates by underserved women (like hypertension, hyperlipidemia, cardiovascular disease and type 2 diabetes) may improve with breastfeeding, those same women face the greatest barriers to sustained breastfeeding, including suboptimal social support and unpaid maternity leave which reduces the interval before returning to work.[20] Identifying these breastfeeding challenges antepartum can enable patients and their care team to plan appropriately and identify available resources.[7,19,20]

Formulated antepartum, the postpartum plan should be reviewed and updated prior to discharge and at subsequent postpartum visits. ACOG's recommendations above are derived largely from expert opinion and stakeholder working groups and while emphasizing anticipatory guidance, improved care coordination, and frequent and clear communication around a shared plan of care should serve postpartum needs, research is needed to identify effective postpartum care strategies that serve to reduce maternal health risks and promote long-term wellbeing.

LOCAL INITIATIVES

Several recent initiatives have improved postpartum services in Rhode Island. In 2015, Women & Infants Hospital (WIH) achieved 'Baby Friendly' hospital designation after meeting the Ten Steps to Successful Breastfeeding (http://www.womenandinfants.org/news/baby-friendly-designation.cfm). BFHI is sponsored by the WHO and the United Nations Children's Fund and recognizes hospitals that support breastfeeding mothers and promote evidenced-base feeding practice for babies. In some studies, regions served by Baby Friendly hospitals report higher rates of breastfeeding initiation, particularly among low-resource women, though data is conflicting.[21] Research is needed to determine if breastfeeding rates have increased in Rhode Island.

Rhode Island also recently secured approval from Neighborhood Health, a Medicaid insurance provider, to provide immediate postpartum LARC to patients in the hospital prior to discharge. Immediate postpartum LARC is highly effective at reducing unintended and short-interval pregnancies and ACOG strongly recommends that it be offered to women antepartum and provided immediately after delivery and prior to discharge.[7,22] Immediate postpartum LARC circumvents postpartum access barriers at a time when the patient has high motivation to prevent unintended pregnancy.[22] Furthermore, many women who planned to obtain an IUD postpartum, including those who do not return for a postpartum visit, never have it placed.[22] Immediate postpartum LARC has been shown to decrease unintended births without increasing contraception bias and is cost effective from a societal perspective.[1,22,23] This service is particularly important for populations at highest risk for short-interval pregnancies and least likely to receive postpartum care, like teenagers and low-resource women.

Finally, last year, WIH started an initiative to identify pregnant women eligible for the Human Papilloma Virus (HPV) vaccine series in order to offer women the first dose prior to discharge. HPV immunization prevents HPV infection and reduces rates of HPV-associated cervical cancer. At WIH, postpartum women are routinely assessed for MMR, Varicella, and pneumococcal vaccine eligibility, and offered appropriate immunizations prior to discharge. HPV vaccine is not recommended in pregnancy but identifying vaccine eligible women during pregnancy increases the likelihood that women will receive both recommended doses.

Each of these initiatives improves the quality of care provided to pregnant and postpartum women in Rhode Island; however, as is the case throughout the country, postpartum care remains fragmented and sub-optimally coordinated between care settings and among providers as patients shift from obstetric to primary care postpartum. Adoption of ACOG's proposal for Postpartum Care Planning may serve to minimize current gaps in care.

CONCLUSION

Pregnancy is a time of high health care utilization and strong health motivation for women, and women's regular interaction with the health care system during the antepartum period contrasts starkly with the fragmented maternal care provided postpartum. To sustain the opportunities for risk-reduction and health promotion identified prenatally, providers across all specialties must recommit to patient-centered care that reflects patient specific fourth trimester needs, supports the well-being of mothers and their infants and establishes care plans for management of chronic as well as pregnancy-related complications.

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Edinburgh Postnatal Depression Scale (EPDS)

Date: _____ Clinic Name/Number: _____

Your Age: _____ Weeks of Pregnancy/Age of Baby: _____

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 ▶ _____

*** If you scored a 1, 2 or 3 on question 10, PLEASE CALL YOUR HEALTH CARE PROVIDER (OB/Gyn, family doctor or nurse-midwife) OR GO TO THE EMERGENCY ROOM NOW** to ensure your own safety and that of your baby.

If your total score is 11 or more, you could be experiencing postpartum depression (PPD) or anxiety. **PLEASE CALL YOUR HEALTH CARE PROVIDER (OB/Gyn, family doctor or nurse-midwife) now** to keep you and your baby safe.

If your total score is 9-10, we suggest you **repeat this test in one week or call your health care provider** (OB/Gyn, family doctor or nurse-midwife).

If your total score is 1-8, new mothers often have mood swings that make them cry or get angry easily. Your feelings may be normal. However, if they worsen or continue for more than a week or two, call your health care provider (OB/Gyn, family doctor or nurse-midwife). Being a mother can be a new and stressful experience. Take care of yourself by:

- ▶ Getting sleep—nap when the baby naps.
- ▶ Asking friends and family for help.
- ▶ Drinking plenty of fluids.
- ▶ Eating a good diet.
- ▶ Getting exercise, even if it's just walking outside.

Regardless of your score, if you have concerns about depression or anxiety, please contact your health care provider.

Please note: The Edinburgh Postnatal Depression Scale (EPDS) is a screening tool that does not diagnose postpartum depression (PPD) or anxiety.

See more information on reverse. ▶

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.

Edinburgh Postnatal Depression Scale (EPDS) Scoring & Other Information

ABOUT THE EPDS

Studies show that postpartum depression (PPD) affects at least 10 percent of women and that many depressed mothers do not get proper treatment. These mothers might cope with their baby and with household tasks, but their enjoyment of life is seriously affected, and it is possible that there are long term effects on the family.

The Edinburgh Postnatal Depression Scale (EPDS) was developed to assist health professionals in detecting mothers suffering from PPD; a distressing disorder more prolonged than the "blues" (which can occur in the first week after delivery).

The scale consists of 10 short statements. A mother checks off one of four possible answers that is closest to how she has felt during the past week. Most mothers easily complete the scale in less than five minutes.

Responses are scored 0, 1, 2 and 3 based on the seriousness of the symptom. Items 3, 5 to 10 are reverse scored (i.e., 3, 2, 1, and 0). The total score is found by adding together the scores for each of the 10 items.

Mothers scoring above 12 or 13 are likely to be suffering from depression and should seek medical attention. A careful clinical evaluation by a health care professional is needed to confirm a diagnosis and establish a treatment plan. The scale indicates how the mother felt during the previous week, and it may be useful to repeat the scale after two weeks.

INSTRUCTIONS FOR USERS

1. The mother checks off the response that comes closest to how she has felt during the previous seven days.
2. All 10 items must be completed.
3. Care should be taken to avoid the possibility of the mother discussing her answers with others.
4. The mother should complete the scale herself, unless she has limited English or reading difficulties.
5. The scale can be used at six to eight weeks after birth or during pregnancy.

Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry,* 150, 782-786. The Spanish version was developed at the University of Iowa based on earlier Spanish versions of the instrument. For further information, please contact Michael W. O'Hara, Department of Psychology, University of Iowa, Iowa City, IA 52245, e-mail: mikeohara@uiowa.edu.

Escala Edinburgh para la Depresión Postnatal (Spanish Version)

Nombre de participante:_____ Número de identificación de participante: _____

Fecha:_____

Como usted está embarazada o hace poco que tuvo un bebé, nos gustaría saber como se siente actualmente. Por favor MARQUE (√) la respuesta que más se acerca a como se ha sentido durante LOS ÚLTIMOS 7 DÍAS y no sólo como se ha sentido hoy.

A continuación se muestra un ejemplo completado:

Me he sentido feliz:

Sí, todo el tiempo	____ 0
Sí, la mayor parte del tiempo	✔ 1
No, no muy a menudo	____ 2
No, en absoluto	____ 3

Esto significa: "Me he sentido feliz la mayor parte del tiempo" durante la última semana. Por favor complete las otras preguntas de la misma manera.

1. He podido reír y ver el lado bueno de las cosas:

Tanto como siempre he podido hacerlo	____ 0
No tanto ahora	____ 1
Sin duda, mucho menos ahora	____ 2
No, en absoluto	____ 3

2. He mirado al futuro con placer para hacer cosas:

Tanto como siempre	____ 0
Algo menos de lo que solía hacerlo	____ 1
Definitivamente menos de lo que solía hacerlo	____ 2
Prácticamente nunca	____ 3

3. Me he culpado sin necesidad cuando las cosas marchaban mal:

Sí, casi siempre	____ 3
Sí, algunas veces	____ 2
No muy a menudo	____ 1
No, nunca	____ 0

4. He estado ansiosa y preocupada sin motivo alguno:

No, en absoluto	____ 0
Casi nada	____ 1
Sí, a veces	____ 2
Sí, muy a menudo	____ 3

5. He sentido miedo o pánico sin motivo alguno:

Sí, bastante	____ 3
Sí, a veces	____ 2
No, no mucho	____ 1
No, en absoluto	____ 0

6. Las cosas me oprimen o agobian:

Sí, la mayor parte del tiempo no he podido sobrellevarlas	____ 3
Sí, a veces no he podido sobrellevarlas de la manera	____ 2
No, la mayoría de las veces he podido sobrellevarlas bastante bien	____ 1
No, he podido sobrellevarlas tan bien como lo hecho siempre	____ 0

7. Me he sentido tan infeliz, que he tenido dificultad para dormir:

Sí, casi siempre	____ 3
Sí, a veces	____ 2
No muy a menudo	____ 1
No, en absoluto	____ 0

8. Me he sentido triste y desgraciada:

Sí, casi siempre	____ 3
Sí, bastante a menudo	____ 2
No muy a menudo	____ 1
No, en absoluto	____ 0

9. Me he sentido tan infeliz que he estado llorando:

Sí, casi siempre	____ 3
Sí, bastante a menudo	____ 2
Ocasionalmente	____ 1
No, nunca	____ 0

10. He pensado en hacerme daño:

Sí, bastante a menudo	____ 3
A veces	____ 2
Casi nunca	____ 1
No, nunca	____ 0

Edinburgh Postnatal Depression Scale (EPDS). Texto adaptado del *British Journal of Psychiatry,* Junio, 1987, vol. 150 por J.L. Cox, J.M. Holden, R. Segovsky.

Edinburgh Postnatal Depression Scale (EPDS) Scoring & Other Information

ABOUT THE EPDS

Response categories are scored 0, 1, 2 and 3 according to increased severity of the symptom. Items 3, 5-10 are reverse scored (i.e., 3, 2, 1, and 0). The total score is calculated by adding together the scores for each of the ten items. Users may reproduce the scale without further permission providing they respect copyright (which remains with the *British Journal of Psychiatry*) quoting the names of the authors, the title and the source of the paper in all reproduced copies.

The Edinburgh Postnatal Depression Scale (EPDS) was developed to assist primary care health professionals in detecting mothers suffering from postpartum depression (PPD); a distressing disorder more prolonged than the "blues" (which occur in the first week after delivery), but less severe than puerperal psychosis.

Previous studies have shown that PPD affects at least 10 percent of women and that many depressed mothers remain untreated. These mothers may cope with their baby and with household tasks, but their enjoyment of life is seriously affected and it is possible that there are long term effects on the family.

The EPDS was developed at health centers in Livingston and Edinburgh. It consists of 10 short statements. The mother underlines which of the four possible responses is closest to how she has been feeling during the past week. Most mothers complete the scale without difficulty in less than five minutes.

The validation study showed that mothers who scored above a threshold 12/13 were likely to be suffering from a depressive illness of varying severity. Nevertheless, the EPDS score should not override clinical judgement. A careful clinical assessment should be carried out to confirm the diagnosis. The scale indicates how the mother felt during the previous week, and in doubtful cases it may be usefully repeated after two weeks. The scale will not detect mothers with anxiety neuroses, phobias or personality disorders.

INSTRUCTIONS FOR USERS

1. The mother is asked to underline the response that comes closest to how she has felt during the previous seven days.
2. All 10 items must be completed.
3. Care should be taken to avoid the possibility of the mother discussing her answers with others.
4. The mother should complete the scale herself, unless she has limited English or has difficulty with reading.
5. The EPDS may be used at six to eight weeks to screen postnatal women or during pregnancy. The child health clinic, postpartum check-up or a home visit may provide suitable opportunities for its completion.

Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry,* 150, 782-786. The Spanish version was developed at the University of Iowa based on earlier Spanish versions of the instrument. For further information, please contact Michael W. O'Hara, Department of Psychology, University of Iowa, Iowa City, IA 52245, e-mail: mikeohara@uiowa.edu.

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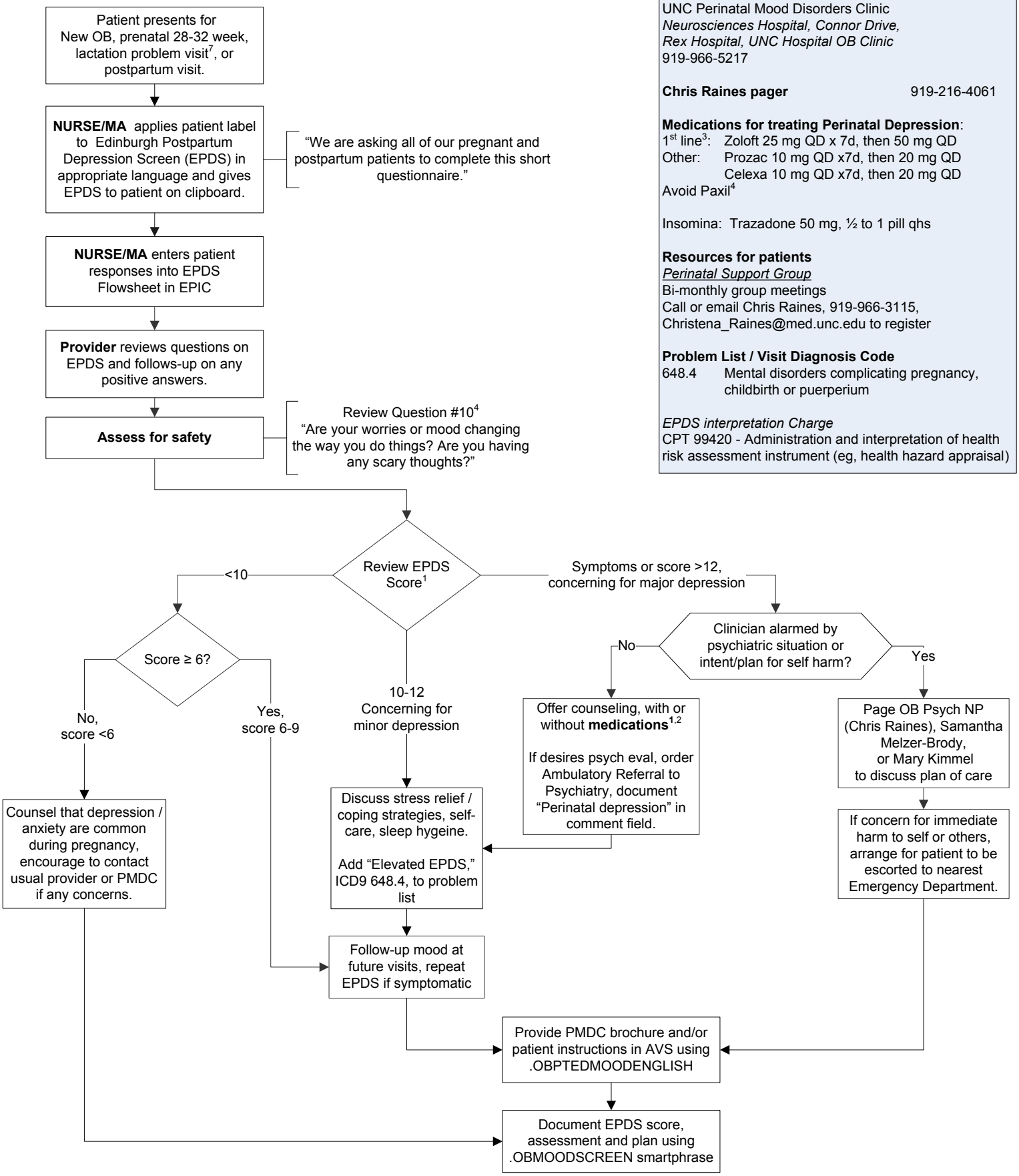
Perinatal Depression Screening and Treatment



Services offered through UNC Psychiatry:
UNC Perinatal Mood Disorders Clinic
Neurosciences Hospital, Connor Drive,
Rex Hospital, UNC Hospital OB Clinic
919-966-5217

Chris Raines pager 919-216-4061

Medications for treating Perinatal Depression:
1st line[3]: Zoloft 25 mg QD x 7d, then 50 mg QD
Other: Prozac 10 mg QD x7d, then 20 mg QD
Celexa 10 mg QD x7d, then 20 mg QD
Avoid Paxil[4]

Insomina: Trazadone 50 mg, ½ to 1 pill qhs

Resources for patients
Perinatal Support Group
Bi-monthly group meetings
Call or email Chris Raines, 919-966-3115, Christena_Raines@med.unc.edu to register

Problem List / Visit Diagnosis Code
648.4 Mental disorders complicating pregnancy, childbirth or puerperium

EPDS interpretation Charge
CPT 99420 - Administration and interpretation of health risk assessment instrument (eg, health hazard appraisal)

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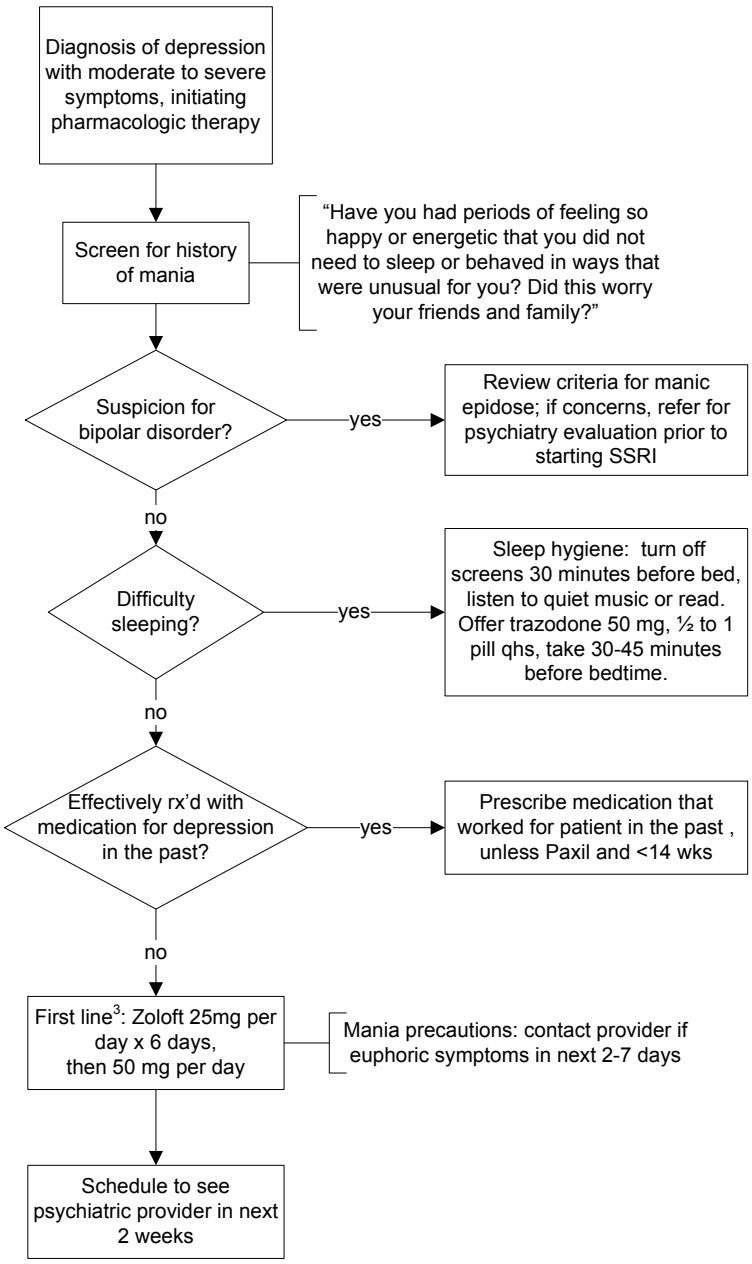
Initiating medication for perinatal depression and anxiety



Counseling regarding SSRI exposure during pregnancy

"If their psychiatric condition necessitates pharmacotherapy, the benefits [for pregnant women] of such therapy by far outweigh the potential, marginal risks of VSD and other cardiac malformations, PPHN, and poor neonatal adaptation syndrome."

Koren, G. and H. Nordeng, *Antidepressant use during pregnancy: the benefit-risk ratio.* Am J Obstet Gynecol, 2012.[6]

Screening for Mania History

Because SSRI therapy can trigger mania or psychosis in women with bipolar disorder, screening for history of manic symptoms is recommended prior to initiating therapy.

Mania symptoms include[8]:

- Inflated self-esteem or grandiosity.
- Decreased need for sleep (e.g., feels rested after only 3 hours of sleep).
- More talkative than usual or pressure to keep talking.
- Flight of ideas or subjective experience that thoughts are racing.
- Distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli), as reported or observed.
- Increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation (i.e., purposeless non-goal-directed activity).
- Excessive involvement in activities that have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments).

Additional resources for screening for bipolar are available at http://www.cqaimh.org/tool_bipolar.html

Considerations for Perinatal Mood Disorders in breastfeeding mothers

When initiating medical therapy, copy the LactMed monograph for medication(s) into Patient Instructions of the After Visit Summary. Encourage patient to share this information with the infant's pediatric provider.

Breastfeeding difficulties are often comorbid with perinatal mood symptoms[7]. Consider lactation consult to discuss concerns and develop strategies for both ensuring consolidated sleep & maintaining milk supply. Page or call the outpatient LC to arrange a consultation.

Outpatient Lactation Consultation

Clinic pager	347-1562
Mobile phone	445-7305

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References

[1] Gaynes BN, Gavin N, Meltzer-Brody S, Lohr KN, Swinson T, Gartlehner G, et al. Perinatal depression: prevalence, screening accuracy, and screening outcomes. Evid Rep Technol Assess (Summ) 2005 Feb(119):1-8.
Gaynes et al reviewed literature regarding appropriate cut-points for the EPDS and other depression screening instruments. With a cut-off of >12, authors found the EPDS has a sensitivity of 91% and a specificity of 95% for major depression. Using a cutoff of 10 for minor depression, the EPDS has a sensitivity of 68% and a specificity of 80%.

The authors also reviewed interventions for preventing or treated postpartum depression, and found that peer support and CBT-based interventions reduced depressive symptoms.

[2] Stuart, S. and H. Koleva (2014). "Psychological treatments for perinatal depression." Best practice & research. Clinical obstetrics & gynaecology **28**(1): 61-70.
The authors reviewed validated psychological treatment for perinatal depression. Both interpersonal psychotherapy and cognitive behavioral therapy have been shown to be effective. They conclude that interpersonal psychotherapy should be a first-line treatment for perinatal depression.

[3] Lactmed. Sertraline. [cited 11/02/2014]; Available from: http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?LACT
Zoloft is the preferred agent in mothers who are breastfeeding. From the LactMed summary:
Because of the low levels of sertraline in breastmilk, amounts ingested by the infant are small and is usually not detected in the serum of the infant, although the weakly active metabolite desmethylsertraline is often detectable in low levels in infant serum. Rarely, preterm infants with impaired metabolic activity might accumulate the drug and demonstrate symptoms similar to neonatal abstinence. Most authoritative reviewers consider sertraline one of the preferred antidepressants during breastfeeding. Mothers taking an SSRI during pregnancy and postpartum may have more difficulty breastfeeding and may need additional breastfeeding support.

[4] Williams M, Wooltorton E. Paroxetine (Paxil) and congenital malformations. CMAJ 2005 November 22, 2005;173(11):1320-1.
In some studies, Paxil is associated with a higher risk of congenital malformations than other SSRIs. Because of the potential for concerns about

drug exposure in a future pregnancy, Paxil is not a preferred agent for treatment of mood disorders among women of childbearing age.

[5] Question 10 of the EPDS asks, “The thought of harming myself has occurred to me.” Regardless of the total EPDS score, an answer other than ‘never’ to this item should trigger a discussion with the patient about whether she has a plan or intent to harm herself. If she reports a plan or intent, she should be immediately referred to psychiatry. If a patient reports passive thoughts of self harm, it may be helpful to ask what has stopped her from acting, and support them with their answer.

[6] Koren, G. and H. Nordeng, Antidepressant use during pregnancy: the benefit-risk ratio. Am J Obstet Gynecol, 2012.
" Antidepressants are used commonly in pregnancy. Physicians who provide health care for pregnant women with depression must balance maternal well-being with potential fetal risks of these medications. Over the last decade, scores of original and review articles have discussed whether selective serotonin reuptake inhibitors-selective serotonin norepinephrine reuptake inhibitors possess risks to the fetus; however, very little has been done to integrate these potential risks, if they exist, into an overall context of a benefit:risk ratio. This review aims at presenting an updated analysis of fetal and maternal exposure to selective serotonin or norepinephrine reuptake inhibitors to allow an evidence-based benefit:risk ratio. When a psychiatric condition necessitates pharmacotherapy, the benefits of such therapy far outweigh the potential minimal risks of cardiac malformations, primary pulmonary hypertension of the newborn infant, or poor neonatal adaptation syndrome."

[7] Watkins, S., S. Meltzer-Brody, D. Zolnoun and A. Stuebe (2011). "Early breastfeeding experiences and postpartum depression." Obstet Gynecol **118**(2 Pt 1): 214-221.
The authors used data from the Infant Feeding Practices Study II to quantify the association between early breastfeeding difficulties and depression symptoms at 2 months postpartum. Women with severe breastfeeding pain in the first two weeks had a two-fold risk of depression symptoms at 2 months, adjusting for sociodemographic confounders. Women presenting with lactation concerns should be screened for depression, and women with depression symptoms should be offered breastfeeding support.

[8] Diagnostic and Statistical Manual of Mental Disorders, 5th Edition
http://dsm.psychiatryonline.org/

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Web Resources

Postpartum Support International
http://www.postpartum.net

PSI has an online directory of local resources throughout the state of North Carolina available at http://j.mp/PSI_NC

Moms Supporting Moms (Raleigh)
http://pesnc.org/get-help/moms-supporting-moms/
Support Line: 919.454.6946

Mother-to-Mother Postpartum Depression Network
www.postpartumdepression.net

Postpartum Progress, Rated #1 Postpartum Blog in the nation
http://www.postpartumprogress.com

Response

There are 6 domains to be addressed on every postpartum discharge event to aid in the safety and awareness of alarming warning signs for patients upon discharge. This will also aid in the development of a comprehensive plan for patients upon returning to their communities. While ideally all elements of a patient safety bundle would be implemented in all relevant settings, this may be aspirational for some settings based on capacity and resources. For this reason, elements that are considered foundational to addressing morbidity and mortality in the postpartum period are **bolded** below.

Recommendations for Every Event:

1. **Provide patient education prior to discharge that includes life-threatening postpartum complications and early warning signs, including mental health conditions, in addition to individual patient-specific conditions, risks, and how to seek care.***
2. **Provide each postpartum patient with a standardized discharge summary form that details key information from pregnancy and birth.***
3. **Conduct a comprehensive postpartum visit.***
4. Encourage the presence of a designated support person during all instances of care as desired, and particularly when teaching or education occurs.
5. Engage in dialogue with the postpartum patient around elements of postpartum self-care prior to discharge. *
6. Implement a multidisciplinary discharge process to provide a coordinated pathway for clinical postpartum discharge, which may include multidisciplinary rounding.

See Postpartum Discharge Element Implementation Details

Pregnant now or within the last year?

Get medical care right away if you experience any of the following symptoms:

Headache that won't go away or gets worse over time

Dizziness or fainting

Changes in your vision

Fever of 100.4˚F or higher

Extreme swelling of your hands or face

Thoughts of harming yourself or your baby

Trouble breathing

Chest pain or fast beating heart

Severe nausea and throwing up

Severe belly pain that doesn't go away

Baby's movement stopping or slowing during pregnancy

Severe swelling, redness or pain of your leg or arm

Vaginal bleeding or fluid leaking *during* pregnancy

Heavy vaginal bleeding or discharge *after* pregnancy

Overwhelming tiredness

These could be signs of very serious complications. If you can't reach a healthcare provider, go to the emergency room. Be sure to tell them you are pregnant or were pregnant within the last year.

Learn more at www.cdc.gov/HearHer

HEAR™
HEAR HER CONCERNS

This list of urgent maternal warning signs was developed by the Council on Patient Safety in Women's Health Care.

You know your body best

If you experience something that seems unusual or is worrying you, don't ignore it.

HEAR™ HEAR HER CONCERNS

Learn about urgent warning signs and how to talk to your healthcare provider.

During Pregnancy

If you are pregnant, it's important to pay attention to your body and talk to your healthcare provider about anything that doesn't feel right. If you experience any of the urgent maternal warning signs, get medical care immediately.

After Pregnancy

While your new baby needs a lot of attention and care, it's important to remain aware of your own body and take care of yourself, too. It's normal to feel tired and have some pain, particularly in the first few weeks after having a baby, but there are some symptoms that could be signs of more serious problems.

Tips:

- Bring this conversation starter and any additional questions you want to ask to your provider.
- Be sure to tell them that you are pregnant or have been pregnant within a year.
- Tell the doctor or nurse what medication you are currently taking or have recently taken.
- Take notes and ask more questions about anything you didn't understand.

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

Tear this panel off and use this guide to help you start the conversation:

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

MSS Prenatal Risk Factor Clarification Table

MSS Targeted Risk Factor Criteria	Clarification
Some additional background information for all risk factors	**1. Client risk criteria information can be obtained from:** • Client self-reports: please use probing questions to confirm • Medical care provider records • WIC agency reports • Chemical Dependency Treatment agencies • Mental Health providers • Other social services agencies **2. Risk determination-** some MSS targeted risk factors can be determined easily by any MSS team member (CHW or Clinician): • Client is diagnosed with gestational diabetes • Previous preterm birth • Late entry to prenatal care **While other risk factors require a clinician (CHN, BHS, RD) to determine the specific risk criteria (A,B,C):** • Pre-pregnancy BMI • Mental health • Developmental Disability • Substance Abuse or Addiction **3. Release of Information-** Please talk with your supervisor and/or legal counsel to determine when a release of information is needed. **4. Increased collaboration and marketing of MSS will be needed so women are referred back into services if their situation changes:** Prenatal medical care providers WIC Social workers within the hospitals, emergency rooms Drug treatment Mental health Child Protective Services Economic Services – TANF **5. Clients can self -refer** to a MSS agency initially or develop a targeted risk factor(s) later on in pregnancy.

Some additional background information for all risk factors cont'd	**6. Non MSS targeted risk factors-** Clients will have risk factors other than, or in addition too, the MSS targeted risk factors. MSS risk factors are the first priority but other risks that could impact the pregnancy should be noted. **7. Depression Screening-** All clients who answer positive to mental health screening questions or have symptoms of depression should be screened for depression using a standardized depression screening tool. Some agencies are already screening all clients for depression during the pregnancy cycle and others may want to consider this option.
Race • American Indian, Alaska Native, non-Spanish speaking indigenous women from the Americas (i.e. Mam in Guatemala and Mixteco from Oaxaca, Mexico) • Black or African American • Pacific Islander	**1. Racial determination**: To determine client race, have woman fill out demographics on the intake form or ask the woman "What do you consider your race or ethnic background to be?" Have the woman choose. The pregnant woman is the focus of this risk factor, not the baby or father of the baby. **2. Black or African American**: A person having origins in any of the Black racial groups of Africa. It includes people who indicate their race as "Black, African Am., or Negro," or provide written entries such as African American, Afro American, Kenyan, Nigerian, or Haitian. (US census definition). **3. Non-Spanish speaking indigenous women from the Americas (original peoples)**: This risk factor does not include Spanish speaking Hispanic women for example, but it does include specific population of indigenous tribes from the Americas who speak only indigenous languages, i.e. Mam in Guatemala and Mixteco from Oaxaca, Mexico. **4. Pacific Islander**: A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands. (US census definition). **5. The decision to include these racial groups in the C level of service was based on**: • 2009 Washington State Legislature directive to increase services to these populations in an effort to reduce LBW/premature birth and other poor birth outcomes. (HB 1244) • Data analysis of poor pregnancy outcomes for these groups in Washington State. • Even though African American/black women are at the highest risk for LBW, preterm birth, and other poor birth outcomes, most of the women in this population do not screen in by standard risk criteria. (Washington data and literature both support this). • Maternal Child Health research literature on health disparity. • Policy decisions by other states' to target high risk racial population groups in an effort to reduce health disparities.

Prenatal Care • Greater than or equal to **(≥) 14** and less than **(<) 24 weeks** gestation **and no prenatal care** started. • Greater than or equal to **(≥) 24** weeks gestation before, or no, prenatal care started.	**1. Greater than or equal to (≥) 14 and less than (<) 24 weeks gestation and no prenatal care started:** • Woman is 3 ½ months pregnant or less than (<) 6 months pregnant and has not started prenatal medical care. • She may need help obtaining a medical services card, transportation, child care, finding a medical care provider, etc. • During these times of prenatal care access issues in Washington State, there may be several clients who meet this risk criteria. Prioritize your case load, with help from team members if needed, so the woman at most risk for poor birth outcomes is seen as soon as possible. For clients with less risk, the goal is to have the client seen within the month or sooner. **2. Greater than or equal to (≥) 24 weeks gestation before, or no, prenatal care started:** • Woman is at 6 months of pregnancy or further along and prenatal car**e was started** on or after the 6 month of pregnancy. • Woman is at 6 months of pregnancy or further along and **no** prenatal care has started. This woman needs help in accessing care as soon as possible. • In addition to possible access issues, these clients may not trust a health care provider or have underlying issues such as substance abuse, mental illness, or developmental disability.
Food Insecurity: Runs out of food before the end of the month or cuts down on the amount eaten to feed others.	**Food Insecurity:** • Anyone who answers positive to the food insecurity question will be marked as food insecure. • Most people who are food insecure may not disclose this information because there may be a level of embarrassment associated with this issue. • Regardless if a client is on WIC or accessing other services (food benefits, free meals, etc.), she can still be food insecure. Some reasons for continued food insecurity include homelessness, poor food storage, large family, and a lack of knowledge regarding budgeting, shopping, or cooking.

<u>Pre-pregnancy BMI</u>: IOM= Institute of Medicine

- Pre-pregnancy BMI less than **(<) 18.5** and **weight gain within** IOM guidelines.
- Pre-pregnancy BMI less than **(<) 18.5** and **weight gain outside** of IOM guidelines.
- Pre-pregnancy BMI **25.0 to 29.9**
- Pre-pregnancy BMI greater than or equal to **(≥) 30** and **weight gain within** IOM guidelines.
- Pre-pregnancy BMI greater than or equal to **(≥) 30** and **weight gain outside** of the Institute of Medicine guidelines

Pre-Pregnancy BMI and Pregnancy Weight Gain:

Please note weight is one way to screen for risk. Clients are sensitive about weight in most circumstances so being cautious of the words you use and providing positive messages will be important. More information on this will be provided in a guide later, but please use you a dietitian who is the expert in this area if you have questions.

1. Pre-pregnancy weight, current weight, and height can all be obtained from the following:

a. Medical record, if available.
b. WIC certification report, etc., if available.
c. Agency measurement and determination:
   - Have the women remove her shoes and heavy outer clothing before weighing or measuring.
   - Zero the scale out prior to weighing.
   - Have the woman step onto the center of the scale.
d. Client self-report:
   - Some populations are not use to having their height and/or weight checked so they will not be able to self-report.
   - If a client is not able to self-report and it is early in the pregnancy (1st trimester) you can weigh the client and then ask probing questions like "How have your clothes been fitting?"
   - When weight is self-reported, note that some women tend to under report their pre-pregnancy weight. Making a statement like "based on what you have shared, it looks like you have gained ~ x pounds so far for this pregnancy" "Does that sound about right"? If the weight gain does not sound right the client will usually tell you.

2. Calculating Pre-pregnancy BMI - BMI chart provided by First Steps and the following link provides CDC Online Calculator

www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/english_bmi_calculator/bmi_calculator.html

3. Determine if the weight gain is within the guidelines- Clinicians will need to determine if the pregnancy weight gain is within the guidelines (See risk factor matrix). Please note you are only determining if the client is within the guidelines, not what that determination means for that client.

Medical: **Inter-pregnancy interval:** Current pregnancy conception less than (<) 9 months from the end of last pregnancy **Diabetes:** • History gestational diabetes with last pregnancy • Pre-existing Diabetes- type 1 or 2 • Current gestational diabetes **Multiples:** Currently pregnant with multiples (2 or more babies) **Hypertension/Gestational Hypertension:** • Gestational Hypertension in prior pregnancies • Chronic Hypertension: Hypertension diagnosed prior to pregnancy or before 20 weeks gestation (5 months of pregnancy) • Current pregnancy induced hypertension (gestational hypertension) starting greater than (>) 20 weeks gestation (5 months of pregnancy) **Low Birth Weight (LBW) or Preterm birth/labor, Fetal Death:** • Prior LBW infant (less than (<) 5 lb 8 oz) **and/or** premature infant (less than (<) 37 weeks) and/or fetal death • Current preterm labor	**Medical Risk Factors**- this can be self-reported, but you must probe to ensure it was diagnosed by health care provider and not just client diagnosed. **Inter-pregnancy interval-** last pregnancy includes fetal loss and termination **Multiples:** • Extremely high risk for preterm/ LBW infants • Fetal birth defects • Placenta Previa, Abruptio Placenta • Preeclampsia – Gestational Hypertension • Greater occurrence in African American women • Greater occurrence in women over 35, with or without assisted reproductive technology • Possible postpartum mood and anxiety symptoms **Hypertension:** Hypertension can be determined through self-report, review of current medications, medical records, and Blood Pressure (BP) screening. BP screening is one way to assess for hypertension. BP screening by MSS providers will require an agency protocol for training staff and process for sharing BP screening information with medical care providers. Hypertension diagnosis cannot be determined through BP screening alone. **Gestational Hypertension:** This typically develops later in the third trimester of pregnancy and gestational hypertension can develop into preeclampsia. This condition occurs most often in young women with a first pregnancy. It is more common in twin pregnancies, women over the age of 35, women with chronic hypertension and/or preexisting diabetes, African-American women, and women who had hypertension in a previous pregnancy. **LBW/Preterm birth/labor/ fetal death:** Fetal death is defined at 20 weeks or more gestation (sometimes called stillbirth). If a woman has had more than one preterm birth and/or fetal death, she is at further increased risk of poor birth outcomes. If a woman is diagnosed at any time during the pregnancy with preterm labor, she is at high risk and needs support to prevent and recognize labor. Also, if a woman is placed on bed rest for a condition that can result in preterm delivery, she falls under this risk category. If a woman with a singleton gestation has had at least one spontaneous preterm labor and/or rupture of the membranes, she may qualify for 17P treatment. Refer the client to ask her OB provider about 17P.

Maternal Age: • 16 years old at conception • Up through age 15 at conception. • **35** years of age or older at conception **and** this is not her first pregnancy **and** she did not use assisted reproductive technology (ART) for this pregnancy. • **35** years of age or older at conception **and** one of the following: (1) First pregnancy. (2) Current pregnancy via assisted reproductive technology (ART).	**Assisted Reproductive Technology (ART) -**Assisted reproductive technology (ART) is a general term referring to methods used to achieve pregnancy by artificial or partially artificial means. It is reproductive technology used primarily in infertility treatments.
Tobacco/Nicotine Use • Quit before pregnancy or upon diagnosis of pregnancy. • Smokes or uses tobacco or other nicotine products during pregnancy.	**Tobacco use:** • Any maternal tobacco/nicotine use including type and amount. • This does not include second hand smoke. • Relapse: If woman quits but returns to tobacco/nicotine use, she can be moved into the B category. Women who continue to use tobacco/nicotine throughout pregnancy may also have one of the other risk factors such as substance abuse or mental illness.
Alcohol and Substance Abuse/Addiction • **Stopped use** of alcohol (see clarification table), illicit substances, or non-prescriptive use of prescriptive drugs **following pregnancy diagnosis and** has not used for more than or equal to **(≥) 90 days** • Actively engaged in alcohol/drug treatment program and has not used for greater than or equal to (≥) 90 days. • **Stopped use** of alcohol (see clarification notes), illicit substances, or non- prescriptive use of prescriptive drugs **following pregnancy diagnosis and** has not used for less than **(<90)** • **Any use** of alcohol, illicit substances, or non-prescriptive use of prescriptive drugs once the client knows she is pregnant.	• **B risk criteria-** This risk criteria **does not apply** to the woman who drank an occasional alcoholic beverage before pregnancy but stopped all alcohol use either before planning pregnancy or at the time of pregnancy diagnosis. o A client who has stopped using or is actively involved/engaged in treatment and shows no signs of use may be at risk for relapse and need support. o A woman who has relapsed during her pregnancy can be moved to the C level and stay there for the duration of her pregnancy. o **Actively involved/engaged-** participating in CD treatment and/or attending regular AA/NA meetings. This includes methadone treatment. • **C risk criteria-** This risk level **does include** any level of alcohol (even "social" drinking) or drug use once the woman knows she is pregnant including those who relapse during pregnancy. • If a woman enters jail having used alcohol, illicit substances, or non-prescriptive use of prescriptive drugs, her jail time does not count as part of that abstinent time period.
Intimate Partner Violence • In the last year, the woman's intimate partner or father of baby (FOB) has committed or threatened physical/sexual violence against her.	**Intimate Partner Violence-** The risk is greatest if the person who inflicted the violence is the father of the baby or the current intimate partner.

Mental Health • No history of mental health diagnosis, but screens positive for "In the last month, have you felt down, depressed or hopeless?", or showing signs of depression and standardized depression screen indicates mild risk (Edinburgh less than (<) 10 or a comparable score on another standardized depression screening tool)**.** • History of mental health treatment **and/or** postpartum depression and Edinburgh score currently less than (<) 10 (or a comparable score on another standardized depression screening tool) **or** • Current mental health diagnosis and is actively participating in mental health treatment. • Mental health symptoms of depression are evidenced by Edinburgh depression score greater than (>) 10 (or a comparable score on another standardized tool that indicates possible depression) **or** • Client has a mental health diagnosis and active symptoms which are interfering with general functioning.	**Standardized depression screening-** Any standardized tool. Some tools can be self-administered by literate clients and others need to be done by a clinician. Some examples of a standardized tool include: • Edinburgh • CES-D • BECK's Depression Inventory • Postpartum Depression Screening Scale • PHQ 9 • GAD 7- needs to be done in combination with depression screening **Some symptoms of depression can be similar to some of the changes that naturally occur during pregnancy, and this is why a clinical determination is needed. Symptoms of depression may include:** • Flat affect • Complaining of tiredness • Over or under eating • Can't sleep or sleep too much • Can't control negative thoughts, no matter how much they try • Much more irritable and short-tempered than usual **Actively engaged** in treatment: Client is using prescriptions as prescribed, and/or involved with mental health treatment.
Developmental Disability • Severe developmental disability which could impact the woman's ability to take care of herself during the pregnancy or a child, but has an **adequate** support system and **follows through** with health care appointments/advice and self-care. • Severe developmental disability which impacts the woman's ability to take care for herself during the pregnancy or a child, and has an **inadequate** support system or **does not demonstrate** evidence of follow through with health care appointments/advice and self-care.	• **Defining Severe Developmental Disability-** This risk factor has been difficult to define and measure objectively. Providers will need to use their clinical assessment skills to determine the client's developmental disability related to her ability to care for herself during pregnancy and if she has limited safety nets. Document finding in the chart. • **Adequate support-** Safety Net (family, partner, or support system) that will help the client keep appointments, support the client with Activities of Daily Living (ADLs) during pregnancy, and with the infant postpartum. • **Demonstrated follow thru on medical care and self-care-** following through with medical appointments and medical advice for specific condition (gestational hypertension, diabetes, preterm labor, etc.). • Women with a severe developmental disability may have other issues (mental illness, interpersonal violence, substance abuse, and medical issues) that are difficult to assess due to client's cognitive disability.

Washington State Health Care Authority

MSS Prenatal Screening Tool

CLIENT NAME	
DATE OF BIRTH	CLIENT ID

Instructions:

- An * asterisk indicates a MSS clinician (CHN, RD, BHS) needs to make the final determination on a client's risk criteria (A, B or C).
- After screening the client for the MSS targeted risk factors, document the date(s) in the appropriate A, B or C column for any identified criteria, sign the last page noting who made the determination and assign the level of service.

TARGETED RISK FACTOR	DO NOT USE SHADED AREAS			RISK FACTOR CRITERIA
	A	B	C	
Race				**C.** American Indian, Alaska Native or non-Spanish speaking indigenous women from the Americas (e.g. women whose primary language is Mixteco, Mam, or Kanjobal, etc.)
				C. African American or Black
				C. Pacific Islander
Prenatal Care				**A.** Greater than or equal to **(≥) 14** and less than **(<) 24 weeks** gestation **and no prenatal care** started at the time of screening
				B. Greater than or equal to **(≥) 24** weeks gestation when prenatal care started.
				B. Greater than or equal to **(≥) 24** weeks gestation **and no prenatal care** started at the time of screening
Nutrition				**Food Insecurity**: **A.** Runs out of food before the end of the month or cuts down on the amount eaten to feed others
				Pre-pregnancy BMI: IOM = Institute of Medicine ***A**. Pre-pregnancy BMI less than **(<) 18.5** and weight gain **within** IOM guidelines
				***C.** Pre-pregnancy BMI less than **(<) 18.5** and weight gain **outside** of IOM guidelines
				A. Pre-pregnancy BMI **25.0 to 29.9**
				***A.** Pre-pregnancy BMI greater than or equal to **(≥) 30** and weight gain **within** IOM guidelines
				***B.** Pre-pregnancy BMI greater than or equal to **(≥) 30** and weight gain **outside** of IOM guidelines
Medical				**Inter-pregnancy interval:** **A.** Current pregnancy conception less than (<) 9 months from the end of the last pregnancy
				Diabetes: **B.** History of gestational diabetes in the last pregnancy.
				C. Pre-existing Diabetes- Type 1 or 2
				C. Current gestational diabetes
				Multiples: **C.** Currently pregnant with multiples (2 or more babies)
				Hypertension/Gestational Hypertension: **A.** Gestational Hypertension in past pregnancy
				C. Chronic Hypertension: Hypertension diagnosed prior to pregnancy or before 20 weeks gestation
				C. Current pregnancy induced hypertension (gestational hypertension) starting greater than (>) 20 weeks gestation
				Low Birth Weight (LBW) or Preterm birth/labor/fetal death: **C.** Prior LBW infant (less than (<) 5lb 8 oz) **and/or** premature infant (less than (<) 37 weeks); Prior fetal death (fetus greater than (>) 20 weeks gestation)
				C. Current pregnancy-diagnosed with **preterm labor** during this pregnancy or is on treatment or bed rest to prevent preterm birth

TARGETED RISK FACTOR	DO NOT USE SHADED AREAS			RISK FACTOR CRITERIA
	A	B	C	
Maternal Age				**A.** 16 years old at conception
				B. Up through age 15 at conception
				A. **35** years of age or older at conception **and** this is not her first pregnancy **and** she did not use assisted reproductive technology (ART) for this pregnancy
				B. **35** years of age or older at conception **and** one of the following: (1) First pregnancy (2) Current pregnancy via assisted reproductive technology (ART)
Maternal Tobacco/ Nicotine Use				**A.** Quit smoking/using tobacco or nicotine products no more than 3 months prior to pregnancy or upon diagnosis of pregnancy
				B. Smokes and/or uses tobacco or nicotine products during pregnancy
Alcohol and Substance Abuse or Addiction				***B.** **Stopped use** of alcohol (see clarification table), illicit substances, or non-prescriptive use of prescriptive drugs following pregnancy diagnosis and has not used for more than or equal to **(≥) 90 days**
				***B.** **Actively engaged** in alcohol/drug **treatment** program and has not used for greater than or equal to **(≥) 90 days**.
				***C.** **Stopped use** of alcohol (see clarification table), illicit substances, or non-prescriptive use of prescriptive drugs following pregnancy diagnosis and has not used for less than **(<) 90 days**
				***C.** **Any use** of alcohol, illicit substances, or non-prescriptive use of prescriptive drugs **once the client knows she is pregnant**
Intimate Partner Violence				**A.** IPV has occurred more than one year ago
				B. In the last year, the woman's intimate partner or father of baby (FOB) has committed or threatened physical/sexual violence against her
Mental Health Severe Mental Illness (SMI) and Perinatal Mood Disorder				***A.** **No history** of mental health diagnosis, but answers "Yes" to "In the last month, have you felt down, depressed or hopeless?" or showing potential symptoms of depression, but has **negative score on standardized** depression **screening** tool, i.e. Edinburgh, CES-D
				***B.** **History of** mental health treatment but is stable, **or** history of postpartum depression with previous pregnancy, and **negative score on standardized** depression screening tool
				***B.** **Current** mental health diagnosis and is **engaged** in mental health treatment
				***C.** Mental health symptoms of depression are evidenced by **positive score** on standardized depression screening tool
				***C.** Client has a **mental health diagnosis** and exhibits **active symptoms** which interfere with general functioning
Develop-mental Disability				***A.** Severe developmental disability which could impact the woman's ability to take care of herself during the pregnancy or an infant, but has **adequate** support system, and **demonstrates** evidence of follow through with health care appointments/advice and self-care
				***C.** Severe developmental disability which impacts the woman's ability to take care of herself during the pregnancy or an infant and has an **inadequate** support system or **does not demonstrate** evidence of follow through with health care appointments/advice and self-care

☐ Check this box to acknowledge all the MSS targeted risk factors have been screened for and initial _____

Screen date _____ Completed by _____ Level of service _____

Screen date _____ Completed by _____ Level of service _____

Screen date _____ Completed by _____ Level of service _____

Level of Service (available during pregnancy through two months post pregnancy; see Provider Guide for number of units allowed):

Basic = No targeted risk factor or A level risks and no Bs or Cs

Expanded = At least one B and no Cs

Maximum = At least one C

Reporting/Systems Learning

There are five domains of Reporting & Systems Learning to be addressed by every facility to facilitate safe, appropriate and timely postpartum transitions. While ideally all elements of a patient safety bundle would be implemented in all relevant settings, this may be aspirational for some settings based on capacity and resources. For this reason, elements that are considered foundational to addressing morbidity and mortality in the postpartum period are bolded below.

Recommendations for Every Unit:

1. **Convene inpatient and outpatient providers in an ongoing way to share successful strategies and identify opportunities for prevention of undesired outcomes in the postpartum period, including emergency and urgent care clinicians and staff.**

2. **Consider a multidisciplinary huddle for postpartum patients identified as higher-risk for complications to identify potential gaps or adjustments to the standardized discharge process.**

3. **Develop and systematically utilize a standard comprehensive postpartum visit template.**

4. Identify and monitor postpartum quality measures in all care settings.*

5. Monitor data related to completed postpartum comprehensive visits in each office, with disaggregation by race and ethnicity at a minimum, to evaluate disparities in rate of follow-up visit completion.

FIGURE 1

Checklists, Huddles, and Debriefs: Critical Tools to Improve Team Performance in Obstetrics

TREJO, FATIMA ESTRADA; IGEL, CATHERINE M.; CHUANG, MELEEN; BAJAJ, KOMAL; BERNSTEIN, PETER S.

Clinical Obstetrics and Gynecology62(3):518-527, September 2019.
doi: 10.1097/GRF.0000000000000464

A checklist for checklists.

FIGURE 2

[Checklists, Huddles, and Debriefs: Critical Tools to Improve Team Performance in Obstetrics]

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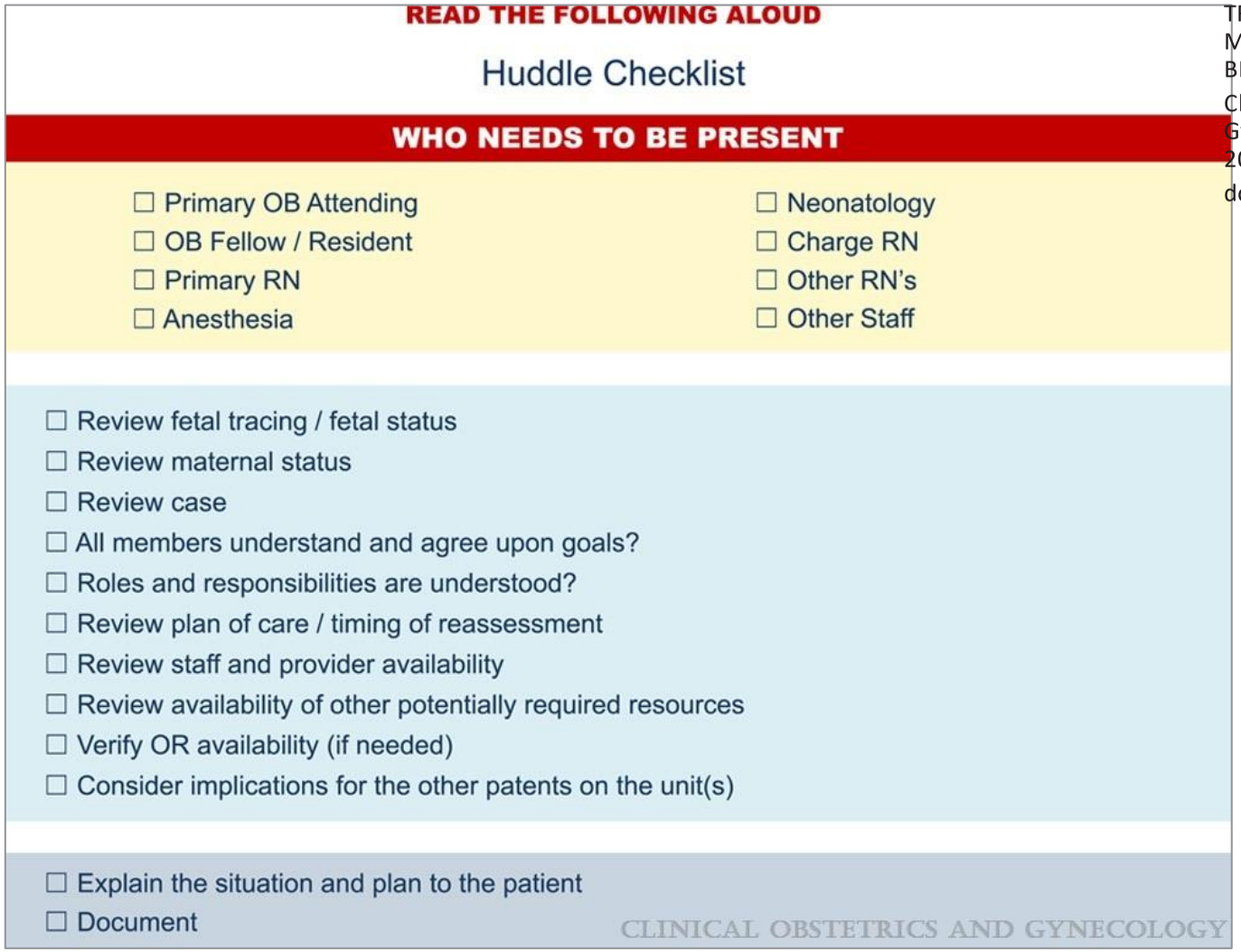

Huddle checklist.

FIGURE 3

[Checklists, Huddles, and Debriefs: Critical Tools to Improve Team Performance in Obstetrics]

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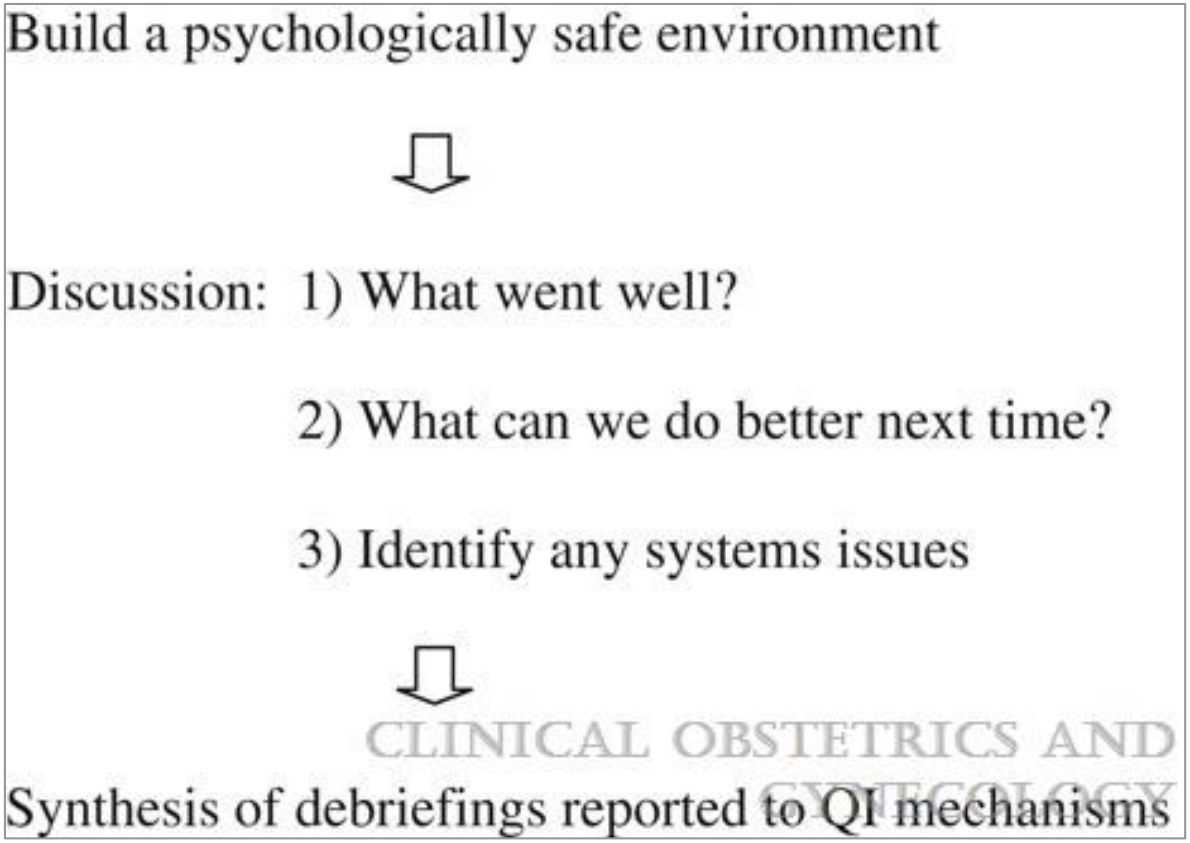

Key elements of a health care debrief.

The PEARLS Healthcare Debriefing Tool

	Objective	Task	Sample Phrases
1 Setting the Scene	Create a safe context for learning	State the goal of debriefing; articulate the basic assumption*	"Let's spend X minutes debriefing. Our goal is to improve how we work together and care for our patients." "Everyone here is intelligent and wants to improve."
2 Reactions	Explore feelings	Solicit initial reactions & emotions	"Any initial reactions?" "How are you feeling?"
3 Description	Clarify facts	Develop shared understanding of case	"Can you please share a short summary of the case?" "What was the working diagnosis? Does everyone agree?"
4 Analysis	Explore variety of performance domains	See backside of card for more details	**Preview Statement** *(Use to introduce new topic)* "At this point, I'd like to spend some time talking about [insert topic here] because [insert rationale here]" **Mini Summary** *(Use to summarize discussion of one topic)* "That was great discussion. Are there any additional comments related to [insert performance gap here]?"
Any Outstanding Issues/Concerns?			
5 Application/ Summary	Identify take-aways	Learner centered	"What are some take-aways from this discussion for our clinical practice?"
		Instructor centered	"The key learning points for the case were [insert learning points here]."

*Basic assumption, Copyright © Center for Medical Simulation. Used with permission.

The Analysis Phase

Performance Domains

The analysis phase can be used to explore a variety of performance domains:

Three Approaches

1. **Learner Self-Assessment**

   Promote reflection by asking learners to assess their own performance

2. **Focused Facilitation**

   Probe deeper on key aspects of performance

3. **Provide Information**

   Teach to close clear knowledge gaps as they emerge and provide directive feedback as needed

Sample Phrases

- What aspects were managed well and why?
- What aspects do you want to change and why?
- **Advocacy:** I saw [observation], I think [your point-of-view].
- **Inquiry:** How do you see it? What were your thoughts at the time?
- I noticed [behavior]. Next time you may want to consider [suggested behavior], because [rationale].

Improving Situation Awareness to Reduce Unrecognized Clinical Deterioration and Serious Safety Events

abstract

BACKGROUND AND OBJECTIVE: Failure to recognize and treat clinical deterioration remains a source of serious preventable harm for hospitalized patients. We designed a system to identify, mitigate, and escalate patient risk by using principles of high-reliability organizations. We hypothesized that our novel care system would decrease transfers determined to be unrecognized situation awareness failures events (UNSAFE). These were defined as any transfer from an acute care floor to an ICU where the patient received intubation, inotropes, or ≥3 fluid boluses in first hour after arrival or before transfer.

METHODS: The setting for our observational time series study was a quaternary care children's hospital. Before initiating tests of change, 2 investigators reviewed recent serious safety events (SSEs) and floor-to-ICU transfers. Collectively, 5 risk factors were associated with each event: family concerns, high-risk therapies, presence of an elevated early warning score, watcher/clinician gut feeling, and communication concerns. Using the model for improvement, an intervention was developed and tested to reliably and proactively identify patient risk and mitigate that risk through unit-based huddles. A 3-times daily inpatient huddle was added to ensure risks were escalated and addressed. Later, a "robust" and explicit plan for at-risk patients was developed and spread.

RESULTS: The rate of UNSAFE transfers per 10 000 non-ICU inpatient days was significantly reduced from 4.4 to 2.4 over the study period. The days between inpatient SSEs also increased significantly.

CONCLUSIONS: A reliable system to identify, mitigate, and escalate risk was associated with a near 50% reduction in UNSAFE transfers and SSEs. *Pediatrics* 2013;131:e298–e308

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KEY WORDS

patient safety, situation awareness, rapid response systems, clinical deterioration, quality improvement, high-reliability organizations, hospital medicine

ABBREVIATIONS

ACA—apparent cause analysis
EHR—electronic health record
HRO—high-reliability organization
MPS—manager of patient services
MRT—medical response team
PEWS—pediatric early warning score
RRT—rapid response team
SA—situation awareness
SOD—safety officer of the day
SSE—serious safety event
UNSAFE—unrecognized situation awareness failure event

(Continued on last page)

Rapid response teams (RRTs) are designed to identify and respond to events in the hours prearrest.[1–13] Although interventions and contexts have varied substantially, these teams have demonstrated decreased codes outside the ICU and hospital-wide mortality in several studies.[1–4,7,9,10,12,13] Variation in the effectiveness of RRTs may be due to insufficient processes around monitoring and risk identification.[14] Potentially preventable morbidity and mortality from unrecognized deterioration remain, often due to ineffective clinical monitoring that we believe represents poor situation awareness (SA).[14] SA (ie, "knowing what is going on") exists at 3 levels and is defined as "the perception of elements in the environment within a volume of time and space, the comprehension of their meaning, and the projection of their status in the near future."[15–17] We believe improved SA drives better recognition of early deterioration and is essential in efforts to reduce "failure to rescue" from codes outside of the ICU, an event associated with a 50% to 67% mortality.[18,19]

High-reliability organizations (HROs) (eg, commercial aviation, nuclear power, and wilderness firefighting) deal with constant and catastrophic risk yet maintain exemplary safety records.[20] Our institution began a journey to become an HRO with the Agency for Healthcare Research and Quality HRO Learning Network in September 2005.[21] Learnings from this network fueled improvement work and introduced the concept of SA. Our organization has targeted serious safety event (SSE) reduction as a strategic improvement goal since 2006. Our efforts to reduce SSEs, defined as severe harm or death after variation from expected practice, have resulted in significant and sustained reduction.[22] Before SA work, SSEs among inpatients had not decreased. Poor SA was a common etiology. To achieve our aim and facilitate rapid learning, our project team defined a precursor outcome measure that we believed would capture events that both represented SA failures and occurred more commonly than inpatient SSEs in our center.[23] We prospectively defined unrecognized situation awareness failures events (UNSAFE) as the transfer of patients from the acute care floor to the ICU where the patient received tracheal intubation, initiation of vasoactive medications for hemodynamic support, or ≥3 fluid boluses in the first 60 minutes of ICU care or before arrival in the ICU. We believed these events represented potentially delayed transfers that are precursors to codes outside the ICU or SSEs. With focused improvement work beginning in November 2009, we aimed to decrease UNSAFE transfers by 50% by June 30, 2011. We hypothesized that a system of care that proactively identified, mitigated, and escalated risk would improve SA and decrease UNSAFE transfers and SSEs.

METHODS

Setting

Cincinnati Children's Hospital Medical Center is a 523-bed academic, quaternary-care, free-standing children's hospital. Resident teaching teams care for the majority of hospitalized patients. Less commonly, direct hospitalist and nurse-practitioner models are used. Our RRT (called a medical response team [MRT]) has been in place since 2006 with defined activation criteria.[2] A modified version of the Monaghan pediatric early warning score (PEWS) was tested and spread across the hospital in 2007.[24]

Human Subjects Protection

Our study was reviewed by the institutional review board and deemed exempt systems improvement. Individual patient care was discussed among clinicians in the course of identification and mitigation of risk. Medical record review was performed by the lead investigator by using a secure password-protected internal database and our hospital's electronic health record (EHR).

Event Review

Two investigators (Dr Brady and Ms Goodfriend) reviewed 20 consecutive SSEs and 80 consecutive ICU transfers to identify potential predictors of deterioration. The presence of at least 1 of the following 5 risk factors was found in each case: (1) family concern about patient safety, (2) high-risk therapies including unfamiliar therapies on the unit (eg, insulin use outside of the diabetes unit), (3) elevated PEWS of ≥5, (4) watcher or a patient where a clinician had a "gut feeling" that the patient was at risk for deterioration or "close to the edge," and (5) communication concern that may impact patient safety.

Intervention

The SA intervention included the following: (1) a formalized process where bedside nurses proactively identified these 5 factors, (2) unit-based huddles where charge nurses and physicians discussed identified factors and developed mitigation plans, (3) initiation of 3-times daily inpatient huddle where individual patient risk was discussed and specific predictions made, (4) development of a continuous learning system to evaluate SA and UNSAFE transfers, and 1 year later (5) development of a "robust" and explicit plan for patients identified as having 1 of the risk factors. Figure 1 provides a model of communication and action pathway for identification of patient risk. Figure 2 is the key driver diagram that illustrated the study team's belief in hypothesized drivers needed to

achieve the aim. Table 1 provides details on individual interventions.

Proactive Identification of Risk

In our SA model (Fig 1), the fundamental job of the bedside nurses and interns was to identify any of the 5 risk factors. These clinicians have the most touch time with the patients but are generally the least experienced on the team. Tools were developed to support bedside nurses in identifying risk factors during their routine assessments. Structured yes/no questions (Fig 3) were prototyped, tested, and later spread.

Unit-Based Huddles

Unit-based huddles between the charge nurse and bedside nurse, regardless of identified risk, were scheduled every 4 hours. Huddles also were promoted whenever new risk factors were identified. The aim of the huddle was to trigger a bedside evaluation by experienced nurses and physicians of any patient with the identified risk. Huddles were led by a watchstander charge nurse and senior resident when risk was identified. The term "watchstander" was borrowed from the military to highlight that the primary job of the charge nurse and senior resident was to know which patients were at high risk for deterioration. When concerns were identified, the clinical care team discussed the risk at the patient's bedside and developed a plan to mitigate that risk. This provided a standardized opportunity for more experienced clinicians to coach those less experienced in both patient management and communication/escalation techniques.

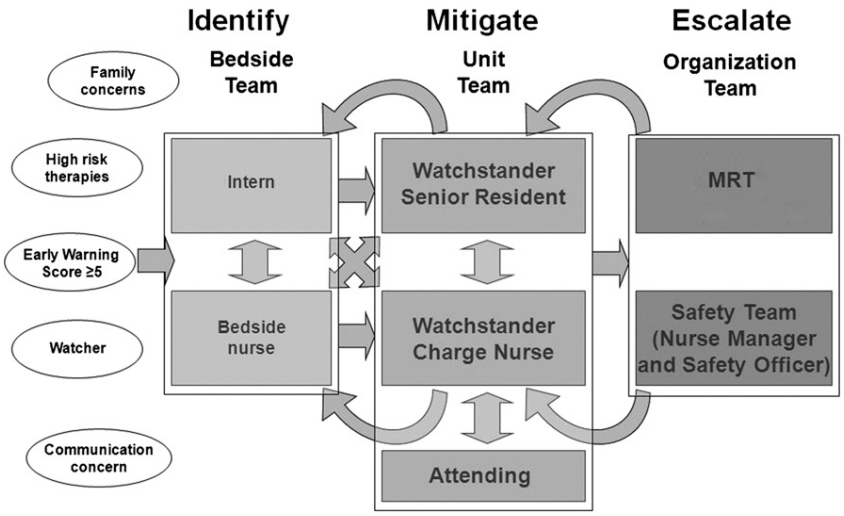

FIGURE 1
Identify, mitigate, and escalate model illustrates which risk factors were systematically identified and how standardized communication about risk occurred throughout the center.

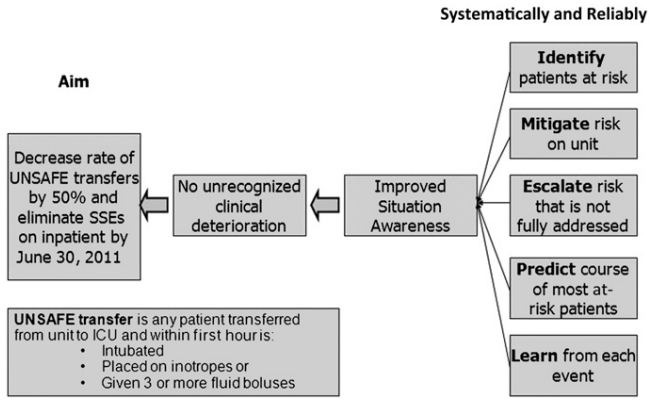

FIGURE 2
Key driver diagram illustrates the drivers (at right) that would lead to aim through improved situation awareness and no unrecognized clinical deterioration.

Three-Times Daily Inpatient Huddle

Our design later leveraged existing structures to proactively escalate identified and unresolved safety risks. Historically, our organization conducted an 8 AM huddle that brought together a charge nurse from each inpatient unit and the manager of patient services (MPS) who oversaw the flow and staffing of inpatients. Before our work, there was no standardized discussion of patient safety. We piloted with 4 units and then spread to all noncritical care units a structured process where the charge nurse from each unit (1) reported on any risk factors present that were not fully addressed and (2) predicted any MRT activations. This process continued to be facilitated by the MPS, and a safety officer of the day (SOD) attended each inpatient huddle. The SOD was an experienced pediatrician who was given the authority by our hospital leadership to assist with mitigating any safety and/or communication concerns on the inpatient units. The MPS and SOD provided coaching on how to address concerns raised by the primary clinical team, including positive reinforcement of key behaviors and role modeling. The details of testing similar huddles at 4:30 PM and midnight are displayed in Table 1.

Continuous Learning System to Evaluate SA

The final component of our planned intervention was to develop a data

TABLE 1 Specific Interventions, Settings, and Timing for Each Intervention

Category of Intervention	Specific Interventions	Setting	Timing
Proactive identification of risk	Risk categories prototyped and tested on small scale	1 general pediatric unit	November 2009
	Algorithm developed and tested throughout unit	1 general pediatric unit	December 2009
	Algorithm tested and adapted on different patient populations	4 units including subspecialty and surgical care	January 2010
	Algorithm posted and spread throughout hospital	All acute care units	March 22, 2010
Unit-based huddles	Huddle tested on small on 1 unit	1 general pediatric unit	November 2009
	Adapted to include residents only when risk identified	1 general pediatric unit	December 2009
	Tested and adapted on 4 units	4 units including subspecialty and surgical care	January 2010
	Didactic and case-based education for charge nurses	Conference room	February and March 2010
	Spread throughout hospital	All acute care units	March 22, 2010
Three-times daily inpatient huddle	Safety officer attends and each charge nurse lists any patient risks that were not fully addressed with predicted discharges and admissions	4 test units at 8 AM	January 2010
	Safety officer and MPS round on each unit	4 test units at 4 PM	January 2010
	MPS rounds on each test unit	4 test units at 12 AM	January 2010
	3-time daily inpatient huddle extends to all units	All acute care units	March 22, 2010
	Explicit predictions for calls of medical response team made	All acute care units	April 2010
	Afternoon rounds moved to huddle in conference room with each charge nurse in attendance	All acute care units	October 2010
	Overnight rounds moved to huddle in conference room	All acute care units	January 2012
Continuous learning system	ACA form prototyped	4 units including subspecialty and surgical care	January 2010
	Weekly report with rates of risk identification and escalation and UNSAFE transfers along with patient-level story about situation awareness	All acute care units	March 2010
	Control plan developed for identifying and acting on special cause with process measures and UNSAFE transfers	Used on all acute care units as needed	July 2010
	Database that combined data from ACA forms and admit/transfer data from EHR developed and tested and went into production	Used by Manager, Patient Services to track patients on all acute care units	September 2010
Robust plan	Robust plan checklist generated and tested by 1 charge nurse	1 unit that specialized in transitional tracheostomy and ventilator care	March 2011
	Checklist adapted and tested with all nurses on unit	Same transitional care unit	April 2011
	Physician event note template created and tested in EHR	Same transitional care unit	June–July 2011
	Identified risk factors placed in EHR in format to be scanned by safety officer and other leaders	1 neurosciences unit	July–August 2011
	Checklist, template, and risk factors in EHR spread	All acute care units	September 2011

system to rapidly identify process and outcome failures and direct this information to project leaders and leaders on individual units. To achieve this aim, (1) apparent cause analysis (ACA) forms were completed within 1 hour of each floor to ICU transfer to identify potential UNSAFE transfers and associated process failures, (2) a password-protected database was constructed to integrate information from these forms and the EHR, (3) process and outcome data were distributed each week to unit level clinical and medical directors with a story of patient-level SA, and (4) a control plan was designed with inpatient leaders to identify special cause on tracked process and outcome measures and target further interventions.

Robust Plan

One year after SA work began, the improvement team worked with 1 inpatient unit to develop and test a checklist tool to improve the mitigation/escalation process for patients with identified risk (Table 1). During multidisciplinary discussions, we proposed a "robust plan" bundle which included the following: (1) plan with proposed treatment change, (2) explicit communication with care team, (3) prediction of expected outcome, (4) outcome deadline, and (5) escalation plan (usually the MRT or discussion with SOD/MPS) if outcome was not achieved by a predefined deadline. This tool was tested, adapted, and spread throughout the remaining inpatient units (Fig 4). Subsequent testing integrated risk identification within the EHR and added focused discussion of a robust plan during safety rounds.

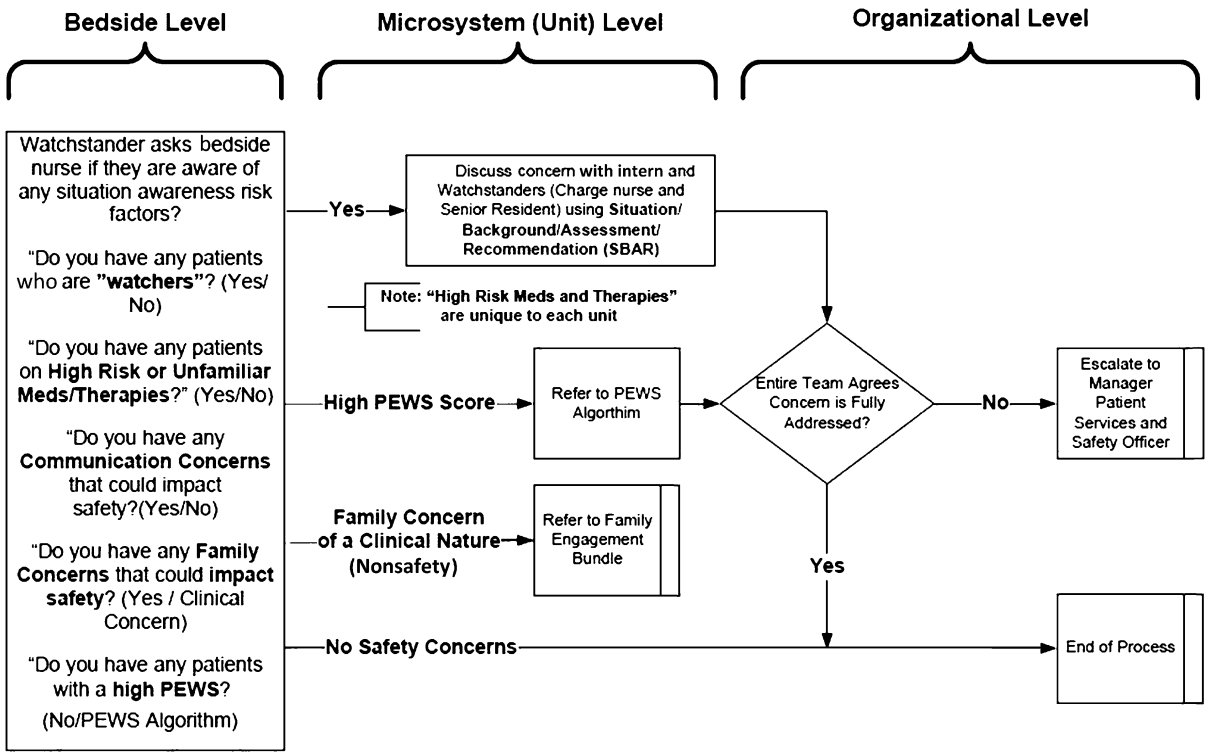

FIGURE 3
Situation awareness algorithm illustrates the tool used during education and early phases and the specific questions and communication pathways.

Study of the Intervention

In our observational time series study, data were collected on process measures of systematic identification, mitigation, and escalation of risk that we believed would improve SA and decrease UNSAFE transfers and SSEs. To evaluate the consistency of huddles and how well the identify, mitigate, and escalate intervention was implemented, data initially were collected from each unit on each nursing shift to measure the reliability that each shift identified all patients at risk and mitigated or escalated that risk. This was captured through a checklist-based form that followed the flow of algorithm of Fig 3 and was completed by each charge nurse. The tool was tested and evaluated with charge nurses from several units during early phases. Before spread throughout the hospital, 116 charge nurses received training on the process and tool through a 1.5-hour learning session. Validity of process data were evaluated through discussions during inpatient huddles by investigators, SOD, and MPS. UNSAFE transfers were identified from the ACA process and validated against review of the EHR for each ICU transfer. SSEs were captured through a safety reporting process as previously described.[22]

Analysis

Primary analysis of both process and outcome measures was performed by using statistical process control charts. For the primary outcome of UNSAFE transfers, results were tracked by using both a days-between *t*-chart and rate chart. Established rules for identifying special cause were employed.[25–27]

RESULTS

After testing on 4 inpatient units from January 1, 2010, to March 21, 2010, the unit-level huddles and proactive inpatient huddles began on each of the 14 noncritical care inpatient units on March 22, 2010. The process measure evaluated the consistency of huddles and specifically how frequently patient risk was identified and mitigated or escalated each nursing shift on each unit. The number of units by week where ≥90% of weekly nursing shifts fully identified and mitigated or escalated patient risk were tracked on run charts and revealed both improved and sustained performance for 11 months of tracking (Fig 5). On each participating unit, 90% to 95% of identified risk was mitigated by the primary team with no escalation needed. Each inpatient huddle took less than 30 minutes. Although initially there was substantial variation in the number of patient risks that were escalated, a median of 2 risks for each huddle were escalated the first year. This increased over the study period with a median of 7.5 concerns escalated in May 2012.

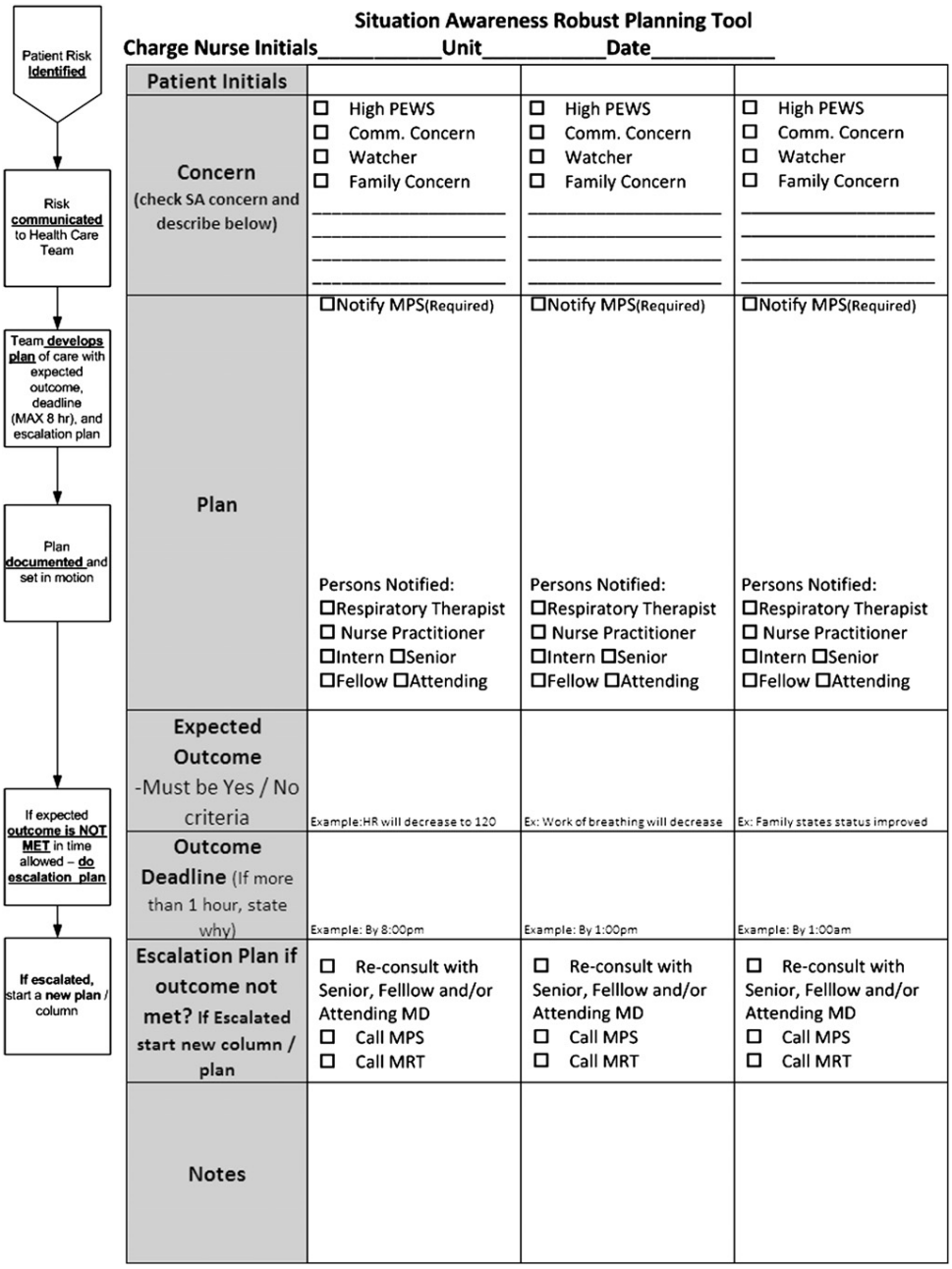

FIGURE 4
Situation awareness robust planning tool.

The rate of UNSAFE transfers per 10 000 non-ICU inpatient days is displayed in Fig 6. An initial decrease in UNSAFE transfers occurred, though it did not meet rules for special cause and was not sustained. Analysis of UNSAFE transfers through an ongoing ACA process revealed that in the vast majority of UNSAFE transfers, patient risk had been identified but not fully mitigated on unit or escalated to the MRT or safety team. This led to focused improvement work on development of a robust plan as detailed above. After spread, the rate of UNSAFE transfers improved from a baseline of 4.4 to 2.4 transfers per 10 000 non-ICU inpatient days, meeting criteria for special cause variation with 8 points below the median line (Fig 6). Additionally, a significant change in the days-between inpatient SSEs from 100 days to >400 twice was observed in association with the intervention. Shortly before this work began, the number of MRT activations and PICU transfers per month increased significantly in association

with a campaign to eliminate informal PICU consults (Fig 7). MRT-preventable codes outside the ICU were rare before and during the study period (Fig 8).

DISCUSSION

Our system to reliably identify, mitigate, and escalate patient risk was associated with a significant decrease in UNSAFE transfer and SSEs among inpatients. By providing a proactive and reliable model to identify and rapidly intervene on newly detected risk and early patient deterioration, we improved SA across our inpatient system. SA is achieved by scanning for important information, recognizing patterns and trends, and making short-term predictions.[15–17] We believe that although SA is still uncommonly discussed in the medical literature, interventions such as rapid response systems and early warning scores (both in broad use) employ SA to identify deteriorating patients.[28] We

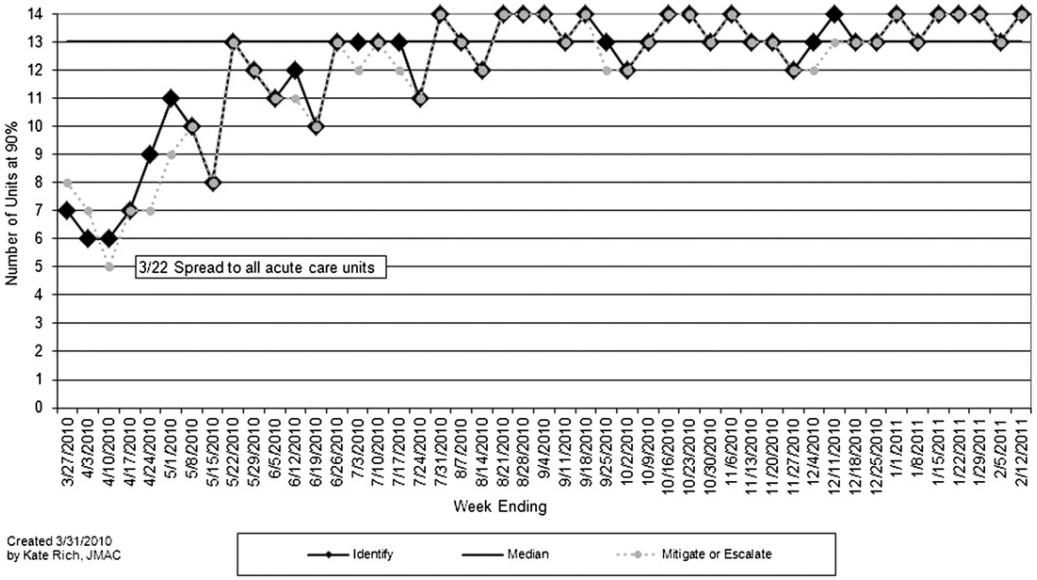

FIGURE 5
Process measure run chart illustrating the number of units by week where ≥90% of weekly nursing shifts fully identified patients at risk (solid line/diamond) and where ≥90% of weekly shifts fully mitigated or escalated that risk (dotted line/circle).

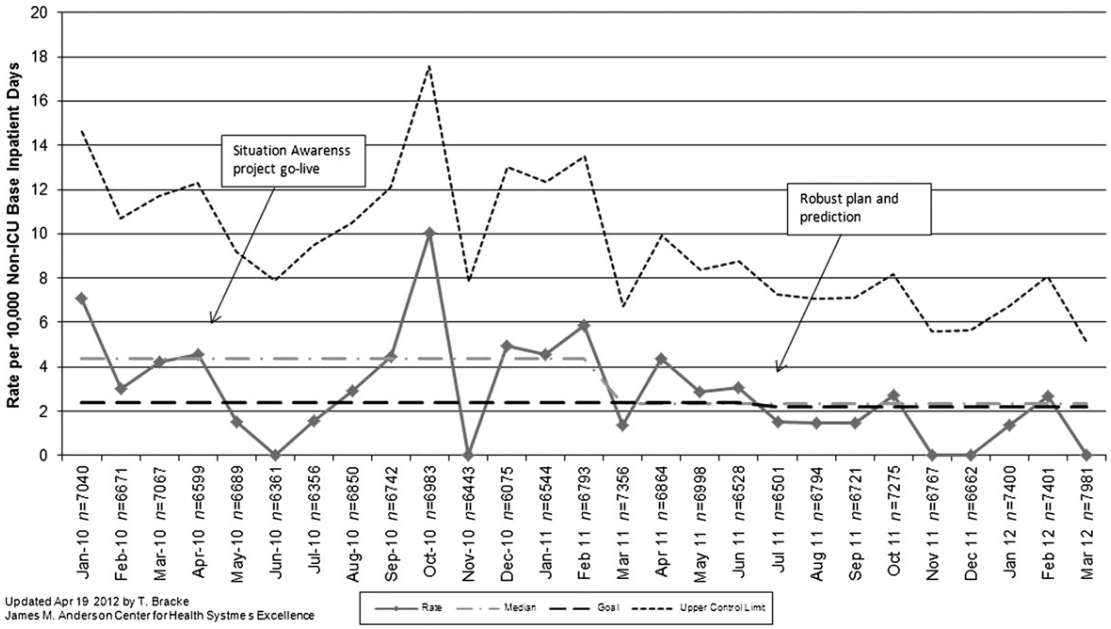

FIGURE 6
UNSAFE transfer rate chart. Rate of UNSAFE transfers per 10,000 non-ICU patient days at base location by month (n = non-ICU inpatient days by month).

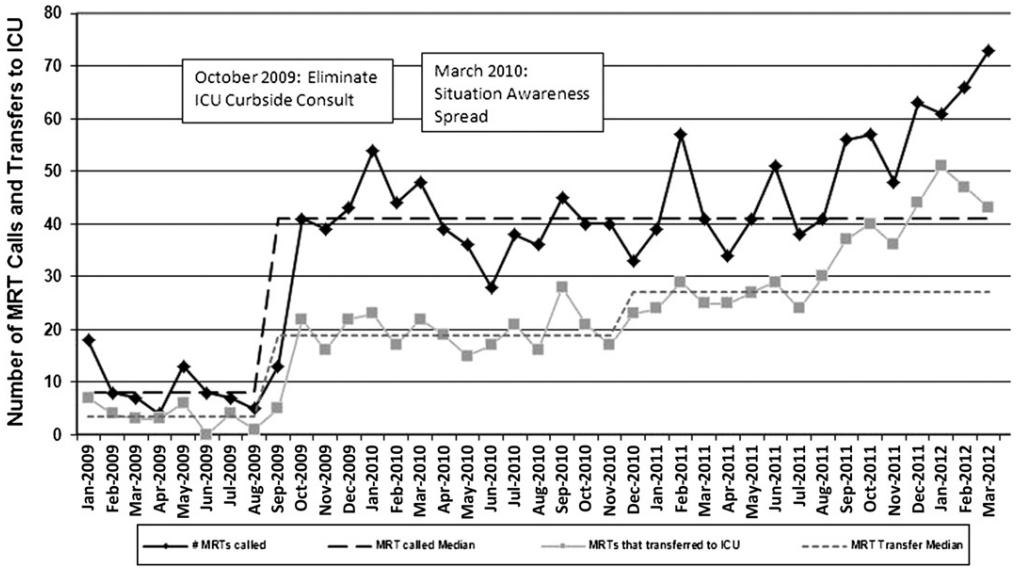

FIGURE 7
Rate of MRT activations and transfers to ICU by month.

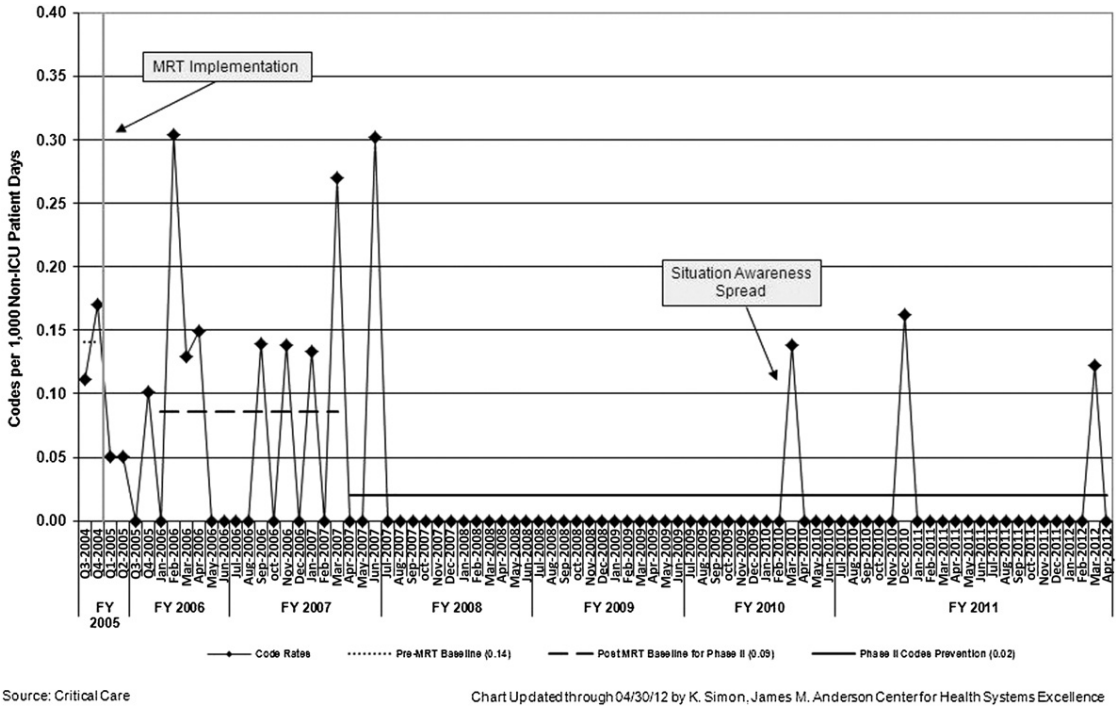

FIGURE 8
Rate of MRT preventable codes outside of the ICU by month.

sought to build upon this work by addressing limitations in many rapid response systems' inherently reactive (versus proactive) nature.[14]

We developed the concept of UNSAFE transfers to be used as the primary outcome measure for improvement efforts with the belief that these events represented potential precursor events to serious harm such as codes and because these events occurred sufficiently often in our center to enable rapid testing, learning, and adapting. Our time series design allowed us to learn sequentially, and we observed an initial decrease in the rate of UNSAFE transfers followed by a return to our previous baseline levels. With process

measures in place that did not reveal a decrease in reliability of our intervention, we further studied where the process failures occurred regarding UNSAFE transfers. With this data, we learned that although 1 year into the intervention we had a system that identified risk, we did not systematically address this risk. We found that even on our most high risk patients, the language of plans included terms such as "continue to observe." Without explicit and time-bound plans, clinicians were observing patients until they received aggressive resuscitation that met criteria for UNSAFE transfer.

Our second stage of interventions testing a robust plan and prediction was designed by a multidisciplinary team of leaders and front-line physicians, nurses, and respiratory therapists. The improvement team believed that a shared mental model or team SA would not be achieved without explicit prediction and contingency planning. We believed that this was because level 3 SA (the projection of current event status in the near future) was still often not achieved. This may have been due to the limits of individual clinicians in making near-term projections (eg, this tachycardic patient will be in shock within 4 hours if we do not aggressively hydrate) but was believed to more commonly result from doctors, nurses, and other members of the care team not explicitly sharing their mental model. Our basic theory was borrowed from hypothesis testing in the scientific method and explicit predictions in plan-do-study-act cycles. The goal was to increase accountability and to make disconcerting data (eg, patient did not improve as predicted) clear to each member of the team. The spread of this intervention and its integration into proactive inpatient huddle was associated with a sustained decrease in UNSAFE transfers.

One strength of our work is that we created a system of care built on reliable processes, not individual clinicians. We were able to build these processes into the workflows of busy clinicians and provide via the inpatient huddle a valued activity for charge nurses as they gained insight and assistance with their sickest patients. Our sustained reduction in UNSAFE transfers over the last 12 months is further evidence of the success of building interventions into work flow. Importantly, this intervention did not add additional clinicians to our system of care but instead clarified roles and processes for charge nurses, MPS, residents, and attending physicians. The additional responsibilities of SODs are on the order of 1.5 hours per day. We believe our work builds upon previous interventions to address patient deterioration such as rapid response systems and PEWS. The proactive and standardized nature of our intervention offers an important answer to afferent limb failures of the MRTs.[14] Our intervention supplements the early warning score with other risk domains, most powerfully for us was that of the "watcher" or patient that a clinician has "a gut feeling is close to the edge." We believe this employs the tacit knowledge of experienced clinicians and hence likely will achieve greater sensitivity than any numerical scoring tool, especially since we combined this concept with objective data.[29,30] We also believe that assessment of risk as relayed by family and as emerges from communication problems has substantial face validity in identifying and predicting deterioration. Our final risk category was that of high risk therapy and borrowed from HRO thinking on the need for special oversight and procedures with new and unfamiliar therapies; for example, we believe the administration of insulin on short-stay surgery unit has a fundamentally different risk profile than doing so on diabetes unit. We therefore target these high risk therapies and address any knowledge gaps in close to real-time. Our intervention is perhaps most similar to that of the Rover team as described by Hueckel et al.[31] Although both are proactive in assessment of risk, meaningful differences include our intervention's staffing model and broader scanning for risk.

Because our goal was rapid improvement of a single site, we chose a time series design, which did not allow us to address secular trends or establish causality. We believe this design was appropriate for our innovative intervention that evolved and improved through iterative quality improvement methods. This design exposed the study to potential unmeasured confounding from safety work. We do not feel this was a particularly large risk because time series data reveal the rate of inpatient SSEs had not improved in previous years' safety work and because there were no other large interventions targeted at this population. Additionally, it is uncertain how our results would generalize to medical centers with different patient populations, staffing models, quality improvement capabilities, and safety cultures. A final limitation is that we did not have a measure of SA to reveal that this improved as an effect of our intervention. Available measures of SA involve simulated events and typically require "pausing" the event to perform assessment.[32] Clearly this was not possible or ethical in course of clinical care. A recent proposed measure of SA relied on accuracy of prediction that was fundamental to our work.[33] We did use SA for much of our conceptual model, but we cannot say definitely if improved SA was the mediator between the identify, mitigate, and escalate intervention and our decreased rate of UNSAFE transfers.

Our institution additionally has applied and tested models to improve SA and

decrease adverse events in diverse clinical settings including the operating room and resident psychiatry. We also believe improved SA and systems that proactively identify, mitigate, escalate, and predict risk have applicability to other untoward events such as flow and patient/family experience failures. Next steps include tailoring and testing interventions in these settings and in other hospital systems that have different patient populations and systems of care. Although we have begun to incorporate risk factors into the EHR, we believe simulation and human factors methods are needed to evaluate the role of technology and automation in improving SA and facilitating clinician workflows.

CONCLUSIONS

A reliable system to identify, mitigate, and escalate risk can be implemented in a children's hospital and is associated with a reduction in safety events in a context where these events were already uncommon. We believe HRO thinking and SA are potentially transformative concepts for health care systems. Models to identify risk early and reliably intervene are likely generalizable both to different clinical systems and to modify different outcomes such as the patient/family experience and patient flow.

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(Continued from first page)

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The PEARLS Healthcare Debriefing Tool

	Objective	Task	Sample Phrases
1 Setting the Scene	Create a safe context for learning	State the goal of debriefing; articulate the basic assumption*	"Let's spend X minutes debriefing. Our goal is to improve how we work together and care for our patients." "Everyone here is intelligent and wants to improve."
2 Reactions	Explore feelings	Solicit initial reactions & emotions	"Any initial reactions?" "How are you feeling?"
3 Description	Clarify facts	Develop shared understanding of case	"Can you please share a short summary of the case?" "What was the working diagnosis? Does everyone agree?"
4 Analysis	Explore variety of performance domains	See backside of card for more details	**Preview Statement** *(Use to introduce new topic)* "At this point, I'd like to spend some time talking about [insert topic here] because [insert rationale here]" **Mini Summary** *(Use to summarize discussion of one topic)* "That was great discussion. Are there any additional comments related to [insert performance gap here]?"
Any Outstanding Issues/Concerns?			
5 Application/ Summary	Identify take-aways	Learner centered	"What are some take-aways from this discussion for our clinical practice?"
		Instructor centered	"The key learning points for the case were [insert learning points here]."

*Basic assumption, Copyright © Center for Medical Simulation. Used with permission.

The Analysis Phase

Performance Domains

The analysis phase can be used to explore a variety of performance domains:

Three Approaches

1. **Learner Self-Assessment**

   Promote reflection by asking learners to assess their own performance

2. **Focused Facilitation**

   Probe deeper on key aspects of performance

3. **Provide Information**

   Teach to close clear knowledge gaps as they emerge and provide directive feedback as needed

Sample Phrases

- What aspects were managed well and why?
- What aspects do you want to change and why?
- **Advocacy:** I saw [observation], I think [your point-of-view].
- **Inquiry:** How do you see it? What were your thoughts at the time?
- I noticed [behavior]. Next time you may want to consider [suggested behavior], because [rationale].

Choose the pregnancy care that is right for you.

Access to Care

Explore Resources

Have insurance?

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- Visit the website for resources

Need insurance?

- Visit the website to sign up

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Pregnancy Support

Possible Options for Care

Learn more about options from your insurance provider

- Midwifery
- Home birth
- Birth center
- Family doctor
- Obstetrician

Planning for birth

Planning for postpartum

- Doula support
- Meal share
- Family & friends
- Home visits

Doula Support

Groups & Classes

- Social support groups
- Breastfeeding support

Care after giving birth is so important

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Connecting to the next healthcare provider for mom and baby's ongoing needs

You have the right to respectful care.

Society for Maternal-Fetal Medicine
High-risk pregnancy experts

SMFM Special Statement

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Society for Maternal-Fetal Medicine Special Statement: A critique of postpartum readmission rate as a quality metric

Society for Maternal-Fetal Medicine (SMFM); C. Andrew Combs, MD, PhD; Dena Goffman, MD; and Christian M. Pettker, MD; Patient Safety and Quality Committee

Hospital readmission is considered a core measure of quality in healthcare. Readmission soon after hospital discharge can result from suboptimal care during the index hospitalization or from inadequate systems for postdischarge care. For many conditions, readmission is associated with a high rate of serious morbidity and potentially avoidable costs. In obstetrics, for postpartum care specifically, hospitals and payers can easily track the rate of maternal readmission after childbirth and may seek to incentivize obstetricians, maternal-fetal medicine specialists, or provider groups to reduce the rate of readmission. However, this practice has not been shown to improve outcomes or reduce harm. There are major concerns with incentivizing providers to reduce postpartum readmissions, including the lack of a standardized metric, a baseline rate of 1% to 2% that is too low to accurately discriminate between random variation and controllable factors, the need for risk adjustment that greatly complicates rate calculations, the potential for bias depending on the duration of the follow-up interval, the potential for the "gaming" of the metric, the lack of evidence that obstetrical providers can influence the rate, and the potential for unintended harm in the vulnerable postpartum population. Until these problems are adequately addressed, maternal readmission rate after a childbirth hospitalization currently has limited utility as a metric for quality or performance improvement or as a factor to adjust provider reimbursement.

Key words: accountability, incentives, Medicare, outcome metrics, process metrics, value

Introduction

In recent years, healthcare networks, hospitals, and payers have become increasingly focused on maximizing the value and quality of their services. "Value" in healthcare is broadly defined by outcomes achieved per dollar spent.[1] Therefore, to maximize value, healthcare systems need to both optimize outcomes and eliminate unnecessary costs. Consequently, healthcare providers, as individuals or groups, are increasingly expected to enter "value-based" agreements or incentive programs that hold them accountable for achieving certain targets according to prespecified quality metrics. A frequently considered metric in such value-based programs is the rate of unplanned readmission after hospital discharge. Readmission is disruptive to patients and their families and is associated with significant morbidity and staggering costs. Among 11.8 million US Medicare beneficiaries who were discharged from a hospital from 2003 to 2004, >2.3 million (19.6%) were rehospitalized within 30 days at an estimated cost of over $17 billion.[2] Thus, it is evident that payers, health systems, providers, and patients should all seek to avoid unnecessary readmissions.

The Centers for Medicare & Medicaid Services (CMS) tracks several risk-adjusted 30-day readmission metrics in its Hospital Readmissions Reduction Program (HRRP)[3] and value-based reimbursement programs.[4] These include an all-causes/all-patients metric[4] and 6 metrics related to specific medical and surgical diagnoses that predominantly affect the older patient demographic of Medicare beneficiaries.[3] CMS reports these metrics publicly on its Hospital Compare website[5] and uses them to adjust Medicare hospital reimbursement in both fee-for-service and bundled payment models.[3] Hospitals are motivated to keep readmission rates low, at least among Medicare beneficiaries, because there are stiff financial penalties if rates are higher than CMS benchmarks.

Maternal readmission after discharge from childbirth hospitalization has become a point of interest for potentially improving value and quality in obstetrics. Payers, eager to reduce costs, and hospitals, seeking to lower their all-cause/all-patient readmission rates, both have an interest in minimizing postpartum readmissions and may therefore propose projects or incentive programs to reduce readmissions after childbirth. However, unlike the CMS

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readmission metrics that have been standardized and scrutinized for years, there is no standardized metric for calculating postpartum readmission rates and no agreed-on methodology for its risk adjustment. Furthermore, there is little evidence that the postpartum readmission rate is a valid indicator of the quality of care or that incentivized risk-reduction programs are effective or safe.

This review aims to evaluate the merits and pitfalls of the postpartum readmission rate as a quality metric, especially as applied to differential reimbursement schemes. First, the concept of hospital-wide readmission rate as a quality metric is reviewed. Next, an overview of the HRRP is given because the CMS program provides important general lessons about the benefits, hazards, and limitations of readmission rates, including insights relevant to the specific case of postpartum readmission. Finally, a critique of the notion that postpartum readmission rates should be used to assess, compare, or incentivize providers is presented.

Is Hospital Readmission Rate a Quality Metric?

It seems obvious that readmission soon after hospital discharge may reflect deficiencies in either the care given during the index hospitalization or in the system for postdischarge follow-up care. For example, delayed infection after surgery or bladder catheterization may be caused by inadequate antibiotic prophylaxis or suboptimal antiseptic technique. Hospital-acquired pathogens such as methicillin-resistant *Staphylococcus aureus* or airborne viruses may reflect poor infection-control procedures. Complications from foreign bodies unintentionally retained after surgery clearly reflect a quality-of-care issue. Discharging a patient too early, before the underlying disease process is fully treated, may result in the need for readmission. Suboptimal discharge teaching may increase the risk of readmission because of poor patient understanding and adherence to medication instructions, wound care, follow-up visits, or other aspects of self-management. Flawed medication reconciliation processes may result in adverse medication interactions that trigger the need for readmission. Inadequate coordination of care or lack of community resources for follow-up care may result in complications that require readmission. These issues may be exacerbated by failing to address social determinants of health such as lack of transportation or inability to obtain childcare or leave work to attend follow-up visits, all of which may disparately affect vulnerable groups defined by race or socioeconomic conditions.

However, not all readmissions reflect deficiencies in care during the index hospitalization or in the outpatient follow-up care system. Many are caused by the onset of new diseases unrelated to the original hospitalization or progression of chronic disease, irrespective of the care given. It is estimated that only 9% to 48% of readmissions are associated with substandard care during the index hospitalization, such as incomplete treatment of the main problem, unstable status at discharge, or inadequate postdischarge care.[6] Most readmissions are thus attributable to unmodifiable causes and are judged to be unpreventable. The high proportion of unpreventable readmissions greatly limits the usefulness of readmission rate as a quality metric.[6,7] It also means that the goal cannot realistically be a zero rate of readmission, but rather that targets must be set thoughtfully on the basis of benchmarking and risk adjustment.

Although CMS considers its readmission metrics to be "outcome" measures, hospital readmission is actually a process rather than a health outcome. The readmission process does not add value unless it can be shown to drive improvement in actual clinical patient outcomes such as mortality, severe morbidity, or patient functional status.[8] Indeed, "cost reduction without regard to the outcomes achieved is dangerous and self-defeating, leading to false 'savings' and potentially limiting effective care."[1] If a patient dies after being sent home from a postdischarge emergency visit rather than being readmitted, the readmission rate may be reduced but the patient outcome is clearly worse. Therefore, readmission rate by itself does not adequately reflect the care given unless it is accompanied by balancing metrics such as rates of mortality or severe morbidity.

The raison d'être for hospitals and healthcare providers is to improve outcomes by providing care, not denying it. Readmission is appropriate care in many circumstances, so programs that discourage readmission may have unintended consequences, especially if they are not thoughtfully approached and tracked. Programs intended to increase value should be weighted so that mortality and other health outcomes matter more than processes like readmission.[9] Yet, it has been estimated that under the CMS HRRP, a hospital's incentive for reducing readmissions is 6 to 10 times greater than the incentive for reducing mortality.[9]

Although questions about the utility of using readmission rates as quality metrics have persisted for more than 20 years,[6,7,9] hospitals and health systems remain keenly focused on readmission rates because the HRRP imposes financial penalties for rates that are deemed too high.

Overview of the Hospital Readmissions Reduction Program

Establishment of the HRRP was mandated by the Patient Protection and Affordable Care Act of 2010 (ACA).[3] The ACA requires CMS to reduce payments to hospitals participating in the Inpatient Prospective Payment System if they have excess readmissions. CMS states that the program "encourages hospitals to improve communication and care coordination to better engage patients and caregivers in discharge plans and, in turn, reduce avoidable readmissions. The program supports the national goal of improving healthcare for Americans by linking payment to the quality of hospital care."

CMS analyzes 3 types of readmission: all-cause, unplanned, and potentially preventable.[10] Unplanned and potentially preventable readmissions are defined by complex algorithms that analyze diagnosis and procedure

codes from both the index hospitalization and the rehospitalization. Only preventable readmissions are amenable to potential improvement, but the HRRP financial penalties are based on the all-cause rates. The CMS algorithm scores about 63% of readmissions as potentially preventable, higher than other estimates.[6]

All-cause readmission rates for Medicare recipients nationwide declined steadily after the passage of the ACA, from 17.7% in 2009 to 15.1% in 2019, an absolute reduction of 2.6%.[10,11] Readmission rates for the 6 specific conditions tracked under the HRRP have also shown an absolute decline of approximately 2%.[10] The magnitude of the decline (relative risk [RR], 0.85) is similar to the RR of 0.82 reported in a meta-analysis of earlier intervention trials.[12] CMS estimated that the HRRP saved $556 million in 2018 by penalizing hospitals with high readmission rates.[10]

Concerns have been raised that the observed reduction in readmissions under HRRP may not actually reflect improved care but rather hospitals "gaming" the metrics. Gaming implies the use of strategies that improve the metric without improving the underlying care or clinical outcomes. The variety of potential gaming strategies includes upcoding the severity of illness in the index hospitalization to yield a more favorable risk adjustment,[13] keeping patients on observation status rather than readmitting them, delaying readmission until after the 30-day window, and discouraging providers from readmitting patients who might benefit from rehospitalization.[13,14] Despite the potential for abuse, however, there is evidence that these gaming practices are not widespread.[10,15,16]

The potential for unintended harm has concerned several investigators who reported that lower readmission rates are associated with higher mortality rates, especially among patients with heart failure.[17–22] The increased mortality is found among those not readmitted, suggesting that some deaths might have been preventable if the patients had been readmitted.[20] However, the apparent excess in mortality is found only in raw mortality rates and not confirmed in risk-adjusted rates.[10,20]

Penalties for high readmission rates have been disproportionately levied against large hospitals, teaching hospitals, and safety-net hospitals.[23] It is not clear to what extent the higher readmission rates at these types of facilities are attributable to differences in quality of care, differences in the medical complexity (case mix), or differences in the socioeconomic mix of the patient population. Safety-net hospitals may have less access to high-quality after-hospital care.[24] They may have a higher proportion of patients from disadvantaged groups, who are more likely to be discharged to an institution rather than to home[25] and who have higher readmission rates.[26] Safety-net hospitals may have a disproportionate number of patients with social and cultural challenges such as poor language skills, low health literacy, or lack of access to food, housing, and transportation.[27,28] To address the inequity of disproportionately penalizing hospitals that provide care to the most vulnerable patients, the 21st Century Cures Act of 2016 requires CMS to benchmark each hospital's performance compared with hospitals with similar characteristics, rather than all other hospitals.[3] The new benchmarking methodology went into effect in 2019, so whether it mitigates the problem is still unknown.

Maternal Postpartum Readmission Metrics

Experience with the CMS readmission metrics provides a background for assessing the merits of potential postpartum readmission metrics. Several considerations are summarized in the Table.

Because of its apparent simplicity, the postpartum readmission rate is a tempting target for hospitals or payers either as a quality metric or as a benchmark for value-based contracting. It seems straightforward to calculate the rate based on claims data available to both hospitals and payers. The denominator is the number of persons hospitalized for childbirth, and the numerator is the number of those readmitted within a given number of days postpartum.

The overall rate of maternal postpartum readmission has typically been 1% to 2% in various reports during the past 2 decades,[29–46] much lower than the 10% to 30% rates in the HRRP.[2,10,11] The postpartum readmission rate is undoubtedly lower because obstetrical patients are younger and healthier as a group and because the index hospitalization most often involves a normal physiological process (childbirth) rather than a serious disease. The low rate presents a challenge in comparing readmission rates among provider groups, individual obstetrical providers, facilities, and time periods. For a provider who delivers 100 patients with 2 postpartum readmissions during a given year, the readmission rate appears to be 2%, but the 95% confidence interval ranges from 0.35% to 7.7%; in other words, wide year-to-year fluctuations in the provider's readmission rate can be the result of random variation rather than the provider's quality of care. In comparing 2 provider groups with typical readmission rates of 2% and 4% (a 2-fold relative difference), power estimates indicate that both groups would need to have >1140 births per year to yield an 80% chance that the difference will reach statistical significance. If a payer wants to incentivize a group to reduce its readmission rate from 3% to 2%, >3500 deliveries per year would be needed for the difference to have an 80% chance of reaching statistical significance. In summary, low readmission rates imply that there is insufficient precision to assess individual differences or changes over time unless the rates are based on a large number of births.

There are many known risk factors and comorbidities associated with higher rates of postpartum readmission. These include maternal medical conditions (hypertensive disorders, diabetes, asthma, obesity, sickle cell disease, depression, and other psychiatric disorders), pregnancy and birth conditions (cesarean delivery, operative vaginal birth, preterm birth, multifetal pregnancy, long labor,

TABLE
Considerations regarding the use of maternal postpartum readmission rate as a quality metric

Topic	Considerations
Intuitive rationale	Obvious that readmission rate can be increased if there is suboptimal care during birth hospitalization or suboptimal postdischarge follow-up
Intuitive simplicity	Rate can easily be calculated from diagnosis and procedure codes in claims data (see caveat under "risk factors" below)
Low baseline rate	• A 1% to 2% typical baseline rate means poor precision (wide confidence intervals) unless rate depends on a large number of births, making the metric not useful for assessing individuals or provider groups • Not much room for improvement
Risk factors, confounders	• More than 20 known risk factors associated with increased readmission rate • Appropriate assessment of rate requires complex multivariable statistical analysis, which may be beyond the capabilities of providers, hospitals, or payers
Readmission diagnoses	• Widely varying reasons for readmission • No validated algorithm for distinguishing preventable from nonpreventable readmissions • Insufficient baseline data to determine the percentage of readmissions that are potentially preventable
Predictability of readmission	• Models based on blood pressure during index hospitalization and other clinical characteristics have moderate predictive accuracy • Predictability does not imply preventability of readmission
Duration of at-risk interval	• Endorsed hospital-wide metrics: 30 d postdischarge • Traditional duration of puerperium: 42 d postbirth • In some studies: 60 d or more • Potential bias in using postbirth vs postdischarge interval • No standardized metric
Potential for "gaming"	• Upcoding • Using observation status rather than admission status • Delay readmission until after the interval specified in metric • Deny readmission to patients who need to be hospitalized
Potential for unintended adverse outcomes	Avoidance of readmission for patients with indications for admission may result in: • Death • Stroke • Sepsis • Pulmonary embolism • Other severe maternal morbidity
Effect on hospital-wide readmission metric	• The 6 specific conditions tracked by HRRP for Medicare beneficiaries are rare in obstetrical patients • NQF #1789 is limited to Medicare beneficiaries ≥65 y • Virtually no obstetrical patients meet these criteria, therefore maternal postpartum readmissions have negligible effects on hospital-wide metrics tracked by CMS
Strategies to reduce postpartum readmission rate	• Increasing length of stay during index hospitalization unlikely to be cost-effective • Paucity of evidence that rate can be reduced by improving discharge teaching, medication reconciliation, and coordination of postdischarge care • Opportunities to consider optimizing postpartum care through modified intervals, telehealth, doula support, home visit

CMS, Centers for Medicare and Medicaid Services; *HRRP*, Hospital Readmission Reduction Program; *NQF*, National Quality Forum.

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postpartum hemorrhage, fever, or severe maternal morbidity during the birth hospitalization), older maternal age, smoking, other substance use disorders, and social determinants of health (experienced racism, public insurance status, low income, birth at a "safety-net" hospital).[29,33,35,37,43–61] The RR of readmission or adjusted odds ratio for some of these factors is 3 or more. Therefore, appropriate assessment of the postpartum readmission rate should include either stratification or statistical adjustment for these confounders and covariates, which adds tremendous complexity to the calculation. Diagnosis and procedure codes for each risk factor must be captured for every

case and then entered into a multivariable model such as logistic regression. Many hospitals and some payers lack the statistical expertise to do this properly. Providers rarely have this capability.

Common indications for postpartum readmission include hypertensive disorders, delayed postpartum hemorrhage, infections (wound, uterus, urinary tract, nonurogenital), psychiatric problems, and diabetes.[31,33,54,56] The relative frequencies of these vary between different reports. Less common indications include venous thromboembolism (VTE), peripartum cardiomyopathy, sickle cell crisis, and other medical and surgical diagnoses.[31,49,53,62]

It is not readily apparent which of the many reasons for readmission might be classified as potentially preventable. For hypertensive disorders, for example, some readmissions may be patients with chronic hypertension, gestational hypertension, or preeclampsia during the birth hospitalization. If such patients have exemplary discharge teaching, appropriate medication management, and close postpartum follow-up, they may be less likely to require readmission.[63] Conversely, the American College of Obstetricians and Gynecologists recommends that patients with severe hypertension during hospitalization be seen within 3 days after discharge,[63] in part to detect exacerbations of hypertension that are common during the first few days. Earlier detection might actually increase the rate of readmission. Moreover, some readmissions for hypertension occur in individuals who have no antecedent history of hypertension or preeclampsia.[51,61] It is difficult to see how such readmissions might be prevented. In the absence of a validated algorithm, distinguishing preventable from nonpreventable readmissions would require manual chart review and subjective judgments. At present, there is not sufficient baseline data to know what percentage of postpartum readmissions are potentially preventable. If most readmissions are not preventable, it would seem futile to devote resources toward quality improvement efforts and inappropriate to differentially compensate providers based on their readmission rates.

Prediction of postpartum readmission among patients with hypertensive disorders has been attempted based on inpatient blood pressure values[64] and other clinical characteristics.[65] In both studies, the prediction models had C-statistics of 0.8 to 0.85, translating to 80% sensitivity at a false-positive rate of 30% to 40%. It is not immediately obvious how one might use the prediction to guide management. We are not aware of evidence that the postpartum readmission rate can be altered by delaying discharge, increasing antihypertensive medication, or increasing the frequency of follow-up.

There is no standardized definition of the follow-up interval used in the calculation of postpartum readmission rates. Many of the reports cited above were based on readmissions within 42 days postbirth, the traditional duration of the puerperium; others were based on 30 days postdischarge, analogous to the CMS hospital-wide metrics, and a few were based on other intervals ranging from 28 days to 1 year. Intuitively, shorter intervals are more likely to reflect readmissions related to the birth and longer intervals are more likely to be because of unrelated conditions. Most postpartum readmissions cluster within the first 2 weeks,[30,32,57] so the difference between using a 30-day vs 42-day interval is likely small. A small but potentially important bias is introduced by using postbirth intervals rather than postdischarge intervals. Patients are only at risk of readmission after they have been discharged; therefore, those with a longer length of postpartum stay during the index hospitalization (eg, cesarean delivery, severe maternal morbidity, severe hypertension) will have a shorter at-risk period if the rate is calculated depending on postbirth days.[66] There is a clear need for a standardized metric if one is to be used at all.

As with hospital-wide metrics, the potential for "gaming" the metric exists if providers are financially incentivized to reduce postpartum readmission rates. Possible gaming strategies include overstatement of comorbidities to improve risk adjustment statistics, placing patients on observation status rather than admission status, and in some cases, delaying readmission until after the defined interval has elapsed. The worst gaming involves avoiding a medically necessary readmission in a patient who might benefit from it, such as a patient with severe hypertension, infection, or VTE. In such cases, relegating the patient to outpatient management in lieu of readmission may result in stroke, sepsis, pulmonary embolism, or death. Fundamentally, the pressure to avoid postpartum readmissions is at odds with efforts to reduce maternal mortality and morbidity by educating patients to seek prompt evaluation of urgent warning symptoms and imploring providers not to minimize the seriousness of postpartum symptoms.[67–69]

Hospitals may assume that reducing the postpartum readmission rate will help reduce the hospital-wide all-cause readmission metric calculated and reported by CMS for some of its reimbursement programs. However, the CMS all-cause metric is limited to Medicare beneficiaries $\geq$ 65,[4] effectively excluding obstetrical patients. Furthermore, the 6 diagnosis-specific conditions in the HRRP[3] are rare in obstetrical patients. Therefore, postpartum readmissions are unlikely to have any effect on hospital-wide readmission rates as measured by CMS.

Improving Postpartum Readmission Rates

One approach to evaluating opportunities for quality improvement is to evaluate whether there are variations among providers or hospitals.[10,70] Interhospital comparisons show postpartum readmission rates ranging from $<$0.3% to 5% (median, 1.01%).[34] However, patient factors account for most of the interhospital variance, with only 0.11% of the variance attributable to hospital-level factors.[35] Hospitals with high postpartum readmission rates tend to have more patients whose social determinants of

health (insurance, income, race/ethnicity) would place them at higher risk. In other words, financial incentives based on readmission metrics may penalize facilities or providers with certain patient characteristics even though they may provide high-quality care.[35] Risk adjustment may mitigate this tendency but is unlikely to completely eliminate it.

There is a paucity of evidence at this time that providers can reduce the postpartum readmission rate through quality improvement efforts. One idea is that increasing the postpartum length of stay during the birth hospitalization may provide more opportunity for discharge teaching and coordination of care and for optimizing the medical management of hypertension, diabetes, puerperal infections, and other conditions. Some studies have found that longer lengths of stay are associated with lower postpartum readmission rates,[30,45] but others have found no such association.[42,60,71] Moreover, even if increasing the average length of stay by 1 day reduced the postpartum readmission rate from 2% to 0%, this would probably not be cost-effective because 100 additional inpatient days during the birth hospitalization would be needed to prevent 2 postpartum readmissions.

More likely strategies to reduce readmissions, with lower risk for harm or unintended ill effects, would be to focus on the discharge process and the transition to outpatient care. Promising ideas include culturally appropriate discharge teaching using proven techniques such as teach-back, patient-friendly discharge materials, coordination of outpatient follow-up while the patient is still hospitalized, and emphasis on the importance of adherence to medications and follow-up care. Telehealth, doula support, home visits, and modified intervals for earlier and ongoing postpartum care may also provide opportunities for improvement.[67] Although there is somewhat limited evidence that such strategies may reduce hospital-wide readmission,[12,72,73] we are not aware of evidence that they can affect the rate of postpartum readmission specifically. Future research is needed to evaluate whether these interventions are truly effective and safe.

Conclusion

There are fundamental problems with using maternal postpartum readmission rates as a quality metric, especially for driving differential reimbursement. There is currently no evidence that using the readmission rate in this way will improve outcomes, and there are serious concerns about the potential for harm. We agree with the conclusion reached by Clarke almost 20 years ago: "The time must come when we give up measuring unsatisfactory performance indicators simply because they are available and, instead, concentrate harder on allowing for the known valid measures of the quality of care to be collected as a matter of routine." [7] Payers and watchdog groups should resist the temptation to use postpartum readmission metrics just because the data are readily available. Providers, provider groups, and hospitals should resist any proposed reimbursement structures that tie financial incentives to reductions in the postpartum readmission rate.

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SMFM recognizes that obstetrical patients have diverse gender identities and is striving to use gender-inclusive language in all of its publications. SMFM will be using terms such as "pregnant person/persons" or "pregnant individual/individuals" instead of "pregnant woman/women" and will use the singular pronoun "they." When describing the study populations used in research, SMFM will use the gender terminology reported by the study investigators.

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The Potential for Health Information Technology Tools to Reduce Racial Disparities in Maternal Morbidity and Mortality

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Abstract

Health information technology (health IT) potentially is a promising vital lever to address racial and ethnic, socioeconomic, and geographic disparities in maternal morbidity and mortality (MMM). This is especially relevant given that approximately 60% of maternal deaths are considered preventable.[1–36] Interventions that leverage health IT tools to target the underlying drivers of disparities at the patient, clinician, and health care system levels potentially could reduce disparities in quality of care throughout the continuum (antepartum, intrapartum, and postpartum) of maternity care. This article presents an overview of the research (and gaps) on the potential of health IT tools to document SDoH and community-level geocoded data in EHR-based CDS systems, minimize implicit bias, and improve adherence to clinical guidelines and coordinated care to inform multilevel (patient, clinician, system) interventions throughout the continuum of maternity care for health disparity populations impacted by MMM. Telemedicine models for improving access in rural areas and new technologies for risk assessment and disease management (*e.g.*, regarding preeclampsia) also are discussed.

Keywords: health information technology, maternal care, disparities

Introduction

Health information technology (health IT) potentially is a promising vital lever to address racial and ethnic, socioeconomic, and geographic disparities in maternal morbidity and mortality (MMM). This is especially relevant given that ~60% of maternal deaths are considered preventable.[1–3] Although research is in progress, the limited published studies indicate that health IT tools—such as electronic health records (EHRs), patient portals, clinical decision support (CDS) systems, telemedicine models, and new technologies (*e.g.*, automated algorithms)—may yield health benefits for populations that experience health disparities—such as racial and ethnic minorities, the socioeconomically disadvantaged, and underserved rural populations—by enhancing patient engagement, improving implementation of clinical guidelines, promoting patient safety, and reducing adverse outcomes.[4–6]

Interventions that leverage health IT tools to target the underlying drivers of disparities at the patient, clinician, and health care system levels potentially could reduce disparities in quality of care throughout the continuum (antepartum, intrapartum, and postpartum) of maternity care. Research indicates that a sizeable portion of racial and ethnic disparities in

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severe maternal morbidity (SMM) and mortality can be attributed to variations in hospital quality.[3,7,8] Howell contends that a multipronged approach to quality improvement (QI) is needed throughout the care continuum to reduce racial and ethnic disparities in MMM.[9] This multipronged method emphasizes the significance of social determinants of health (SDoH) and incorporates patient factors (*e.g.*, socioeconomic status, race/ethnicity, biology, genetics, and beliefs), community and neighborhood factors (*e.g.*, social networks, built environment, and housing), clinician factors (*e.g.*, knowledge, implicit bias, and communication), and system factors (*e.g.*, access to high-quality care, structural racism, social and political policies, and health care institutions).

This article presents an overview of the research (and gaps) on the potential of health IT tools to document SDoH and community-level geocoded data in EHR-based CDS systems, minimize implicit bias, and improve adherence to clinical guidelines and coordinated care to inform multilevel (patient, clinician, and system) interventions throughout the continuum of maternity care for health disparity populations impacted by MMM. Telemedicine models for improving access in rural areas and new technologies for risk assessment and disease management (*e.g.*, regarding preeclampsia) also are discussed.

SDoH and MMM

SDoH—the environmental context and social conditions in which people live, work, and play—are important factors to consider when examining causes of maternal mortality in the United States and approaches to address them. A 2018 study examining population-level factors and the rising maternal mortality between 1997 and 2012 found that an increased prevalence of chronic health problems, such as obesity and diabetes, only partially explained the worsening maternal outcomes in the United States.[10] Study findings showed that the increase in maternal mortality also was attributable to the proportion of women of childbearing age who did not complete high school, the proportion of births among African American women, and the proportion of women who attended fewer than 10 prenatal visits.[10] A 2018 commentary in the Journal of the American Medical Association emphasized addressing social inequality as key to reducing high maternal mortality rates in the United States.[11] It cited research on specific SDoH, including the link between adverse childhood events and chronic health problems, the cumulative stress of poverty and long-term outcomes, and how racism can lead to ''weathering'' or accelerated aging, which is related to increased rates of chronic health problems and, potentially, maternal mortality. A literature review in 2020 examining the relationship between SDoH and pregnancy-related mortality and morbidity found strong evidence for the effects of race and ethnicity, health insurance, and education on maternal mortality and severe morbidity.[12] The review indicated a need to evaluate a wider array of determinants—such as the role of socioeconomic and political context or area-level physical and material circumstances impacting maternal outcomes, the mechanisms that underlie observed associations of determinants, and the use of more diverse study designs. Thus, expanding research in this area may help in developing interventions to reduce inequities in MMM rates in the United States.

In addition, a report on the integration of social and medical care suggests that consideration of SDoH in clinical decision-making and addressing upstream factors is important to the current shift in the health care sector toward value-based payments and the focus on prevention and health promotion, rather than simply service delivery.[3] The report indicates that health IT innovations potentially could address health-related social needs and recommend responses to social risks (adverse social determinants) involving patient-centered care models that routinely include social risk data in care decisions. However, the authors note that although federal funds stimulated the digitization of health care via the adoption of EHRs, social care has not benefited from the same resources and policy attention and, thus, lags in digitization. Despite this gap, EHRs are a promising venue for storing SDoH collected from patients, and inclusion of these data in EHRs/CDS systems could be important for advancing population health equity.[4,13]

EHRs not only provide clinicians with important data for holistic patient assessment and aid in clinical decision-making, but they also provide a source of population health data. Professional organizations such as the National Academy of Medicine endorsed the standardization of SDoH screening in EHRs.[14] However, key challenges exist before the data match medical data in terms of being readily accessible and actionable.[15] Challenges include a lack of consensus on standards for capturing SDoH in EHRs and evidence that, once data are collected, referrals to community services will address social determinants effectively.[15] Research is lacking about optimal models for including and using SDoH in EHRs/CDS systems to advance health equity for racial and ethnic populations.[4,16]

Despite the research gaps, one could argue that integrating data on SDoH into EHRs/CDS systems may result in improving the quality of care for women of childbearing age and better risk monitoring throughout the continuum of maternity care. For example, these data could be used to adjust individual disease risk.[17] Fiscella et al. considered poverty to be an independent risk factor and integrated patient income data into heart disease risk score calculations in the 10-year Framingham study.[18] This proved to be a better way of identifying at-risk patients for heart disease than traditional calculators. In the same manner, such factors as race, poverty, and education could be used to identify women who are at higher risk of maternal complications, which may lead to improved risk monitoring throughout pregnancy and postpartum to ensure the quality and safety of maternity care for all women.

In addition, advances in big data, geospatial technology, and public access to large data sets that provide contextual information also make it possible to embed community-level geocoded data into EHRs as an alternative to, or complementary to, patient-derived data. CDS tools potentially could provide alerts to health care teams for patients who would benefit from targeted preventive or therapeutic interventions based on a community-level predictor (*e.g.*, high unemployment) or public health concern.[4] In 2014, the U.S. President's Council of Advisors on Science and Technology (PCAST) issued a report that produced a comprehensive set of actions and goals to improve health care across the nation, using systems-engineering principles. A member of the PCAST council, Deryk Van Brunt, developed recommendations for the national implementation of community health

records (CHRs) to accomplish some of these goals.[19] He defined CHRs as ''a curated set of population-level indicators that describe the health and quality of life of a geographic community'' and pointed out that when place-based CHR data are linked to EHRs, an index of community-level SDoH or a ''vulnerability index'' can be calculated and may assist in medical interventions.[19] Evidence supports the idea that place-based social determinants represent identifiable risks for maternal mortality.[10] Moreover, CHRs usually are aggregated at the neighborhood level and include clinical, SDoH, and public health data. Thus, incorporating place-based CHR data into EHRs/CDS systems may help inform medical and population-directed public health interventions and health policies to address disparities in MMM.

Quality of Care and MMM

Intrapartum care represents an important period in the maternity care continuum that involves interactions among the patient, clinician, and other health care team members and often is when racial and ethnic disparities in maternal outcomes are revealed. Specifically, site of care, implicit bias, poor communication skills, and lack of cultural competence have been found to contribute to adverse maternal outcomes.[3,8,9] A 2018 report from the Agency for Healthcare Research and Quality revealed that in-hospital mortality for black mothers was nearly three times that of white mothers (10.0 vs. 3.7 per 10,000 delivery hospitalizations).[20] The analysis further indicated that compared with deliveries that did not involve SMM, those that did were more likely to occur at hospitals that have a mission to serve vulnerable populations, including minority-serving (53.4% vs. 44.3%). Research by Howell et al. revealed that hospitals with a disproportionate number of black deliveries had higher risk-adjusted SMM rates for both black and white women who delivered in these hospitals.[8,9] Using a simulation model, Howell[9] also found that if black women gave birth at the same hospitals as white women, the SMM rate of black women would decrease by 47.7%, from 4.2% to 2.9% (1.3 events per 100 deliveries per year). Implicit bias—defined as the reactive behaviors to such patient characteristics as age, race, ethnicity, gender, sexual orientation, physicality, and disability—also impacts the patient-clinician relationship.[21] These biases are activated unconsciously and can influence clinical decision-making that leads to differential treatment of patients.[3,21,22] Patients also can bring their own implicit biases to the clinical encounter.[21] Although provider concordance may help, research evidence about the impact of racial concordance on pregnancy care is sparse, given the low numbers of obstetricians and midwives of color.[3]

Overall, these factors—including inappropriate or delayed diagnosis or treatment and lack of adherence to clinical guidelines—account for a majority of preventable MMM events that could be addressed by QI initiatives.[3,9] QI initiatives recommend actionable steps focused on standardizing care delivery to reduce inequities and improve care at all hospitals—especially low-performing hospitals that serve a disproportionate number of racial and ethnic minority women.[3,9,23] Health IT tools potentially can be beneficial in these efforts. In fact, the recent report on birth settings in America recommended that the use of health IT to engage, inform, and support childbearing women be included in the additional performance measures currently under consideration to address gaps in the maternal and newborn performance measures endorsed by the National Quality Forum.[3] These measures are relevant for creating a performance measurement and improvement infrastructure for maternity and newborn care, including mechanisms for public reporting, accountability, QI, and funding, as well as allowing childbearing women to make informed choices among health plans, maternity care providers, and birth settings.[3]

Examples of QI initiatives include the AIM care bundles developed by the Council on Patient Safety in Women's Health Care's Alliance for Innovation in Maternal Health (AIM) Program, and the Obstetric Data Definitions project by the American College of Obstetricians and Gynecologists (ACOG). The AIM initiative develops and implements maternal safety bundles (*e.g.*, reduction of peripartum racial/ethnic disparities) of evidence-based care approaches to prepare for, identify, prevent, and respond to the leading causes of maternal mortality and severe morbidity. In addition, ACOG's efforts to precisely define essential terms related to the mode of birth, hypertension, labor, rupture of membranes, gestational age, and parity are intended to ensure incorporation of these definitions into clinical practice and serve as standards for EHRs, coding, clinical practice guidelines, and policy statements.[3,24,25]

In addition to educating clinical care teams about racial/ethnic disparities in MMM, AIM care bundles and other recommendations emphasize shared decision-making as a strategy for improving communication and enhancing quality of care to reduce disparities.[3,9,23–25] Decision aid tools have been found useful for promoting shared decision-making and for assisting patients' understanding of their risks and treatment options.[3,26] Research studies about high-quality, evidence-based online decision aids and culturally appropriate risk assessment tools that incorporate medical, obstetrical, and social factors that influence birth outcomes are needed to foster informed choice,[3] as well as an evaluation of their effect on racial disparities in MMM. Implementation of disparity dashboards and the move toward multidisciplinary reviews of MMM also may enable hospitals to monitor their performance with different racial and ethnic groups.[9,23]

QI initiatives also include such tools as protocols, checklists, triggers (*e.g.*, maternal early warning criteria), evidence-based practices, and simulation training[9,23,27]—all of which could be incorporated into EHRs/CDS systems to facilitate standardization of care and reduce disparities in quality of care for racial/ethnic minority women. Although more studies are needed, the few existing studies do indicate that health IT investment can reduce disparities in care processes and standardization.[4,28–30] Thus, better clinical care coordination via health IT potentially could improve clinician performance and adherence to clinical guidelines, reduce redundant testing resulting from clinician biases, detect treatment risks, and, consequently, promote equity in best practice care for all patients.[4,6,30]

Telemedicine and MMM

Inequities in health care access also contribute to racial disparities in MMM. Insurance coverage, socioeconomic status, availability of community resources, and site of care often limit racial/ethnic minority women's access to quality care.[3,8,9,20] Addressing rural and urban maternity care deserts

is an especially challenging part of the efforts to improve maternal outcomes. As a result of geographic disparities, women living in rural communities and underserved urban areas are at greater risk for preterm birth and maternal and infant mortality.[3] In addition, these challenges are more pronounced for racial/ethnic minority women living in rural areas, given the higher likelihood of occurrence of hospital closures and loss of hospital obstetric services in rural communities composed of a higher percentage of black, Hispanic, and unemployed residents.[31,32]

Telemedicine (also referred to as telehealth)—defined as the use of medical information that is exchanged from one site to another through electronic communication to improve a patient's health—is a promising solution.[33,34] The report on birth settings in America notes that telemedicine could be an appropriate component of demonstration model birth centers and hospital services in underserved rural and urban areas that could be created by the Health Resources and Services Administration to make quality maternity care more accessible.[3] In addition, findings from a review of obstetric telemonitoring indicated that this approach has much potential to contribute to improved gestational outcomes, early detection of complications, and the provision of local interventions before hospitalization.[35]

Examples of telemedicine programs that aim to increase health care access and address shortages in the maternity care workforce can be found across the United States. The Massachusetts Child Psychiatry Access Program for Moms (also known as MCPAPs for Moms) helps to combat mental health and substance use issues in pregnant and postpartum women by building the capacity of local obstetricians, primary care physicians, and pediatricians.[36] In Georgia, nurses are equipped with telemedicine carts to facilitate videoconferences between expectant moms and specialty providers.[37] In Wyoming, the successful use of phone applications increased the utilization of perinatal services.[38]

The use of telemedicine is an increasing area of interest for patients, clinicians, insurers, and legislators.[39–42] In March 2020, The Coronavirus Aid, Relief, and Economic Security (CARES) Act and Coronavirus Preparedness and Response Supplemental Appropriations Act loosened many telemedicine patient/service eligibility and reimbursement restrictions during the COVID-19 pandemic. State restrictions on telemedicine services, such as scope of practice or licensure requirements, remain in effect and continue to be monitored.[43] Research is needed to examine the impact and quality of telemedicine on maternal care and the unintended consequences on clinicians and patients.

Machine Learning and MMM

Machine learning (ML), the broad term referring to a collection of tools that provide predictions in a wide range of settings, is a method for diagnosing diseases or predicting clinical outcomes that has much relevance for maternal health.[44–46] Specifically, timely identification and care management of SMM is critical for preventing maternal death.[3,9] Likewise, predictive risk of complications at discharge has potential value for guiding postpartum care.[44]

Research findings from a pilot study of an ML framework to identify SMM using EHR data from more than 45,000 deliveries at a large academic medical center revealed that the team's predictive algorithm outperformed the Centers for Disease Control and Prevention's model.[47] The researchers identified a greater number of SMM cases with a smaller false positive rate than what is achieved through current practice and revealed novel indicators associated with SMM. The team noted that the lack of consensus on the various definitions of SMM presented a challenge to this work effort and indicated that their future plans will move beyond the use of a simple ML algorithm logistic regression to include more advanced tools (*e.g.*, neural networks, decision trees, support vector machines) to improve SMM identification performance. In another study using advanced ML tools, researchers demonstrated that in comparison to conventional statistical methods, ML algorithms improved the prediction performance of late-onset preeclampsia development using EHR data from early second trimester to 34 weeks in a sample of 11,000 women who received antenatal care.[45] The authors contend that although future studies are needed to prospectively verify the algorithms, their application to routine antenatal care could improve maternal outcomes. In a similar study, researchers successfully developed predictive models to identify maternal risk of postpartum hypertensive disorders and surgical wound infections that required hospital admission after delivery.[48]

Although ML tools are promising, research is needed to evaluate the impact of using automated algorithms to inform disease risk assessment, detection, diagnoses, and treatment decision-making on disparities in health care quality or outcomes. Research that informs best clinical practices for using predictive modeling are needed.[44] In addition, it is critical that software engineers and data scientists consider the voices of diverse women and ethicists in collaborative activities about these new technologies to mitigate unintended consequences and prevent the exacerbation of disparities.[49,50]

Conclusion

Health IT tools represent an opportunity to reduce inequities in quality and access in the U.S. maternity care system. Research is needed on multilevel interventions that leverage health IT tools to address disparities throughout the continuum of maternity care to ensure that all women can benefit from an evidence-informed U.S. maternity care system.

Disclaimer

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Respectful & Equitable Care

There are two domains of Respectful and Equitable Care to be addressed by every facility to facilitate safe and culturally competent care during all patient encounters. The principles listed are considered foundational and can be applied not only to this bundle but can be applicable during all facets of care.

1. Include each postpartum person and their identified support network as respected members of and contributors to the multidisciplinary care team.

2. Engage in open, transparent, and empathetic communication with pregnant and postpartum people and their identified support network to understand diagnoses, options, and treatment plans.

RESPECTFUL MATERNITY CARE

THE UNIVERSAL RIGHTS OF WOMEN & NEWBORNS

Created from established international & regional laws. Grounded in human rights.

Introduction

1. The Distinctive Importance of Pregnancy

Around the world, pregnancy and childbirth are momentous events, with deep personal and social significance in the lives of women, families and communities. For the well-being of women and newborns, women need to be supported throughout pregnancy and childbirth.

The well-being of a woman and of her newborn are interconnected, and both can be marginalized in the process of childbirth and the ensuing months. Focusing on preventing maternal and newborn morbidity and mortality is not enough. Care during this period needs to encompass basic human rights, including the rights to respect, dignity, confidentiality, information and informed consent, the right to the highest attainable standard of health, and freedom from discrimination and from all forms of ill-treatment. A woman's autonomy should be recognized and respected, as should her emotional well-being, choices and preferences—including the right to have a companion of choice during labor and childbirth. Respect and recognition of the woman can benefit the newborn, who also has rights and requires respect and recognition. Together, the woman with her partner and family should be supported to care for and make the best decisions for their newborn.

A woman's relationship with maternity care providers and the maternity care system during pregnancy, childbirth and the postpartum period is vitally important. Women's experiences with caregivers can empower and comfort them, or conversely, inflict lasting damage and emotional trauma, detracting from women's confidence and self-esteem. Newborns' experiences with caregivers can also have significant and lasting impact—newborn babies feel pain and discomfort, and can experience emotional distress, particularly when separated from their families in the first hours of life.[1] We know that good early care, including attachment and breastfeeding, has a lasting positive impact on the health and well-being of newborns throughout their lives. Women's memories of their childbirth experiences and the treatment of their newborns stay with them for a lifetime and are often shared with other women, contributing to a climate of confidence or doubt around the healthcare system.

2. Established Evidence of Disrespect and Abuse

The journey toward respectful maternity care began in the late 1940s with the Universal Declaration of Human Rights. In the 1990's, the United Nations issued the "Declaration on the Elimination of Violence against Women" and a movement gained force in Latin America which was termed "humanization" of childbirth. Some of the first reports on violations of women's rights in childbirth came from the human rights community.[2] From an initial focus on reducing maternal and infant mortality, the global focus shifted to developing human rights standards on maternal and child mortality and morbidity reduction.[3] More recently, this has led to a focus on addressing disrespect and abuse as manifestations of the systemic failure to uphold human rights standards.

With the conclusion of the Millennium Development Goals (MDGs) in 2015, and with only a few countries achieving MDGs #4 and #5 related to reducing child mortality and improving maternal health, global policy makers and advocates more earnestly evaluated the obstacles to maternal and newborn survival and well-being. This included the need to understand the comprehensive socio-cultural and gender-based influences in clinical settings, health systems and ultimately, on health outcomes. During the MDG era, much of the public health and development communities' focus had been on clinical expertise and capacity building in targeted interventions to reduce mortality. But growing awareness of often unaddressed issues of emotional, physical and psychological harm to women during facility-based childbirth required greater consideration.

In the last decade, the global public health sector's growing interest in understanding and addressing these harms experienced by women during facility-based childbirth has led to copious research and publications. The 2010 TRAction Land-

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scape Analysis: Exploring Evidence for Disrespect & Abuse in Facility Childbirth[4] presented the first systematic exploration of this issue. In that same year, the USAID TRAction Project funded two implementation research projects, Staha in Tanzania and Heshima in Kenya, to continue building the evidence of the prevalence and types of mistreatment, and potential context-based responses. In 2011, White Ribbon Alliance published the Respectful Maternity Care Charter: The Universal Rights of Childbearing Women, a document utilized in many countries as an advocacy and program tool. The World Health Organization released a statement in 2014 reasserting the fundamental human rights of women in childbirth.[5] The field of respectful care has continued to grow with increased focus.

3. Assertion of the Fundamental Rights of Women and Newborns

Human rights are rights inherent to all people, without discrimination, regardless of age, nationality, place of residence, sex, national or ethnic origin, color, religion, language or any other status. Universal human rights are often expressed and guaranteed by legal instruments, such as international treaties. International human rights law determines obligations of States to act in certain ways or to refrain from certain acts in order to respect, protect and fulfill human rights and fundamental freedoms of individuals or groups.

The charter articulates the rights of two entities, the woman and the newborn, within the vision and provision of a framework for ethical, high-quality respectful maternity care that supports and upholds the dignity of both. Both human beings, the newborn and the woman, have rights that must be respected and guaranteed independently. Women should be given the information and support they need to make decisions for themselves and their newborns freely. The newborn baby, as an individual human being, has autonomous rights and every decision the mother, or another caregiver makes, needs to be made with the best interest of the child in mind. Health systems must ensure the health, safety and dignity of both woman and newborn, taking care that this most fundamental dyad of human life be fully protected.

The charter is based on widely accepted human rights instruments including the Convention on the Rights of the Child, the Convention on Elimination of all forms of Discrimination against Women, the International Covenants on Civil and Political Rights, Economic, Social and Cultural Rights. It is also supported by regional human rights instruments including the African Charter on Human and People's Rights, The African Charter on the Rights and Welfare of the Child, the American Convention on Human Rights, and the European Convention on Human Rights and Biomedicine, among others.

4. Why this charter is needed and how it can be used

This updated charter further clarifies and clearly articulates the rights of women and newborns in the context of maternity care provided within a healthcare facility. It specifically delineates how human rights are implicated in the context of pregnancy and childbirth and affirms the basic inalienable rights of women and newborns. Many of these rights are well established in international law and have been interpreted and applied to issues arising during pregnancy, childbirth and the care provided immediately after birth. These rights are articulated in separate human rights conventions and in order to affirm their application in the context of pregnancy and childbirth, it is important to compile them in one document that focuses on this period.

The Respectful Maternity Care Charter addresses the issue of disrespect and abuse toward women and newborns who are utilizing maternal and newborn care services and provides a platform for improvement by:

- Raising awareness for women's and newborns' human rights guarantees that are recognized in internationally adopted United Nations and other multinational declarations, conventions and covenants;
- Highlighting the connection between human rights guarantees and healthcare delivery relevant to maternal and newborn healthcare;
- Increasing the capacity of maternal, newborn and child health advocates to participate in human rights processes;
- Aligning women's demand for high-quality maternal and newborn care with international human rights law standards;
- Providing a foundation for holding governments, the maternity care system and communities accountable to these rights;
- Supporting healthcare workers in providing respectful care to women and newborns and creating a healthy working environment.

4. Bowser, D., ScD., MPH., & Hill, K., MD. (2010). Exploring Evidence for Disrespect and Abuse in Facility-Based Childbirth: Report of a Landscape Analysis. Washington: *Translating Research into Action (TRAction) Project.*
5. World Health Organization, The prevention and elimination of disrespect and abuse during facility-based childbirth, 2014.

Respectful Maternity Care Charter: The Universal Rights of Women and Newborns

1. Everyone has the right to freedom from harm and ill-treatment.

No one is allowed to physically hurt you or your newborn. You should both be taken care of in a gentle and compassionate way and receive assistance when experiencing pain or discomfort.

Legal authority

International Covenant on Civil and Political Rights, 1966, Article 7
Convention on the Rights of the Child, 1990, Article 19, 37
Convention on the Rights of Persons with Disabilities, 2006, Article 15, 16

Regional legal authority

African Charter on Human and Peoples' Rights, 1998, Article 6
African Charter on the Rights and Welfare of the Child, 1990, Article 16
American Convention on Human Rights, 1969, Article 5
American Convention on Human Rights in the Area of Economic, Social and Cultural Rights, 1988, Article 19
Convention of Belem do Para, 1994, Article 2, 3, 4
European Convention on Human Rights, 1950, Article 3

2. Everyone has the right to information, informed consent, and respect for their choices and preferences, including companion of choice during maternity care and refusal of medical procedures.

No one is allowed to force you or do things to you or your newborn without your knowledge or consent. Every woman has the right to autonomy, to receive information, and provide informed consent or refusal for care. Every parent or guardian has the right to receive information and provide informed consent or refusal for their newborn's care, in the newborn's best interests, unless otherwise provided by law.

Legal authority

International Covenant on Civil and Political Rights, 1966, Article 7, 19
Convention on the Rights of the Child, 1990, Article 5, 13

Regional legal authority

African Charter on Human and Peoples' Rights, 1998, Article 9
American Convention on Human Rights, 1969, Article 13
European Convention on Human Rights and Biomedicine, 1997, Article 5, 6

3. Everyone has the right to privacy and confidentiality.

No one is allowed to share your or your newborn's personal or medical information, including all records and images, without your consent. Yours' and your newborn's privacy must be protected, except as necessary for healthcare providers to convey information for continuity of care.

Legal authority

International Covenant on Civil and Political Rights, 1966, Article 17
Convention on the Rights of the Child, 1990, Article 16
Convention on the Rights of Persons with Disabilities, 2006, Article 22

Regional legal authority

African Charter on the Rights and Welfare of the Child, 1990, Article 10
American Convention on Human Rights, 1969, Article 11
European Convention on Human Rights, 1950, Article 8
European Convention on Human Rights and Biomedicine, 1997, Article 10

4. Everyone is their own person from the moment of birth and has the right to be treated with dignity and respect.

No one is allowed to humiliate, verbally abuse, speak about or touch you or your newborn in a degrading or disrespectful manner. You and your newborn baby must be cared for with respect and compassion.

Legal authority

International Convention on Civil and Political Rights, 1966, Article 17
Convention on the Rights of the Child, 1990, Article 16, 23
Convention on the Rights of Persons with Disabilities, 2006, Article 17

Regional legal authority

African Charter on Human and Peoples' Rights, 1998, Article 6
African Charter on the Rights and Welfare of the Child, 1990, Article 13
American Convention on Human Rights, 1969, 1Article 5, 11
Convention of Belem do Para, 1994, Article 4
European Convention on Human Rights, 1950, Article 8

5. Everyone has the right to equality, freedom from discrimination and equitable care.

No one is allowed to discriminate against you or your newborn because of something they think or do not like about either one of you. Equality requires that pregnant women have the same protections under the law as they would when they are not pregnant, including the right to make decisions about what happens to their body.

Legal authority

International Covenant on Civil and Political Rights, 1966, Article 24 (1), 26
International Covenant on Economic Social and Cultural Rights, 1966, Article 2, 10 (3)
Convention on the Rights of the Child, 1990, Article 2
Convention on the Elimination of all Forms of Discrimination Against Women, 1979, Article 1, 12, 14(2)(b)
Convention on the Rights of Persons with Disabilities, 2006, Articles 5, 6, 7
Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families, 1990, Article 14
International Convention on the Elimination of All Forms of Racial Discrimination, Art. 2, Art. 5
International Labor Organization, Indigenous and Tribal Peoples Convention, 1989 (No. 169), Art. 3

Regional legal authority

African Charter on Human and Peoples' Rights, 1998, Article 2

African Charter on the Rights and Welfare of the Child, 1990, Article 3
American Convention on Human Rights, 1969, Article 1
Convention of Belem do Para, 1994, Article 6
European Convention on Human Rights, 1950, Article 14

6. Everyone has the right to healthcare and to the highest attainable level of health.

No one may prevent you or your newborn from getting the healthcare needed or deny or withhold care from either one of you. You and your newborn are entitled to the highest quality care, provided in a timely manner, in a clean and safe environment, by providers who are trained in current best practices.

Legal authority

International Covenant on Economic Social and Cultural Rights, 1966, Article 12
Convention on the Elimination of all Forms of Discrimination Against Women, 1979, Article 5, 12
Convention on the Rights of the Child, 1990, Article 23, 24
Convention on the Rights of Persons with Disabilities, 2006, Article 25
International Labor Organization, Indigenous and Tribal Peoples Convention, 1989 (No. 169), Art. 25

Regional legal authority

European Convention on Human Rights and Biomedicine, 1997, Article 3
African Charter on Human and Peoples' Rights, 1998, Article 16
African Charter on the Rights and Welfare of the Child, 1990, Article 14
Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights, 1988, Article 10

7. Everyone has the right to liberty, autonomy, self-determination and freedom from arbitrary detention.

No one is allowed to detain you or your newborn in a healthcare facility, even if you cannot pay for services received.

Legal authority

International Covenant on Economic Social and Cultural Rights, 1966, Article 1
International Covenant on Civil and Political Rights, 1966, Article 1, 9.1, 18.1
Convention on the Rights of the Child, 1990, Article 37
International Labor Organization, Indigenous and Tribal Peoples Convention, 1989 (No. 169), Art. 2, Art. 5

Regional legal authority

African Charter on Human and Peoples' Rights, 1998, Article 6, 20
African Charter on the Rights and Welfare of the Child, 1990, Article 30
American Convention on Human Rights, 1966, Article 7
European Convention on Human Rights, 1950, Article 5

8. Every child has the right to be with their parents or guardians.

No one is allowed to separate you from your newborn without your consent. You and your newborn have the right to remain together at all times, even if your newborn is born small, premature or with medical conditions that require extra care.

Legal authority

International Convention on Civil and Political Rights, 1966, Article 17
Convention on the Rights of the Child, 1990, Article 9, 16
Convention on the Rights of Persons with Disabilities, 2006, Article 22

Regional legal authority

American Convention on Human Rights, 1969, Article 11
European Convention on Human Rights, 1950, Article 8

9. Every child has the right to an identity and nationality from birth.

No one is allowed to deny your newborn birth registration, even if they die shortly after birth, or deny the nationality your newborn is legally entitled to.

Legal authority

International Covenant on Civil and Political Rights, 1966, Article 24
Convention on the Rights of the Child, 1990, Article 7
Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families, 1990, Article 29

Regional legal authority

African Charter on Human and Peoples' Rights,1998, Article 5
American Convention on Human Rights, 1969, Article 3

10. Everyone has the right to adequate nutrition and clean water.

No one is allowed to prevent you and your newborn from having adequate nutrition, clean water or a healthy environment. You have the right to information and support on child nutrition and the advantages of breastfeeding.

Legal authority

Convention on the Elimination of all Forms of Discrimination Against Women, 1979, Article 12
Convention on the Elimination of all Forms of Discrimination Against Women, 1979, Article 14(2)
Convention on the Rights of the Child, 1990, Article 24 (2)(c), (2)(e)
International Covenant on Economic, Social and Cultural Rights, Article 11(1)
Convention on the Rights of Persons with Disabilities, 2006 Article 25(1)

Regional legal authority

African Charter on the Rights and Welfare of the Child, 1990, Article 14(2)
Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa, 2005, Article15(a)
Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights, 1999, Article 12(1)

Find out more at whiteribbonalliance.org/rmcresources

A broad group of stakeholders representing research, clinical, human rights and advocacy perspectives came together to develop this charter. The campaign to promote respectful maternity care is led by White Ribbon Alliance.

The charter is based on widely accepted human rights instruments such as the Convention on the Rights of the Child, the Convention on Elimination of all forms of Discrimination against Women, the International Covenant on Civil and Political Rights and the Covenant on Economic, Social and Cultural Rights. It is also supported by regional human rights instruments such as the African Charter on Human and People's Rights, the American Convention on Human Rights, and the European Convention on Human Rights and Biomedicine, among others.

Cover photo: Karin Schermbrucker.

PRAC-TZ FACILITY EXIT QUESTIONNAIRE		
COVERSHEET		
	Interviewer Name	
	District	1 Korogwe 2 Muheza
	Health care facility	(District Hospital, health center, dispensary)
	Facility name	1 Bungu 2 Magoma 3 Magunga Hospital 4 Mombo 5 Bulwa 6 Mkuzi 7 Teule Hospital 8 Tongwe
	ID number (district code + interviewer code + respondent code)	
	Interview date & starting time	(AUTOMATIC STAMP)
	Interview ending time	(AUTOMATIC STAMP)
INTRODUCTION		
"Hello my name is…and I am working with Ifakara Health Institute and Columbia University in the United States. The reason I am here is because we are conducting a survey on health in Tanga region and I would like to ask a few questions of women who have given birth in this health care facility. I will be asking for basic information about yourself, your household, and your health. I will also ask questions about your use of health care in general and about your experiences with child delivery. Let me assure you that whatever information is give to me will not be shared with anyone and will only be used for research purposes."		

ELIGIBILITY		
	I would like to ask you some questions to find out if you are eligible to participate:	
1.	How old are you?	1 15 years or older → GOTO 2 2 Younger than 15 → Not eligible
2.	Did you give birth during this stay at [health care facility]?	1 Yes → GOTO 3 2 No → Not eligible
CONSENT		
	I am going to read you a document that explains this study. Please stop me at any point and ask questions if anything is unclear. When I finish reading, I am going to ask you to sign your name to show you understand the study and agree to participate. [READ CONSENT FORM AND CONDUCT CONSENT PROCESS]	
3.	Has the respondent agreed to participate in the community follow-up survey?	1 Yes 2 No

4.	Has the respondent agreed to participate in this survey?	1 Yes → GO TO 5 2 No → END INTERVIEW
	Thank you, we will now begin the survey	
A.	**Demographics**	
	Now, I would like to ask you some questions about yourself and your health.	
5.	What village do you live in?	OPEN FIELD 88 DK 99 NR/RF
6.	How long have you been living continuously in (name of village)?	NUMERIC (years; if less than 1 year record '00') 88 DK 99 NR/RF
7.	How old are you?	NUMERIC 15+ 88 DK 99 NR/RF
8.	Have you ever attended school?	1 Yes 2 No → GOTO 11 99 NR/RF
9.	What is the highest level of school you attended?	1 Education before primary 2 Primary education 3 Training after primary 4 Secondary education 5 Training after secondary 6 University and equivalents 88 DK 99 NR/RF
10.	What is the highest (grade/form/year) you completed at that level?	OPEN FIELD 88 DK 99 NR/RF
11.	What is your religion?	1 Muslim 2 Christian 3 Traditional 4 None 96 Other (specify) 88 DK 99 NR/RF
12.	What is your marital status?	1 Never married 2 Currently married 3 Separated 4 Divorced 5 Widowed 6 Living with partners as if married

		88 DK 99 NR/RF
13.	What is your occupation, that is, what kind of work do you mainly do?	1 Homemaker 2 Farming 3 Teaching 4 Business 5 Small sales 6 Crafts or trades work 7 Services (cleaning, hotel, waitress, etc) 8 Health work 9 Student 10 Not employed 96 Other (specify) 88 DK 99 NR/RF
14.	How well do you read in Kiswahili?	1 Easily 2 With difficulty 3 Not at all 88 DK 99 RF
15.	How well do you write in Kiswahili?	1 Easily 2 With difficulty 3 Not at all 88 DK 99 RF
16.	Over the course of your life, how many births have you had including this one?	NUMERIC 88 DK 99 NR/RF
17.	Of all of your births, how many of your children are still alive?	NUMERIC 88 DK 99 NR/RF
B.	**Household Characteristics**	
18.	How many people live in your household, including men, women and children?	NUMERIC 88 DK 99 NR/RF
19.	Is the head of household a man or a woman?	1 Man → GOTO 21 2 Woman 88 DK 99 NR/RF
20.	Are you the head of household?	1 Yes 2 No 88 DK 99 NR/RF
C.	**Asset Index**	

21.	What is the main source of water for members of your household?	1 Piped water 2 Water from open well 3 Water from covered well or borehole 4 Surface water 96 Other (specify) 88 DK 99 NR/RF
22.	What kind of toilet facilities does your household have?	1 Flush toilet 2 Pit toilet/latrine/bush 3 No facility 96 Other (specify) 88 DK 99 NR/RF
23.	Does your household have electricity?	1 Yes 2 No 88 DK 99 NR/RF
24.	Does your household have a radio?	1 Yes 2 No 88 DK 99 NR/RF
25.	Does your household have a television?	1 Yes 2 No 88 DK 99 NR/RF
26.	Does your household have a telephone/mobile?	1 Yes 2 No 88 DK 99 NR/RF
27.	Does your household have a refrigerator?	1 Yes 2 No 88 DK 99 NR/RF
28.	What type of fuel does your household mainly use for cooking?	1 Main electricity 2 Bottled gas 3 Paraffin/kerosene 4 Charcoal 5 Firewood 6 Dung 7 Crop residuals 8 Solar 96 Other (specify) 88 DK 99 NR/RF

29.	What is the main material of your floor?	1 Natural floor (earth, dung) 2 Rudimentary floor (wood planks, palm) 3 Finished floor (polished wood, tiles, cement, vinyl) 96 Other (specify) 88 DK 99 NR/RF
30.	What is the main material your walls are made of?	1 Grass 2 Poles and mud 3 Sundried bricks 4 Baked bricks 5 Timber 6 Cement bricks 7 Stones 96 Other (specify) 88 DK 99 NR/RF
31.	What is the main material your roof is made of?	1 Grass/leaves/mud 2 Iron sheets 3 Tiles 4 Concrete 96 Other (specify) 88 DK 99 NR/RF
32.	How many rooms in your household are used for sleeping (including rooms outside the main dwelling)?	NUMERIC 88 DK 99 NR/RF
33.	Does any member of your household own a bicycle?	1 Yes 2 No 88 DK 99 NR/RF
34.	Does any member of your household own a motor cycle or motor scooter?	1 Yes 2 No 88 DK 99 NR/RF
35.	Does any member of your household own a car or truck?	1 Yes 2 No 88 DK 99 NR/RF
36.	Does any member of your household own a bank account?	1 Yes 2 No 88 DK 99 NR/RF
37.	How many meals does your household usually have per day?	NUMERIC 88 DK 99 NR/RF

38.	How many mosquito nets does your household have?	NUMERIC 88 DK 99 NR/RF
D.	**Health History**	
	Now I'm going to ask you about your health in the past.	
39.	In the last 12 months, how many times have you visited a health facility for yourself for any reason?	0 1-2 3-5 6-10 10 or more 88 DK 99 NR/RF
40.	Overall in the last 12 months, how would you rate your health?	1 Very good 2 Good 3 Moderate 4 Bad 5 Very Bad 88 DK 99 NR/RF
41.	In the last 12 months, have you felt seriously low-spirited or depressed?	1 Yes 2 No 88 DK 99 NR/RF
42.	From the time you were 15 years old, has anyone other than your husband/partner hit, slapped, kicked or done anything else to hurt you physically?	1 Yes 2 No 88 DK 99 NR/RF
43.	Have you ever in your life been raped? By rape I mean being forced to have intercourse or perform sexual acts against your will by someone other than your husband.	1 Yes 2 No 88 DK 99 NR/RF
E.	**Past Service Utilization**	
	Now I'm going to ask you some questions about your experiences with health care. I would like to remind you that your answers will be NOT be shared with anyone and that health workers here will not know how you responded. You may skip any questions you are not comfortable answering.	
44.	Overall, how satisfied are you with the way health care works in Tanzania?	1 Very satisfied 2 Somewhat satisfied 3 Somewhat dissatisfied 4 Very dissatisfied 88 DK 99 NR/RF

45.	Did you see anyone for antenatal care (ANC) for this pregnancy?	1 Yes 2 No → GOTO 48 88 DK 99 NR/RF
46.	How many antenatal care visits did you make for this pregnancy?	1 One 2 Two 3 Three 4 More than three 88 DK 99 NR/RF
47.	Where did you go for antenatal care (ANC) for this pregnancy? Please give me the name of the facility.	OPEN FIELD (facility name) 88 DK 99 NR/RF
48.	How many of all your deliveries were at your home or someone else's home or somewhere else outside of a health facility?	NUMERIC 88 DK 99 NR/RF
49.	How many of your deliveries, including this one, were at a health facility? (LOGIC CHECK HERE THAT 48 and 49 add up to all deliveries)	NUMERIC 88 DK 99 NR/RF
50.	How many of your deliveries, including this one, were at **this** facility?	NUMERIC 88 DK 99 NR/RF
51.	Have you used this facility before this delivery for health care for yourself, your children or your spouse?	1 Yes 2 No→ GOTO 55 88 DK 99 NR/RF
52.	Was your most recent visit to this facility before this delivery for yourself, your children, or your spouse?	1 Self 2 Children 3 Spouse 88 DK 99 NR/RF
53.	What was the reason for you/ your child's/your spouse's **most recent** visit to this facility?	1 Illness 2 Accident 3 Check-up 4 Previous delivery 5 Antenatal care 96 Other (specify) 88 DK 99 NR/RF
54.	Overall, taking everything into account, how would you rate the quality of care you/your children/your spouse received at this facility during that last visit?	1 Excellent 2 Very good 3 Good 4 Fair 5 Poor 88 DK 99 NR/RF

F.	Delivery Characteristics	
	Now I'm going to ask you some questions about your recent delivery in this health facility.	
55.	Why did you choose this facility to have your delivery? SELECT ALL THAT APPLY	1 Affordable 2 Close by 3 Transport available 4 Drugs and equipment 5 Type of health provider 6 Attitude of health provider 7 Facility where usually go 8 Safer than home delivery/other facilities 9 Health worker recommended 10 Referred by another facility 96 Other (specify) 88 DK 99 NR/RF
56.	Were you sent from another facility to this facility at any point before, during, or after labor? SELECT ALL THAT APPLY	1 Came directly to this facility (at onset of labour) 2 Came early to maternity waiting home at this facility 3 Came to this facility after laboring at home 4 Sent from dispensary to this facility 5 Sent from health center to this facility 6 Sent from hospital to this facility 96 Other transfer (specify) 88 DK 99 NR/RF
57.	How did you travel to this facility? Please tell me the methods you used. SELECT ALL THAT APPLY	1 Walked 2 Bicycle 3 Motorcycle 4 Bajaji 5 Car (personal or borrowed) 6 Truck/lorry 7 Bus/train/other public transportation 8 Boat/canoe 9 Ambulance 10 Taxi 96 Other (specify) 88 DK 99 NR/RF

58.	Approximately how long did it take you to travel to this health facility?	1 Very long 2 Long 3 Not very long 4 Not long at all 88 DK 99 NR/RF
59.	Did anyone come with you? SELECT ALL THAT APPLY	1 Mother 2 Father 3 Mother-in-law 4 Father-in-law 5 Husband 6 Child 7 Other relative 8 Friend 9 TBA 10 By myself 96 Other (specify) 88 DK 99 NR/RF
60.	Did you receive a delivery pack or kit from any health program to be used for your delivery?	1 Yes 2 No 88 DK 99 NR/RF
61.	What was the color of the uniform of the person who delivered/caught your baby?	OPEN FIELD 88 DK 99 NR/RF
62.	Was the main person who conducted your delivery male or female?	1 Male 2 Female 88 DK 99 NR/RF
63.	How many days have you been in the hospital?	NUMERIC hours NUMERIC days 88 DK 99 NR/RF
64.	Did you experience any of the following complications during or after your delivery? ALL THAT APPLY	1 Extreme pain 2 High blood pressure 3 Seizures 4 Blurred vision 5 Severe headaches 6 Swelling in hands/feet 7 Baby was in distress/too large 8 Long labor (more than 12 hours) 9 Excessive bleeding 10 Infection (fever) 96 Other complications (specify) 97 experienced no complications

		88 DK 99 NR/RF
65.	Did you receive any of the following around the time of your delivery? SELECT ALL THAT APPLY	1 Antibiotics or any other drugs by drip 2 Injection or pill to stop bleeding/contract uterus after baby was born 3 Manual removal of placenta or removal of retained products 4 Blood transfusion 5 Caesarean section (operation) 6 Vacuum extraction (suction to pull baby out) 88 DK 99 NR/RF
66.	(*OBSERVE – if mother is holding the baby, do not ask, select not applicable*) Was the baby born alive? PROBE: Did the baby cry, move or breathe when it was born?	1 Yes 2 No → GOTO 70 77 Not applicable 88 DK 99 NR/RF
67.	Did your baby experience any of the following complications after delivery? SELECT ALL THAT APPLY	1 Trouble breathing after delivery 2 Infection 3 Trouble feeding 4 Jaundice 96 Other complications (specify) 97 No complications 88 DK 99 NR/RF
68.	(*OBSERVE – if mother is holding the baby, do not ask, select Yes)* Is the baby still living?	1 Yes 2 No → GOTO 70 88 DK 99 NR/RF
69.	Is the baby going home with you?	1 Yes 2 No 88 DK 99 NR/RF
	Now we would like to know about the costs associated with your delivery. How much did you pay for each of the following? Please tell us all fees, even ones that are not official.	
70.	Doctor's/nurse's fees (official and unofficial)	NUMERIC 88 DK 99 NR/RF
71.	Drugs	NUMERIC 88 DK 99 NR/RF
72.	Supplies (please include delivery kits, gloves, soap, etc.)	NUMERIC 88 DK 99 NR/RF

73.	Medical tests/x-rays	NUMERIC 88 DK 99 NR/RF
74.	Transport	NUMERIC 88 DK 99 NR/RF
75.	Maternity waiting home	NUMERIC 88 DK 99 NR/RF
76.	Food	NUMERIC 88 DK 99 NR/RF
77.	Other (specify)	NUMERIC 88 DK 99 NR/RF
78.	Did you have to borrow money or sell something to afford the costs (including transport) of delivery?	1 Yes 2 No 88 DK 99 NR/RF
G.	**Perceived Quality and Satisfaction**	
	I would like to ask you some more questions about how satisfied you were with your experience in this health facility. Please remember that nothing you tell us will be shared with the health facility, and your responses will not affect health care for you or your children in the future.	
79.	Overall, how satisfied are you with your experience during this delivery?	1 Very satisfied 2 Somewhat satisfied 3 Somewhat dissatisfied 4 Very dissatisfied 88 DK 99 NR/RF
80.	How would you rate the knowledge and competence of health workers at this facility for this delivery?	1 Excellent 2 Very good 3 Good 4 Fair 5 Poor 88 DK 99 NR/RF
81.	How would you rate the respect the providers showed you at this facility for this delivery? By respect I mean being treated with the care and attention you deserve.	1 Excellent 2 Very good 3 Good 4 Fair 5 Poor 88 DK 99 NR/RF

82.	How would you rate the availability of drugs, supplies, and medical equipment at this facility for this delivery?	1 Excellent 2 Very good 3 Good 4 Fair 5 Poor 88 DK 99 NR/RF
83.	How would you rate the communication skills of the providers at this facility? By this, I mean, how well did they explain things to you during your labor and delivery.	1 Excellent 2 Very good 3 Good 4 Fair 5 Poor 88 DK 99 NR/RF
84.	Overall, taking everything into account, how would you rate the quality of care you received at this facility for this delivery?	1 Excellent 2 Very good 3 Good 4 Fair 5 Poor 88 DK 99 NR/RF
H.	**Experience of Disrespect or Abuse**	
	Some women tell us that when they give birth they are treated poorly or with disrespect. We would like to know how common this problem is, so we would like to ask you about your own experiences with childbirth. There are no right or wrong answers to these questions. It is only important to us that we understand your experiences. Nothing you tell us will be linked to your name, your children's names, or the ability of you or your family members to access health care in the future. Some of these questions may be upsetting or stressful. As I said before, you can skip any question you are not comfortable answering, and you can stop the interview at any point.	
85.	At any point during your stay in this facility for this delivery were you treated in a way that made you feel disrespected?	1 Yes 2 No → GOTO 87 88 DK 99 NR/RF
86.	What exactly happened?	_____ _____ _____ _____
	Now we're going to read you a list of things that sometimes happen to women who have given birth in a facility. For each of these things, please tell me if you have 1) experienced it during your recent delivery at this facility, 2) witnessed it done to other women delivering in this facility, 3) heard about it done to other women during delivery at any facility, or 4) none of the above. Please keep in mind we are talking about this delivery and not your past deliveries.	

Non-confidential care		
87.	Health providers discussed patient's private health information in a way that others could hear SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
88.	Health providers shared patient's private health information with others without patient's consent SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
89.	Patient's body seen by other people (apart from health providers) during delivery SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
Non-dignified care		
90.	Health providers shouting at or scolding patient SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
91.	Health providers suggesting or asking for a bribe or informal payment for better care	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
92.	Health providers threatening to withhold treatment because patient could not pay or did not have supplies (including delivery kit) SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
93.	Health providers threatening patient for any other reason SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 R/RF
94.	Health providers making negative or disparaging comments about the patient	1 Experienced 2 Witnessed

	SELECT ALL THAT APPLY	3 Heard about 4 None of the above 88 DK 99 NR/RF
95.	Health providers ignoring or abandoning patient when in need or when she called for help SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
96.	Delivered without any assistance	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
Non-consented care		
97.	Tubal ligation (tying of the fallopian tubes) without her permission SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
98.	Caesarean section without patient or her relatives' permission SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
99.	Hysterectomy (getting your uterus removed) without patient or her relatives' permission SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
Physical Abuse		
100.	Hitting, slapping, pushing, pinching or otherwise beating patient SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
101.	Health providers sexually harassing patients or making sexual advances (for example, inappropriate touching or sexual comments that make you feel uncomfortable)	1 Experienced 2 Witnessed 3 Heard about 4 None of the above

		88 DK 99 NR/RF
102.	Rape. By rape I mean being forced to have intercourse or perform any other sexual acts against your will by someone other than your husband. SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
103.	Not providing anesthesia for the stitching of episiotomy (cutting to widen the birth canal) SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
Discrimination		
104.	Patients treated poorly because of social class, poverty SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
105.	Patients treated poorly because of ethnicity, religion, tribe SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
106.	Patients treated poorly because of age, marital status, health status SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
107.	(If answered 1-3 for #s 104-106) What happened?	_____ _____ _____ _____
Detention		
108.	Woman or baby not allowed to leave the hospital due to failure to pay SELECT ALL THAT APPLY	1 Experienced 2 Witnessed 3 Heard about 4 None of the above 88 DK 99 NR/RF
Other		

109.	Did anything else disrespectful happen to you that we didn't ask about?	1 Yes 2 No →GOTO 111 88 DK 99 NR/RF
110.	What exactly happened?	_____ _____ _____ _____
Reaction to abuse		
FOR QUESTIONS 111-113, ASK ONLY IF RESPONDENT EXPERIENCED 1 OR MORE ABUSE EVENT [RESPONSE IS 1 FOR ANY OF THE FOLLOWING QUESTIONS: 87, 89-106, 108-109] IF NONE, SKIP TO 114.		
111.	For the majority of your experiences of disrespect that you told us about, was the abuser male or female?	1 Male 2 Female 3 Both male and female 88 DK 99 NR/RF
112.	Now for your experiences we talked about above, I would like to know how you reacted. Did you or anyone on your behalf: take no action, complain to the nurse/doctor in charge or other staff person, or formally file a complaint? SELECT ALL THAT APPLY	1 Took no action 2 Complained to the nurse/doctor in charge or other staff person 3 Formally filed a complaint 96 Other (specify) 88 DK 99 NR/RF
113.	Now, I would like to know how severe the abuse that you experienced was. Can you tell me how severe the experiences that we talked about were to you?	1 Mild 2 Moderate 3 Severe 4 Extreme 88 DK 99 NR/RF
114.	I know some of the questions I just asked may have been upsetting. We are almost finished with this survey. Would you like to take a short break from answering questions? [*If yes, wait a few minutes]* Is it alright if we continue with the survey?	1 Yes → GOTO 115 2 No → TERMINATE SURVEY
I.	**Looking Forward**	
	Thank you. Now I would like to ask you about your plans to choose health care facilities in the future.	
115.	Do you plan to have more children?	1 Yes 2 No→GOTO 120 88 DK 99 NR/RF
116.	Where do you plan to deliver your next child?	1 Same facility→GOTO 118 2 Another facility (specify)

		3 Your Home 4 Other Home 96 Other (specify) 88 DK 99 NR/RF
117.	Why do you **not** want to deliver your next child at this facility?	OPEN FIELD 88 DK 99 NR/RF
118.	Now I am going to read you a list of things that might influence your decision about where to deliver your next child. Please tell me which is the most important to you.	1 Short waiting time to see doctor 2 Short distance to facility 3 Facility is clean 4 Being treated with respect 5 Provider is competent/knowledgeable 6 Confidentiality/privacy 7 Good supply of medicines 8 Affordable cost of treatment 9 Being able to choose health care provider 96 Other (specify) 88 DK 99 NR/RF
119.	How much will your experiences during this delivery influence your decision on where to deliver in the future?	1 A lot 2 Somewhat 3 Very little 4 Not at all 88 DK 99 NR/RF
120.	How likely are you to recommend this facility to other women for delivery?	1 Very likely 2 Somewhat likely 3 Somewhat unlikely 4 Not at all likely 88 DK 99 NR/RF
121.	How likely are you to recommend this facility to others for general health services?	1 Very likely 2 Somewhat likely 3 Somewhat unlikely 4 Not at all likely 88 DK 99 NR/RF
122.	How likely are you to bring your child/children to this facility for health care in the future?	1 Very likely 2 Somewhat likely 3 Somewhat unlikely 4 Not at all likely 88 DK 99 NR/RF

123.	If you were a manager and could choose to do one thing to improve the care women get in this facility for childbirth, what would it be?	1 Shorten waiting time to see doctor 2 Improve skills of doctors/nurses 3 Clean facility 4 Improve respect of doctors/nurses toward patients 5 Improve confidentiality/privacy 6 Improve supply of medicines 7 Reduce cost of treatment 8 Improve women's ability to choose a health care provider 96 Other (specify) 88 DK 99 NR/RF

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Respectful Maternity Care and Maternal Mental Health are Inextricably Linked

This blog was originally published by Sara Matthews in the New Security Beat blog of the Wilson Center's Environmental Change and Security Program.

A positive birth experience is not a luxury, but a necessity, said Hedieh Mehrtash, consultant for the Department of Sexual and Reproductive Health and Research at the World Health Organization (WHO), at a panel during the Maternal Mental Health Technical Consultation hosted by the United States Agency for International Development's (USAID) MOMENTUM Country and Global Leadership, in collaboration with WHO and the United Nations Population Fund.

Much is still unknown about the connections between respectful maternity care and maternal mental health outcomes, said Patience Afulani, Assistant Professor at the University of California, San Francisco. Nevertheless, existing research indicates that women who have negative birth experiences are at higher risk of developing post-traumatic stress disorder, postpartum depression, and other perinatal mental health issues. "When women are treated in a way that is responsive to their needs, their preferences, and values; when providers are compassionate and respectful and supportive, a woman feels engaged in their care," she said. "They feel satisfied. They feel valued. They feel empowered, which promotes positive emotional health."

There is a complex "cyclic relationship" between respectful maternity care and maternal mental health, said Afulani. For example, due to provider discrimination, women with pre-existing mental health issues may be more likely to have negative birth experiences. Negative birth experiences may

also deter women from seeking care in the future, making it less likely that mental health issues will be properly identified and addressed, she said.

Although supporting mothers and parents is incredibly important, "caring for the carers" is also essential, said Mary Ellen Stanton, Senior Maternal Newborn Health Advisor at USAID. Partially due to provider burnout, health care workers often lack the role models, skills, and resources needed to provide the highest standard of respectful care, said Charity Ndwiga, Program Officer III in the Reproductive and Maternal Health Program at the Population Council. When providers are burnt out, they are less able to communicate with and listen to patients. This damages the patient-provider relationship and can worsen health outcomes. In light of this reality, interventions need to target both mothers and providers, said Ndwiga.

Developing measurement tools is a crucial next step, said the panelists. Concerns about the impact of respectful maternity care on maternal mental health outcomes are widespread but evidence remains fairly anecdotal, said Dr. Mary Sando, Chief Executive Officer of the Africa Academy of Public Health. More research will help stakeholders "name and frame" the problem and determine its extent. This knowledge can then be used to develop solutions and inform implementation strategies, she said. For this to happen, research tools need to be consolidated, validated, and standardized, said Mehrtash. Tools must also be critically examined based on the context in which they are being employed, especially given that most mental health instruments were developed in high-income countries and are now being imported to low- and middle-income settings, said Afulani.

Nevertheless, this pursuit of further evidence does not preclude present action, said Afulani. We cannot wait until we have perfect measurement tools in place before beginning to think about the mechanisms driving provider stress and poor maternal outcomes, she said. Instead, stakeholders must recognize the ways in which research and advocacy can support each other and pursue the two in tandem, said Stanton. "Women will tell their stories, while the research provides a growing body of evidence about what works in different environments. That will encourage policymakers and healthcare providers and society at large to tackle these problems with skill, compassion, and respect."

*Learn more about perinatal mental health at the Wilson Center's Maternal Health Initiative's upcoming event: **Maternal Mental Health: Providing Care and Support in the Perinatal Period**.*

Read More

- How can we incorporate maternal mental health into pandemic response and recovery?
- The links between maternal mental health, gender-based violence, and COVID-19
- Empowering women is essential to strengthening healthcare systems

Sources

- United Nations Population Fund, United States Agency for International Development Momentum, White Ribbon Alliance, World Health Organization

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How Implicit Bias Contributes to Racial Disparities in Maternal Morbidity and Mortality in the United States

Bani Saluja, MPH[1] and Zenobia Bryant, PhD[2]

Abstract

Over the past two decades, maternal mortality rates have declined around the world. In the United States, however, 700 women die each year as a result of pregnancy or delivery complications. This represents a 50% increase in the U.S. maternal mortality rate over the same time period. According to the Centers for Disease Control and Prevention (CDC), the pregnancy-related mortality ratios vary significantly by race, with White women experiencing 13.0 deaths per 100,000 births, compared with 42.8 deaths per 100,000 births for Black women, from 2011 to 2015. Multiple studies suggest that implicit bias—defined as the attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner—is most likely a contributing factor to this alarming racial health disparity. The failure to recognize the pain of African American patients, regardless of whether it is conscious or unconscious, has the potential to affect the way obstetrician/gynecologists counsel patients about treatment options when it comes to chronic conditions, contraception, vaginal birth after cesarean delivery, and the management of fibroids. In this article, we will review implicit bias and the impact it can have on health care and health disparities.

Keywords: maternal morbidity, maternal mortality, implicit bias, racism

Introduction

Over the past two decades, maternal morbidity and mortality (MMM) rates have declined around the world. However, MMM rates have been increasing steadily in the United States—the only developed country in which this has occurred.[1] Each year, ~700 women die because of pregnancy or delivery complications in the United States, but approximately three in five pregnancy-related deaths could have been prevented.[2] Furthermore, pregnancy-related mortality rates vary significantly by race. According to data from the Centers for Disease Control and Prevention (CDC) National Pregnancy Mortality Surveillance System (PMSS) spanning 2007–2016, White women experienced 12.7 deaths per 100,000 births compared with 40.8 deaths per 100,000 births for Black women.[3] Understanding what contributes to this racial divide in maternal health outcomes is of vital importance because it can illuminate where and how to tackle such a multifaceted issue and focus the scope of public health prevention programs.

Decades of research indicate that this serious U.S. public health problem involves structural racism and its negative effects on the minds and bodies of all racial groups, especially people of color.[4] Structural racism refers to the summative ways in which societies foster racial discrimination through mutually reinforcing systems such as housing, education, media, employment, and health care.[5] Today, an imbalance of inherited resources and persisting discrimination restrict the access of many Americans of color to better jobs, quality education, political power, healthy neighborhoods, and quality health care.[4] As a result, implicit, discriminatory attitudes, and behaviors have permeated the U.S. health care system and likely are a powerful contributing factor to the high negative maternal health outcomes experienced by Black women.

What Is Implicit Bias?

Implicit bias is different from overt and intentional discrimination and develops early in life from exposure to

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repeated reinforcement of stereotypes perpetuated by structural discrimination.[6] The mere existence of cultural stereotypes regarding certain social or racial groups has the potential to influence one's behavior toward individuals from the stereotyped group.[6] Implicit bias is defined as thoughts and feelings that exist outside of conscious awareness and subsequently can affect human understanding, actions, and decisions unknowingly.[7,8] These biases cause attitudes about other people based on personal characteristics, including, but not limited to, age, race, and ethnicity.[8] Because implicit bias is unconscious, it can be difficult to measure, and actions resulting from it often are challenging to recognize and control.[7]

Measuring Implicit Bias

Implicit bias cannot be measured well with standard (self-report) survey questions.[9] The most common tool used to assess implicit bias is the Implicit Association Test (IAT). This tool is available online and is a computerized, timed dual categorization task that measures implicit preferences by bypassing conscious processing.[6,8] The IAT has been used in hundreds of studies across a variety of disciplines, including psychology, health, political science, and market research.[9] Demonstrations of the IAT can be found at https://implicit.harvard.edu.

Implicit Bias, Health Care Providers, and Maternal Health

Implicit bias is directly correlated with lower quality of care for patients and may be activated under stressful working conditions.[7,10] The potential influence of implicit bias is especially relevant in settings that are prone to overload or high stress. These environments include emergency departments or labor and delivery settings, where relying on automatic or unconscious processes to execute medical decision making quickly becomes essential. However, such automatic processes also are likely to activate stereotypes and unconscious beliefs.[8] In addition, cognitive stressors, such as overcrowding and the demand to care for more patients during a shift, are associated with an increase in implicit bias.[11]

Although the medical profession strives for equal treatment of all patients, racial disparities in health care are prevalent.[6] Racial disparities exist because implicit bias affects health care providers' perceptions and decisions, creating inequalities in access, patient–provider interactions, treatment decisions, and health outcomes.[4,12] Even when health care providers do not display explicit discrimination, implicit biases still exist.[4] A 2012 study found that, after adjusting for medically necessary procedures, cesarean deliveries were more common among Black and Latina women than White women. Cesarean deliveries lead to more negative health outcomes for both mother and baby; research on obstetric care increasingly considers rising C-section rates to be a source of MMM. Three of the six leading causes of maternal mortality are associated with cesareans: hemorrhage, complications of anesthesia, and infection.[13]

Moreover, many health care providers struggle to acknowledge the impact of personal implicit bias on how they care for their patients.[14] A study conducted by the Society for Maternal Fetal Medicine showed inconsistency between clinicians' willingness to acknowledge disparities in their practice and their consideration of implicit bias. In fact, 84% of respondents agreed that disparities affect their practice, but only 29% believed that personal biases influenced their ability to care for patients.[8]

Furthermore, some health care providers still hold false beliefs about biological differences between Black and White individuals that increase implicit bias. These beliefs include ideas that Black people have less sensitive nerve endings, thicker skin, and stronger bones.[15] The presence of these beliefs causes health care providers to rate Black patients' pain lower and results in less-appropriate treatment recommendations.[15] Specifically regarding pain management, Rust et al. found significant racial/ethnic differences in the rates of epidural analgesia. Minorities, specifically Black non-Hispanic and Hispanic patients, had significantly lower rates of epidural analgesia.[16] As a result, health care provider bias, although unintentional and often unrecognized, does lead to mistrust in the health care system and poor patient satisfaction from people of color.[17]

In a comprehensive report entitled *Birth Settings in America: Outcomes, Quality, Access, and Choice* by the National Academies of Sciences, the authors reference the Listening to Mothers III survey, which found that approximately one in five Black and Hispanic women experienced mistreatment from hospital-based care providers because of their race, ethnicity, cultural background, and/or language.[18] As reported in an article published in 2018, anthropologist Dana-Ain Davis analyzed the birth stories of Black women living in the United States. These birth stories describe various forms of maltreatment during medical encounters while they were pregnant or during labor and delivery. Consequently, some women avoided the hospital if possible and utilized midwives and doulas for home or birth center services.[19]

The Effects of Implicit Bias on Patient–Provider Communication

In addition to its potential impact on medical decision making, implicit bias also can affect how providers communicate with patients. Studies found that people of color are more likely to report lower satisfaction with health care provider interactions.[7] Subtle racial biases may be expressed in such ways as approaching patients with a condescending tone that decreases the likelihood that patients will feel heard and valued by their providers or recommending different treatment options for patients based on assumptions about their treatment adherence capabilities or presumed health conditions.[7] Consistent and robust evidence shows that health care providers who exhibit higher implicit bias demonstrate higher verbal dominance in their communication styles and less interpersonal treatment.[11] Subsequently, patients of these providers report poorer satisfaction ratings and greater difficulty understanding or following recommendations, which can perpetuate biases held by the provider.[11] This is a vicious cycle that highlights the importance of improved communication and the need for health care providers to be aware of their own implicit biases.

The actions of providers and their interactions with patients are highly associated with racial disparities in women's experience of trauma during birth. In the United States, 30% of Black and Hispanic women who delivered in hospitals reported provider mistreatment, whereas only 21% of White women reported provider mistreatment.[12] The perceived dismissals women felt of legitimate concerns and symptoms, such as

preeclampsia and hypertension, can help explain the existence of poor birth outcomes even for Black women with the most advantages, such as high income and advanced education.[20]

Opportunities for Intervention

Efforts to resolve racial disparities in maternal health are constrained by two main challenges: (1) lack of reliable data on patient identity (including race, ethnicity, native country, and language) and (2) limited patient and staff education on the best practices for collecting information related to identity.[8] The improvement of cultural humility programming for health care providers is increasingly emphasized. Cultural humility goes beyond cultural competency and is defined as a life-long commitment to self-evaluation and self-critique in an effort to address power imbalances and advocate for others.[21] Practicing cultural humility mitigates implicit bias, promotes empathy, and aids health care providers in acknowledging and respecting patients' individuality.[21] Cultural humility principles emphasize that providers should aim to connect with patients instead of assuming expertise on the patient's race, culture, or ethnicity and how those relate to the patient's health.[21] Efforts to incorporate awareness of implicit bias in medical and nursing school and residency training programs are important steps in training the next generation of health care providers to treat patients and families with respect and provide high-quality care to an increasingly diverse patient population.

Evidence also shows that mindfulness interventions are effective at reducing implicit bias. Mindfulness-based practices can offer additional benefits to health care providers, including decreasing burnout and improving empathy and well-being.[11] In one successful intervention, after completing a baseline IAT and an educational program about the impact of implicit bias on discriminatory behaviors, participants were trained on how to apply several bias-reduction strategies to everyday practice. These strategies included (1) stereotype replacement, in which individuals were trained to recognize stereotypes being perpetuated in society and within themselves and how to replace them with nonstereotypic responses; (2) counter-stereotypic imaging, in which individuals imagine someone from a marginalized group who does not fulfill commonly believed stereotypes about that group; (3) individuation, in which individuals try to get to know someone else and focus on their individual characteristics, instead of their group-based characteristics; and (4) perspective taking, in which individuals consciously assess a situation from the viewpoint of another racial group. Furthermore, health care providers should actively seek out as many opportunities for cross-cultural contact as possible throughout their career.[11]

As for opportunities regarding patient empowerment, patients who read their clinical notes through online patient portals report that doing so engages them actively in their care, improves their sense of control over their health, and enhances safety, especially among minority patients.[22] Qualitative research also suggests that reading their clinical notes can help patients feel listened to, validated, and understood.[22] Open notes may increase trust between patients and clinicians, reduce transmission of biases, and increase patient engagement. Also, patients should be given information to make informed decisions about continuing or ending a relationship with a provider; expecting mothers are not obligated to remain with a health care provider throughout a pregnancy and should be encouraged to find the right fit, particularly early in the pregnancy.[19]

Additionally, hospital systems can implement mandatory MMM reviews, which help to identify areas of substandard care that need improvement.[14] If conducting a systematic, multidisciplinary review of all cases of maternal death and severe morbidity and establishing a mechanism to disseminate knowledge gained from those reviews became standard practice, then hundreds of lives could be saved.

Furthermore, the disparities of any condition, let alone maternal health, cannot be discussed without also discussing the system-level factors that may contribute to them. An important system-level factor that impacts clinical care is the availability of transportation to in-person visits. Cab vouchers or other transit programs may help with this barrier. The frequency of scheduled in-person visits poses another challenge; innovations in telehealth may assist in improved patient-centered care. Also, for women who do not speak English, failures in adequate communication also can contribute to maternal health disparities. Increasing the availability of interpreter services, both in person and on the phone, could support improvements in this area.[14]

Conclusion

To reiterate, most pregnancy-related deaths can be prevented; all levels of the social/ecological model should be considered together when examining racial disparities in health care. Further identification and evaluation of factors contributing to racial disparities is crucial to informing and implementing prevention strategies that will effectively reduce disparities in pregnancy-related mortality, including strategies to improve women's health and access to quality care in all maternal phases: preconception, pregnancy, and postpartum.[3] We recognize that addressing this complex national problem requires coordination and collaboration among patients, families, health care providers, community organizations, hospitals, health systems, and policymakers.[3] We believe the interdisciplinary work can be done, but individual implicit bias and the deep impact of structural racism must be acknowledged and accepted before real progress can be made in reducing racial disparities in maternal mortality and decreasing maternal deaths overall in the United States.

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Commentary

Targeting bias to improve maternal care and outcomes for Black women in the USA

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Black women in the USA face significant inequities in maternal mortality and morbidity. They die from pregnancy-related deaths at a rate three to four times higher than white women, [1] and are more likely to experience severe maternal morbidity (SMM), life-threatening complications caused or exacerbated by pregnancy, in the antepartum, intrapartum, and postpartum periods. [2] These inequities not only stem from socioeconomic factors affecting access to and quality of care, but are also linked to the stresses of racism—individual and institutional—and their long-term physiological implications. [3] Additionally, implicit and explicit biases in health care can influence whether Black women attend postpartum visits and could, in part, explain these racial disparities. [4,5]

However, there is hope—and an imperative to address these inequities—in that over 60% of pregnancy-related deaths in the USA are preventable. [1] Current legislation such as the *Mothers and Newborns Success Act*, introduced in the US Senate, is investing in important research and funding programs improving maternal care access. The bill supports the US Centers for Disease Control and Prevention's Levels of Care Assessment Tool, which analyzes the level of maternal care in hospitals to inform how they can better meet the needs of communities they serve. It also creates a National Maternal Health Research Network for clinical, epidemiological, and community-based research on maternal mortality, SMM, and the systemic issues that drive racial inequities. For postpartum care, which is especially crucial for women at risk of SMM, the bill establishes a program to identify and implement best practices. [6]

Yet, research on racial bias in clinical settings and numerous stories of Black women experiencing complications after childbirth despite having access to quality care make clear that eliminating the racial inequities of maternal mortality and SMM requires more than just addressing care access. They necessitate a deep look into how implicit and explicit biases in health care put the lives of Black women at risk. The examples of two Black women, Dr. Shalon Irving, a highly educated epidemiologist, and Serena Williams, the famed tennis star, show that these issues are tied to biases. [7] Both women died or nearly died from pregnancy-related complications despite showing symptoms of complications they were at high risk for and reporting these symptoms to health care providers. Indeed, evidence demonstrates that racial inequities transcend education level and wealth. In New York City, Black women with college educations or higher experienced SMM at a rate of 333•0 per 10,000 deliveries as compared to 137•7 per 10,000 deliveries for white women who did not complete high school. [8] These data, in addition to well-documented biases that pervade health care, [9] illustrate the need for solutions tackling implicit bias in clinical training and practice to reduce inequities. Two solutions are actionable and have shown promise.

First, clinical checklists prompting providers to act—through screenings, surveillance, or interventions—if Black women report, show, or are at high risk for symptoms that often portend health emergencies would ensure Black women receive care at hospitals that adheres to particular standards, limiting room for bias. Addressing potential health emergencies through standardized surveillance and protocols that require thorough examination of reported signs or symptoms can help eliminate delayed or overlooked diagnosis and treatment, areas where implicit biases undermine Black women's concerns. Quality improvement initiatives in maternal care have effectively reduced mortality, [3,10] so should similar efforts designed to rid bias from the care Black women receive.

Second, expanding implicit bias training and education in clinical settings is critical to promote awareness of how bias affects care and puts Black women's lives at risk. In many ways, racism is embedded in medical education and practice, and racialized constructions of pain tolerance, for example, affect how, when, and whether pain is treated in Black patients—with direct implications in maternal care. Far too often, these perceptions influence how soon Black women receive needed care; dispelling them and educating providers on how they affect care is crucial.

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Racial disparities in health care are systemic at their core, and they require truly comprehensive approaches. In the cases of maternal mortality and SMM, measures reducing barriers to quality care access and confronting structural factors that wear on the day-to-day lives of Black women are essential. Though we least expect racial inequities to be exacerbated in health systems and clinical settings, they nonetheless are. Eliminating inequities and ensuring the health of Black women therefore demand targeting the implicit and explicit racial biases in these settings that endanger their lives.

Contributors

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Declaration of Competing Interest

None

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The Joint Commission

Quick Safety 23: Implicit bias in health care

"Of all forms of inequity, injustice in health care is the most shocking and inhuman."
— Martin Luther King, Jr., National Convention of the Medical Committee for Human Rights, Chicago, 1966

Issue:
On the eve of the 15th anniversary of two seminal reports from the Institute of Medicine (IOM) – *Crossing the Quality Chasm*[1] and *Unequal Treatment*[2] – we find that racial and socioeconomic inequity persists in health care. In Crossing the Quality Chasm, the IOM stressed the importance of equity in care as one of the six pillars of quality health care, along with efficiency, effectiveness, safety, timeliness and patient-centeredness. Indeed, *Unequal Treatment* found that even with the same insurance and socioeconomic status, and when comorbidities, stage of

presentation and other confounders are controlled for, minorities often receive a lower quality of health care than do their white counterparts.

Professor Margaret Whitehead, head of the World Health Organization (WHO) Collaborating Centre for Policy Research on Social Determinants of Health, perhaps provides the most intuitive and clear definition of health inequalities (the term used in most countries, where it is generally assumed to refer to socioeconomic differences in health). She defines health inequalities as health differences that "are not only unnecessary and avoidable but, in addition, are considered unfair and unjust." She also states that "equity in health implies that, ideally, everyone should have a fair opportunity to attain their full health potential and, more pragmatically, that no one should be disadvantaged from achieving this potential, if it can be avoided."[3,4]

There is extensive evidence and research that finds unconscious biases can lead to differential treatment of patients by race, gender, weight, age, language, income and insurance status. The purpose of this issue of *Quick Safety* is to discuss the impact of implicit bias on patient safety. Bias in clinical decision-making does result in overuse or underuse problems that can directly lead to patient harm.

What is "implicit bias?"

Implicit (subconscious) bias refers to the attitudes or stereotypes that affect our understanding, actions and decisions in an unconscious manner.[13] These biases, which encompass both favorable and unfavorable assessments, are activated involuntarily and without an individual's awareness or intentional control.[14]

In 1995, Anthony Greenwald and M.R. Benaji hypothesized that our social behavior was not entirely under our conscious control. According to their study, the concept of **unconscious bias (hidden bias** or **implicit bias**) suggests that "much of our social behavior is driven by learned stereotypes that operate automatically – and therefore unconsciously – when we interact with other people."[15]

Hidden bias tests measure unconscious, or automatic, biases. An individual's willingness to examine their own possible biases is an important step in understanding the roots of stereotypes and prejudice in our society. The ability to distinguish friend from foe helped early humans survive, and the ability to quickly and automatically categorize people is a fundamental quality of the human mind. Categories give order to life, and every day, we group other people into categories based on social and other characteristics. This is the foundation of stereotypes, prejudice and, ultimately, discrimination.

Once learned, stereotypes and prejudices resist change, even when evidence fails to support them or points to the contrary. People will embrace anecdotes that reinforce their biases, but disrega.

experience that contradicts them. The statement "Some of my best friends are _____," captures this tendency to allow some exceptions without changing our bias. Research has demonstrated that biases thought to be absent or extinguished remain as "mental residue." Studies show people can be consciously committed to egalitarianism, and deliberately work to behave without prejudice, yet still possess hidden negative prejudices or stereotypes. Studies have found that school teachers clearly telegraph prejudices, so much so that some researchers believe children of color and white children in the same classroom effectively receive different educations. Jerry Kang, vice chancellor for equity, diversity and inclusion, and professor of law at UCLA Law, states: “Automatically, we categorize individuals by age, gender, race and role. Once an individual is mapped into that category, specific meanings associated with that category are immediately activated and influence our interaction with that individual.”

Implicit bias develops early in life from repeated reinforcement of social stereotypes. Implicit pro-white bias occurs among children as young as 3-5 years old.[5] The Implicit Association Test (IAT) is a computerized, timed dual-categorization task that measures implicit preferences by bypassing conscious processing.[6] The IAT is part of Project Implicit, a collaborative investigation effort between researchers at Harvard University, University of Virginia, and University of Washington. The studies examine thoughts and

feelings that exist either outside of conscious awareness or conscious control. The goal of the project is to make this technique available for education (including self-education) and awareness.

Between October 1998 and October 2006, more than 4.5 million IAT tests were completed on the IAT website. The project found that:

- Implicit bias is pervasive
- People are often unaware of their implicit biases
- Implicit biases predict behavior
- People differ in levels of implicit bias

Many health care organizations have begun administering the IAT, and when it is applied to physicians, significant pro-white bias has been found.[7] However, implicit bias is not limited to race. When the IAT was administered at an obesity conference, participants implicitly associated obese people with negative cultural stereotypes, such as "bad, stupid, lazy and worthless."[8,9] Implicit gender bias among physicians also may unknowingly sway treatment decisions. Women are three times less likely than men to receive knee arthroplasty when clinically appropriate.[10,11,12] One of the stereotypical reasons for this inequity and underuse problem is that men are viewed as being more stoic and more inclined to participate in strenuous or rigorous activity.

This difference in treatment and clinical decision-making, though unintentional, could lead to failures in patient-centered care interpersonal treatment (e.g., does the doctor care for you,

communication (e.g., did the doctor answer my questions), trust (e.g., the clinicians' integrity), and contextual knowledge (e.g., your doctor's knowledge of your values and beliefs). How a physician communicates, his or her body language and verbal cues can be an expression of subconscious bias.

Implicit bias and its effect on health care

Research supports a relationship between patient care and physician bias in ways that could perpetuate health care disparities.[9] What makes implicit bias "frightening" in health and health care is that the result is "unthinking discrimination" of which caregivers are not aware.

Academic researchers, in efforts to explain differences in health outcomes, posit that the reasons include lack of trust, communications problems, or simply "unknown and complex" reasons.[16] A 2011 study conducted by van Ryn et al. concludes that racism can interact with cognitive biases to affect clinicians' behavior and decisions and in turn, patient behavior and decisions (e.g., higher treatment dropout, lower participation in screening, avoidance of health care, delays in seeking help and filling prescriptions, and lower ratings of health care quality).[17] This unconscious or implicit bias indicates many white health care providers harbor a broad racial framing of Americans of color, one that can be causative in their not providing equitable health care.

Some examples of how implicit bias plays out in health car lude:

- Non-white patients receive fewer cardiovascular interventions and fewer renal transplants
- Black women are more likely to die after being diagnosed with breast cancer
- Non-white patients are less likely to be prescribed pain medications (non-narcotic and narcotic)
- Black men are less likely to receive chemotherapy and radiation therapy for prostate cancer and more likely to have testicle(s) removed
- Patients of color are more likely to be blamed for being too passive about their health care

Implicit bias is not isolated to adult care. At a well-known academic medical center, a child presented with difficulty breathing that baffled the care team. The team of physicians were agonizing over a light box, reviewing the patient's X-rays, puzzled because they couldn't determine a diagnosis. Another physician just passing through looked at the X-rays and immediately said, "cystic fibrosis." The team was tripped up by the patient's race, which was black, and that the patient had a "white disease."

Can we overcome implicit bias in health care?

The good news is that with organizational support, skills training, and cognitive resources, clinicians who are highly motivated to control prejudice and bias awareness can successfully prevent racism from affecting the quality of care they provide.[17] Some of the skills (from van Ryn et al.)[17] that help lower racial bias include:

- ***Perspective-taking:*** The cognitive component of empathy,[17] perspective-taking can reduce bias and inhibit unconscious stereotypes and prejudices. Physician empathy positively affects patient satisfaction, self-efficacy perceptions of control, emotional distress, adherence, and health outcomes.
- ***Emotional regulation skills:*** Clinicians who have good emotional regulation skills and who experience positive emotion during clinical encounters may be less likely to view patients in terms of their individual attributes, and to use more inclusive social categories. It's easier to empathize with others when people view themselves as being part of a larger group.
- ***Partnership-building skills:*** Clinicians who create partnerships with patients are more likely to develop a sense that their partner is on the same "team," working toward a common goal.

Safety Actions to Consider:

In order to ensure best outcomes and zero harm for all patients, implicit bias and racial discrimination in health and health care should be better understood, assessed and corrected. The following recommendations (from van Ryn et al.)[17] should be understood by hospital administrators and clinicians, as well as medical educators and policymakers. In order to begin to address the impact of implicit bias on clinical care decisions, health care organizations should:

- Evaluate the racial climate by evaluating employees' shared perceptions of the policies and practices that communicate the extent to which fostering diversity and eliminating discrimination are priorities in the organization.

- Investigate reports of subtle or overt discrimination and unfair treatment.
- Identify and work to transform formal and informal norms that ignore and/or support racism.
- Establish monitoring systems in which processes and outcomes of care can be compared by patient race. Collecting data on race and other indicators of social position can be used to self-assess, monitor and evaluate the effectiveness of the organization's strategies for eradicating inequities in care.
- Give care units and, where appropriate, individual clinicians, equity-specific targeted feedback. When inequities are found, support creative solutions for remediation and create accountability for improvement.
- Implement work policies and clinical procedures that protect clinicians from high cognitive load and promote positive emotions. When clinicians' cognitive capacity is low or overtaxed, memory is biased toward information that is consistent with stereotypes. High cognitive load can be created by: productivity pressures, time pressure, high noise levels, inadequate staffing, poor feedback, inadequate supervision, inadequate training, high communication load, and overcrowding.
- Promote racial diversity at all levels of the organizational hierarchy and support positive intergroup contact. Intergroup contact can reduce intergroup prejudice and help reduce feelings of interracial anxiety. Additionally, institutional support for interaction can increase the benefits of intergroup contact

- Implement and evaluate training that ensures that clinicians have the knowledge and skills needed to prevent racial biases from affecting the quality of care they provide. The training should cover self-awareness regarding implicit biases, and skills related to perspective-taking, emotional regulation, and partnership-building.[17]

Actions that health care providers can take to combat implicit bias, include:

- Having a basic understanding of the cultures from which your patients come.
- Avoiding stereotyping your patients; individuate them.
- Understanding and respecting the magnitude of unconscious bias.
- Recognizing situations that magnify stereotyping and bias.
- Knowing the National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care (the National CLAS Standards).
- Performing "teach back (e.g., the National Patient Safety Foundation's "Ask Me 3®" educational program).[18]
- Assiduously practicing "evidenced-based medicine."
- Using techniques to de-bias patient care, which include training, intergroup contact, perspective-taking, emotional expression, and counter-stereotypical exemplars.

Resources:

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Note: This is not an all-inclusive list.

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Addressing Implicit Bias in Nursing: A Review

Unconscious preconceptions can undermine therapeutic relationships and reinforce health disparities.

ABSTRACT: This article examines the nature of implicit, or unconscious, bias and how such bias develops. It describes the ways that implicit bias among health care providers can contribute to health care disparities and discusses strategies nurses can use to recognize and mitigate any biases they may have so that all patients receive respectful and equitable care—regardless of their race, ethnicity, religion, sexual orientation, gender identification, socioeconomic status, disabilities, stigmatized diagnoses, or any characteristic that distinguishes them from societal norms.

Keywords: culturally competent care, discrimination, health care disparities, health care providers, implicit bias, minorities, patient-centered care, prejudice, vulnerable populations

In the late 1800s, Sigmund Freud popularized the idea that the unconscious mind—that is, the attitudes and feelings of which we are unaware—can have a powerful influence on our behavior. Today, unconscious attitudes that precipitate unintentional discriminatory behavior are called "implicit bias." Not surprisingly, implicit biases exist among people of all professions. But when nurses and other health care providers harbor implicit biases, they may contribute to the health care disparities experienced by members of racial, ethnic, or religious minorities and other groups that face discrimination because of such factors as sexual orientation, gender identification, disability, or stigmatized diagnoses. Fortunately, there are strategies we can use to recognize unconscious negative attitudes we may have toward various groups of patients. And with awareness comes the possibility of overcoming our implicit biases, so we can consistently adhere to the first principle in the *Code of Ethics for Nurses with Interpretive Statements*: "The nurse practices with compassion and respect for the inherent dignity, worth, and unique attributes of every person."[1]

This article briefly describes the types of health care disparities that persist in the United States, the numerous patient populations that encounter them, and the ways implicit bias contributes to these disparities by adversely affecting patient assessment, treatment decisions, and health care follow-up. It also discusses strategies nurses and other clinicians can use to discover and overcome their own implicit biases.

DISPARITIES IN HEALTH CARE

In 2003, the Institute of Medicine (IOM) produced a report based on a comprehensive literature review of racial and ethnic health care disparities that exist in the United States.[2] The report, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health*

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Care, noted that "racial and ethnic minorities tend to receive a lower quality of healthcare than nonminorities, even when access-related factors, such as patients' insurance status and income, are controlled." The IOM cited numerous studies providing substantial evidence that patients belonging to racial and ethnic minority groups confront lack of access as well as inappropriate, inadequate, and uncaring health services.

The terms "health care disparities" and "health care inequities" refer to the poorer health outcomes observed in minority and other vulnerable patient groups compared with those observed in majority or dominant patient populations. Disparate patient outcomes are associated with age, sex, religion, socioeconomic status, sexual orientation, gender identification, disability, and stigmatized diagnoses (for example, HIV, obesity, mental illness, and substance abuse).[3] These disparities challenge our nation's commitment to equality.

Inequitable health care remains prevalent in the United States.[4-7] Each year since 2003, the Agency for Healthcare Research and Quality has produced the *National Healthcare Quality and Disparities Report*. Using many different indicators of health care access, process, and outcomes, these reports have repeatedly shown that in the aggregate white patients receive better quality of care than patients who are black, Hispanic, Asian, Native American, Alaska Native, Native Hawaiian, or Pacific Islander.[8] The U.S. Department of Health and Human Services challenged health care providers to eliminate these disparities in its publications *Healthy People 2010* and *Healthy People 2020*, and with the newly proposed Healthy People 2030 goals, which are now online (see www.healthypeople.gov/2020/About-Healthy-People/Development-Healthy-People-2030/Framework).[9,10] All three include among their overarching goals increased longevity and quality of life, as well as the elimination of U.S. health care disparities. *Healthy People 2020* adds to these goals the creation of "social and physical environments that promote good health for all" and the promotion of "healthy development and healthy behaviors across all life stages." The Joint Commission and the Institute for Healthcare Improvement (IHI) echo these goals, urging health care providers to evaluate and address disparities in their personal practices.[11,12]

IMPLICIT BIAS AND HEALTH CARE DISPARITIES

There are many reasons for health care disparities in the United States, but the IOM reported that one of the contributing factors is clinician bias toward patients of racial, ethnic, or cultural minorities.

Implicit biases among health care providers are associated with the following negative effects on patient care[4-7]:

- inadequate patient assessments
- inappropriate diagnoses and treatment decisions
- less time involved in patient care
- patient discharges with insufficient follow-up

THE NATURE OF IMPLICIT BIAS

Implicit bias is part of the human condition. To be human is to prefer familiar people. Even very young babies learn to differentiate "my family" from "others," and to see their families as "safe" and "others" as potentially dangerous. As we grow and develop, we are exposed to massive amounts of data about people and phenomena. To manage this information, we unconsciously categorize and assign judgments (with good or bad connotations) to the data. For example, we may determine that one particular group is trustworthy or pleasant and another is dangerous or disagreeable. Then, as we encounter new representatives of these groups, we respond automatically, based on our prior value judgments.

Implicit bias is theorized to be rooted in heuristics—that is, mental shortcuts that help us sum up and respond to situations quickly.[13] Based on approaches that worked for us in the past, we develop strategies that help us interact automatically in new situations with representatives of previously encountered groups of people. Our default reactions can help us manage our day-to-day activities by allowing us to assess and act quickly, without deliberation. For example, if you're in the middle of a street and a car is headed your way, you don't try to determine how fast the car is going, who is driving the car, or whether they will stop to avoid hitting you; rather, you hurry across the street. Heuristics often make life easier or safer and our choices more efficient. They play an important role in helping us navigate our environment. But our automatic responses can generate subtle discriminatory behaviors, which in a clinical context can result in poor health care delivery.

Stereotypes are often pejorative characterizations of groups of people that are frequently based on limited previous encounters or poor sources of information, including the people who raised us, our culture, media reports, or anecdotes, and they are often unconsciously internalized.

Despite an individual's commitment to egalitarian values, implicit biases may be triggered by hidden perceptions, attitudes, or memories.[5,14] The tendency to default to our implicit biases is heightened in stressful situations,[6] perhaps because in such situations we have less time and energy to consider whether our initial impressions are correct or whether our behavior aligns with our personal values and commitment to treat others equitably and with respect.

IMPLICIT BIAS IN HEALTH CARE PROVIDERS

Few studies have specifically investigated implicit bias among nurses or included large numbers of nurses among study participants. Those that have address only a few vulnerable patient populations and indicate that nurses may be subject to implicit biases when caring for patients who are elderly[15]; obese[16]; lesbian, gay, bisexual, or transgender (LGBT)[17]; mentally ill[18]; or who use injection drugs.[19] Studies of implicit bias in nurses based on race, ethnicity, religion, disability, or stigmatized diagnoses are difficult to find, though small numbers of nurses were included in some studies of implicit bias among health care providers that address these predispositions.

Nurses with implicit biases may demonstrate less compassion for certain patients and invest less time and effort in the therapeutic relationship with them, adversely affecting assessment and care.

Much of the research focused on implicit bias in physicians or health care teams indicates that providers' biases influence their relationships with patients, the care they provide, and the patients' health outcomes. Two comprehensive systematic reviews and two narrative reviews of studies on the topic shed light on the nature of implicit bias among health care providers, its manifestations and effects on patients, and the situations that promote or exacerbate it.

In their systematic review, FitzGerald and Hurst analyzed 42 studies about health care provider biases, including those related to race, ethnicity, socioeconomic status, literacy, and other factors that render patients vulnerable to stigmatization.[5] Of the 42 studies they reviewed, 15 measured biases using an Implicit Association Test (IAT), two used subliminal priming, and 25

used the "assumption method," which measures participant differences in response to clinical vignettes that are identical except in one respect, such as the race of the subject. The authors suggested that implicit bias among health care providers occurred at about the same rate as it did in the population at large. In 20 of the 25 studies that used the assumption method, they found that provider biases appeared to have influenced diagnoses, treatment recommendations, thoroughness of patient histories, or the number of tests that were ordered. They also noted a negative correlation between the level of implicit bias and indicators of quality care, a finding they suggest points to an increased likelihood of poorer outcomes.

Similarly, a systematic review conducted by Hall and colleagues found that most health care providers harbor implicit bias toward people of color. This bias is reflected both in providers' interactions with patients and in providers' treatment decisions, thereby affecting patient adherence and outcomes, with patients' psychosocial health outcomes (for example, social integration, depression, and life satisfaction) more adversely affected by provider bias than physical health outcomes.[6]

A narrative review by Chapman and colleagues found that providers with high levels of implicit bias were perceived by black patients as having poorer communication skills, delivering a lower quality of care, and being "less warm, friendly, and team oriented." The investigators contend that these perceptions could reduce patient adherence, return for follow-up appointments, and trust in health care providers.[4]

Zestcott and colleagues cite studies in their narrative review indicating that providers with implicit biases spend less time listening to black patients and that, in the absence of any supportive evidence, providers hold implicit assumptions that black and Hispanic patients are less likely to adhere to treatment and are less cooperative than white patients.[7] They note one study suggesting that providers' difficulty communicating with Hispanic patients may explain some of the implicit bias directed at that group and suggest additional research exploring whether implicit biases are less likely to influence care in the presence of clear clinical guidelines that outline evidence-based best practices.

As with physicians and other health care providers, nurses with implicit biases may demonstrate less compassion for certain patients and invest less time and effort in the therapeutic relationship with them, adversely affecting assessment and care.

STRATEGIES FOR MANAGING IMPLICIT BIAS

Social scientists have developed strategies that have been shown to mitigate implicit biases. These include counterstereotypic imaging, emotional regulation, habit replacement, increasing opportunities for contact, individuation, mindfulness, partnership building, perspective taking, and stereotype replacement.[11, 12, 20-28] (See Table 1.[11, 12, 20-28]) Health care providers can view these strategies as tools, putting those they find most effective into their own personal bias-fighting toolkit.

Recommendations from the Joint Commission and IHI. The Joint Commission specifically recommends that health care providers use emotional regulation (controlling thoughts and emotions during clinical encounters), partnership building (working with patients as equals toward the common goal of helping them achieve good health), and perspective taking (trying to understand the perspective of the patient) to decrease biases that may lead to health care disparities.[12] In addition to partnership building and perspective taking, the IHI recommends reducing bias with counterstereotypic imaging (imagining the stereotyped person as the opposite of the stereotype), individuation (learning about the personal history of the individual), increasing opportunities for contact with people from different groups (developing relationships with members of a different group with the goal of dissolving stereotypes), and stereotype replacement (consciously replacing negative images of a group with positive images).[11]

Despite an individual's commitment to egalitarian values, implicit biases may be triggered by hidden perceptions, attitudes, or memories.

Strategies based in nursing practice. *Habit replacement* will seem familiar to many nurses because it's very similar to the teaching and coaching techniques we use when encouraging patients to change harmful lifestyle behaviors like smoking or eating a high-fat or high-sodium diet. And just as a single patient teaching session is unlikely to help a patient change lifestyle behaviors, Lai and colleagues found that one-time interventions to mitigate health care provider biases, though initially effective, did not change behavior over time.[27] Instead, nurses can use habit-breaking strategies in conjunction with bias-mitigating strategies by employing their own personal toolkit of bias-breaking interventions.[23] They can design an action plan to dissolve implicit biases with new behaviors. The plan could include the following steps:

- Recognize the habit's damaging effects (for example, inequitable health care and disparate patient outcomes).

- Make a commitment to break the habit, recalling the *Code of Ethics for Nurses*[1] and the values that brought you to nursing.
- Use several of the bias-mitigating strategies listed in Table 1.
- Persistently practice the more desirable habits using the bias-mitigating strategies you find most effective.

The habit of nonbiased thinking needs to be consciously practiced over time. Each strategy in the toolkit can help reinforce the others,[23] and eventually the habit of biased thinking can to a greater or lesser degree be replaced by the habit of nonbiased thinking.

Mindfulness is another bias-management strategy familiar to nurses. The specific goal of mindfulness is to empty the mind of distracting thoughts so

Table 1. Self-Interventions to Mitigate Implicit Bias[11, 12, 20-28]

Strategies	Description	Recommended by
Counterstereotypic imaging	Nurse, recognizing bias, purposely identifies members of a group who counter the stereotypical image of the group, and replaces the automatic biased image with the positive image. Related to mindfulness.	Institute for Healthcare Improvement, 2017
Emotional regulation	Nurse reflects on "gut feelings" and negative reactions (dislike, fear, frustration) to patients from vulnerable groups. Nurse then intentionally strives to be empathetic, patient, and compassionate. Related to mindfulness and perspective taking.	Joint Commission, 2016
Habit replacement	Nurse frames recognized biases as bad habits to be broken. Develops and uses a personal toolkit of self-interventions to replace the bad habit of biased thinking with the good habit of accepting and caring about each patient as an individual. Related to emotional regulation, individuation, mindfulness, and strategies nurses use to help patients change harmful lifestyle behaviors.	Devine and colleagues, 2012
Increasing opportunities for contact	Nurse seeks to develop relationships with members of a group to which the nurse does not belong, with the goal of dissolving stereotypes.	Institute for Healthcare Improvement, 2017
Individuation	Nurse mindfully seeks to see patients as individuals instead of as members of a stigmatized group. Related to therapeutic relationship, patient-centered care, and culturally competent care.	Institute for Healthcare Improvement, 2017
Mindfulness	Nurse purposely takes the time to calm thoughts and feelings by being mindful of the present moment, which can help the nurse act compassionately toward the patient. Related to emotional regulation and perspective taking.	Burgess and colleagues, 2017
Partnership building	Nurse intentionally frames the clinical encounter as one in which the nurse and patient are equals, working collaboratively toward the same goal.	Institute for Healthcare Improvement, 2017, and Joint Commission, 2016
Perspective taking	Nurse purposely and empathetically thinks about what the patient is thinking and feeling, stimulating feelings of caring and compassion. Related to mindfulness and therapeutic relationship.	Institute for Healthcare Improvement, 2017, and Joint Commission, 2016
Stereotype replacement	Nurse reflects on negative reactions to members of vulnerable populations, acknowledges stereotypical responses, considers reason for the feeling, and commits to respond with compassion in the future. Related to self-reflection.	Institute for Healthcare Improvement, 2017

that we might focus on the present moment, without assumptions or judgments.[29] It allows us to be more deliberative in our actions and enables us to recognize our biases before we automatically act on them. Mindfulness interventions have been used to reduce stress and to improve provider–patient communication.[28] The concept of mindfulness is related to the ethical concepts of empathy and compassion, which are cornerstones of nursing.

Ponte and Koppel suggest using the S.T.O.P. mindfulness technique developed by Elisha Goldstein to become mindful of the assumptions we want to avoid or the values we want to bring to our patients.[28,30] Before entering the patient's room, a nurse might take several seconds to do the following:

- Stop what you're doing.
- Take some slow, deep breaths.
- Observe your thoughts, feelings, and assumptions.
- Proceed with patient care.

The goal of this practice is to help nurses recognize what they are feeling about the patient, so they can ground themselves in the values they wish to bring to the patient encounter.

anxious, or fearful. Such feelings may indicate implicit bias and prompt self-reflection. Thoughtfully reflecting on the meaning and origin of such feelings and whether they influence the quality of relationships with patients can help nurses acknowledge and control previously unrecognized biases.

IATs. Another way to discover implicit biases is to take one or more of the IATs available at Project Implicit (https://implicit.harvard.edu/implicit/education.html), an international, nonprofit organization founded in 1998 by scientists from the University of Washington, Harvard University, and the University of Virginia.[31] This website contains 14 instruments for measuring some of the most prevalent biases—those related to race, ethnicity, skin color, religion, age, gender, overweight or obesity, sexual orientation, or disability. The web-based instruments developed by the Project Implicit research group are the tools most widely used by researchers investigating biases.[5,31] According to the program manager of Project Implicit, in 2018, approximately 25 million people had completed, or at least started taking, the tests on this website (e-mail communication, April 2019). The tests are readily accessible, without cost, to anyone who seeks to understand more about their hidden biases. Each test takes about 10 minutes to complete. The tests consist of images and evaluative statements that the test taker is instructed to sort as quickly as possible.

One way to discover implicit biases is to pay attention to gut feelings. Nurses can ask themselves if they anticipate unpleasant experiences when caring for any particular group of patients, or if any group makes them feel uncomfortable, anxious, or fearful.

Burgess and colleagues have proposed that health care providers can use mindfulness techniques to recognize, reduce, and control implicit biases.[22] They cite literature suggesting that mindfulness can reduce implicit biases among health care providers by preventing the triggering of automatic stereotypic reactions and can enable clinicians to recognize and moderate their biases even after they have been triggered. They cite studies suggesting that mindfulness promotes compassion. Since stressed clinicians are more likely to rely on their automatic (potentially biased) first impressions, reducing stress lessens the risk of implicit bias in clinical encounters.

RECOGNIZING IMPLICIT BIASES

One way to discover implicit biases is to pay attention to gut feelings. Nurses can ask themselves if they anticipate unpleasant experiences when caring for any particular group of patients, or if any particular group of patients makes them feel uncomfortable,

After completing a test, test takers immediately receive their results. Although it can be upsetting to receive results indicating potential implicit biases, learning about these can enable people to employ strategies to reduce them or mitigate their effects on future interactions. Although the IATs are reliable and valid research instruments, their developers explicitly state that, at their current stage of development, they should not be used to diagnose bias but rather as educational tools.[31]

It's important to remember that implicit bias is different from prejudice. Implicit bias means we have the instinctive tendency to evaluate other groups against the norms of our own groups. Prejudice, on the other hand, means that one feels consciously and

overtly that some groups are inferior, an attitude that can be used to justify discriminatory actions.

ADHERING TO NURSING'S BEST PRACTICES

Nursing's best practices include the development of strong therapeutic relationships and the provision of culturally competent, patient-centered care.[32, 33] Nurses who are committed to these practices form positive relationships with their patients, which dissolve bias.

Therapeutic relationships. To be successful in meeting patients' health goals, nurses are encouraged to establish a therapeutic relationship with each of their patients. The key to a therapeutic relationship is true caring for the patient.[34] Caring therapeutic relationships start with getting to know patients and their unique values, priorities, challenges, and strengths. Understanding each patient's perspective, the nurse works with the patient to achieve the patient's health care goals.

Patient-centered care emphasizes patients as collaborative partners with unique psychosocial needs that are as important as their clinical needs.[35] Patient-centered care requires us to listen carefully and respectfully to patients until we understand them as individuals with unique needs and preferences, though they may belong to groups with which we are unfamiliar or uncomfortable. With understanding, we can develop care plans that meet patients' psychosocial needs, including those for respect and consideration.

Culturally competent care. Patients whose background differs from that of their care providers in any way (race, ethnicity, religion, sexual orientation, gender identification, socioeconomic status, disabilities, stigmatized diagnoses, or any characteristic that distinguishes them from societal norms) are entitled to receive care that is effective and respectful of their cultural differences. Culturally competent care is an intrinsic element of the patient-centered care initiative.[36] Culturally competent care is patient-centered care, and patient-centered care is culturally competent care.

Embedded in each of these concepts are the strategies of individuation, perspective taking, and partnership building. Together, these approaches subvert the negative automatic responses that characterize implicit bias, enabling us to meet our patients' need for individualized respectful care.

Individuation requires us to listen carefully and respectfully to patients, seeking to understand their perspectives, experiences, values, preferences, and hopes.

Perspective taking challenges us to understand what patients are thinking and feeling, to see their illness through their eyes. This can often be accomplished when we show genuine interest in patients and ask them about their experience with their current illness and the way it affects their families and lives.

Partnership building recognizes the important role patients have in their own care. Nurse and patient collaborate, aligning the care plan with the patient's goals in order to promote patient adherence and well-being.

WHEN BIASES PERSIST

Implicit biases are difficult to eliminate, but when nurses acknowledge those they have, they can try to understand their origin and work to ensure that they do not adversely affect patient care. Health care agencies and facilities can guide clinicians toward unbiased care by supporting clear practice guidelines, such as those published by professional organizations for disease management and organizations promoting equitable care. Such guidelines provide a clear path to good care, limiting the influence of implicit biases by leaving little open to subjective interpretation in terms of assessment, diagnosis, treatment, and follow-up.[37] In addition, health care organizations can

- provide educational sessions on the causes and effects of implicit bias, as well as mitigation strategies.
- seek to reduce factors, such as inadequate staffing, that create stress, putting staff at risk for inappropriately using heuristics to guide care.

When individual nurses work to recognize biases and employ strategies to counter them, and health care organizations seek to reduce stress that can perpetuate the inappropriate use of heuristic responses, we grow in our abilities to develop therapeutic relationships and to provide culturally competent and patient-centered care. In the process, we advance the proposed Healthy People 2030 goal of eliminating health care disparities in the United States. ▼

For 22 additional continuing nursing education activities on the topic of patient-centered care, go to www.nursingcenter.com/ce.

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- For questions, contact LPD: 1-800-787-8985.
- Registration deadline is June 4, 2021.

PROVIDER ACCREDITATION

LPD will award 1 contact hour for this continuing nursing education (CNE) activity. LPD is accredited as a provider of CNE by the American Nurses Credentialing Center's Commission on Accreditation.

This activity is also provider approved by the California Board of Registered Nursing, Provider Number CEP 11749 for 1 contact hour. LPD is also an approved provider of CNE by the District of Columbia, Georgia, and Florida #50-1223. Your certificate is valid in all states.

PAYMENT

The registration fee for this test is $12.95.

Postpartum Depression and Anxiety

Postpartum depression, which can last months or years after giving birth, can affect a birthing person's or caregiver's ability to bond with and care for their baby.

If left untreated, it can impact the birthing person's or caregiver's health and may cause sleeping, eating, and behavioral problems for the baby.

When postpartum depression is effectively treated and managed, it benefits the birthing person or caregiver and child's health.

For your baby to feel safe and secure, it is important that you take care of your own needs.

Signs and Symptoms Can Include But Are Not Limited To:

- Persistent sad, anxious, irritable, or "empty" mood
- Feeling guilty, worthless, hopeless, or helpless
- Difficulty concentrating, remembering, or making decisions
- Difficulty sleeping
- Trouble bonding or forming an emotional attachment with the baby
- Persistent doubts about the ability to care for the baby
- Thoughts about death, suicide, or harming oneself or the baby

Depression and anxiety can present differently from person to person. Please contact your healthcare team if you or your loved ones are exhibiting concerning behavior.

Contact for Help

Emergency Hotlines

- For immediate help: **Call 911**
- **988 Suicide and Crisis Lifeline:** Call 988 (formerly the National Suicide Prevention Lifeline) or 1-800-TALK (8255)
- **National Maternal Mental Health Hotline:** Call or text 1-833-TLC-MAMA (1-833-852-6262)

Non-Emergency Helplines

- **Mother-Baby HopeLine at Hennepin Healthcare:** (612) 873-HOPE or (612) 873-4673 - the Hopeline is ***not*** a crisis phone line. A mental health professional will call you back within two business days.
- **Pregnancy & Postpartum Support Minnesota:** Call or text 1-800-944-4773, text en Español: 971-203-7773. Support and information provided by peer volunteers 7 days a week.

DEPARTMENT OF HEALTH
CHILD & FAMILY HEALTH

Minnesota Department of Health
Maternal & Child Health Section
PO Box 64975
St. Paul, MN 55164-0975
651-201-3650
health.mch@state.mn.us
www.health.state.mn.us

To obtain this information in a different format, call: 651-201-3650

8/2022

Depression or Anxiety During and After Pregnancy

When Being Pregnant or Having a New Baby Is Not What You Expected

Causes of Depression and Anxiety

There is no single known cause. Parents with a history of depression or anxiety are more likely to struggle during and after pregnancy. Other factors that can increase your risk of experiencing depression and anxiety include:

- Stress (finances, living situation, health)
- Hormonal changes
- Trauma
- Lack of support and social connection
- Baby who is fussy, colicky, or has health challenges

Treatment

The most effective treatment for depression and anxiety can include:

- Therapy or support groups
- Medicine that can be used during pregnancy or lactation (talk with your healthcare provider)
- Social support - family, friends, faith community, parent groups, neighbors
- Public health and home visiting nurses

When Is It An Emergency?

If you feel like hurting yourself or if your loved one speaks of hurting themselves, please contact one of the resources on the back middle panel.

In very rare cases, birthing persons can experience very serious symptoms of psychosis after having a baby. This is a medical emergency and birthing persons should be taken immediately to the Emergency Department at the nearest hospital and should not be left alone with their baby.

Symptoms may include:

- Hearing or seeing things that are not there (often paranoid - being watched or feeling unsafe)
- Being unable to sleep, even when the baby is sleeping
- Speaking or moving at a faster than usual pace.
- Confusion or disorientation
- A personal or family history of psychosis or bipolar disorder

Additional Resources

- **CDC Hear Her Campaign (www.cdc.gov/hearher/index.html)**: provides life-saving messages about urgent warning signs to prevent pregnancy-related deaths
- **Minnesota Help Me Connect (helpmeconnect.web.health.state.mn.us/HelpMeConnect/)**: helps expectant families, families with young children find and connect to services in their local communities that support healthy child development and well-being
- **Family Home Visiting Program (www.health.state.mn.us/fhv)**: home-based service that provides social, emotional, health-related and parenting support and information for families

Things We Can Do

Talk with your healthcare provider or ask a loved one to help you ask for recommendations and get the care you need.

- Talk to a mental health therapist or join a support or parent group.
- Ask your care provider about medicines that can be safely used during pregnancy or while breast/chest feeding.
- Seek out people in your community or faith groups about other support they recommend.
- Ask friends and family for help with child care, chores, errands, or to stop by with a meal.
- Think of small changes you can make to eat healthy, drink enough water, move your body and get rest or sleep.

It may take a combination of the activities above to get the help you need. Be patient with yourself!

Stories From Other Parents

"I love children and couldn't wait to have my own. Then my husband went back to work. I started having thoughts about hurting my baby. No matter what I did, I couldn't stop the thoughts. I lived in fear but kept it a secret." – Isabel

"It has been two months since I saw my doctor, and I feel like a different person. The medicine has helped and my family has been very supportive. I have energy again. I love being a mother." – Malia

This brochure meets the requirements of Minnesota Statute 145.906. For more information, call the Minnesota Department of Health at 651-201-3650 or visit our website at: https://www.health.state.mn.us/communities/mch/

ACOG

District IV

Health Equity and Reflective Care (*HER*-Care) Toolkit

Co-Chairs:

Wanda Nicholson, MD, FACOG & Victoria Green, MD, FACOG

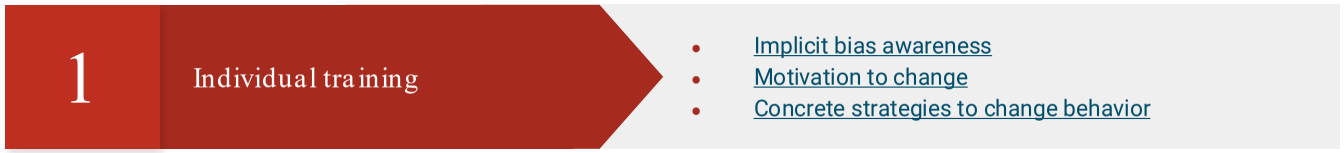
Subcommittee Chairs:

Teresa Byrd, MD FACOG & Jessica Lee, MD FACOG

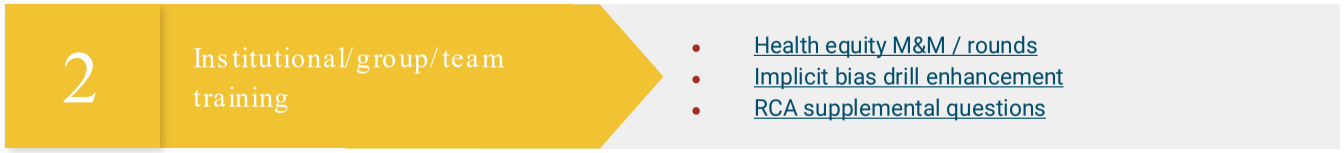
District IV Chair:

Sandra Reed, MD, FACOG

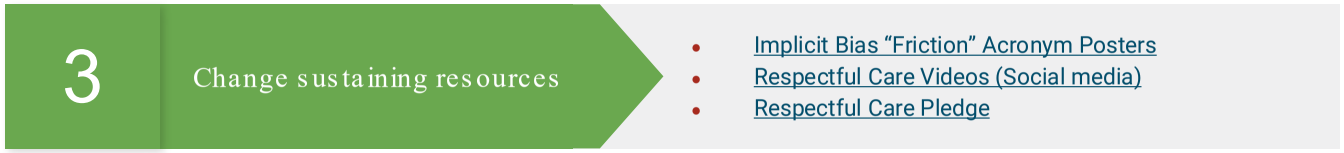
Health Equity & Reflective Care (HERCare) Toolkit



We recommend **individual trainings** initially focus primarily on bias awareness and motivation to change behavior. Later training should focus on concrete strategies to change behavior. Participation in at least one individual training should be required **annually**.



Institutional/group/team training should be employed in all departments and specialties with emphasis on modeling appropriate behavior (following protocols, aligning with standards of care, etc.). Institutional/group/team trainings **should be incorporated into routine activities** (conferences, drills, RCAs/QI case reviews, etc.). Team training should become a part of daily activities.



Change sustaining resources should be **used as adjuncts** to the individual and group trainings to reinforce and help sustain positive behavior change. Consider hanging the "friction" acronym posters in patient rooms and outside on the door; have the team read the respectful care pledge before M&M and/or case reviews; post respectful care videos on social media platforms.

IMPLICIT BIAS INDIVIDUAL TRAININGS REPOSITORY

Implicit bias awareness

1. Harvard IAT https://implicit.harvard.edu/implicit/takeatest.html
2. "How to Outsmart Your Own Unconscious Bias" Ted Talk- Valerie Alexander https://youtu.be/GP-cqFLS8Q4 (Administration)
3. Recognizing and Overcoming Unconscious Bias https://qionline.learnupon.com/store
4. Negative Stereotype Threats in Healthcare https://youtu.be/M1vM_ywbUfc
5. How Does Implicit Bias Impact Healthcare? https://youtu.be/ze7Fff2YKfM
6. PQI Speak Up Module 1: Recognizing Why Everyone Must SPEAK UP: Trends and Racial Disparities in Maternal Mortality and Morbidity https://www.perinatalqi.org/store/viewproduct.aspx?id=17096844
7. CREOG Health Equity Curriculum https://www.acog.org/education-and-events/creog/curriculum-resources/additional-curricular-resources/health-equity (GME)

Motivation to change

1. Perinatal Quality Improvement (PQI) Champions Webinar Series: SPEAK UP for African- American and Black Mothers: https://www.perinatalqi.org/page/SPEAKUP
2. PQI Speak Up Module 2: Pledging to SPEAK UP: Recognizing Bias, Inequity, and Racism in Perinatal Care https://www.perinatalqi.org/store/viewproduct.aspx?id=17096844
3. How Maternal Medical Disparities Affect Women of Color https://youtu.be/j-zdXa8UXDg
4. Closing the maternal mortality gap and improving outcomes for mothers https://youtu.be/kMZlfC0297s
5. Why are black mothers and infants far more likely to die in U.S. from pregnancy-related causes? https://youtu.be/AODAk-accVc
6. US Maternal Mortality the Highest of Any Developed Country. Are There Any Solutions? https://youtu.be/FiZD0yMb4ek
7. Black maternal mortality in US and its slave origins https://youtu.be/FAPT8ywaCvA
8. Diversity in GME- Bill McDade, MD, PhD- ACGME Chief Diversity and Inclusion Officer https://youtu.be/C7McG27kBeo (GME)

IMPLICIT BIAS INDIVIDUAL TRAININGS REPOSITORY

Concrete strategies to change behavior

1. Dignity in Pregnancy and Childbirth Course https://www.diversityscience.org/training/equal-perinatal-care/
2. ResCUE Model for Cross-Cultural Communication https://qionline.learnupon.com/store
3. Test Your Skills for Healthcare Professionals https://qionline.learnupon.com/store
4. How Can Providers Reduce Implicit Bias? https://youtu.be/3KoTi3LRBXI
5. What Is Bias, and What Can Medical Professionals Do To Address It? https://youtu.be/E_qERP-Y0Jw
6. PQI Speak Up Module 3: How to SPEAK UP Against Racism in Perinatal Care: https://www.perinatalqi.org/store/viewproduct.aspx?id=17096844
7. Breaking Through Implicit Bias in Maternal Care https://www.qualityinteractions.com/course-catalog
8. How we can improve maternal healthcare - before, during and after pregnancy https://youtu.be/Mg5yPQ4FWXI
9. Structures & Self: Advancing Equity and Justice in Sexual and Reproductive Healthcare https://www.innovating-education.org/course/structures-self-advancing-equity-and-justice-in-sexual-and-reproductive-healthcare/
10. Equity Practice and Inclusive Pedagogy for Faculty in Graduate Medical Education https://dl.acgme.org/learn/course/equity-practice-and-inclusive-pedagogy-for-faculty-in-graduate-medical-education/presentation/equity-practice-and-inclusive-pedagogy-for-faculty-in-graduate-medical-education (GME)
11. Diversity in GME- Bill McDade, MD, PhD- ACGME Chief Diversity and Inclusion Officer https://youtu.be/C7McG27kBeo (GME)
12. Creating a Residency Curriculum for Health Equity https://dl.acgme.org/courses/creating-a-residency-curriculum-for-health-equity (GME)
13. CREOG Health Equity Curriculum https://www.acog.org/education-and-events/creog/curriculum-resources/additional-curricular-resources/health-equity (GME)

HEALTH EQUITY M&M / ROUNDS

1. Cultural Complications Curriculum https://www.culturalcomplications.com/case-bank

   Video explaining the “Cultural Complications Curriculum” https://youtu.be/7nBW7bQ5mHA

2. Health Equity Rounds: An Interdisciplinary Case Conference to Address Implicit Bias and Structural Racism for Faculty and Trainees https://www.mededportal.org/doi/full/10.15766/mep_2374-8265.10858?c=689&
3. Structural Competency: Curriculum for Medical Students, Residents, and Interprofessional Teams on the Structural Factors That Produce Health Disparities https://www.mededportal.org/doi/10.15766/mep_2374-8265.10888
4. Addressing Microaggressions in Academic Health: A Workshop for Inclusive Excellence https://www.mededportal.org/doi/10.15766/mep_2374-8265.11103
5. When Race Matters on the Wards: Talking About Racial Health Disparities and Racism in the Clinical Setting https://www.mededportal.org/doi/10.15766/mep_2374-8265.10523

IMPLICIT BIAS DRILL ENHANCEMENT

- Include a case scenario in your unit/team drill (2 cases included: hypertension, pain/postpartum hemorrhage)
- Add details that commonly trigger implicit biases (race/ethnicity, female gender, age, substance abuse, obesity, etc.)
    - For example: *A 26-year old Black G8P6016 @ 32 1/7 weeks presents with complaints of abdominal pain. You notice only two contractions on the monitor. Her first blood pressure is 189/99, and on repeat 45 minutes later it is 195/101. Category I FHT. She has a history of drug abuse. She is also upset and arguing on the phone with the father of her baby…*
    - Ask participants what kind of assumptions could be made about the patient.
- Discuss how implicit biases can interfere with adherence to standards of care and protocols
- Highlight how and why different groups will respond or react differently and how behaviors can be inappropriately interpreted
- Highlight how and why regardless of the patient's history (*drug abuse*) or other factors (*arguing with father of baby*) the patient is still at risk of significant morbidity (*stroke, abruption, etc.*)
- Emphasize why adherence to standards of care and protocols leads to better outcomes

HYPERTENSION DRILL WITH IMPLICIT BIAS ENHANCEMENT

36 yo G7P6006 AAF @ 31w6d presents with contractions. She is wearing a scarf over her hair, sweatpants and Crocs. She has her 3 youngest children with her and two of them are running around the exam room. She appears frustrated and is trying to get them to sit down.

- ***What kind of assumptions could have been made at this point?***

The patient does not receive care from a doctor at your hospital, but states she has been receiving regular care from a local OBGYN. She said she came here because it was the closest to her house.

- ***Any other assumptions that people often make with this history?***

Her first blood pressure is 189/99. The fetal heart tracing is Category I. The patient is complaining of a headache. The nurse asks if she has ever used drugs. The patient denies drug or alcohol use. The nurse calls the hospitalist to let them know the patient is ready for evaluation.

- ***What biases are evident?***

The next blood pressure, taken 45 minutes later, is 195/101. The hospitalist has not been by to see the patient yet. The nurse calls the hospitalist and informs them of the patient again. The doctor orders a preeclampsia panel asks the nurse if the strip is ok. The nurse says "yes" and asks the doctor if she wants to order a urine drug screen. She says "that's a good idea". Just before getting off the phone, the nurse asks if the doctor wants to start magnesium. The doctor says not to start magnesium and to wait to see the drug screen results first. After two hours, and several severe range blood pressures, one dose of labetalol is given.

- ***Are there protocols or standards of care that were not followed? Why or why not?***
- ***If the patient is a drug user, would that change the management at this point?***

An hour after the labetalol is given, the patient continues to have severe range blood pressures and a headache. The lab was running behind so the urine drug screen just resulted negative. The patient begins complaining of a severe headache and her speech becomes confused and she is not moving her left arm. The nurse calls the doctor to come immediately. The doctor rushes in and orders the nurse to start magnesium sulfate and give another dose of labetalol. The fetal heart tracing is Category II. The doctors says, "We are going back for a stat c-section, I think the patient is having a stroke!"

- ***Were there protocols or standards of care that were not followed? Why or why not?***
- ***If the patient is a drug user, would that have changed the management?***

The magnesium is started but the patient seizes on the way to the operating room. Stat c/section is performed and a viable male neonate is delivered with APGARS 2-4-5 and goes to the NICU intubated. The patient's labs reveal HELLP syndrome and the patient has an intrapartum hemorrhage of 3 liters. She receives multiple blood products and the cesarean section is completed. The patient has a CT performed which shows a right MCA stroke.

- ***Could different responses have resulted in a better outcome?***

In recovery, the doctor calls the patient's emergency contact. When the phone is answered, someone says "Hello, Dr. Jackson's phone, he is scrubbed in right now, how can I help you?" …

- ***Do you think that if they knew the patient's husband was a surgeon they would have responded differently?***
- ***Should it matter?***

PAIN/Postpartum Hemorrhage (PPH) DRILL WITH IMPLICIT BIAS ENHANCEMENT

A 25 yo G1P1001 Spanish-speaking Latina female delivers a viable male infant at term by SVD without complication. She had and epidural and only had a small first-degree laceration that is hemostatic. One hour after delivery, the patient begins to complain of pain "dolor" in her vagina. She continues speaking in Spanish while pointing to her vagina. The nurse does a fundal massage, and pulls back the blankets to look at her bleeding. It appears normal. She reassures the patient by saying "You're ok". And leaves the room.

What kind of assumptions could have been made at this point?
What should have been done at this point?

Two more hours later, the patient's sister who has been present during the entire delivery comes out of the room looking for the nurse again, and is speaking to the nurse in Spanish and appears concerned about the patient waving the nurse over to her. The nurse again, checks that the patient's fundus is firm, and looks at her bleeding and says again, "She's ok". The nurse leaves again. Another nurse asks what is going on and the patient's nurse responds "She's fine, she's just whiny--- it's her first baby"

What kind of assumptions could have been made at this point?
What biases are evident?
What should have been done at this point?

The patient's sister comes out again, holding the baby and waving at the nurse to come in. When the nurse arrives at the bedside, the patient is pale and diaphoretic. She appears lethargic. The nurse puts on a pulse oximeter which reveals a pulse of 140, and takes a blood pressure which is 75/36. The nurse calls a rapid response and calls the attending. When the attending arrives, they order a stat H/H, two-large bore IVs, and type and cross match for 2 units of blood. While the rapid response team is hooking up EKG leads, the attending performs a pelvic exam.

- ***Could the team have responded sooner? If so, how?***

The attending pulls out what she feels is a large piece of placenta, but upon reexamination, feels a large defect in the vaginal sidewall. The patient loses consciousness and the attending along with anesthesia rush the patient back to the OR for further evaluation. Once the patient is intubated, the attending examines the patient and finds that she has a large vaginal hematoma that is bleeding profusely. The attending proceeds to repair the vaginal hematoma and calls in the hospitalist to assist. The patient receives multiple units of blood and FFP…

- ***Could different responses have resulted in a better outcome?***
- ***Are there protocols or standards could be implemented to ensure teams respond sooner to similar events?***

IMPLICIT BIAS "FRICTION" ACRONYM [Click here for link to pdf image]

PROVIDERS/NURSES

Is the care I am providing:

Patient-Centered?
Accountable?
Unbiased?
Standardized?
Equitable?

PATIENTS

Is the care I am receiving:

Patient-Centered?
Accountable?
Unbiased?
Standardized?
Equitable?

RCA SUPPLEMENTAL QUESTIONS

Ask these questions:

- Were there any deviations from standards of care in this case?
- Were there protocols that were not followed that should have been? Why?
- What implicit biases have played a role in the deviation from the standard of care?
- What could be done in the future to correct the error/deviation sooner or prevent it from happening?

RESPECTFUL CARE VIDEOS

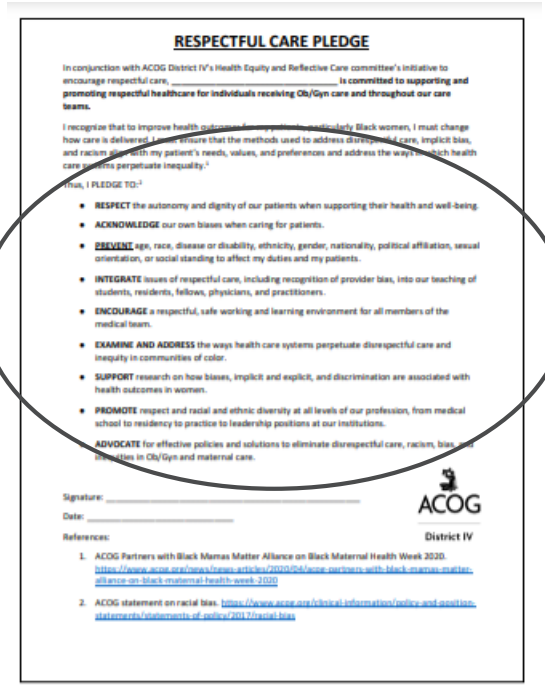
Respectful Example	Disrespectful Example
How to greet patients	How not to greet patients
How to refer to patients	How not to refer to patients
Unbiased interaction	Biased interaction
How to enter a patient's room	How not to enter a patient room
How to handle patient concerns	How not to handle patient concerns

RESPECTFUL CARE PLEDGE

[click here for pdf of pledge]

Thus, I PLEDGE TO:[2]

- **RESPECT** the autonomy and dignity of my patients when supporting their health and well-being.
- **ACKNOWLEDGE** my own biases when caring for patients.
- **PREVENT** age, race, disease or disability, ethnicity, gender, nationality, political affiliation, sexual orientation, or social standing from affecting my duties and my patients.
- **INTEGRATE** issues of respectful care, including recognition of provider bias, into my instruction of students, residents, fellows, physicians, and practitioners.
- **ENCOURAGE** a respectful, safe working and learning environment for all members of the medical team.
- **EXAMINE AND ADDRESS** the ways health care systems perpetuate disrespectful care and inequity in communities of color.
- **SUPPORT** research on how biases, implicit and explicit, and discrimination are associated with negative health outcomes in women.
- **PROMOTE** respect and racial and ethnic diversity at all levels of my profession, from medical school to residency to practice to leadership positions at my institution.
- **ADVOCATE** for effective policies and solutions to eliminate disrespectful care, racism, bias, and inequities in gynecologic and obstetric care.



RESPECTFUL CARE PLEDGE

In conjunction with ACOG District IV's Health Equity and Reflective Care committee's initiative to encourage respectful care, _____ **is committed to supporting and promoting respectful healthcare for individuals receiving Ob/Gyn care and throughout our care teams.**

I recognize that to improve health outcomes for my patients, particularly Black women, I must change how care is delivered. I must ensure that the methods used to address disrespectful care, implicit bias, and racism align with my patient's needs, values, and preferences and address the ways in which health care systems perpetuate inequality.[1]

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Signature: _____

Date: _____

ACOG
District IV

References:

1. ACOG Partners with Black Mamas Matter Alliance on Black Maternal Health Week 2020. https://www.acog.org/news/news-articles/2020/04/acog-partners-with-black-mamas-matter-alliance-on-black-maternal-health-week-2020
2. ACOG statement on racial bias. https://www.acog.org/clinical-information/policy-and-position-statements/statements-of-policy/2017/racial-bias

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- **SUPPORT** research on how biases, implicit and explicit, and discrimination are associated with health outcomes in women.
- **PROMOTE** respect and racial and ethnic diversity at all levels of our profession, from medical school to residency to practice to leadership positions at our institutions.
- **ADVOCATE** for effective policies and solutions to eliminate disrespectful care, racism, bias, and inequities in Ob/Gyn and maternal care.

Signature: _____

Date: _____

ACOG

District IV

References:

1. ACOG Partners with Black Mamas Matter Alliance on Black Maternal Health Week 2020. https://www.acog.org/news/news-articles/2020/04/acog-partners-with-black-mamas-matter-alliance-on-black-maternal-health-week-2020
2. ACOG statement on racial bias. https://www.acog.org/clinical-information/policy-and-position-statements/statements-of-policy/2017/racial-bias

PAUSE

PROVIDERS/NURSES

Is the care I am providing:

Patient-Centered?
Accountable?
Unbiased?
Standardized?
Equitable?

PAUSE

PATIENTS

Is the care I am receiving:

Patient-Centered?
Accountable?
Unbiased?
Standardized?
Equitable?

Respectful, Equitable Care Resources

Respectful, Equitable Care Resource	PDF?	Link?	Link
ACOG Respectful Care eModules	X	✓	https://www.acog.org/education-and-events/emodules/respectful-care
AWHONN Respectful Maternity Care Implementation Toolkit	X	✓	https://www.awhonn.org/respectful-maternity-care-implementation-toolkit/
HHS National CLAS Standards, Health Literacy & Effective Communication	X	✓	https://www.youtube.com/supported_browsers?next_url=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3D29rEtJcxku4&feature=youtu.be
Diversity in Pregnancy & Childbirth: Preventing Racial Bias in Perinatal Care	X	✓	https://learn.diversityscience.org/learn/course/external/view/elearning/13/dignity-in-pregnancy-childbirth-preventing-racial-bias-in-perinatal-care
MN Department of Health Depression or Anxiety, During and After Pregnancy patient education	✓	✓	https://www.health.state.mn.us/people/womeninfants/pmad/pmad-eng.pdf
ACOG Health Equity and Reflective Care (HER-Care) Toolkit	✓	X	
Respectful Maternity Care, The Universal Rights of Women & Newborns	✓	X	
Facility Exit Interview	✓	X	
HNN Respectful Maternity Care and Maternal Mental Health are Inextricably Linked	✓	X	
Journal of Women's Health, How Implicit Bias Contributes to Racial Disparities in Maternal Morbidity and Mortality in the United States	✓	X	
Targeting bias to improve maternal care and outcomes for Black women in the USA	✓	X	
The Joint Commission Quick Safety 23: Implicit bias in healthcare	✓	X	
Addressing Implicit Bias in Nursing: A Review	✓	X	
Respectful Care Facility Visuals	✓	X	
Respectful Care Pledge	✓	X	

Notes

The Mississippi Perinatal Quality Collaborative is a program of the Mississippi Public Health Institute.

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