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Reduction of Peripartum Racial and Ethnic Disparities: A Conceptual Framework and Maternal Safety Consensus Bundle

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Abstract

Racial and ethnic disparities exist in both perinatal outcomes and health care quality. For example, Black women are three to four times more likely to die from pregnancy-related causes and have more than a twofold greater risk of severe maternal morbidity than White women. In an effort to achieve health equity in maternal morbidity and mortality, a multidisciplinary workgroup of the National Partnership for Maternal Safety, within the Council on Patient Safety in Women's Health Care, developed a concept article for the bundle on reduction of peripartum disparities. We aimed to provide health care providers and health systems with insight into racial and ethnic disparities in maternal outcomes, the etiologies that are modifiable within a health care system, and resources that can be used to address these etiologies and achieve the desired end of safe and equitable health care for all childbearing women.

The principle that health care quality cannot fully be realized without health care equity has gained increasing acceptance over the past several decades, yet health care equity is a rate-limiting factor in quality improvement. In 2003, shortly after publication of "Crossing the Quality Chasm" (Institute of Medicine Committee on Quality of Health Care in America, 2001), the Institute of Medicine released "Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care" (Institute of Medicine Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care, 2003), a report that documented the disparate treatment by patient race and ethnicity that occurred despite access to the health care system. The evidence of racial and ethnic disparities in health care was remarkably consistent across a range of illnesses and health care services. For example, Black and Hispanic individuals were less likely to receive appropriate cardiac medications, to undergo coronary artery bypass surgery, and to receive peritoneal dialysis and kidney transplantation even after accounting for variations in insurance status, income, age, and comorbid conditions. Although more than a decade has passed since that report was published, disparities in care and outcomes continue to exist across a range of illnesses and services.

The field of maternity care is no exception. Racial and ethnic disparities exist in maternal and perinatal outcomes and health care quality (American College of Obstetricians and Gynecologists, 2015). These disparities are not simple differences, but rather inequities that systematically and negatively affect less advantaged groups. Racial and ethnic minority women experience more maternal deaths, comorbid illnesses, and adverse perinatal outcomes than white women. In addition, perinatal care has been shown to differ by race and ethnicity (Centers for Disease Control and Prevention, 2016; Creanga, Bateman, Kuklina, & Callaghan, 2014; Grobman et al., 2015; Howell, Egorova, Balbierz, Zeitlin, & Hebert, 2016a, 2016b; New York City Department of Health and Mental Hygiene, 2015). Black women are three to four times more likely to die from pregnancy-related causes and have more than a twofold greater risk of severe maternal morbidity than White women (Howell et al., 2016b). Elevated risks of maternal death and morbidity also have been reported for Native American women and some Asian and Hispanic population subgroups of women (New York City Department of Health and Mental Hygiene, 2015). Black women have been noted to have higher rates of postpartum hemorrhage, puerperal infection, and venous thromboembolism (Centers for Disease Control and Prevention, 2016; Creanga et al., 2014; Howell et al., 2016a; Grobman et al., 2015). Similarly, adverse perinatal outcomes, including infant death, are more common among Black than White women. Disparities are also evident in a variety of pregnancy care interventions (Grobman et al., 2015). In a study including more than 100,000 women, racial and ethnic disparities were documented in frequency of labor induction, episiotomy, and cesarean birth (Grobman et al., 2015). Hispanic women repeatedly have been shown to be less likely to receive epidural analgesia, and this disparity is exacerbated when English is not their primary language (Toledo, Eosakul, Grobman, Feinglass, & Hasnain-Wynia, 2016; Toledo et al., 2012).

Purpose of the Concept Article

In an effort to achieve health equity in maternal morbidity and mortality, a workgroup of the National Partnership for Maternal Safety, within the Council on Patient Safety in Women's Health Care, developed this concept article as background material for the Reduction of Peripartum Racial and Ethnic Disparities Patient Safety Bundle (http://safehealthcareforeverywoman.org/patient-safety-bundles/reduction-of-peripartum-racialethnic-disparities/), the use of which is designed to reduce racial and ethnic disparities in perinatal outcomes. This effort represents contributions by all the major women's health professional organizations and was developed by representatives from the American College of Obstetricians and Gynecologists; the Association of Women's Health, Obstetric and Neonatal Nurses; the Society for Maternal-Fetal Medicine; the American College of Nurse-Midwives; the Society for Obstetric Anesthesia and Perinatology; the American Academy of Family Physicians; the Association of Maternal & Child Health Programs; and the University of Michigan School of Public Health.

Our workgroup focused on developing a patient safety bundle that was evidence-based, feasible, actionable, and had the potential to improve the quality of maternal health care and reduce racial and ethnic disparities in maternal morbidity and mortality. Therefore, this concept article addresses the full continuum of women's health and maternity care from preconception through the postpartum period, given that the morbidity incurred in pregnancy may be related to events (e.g., family planning, optimization of chronic illness) that do not occur during the pregnancy itself. We reviewed evidence from outside of pregnancy and perinatal care and integrated the principles of just culture, safety culture, and best practices regarding health care disparities in other areas of health care into the development of the bundle. A key aspect of bundle development was a focus on factors that are modifiable by clinicians and institutions so that recommendations included in the bundle are actionable. In this concept article, we describe racial and ethnic disparities in maternal outcomes, review key modifiable factors that contribute to racial and ethnic disparities in maternal outcomes, and discuss the recommendations included in the bundle that aim to alter processes of care and ultimately improve equity in maternal outcomes.

Five themes underlie the bundle's recommendations for *Readiness, Recognition and Prevention, Response,* and *Reporting and Systems Learning.* These five themes include:

(a) the inability to assess disparities because they are not reliably measured, (b) lack of recognition of disparities at both the personal and systems level, (c) the importance of knowing the magnitude of racial and ethnic disparities that exist, (d) communication barriers, and (e) differences in the structure of care. The relationship of these themes to the four action domains of the bundle is presented in Table 1.

Framework for Addressing Disparities

Multiple determinants underlie inequities in health and health care and result in worse health outcomes and lower quality of health care for marginalized populations. Population health disparities are rooted in interconnected systems and interactions that occur on multiple levels: from the individual level (e.g., socioeconomic status, race and ethnicity, gender, behaviors, beliefs, biology, genetics) to more intermediate factors (e.g., neighborhoods, communities, social networks), to more distal or structural factors (e.g., social and political policies, health care institutions; Warnecke et al., 2008). This public health framework, with a focus on social determinants of health, is essential for advancing the understanding of these disparities and enabling their reduction. Equally important is a framework focused specifically on the health care system because it is here that clinicians and policymakers may have the greatest influence on factors that may allow for the reduction or elimination of disparities in the quality of health care (Kilbourne, Switzer, Hyman, Crowley-Matoka, & Fine, 2006). The key determinants of health disparities within the health system include patient, health care provider, clinical encounter, and health care system factors (e.g., health insurance coverage, distance from care, health care provider networks, reimbursement rates, and payment factors). For the development of the patient safety bundle on Reduction of Peripartum Racial and Ethnic Disparities, we combined the health care system framework from Kilbourne et al. (2006) with many of the social determinants and community-level factors that affect disparities in maternal health.

The Importance of Social Determinants

In seeking to structure approaches within a bundle to combat racial and ethnic disparities, there must be recognition that some of these disparities evolve from greater historic and economic vulnerability of women from racial and ethnic minority groups. Shaped by a history that includes servitude, exclusion, and codified inequities in access to housing, jobs, and education, women of minority racial and ethnic status in the United States have, on average, lower educational attainment, higher unemployment, and lower household incomes (Artiga, 2013). There is abundant evidence that lower economic and educational attainment is associated with disparate health care and outcomes. Lower educational attainment and health literacy were associated with less adequate understanding of pregnancy drug warnings, signs and symptoms of pregnancy and perinatal complications, and optimal management of diabetes in pregnancy (Yee, Niznik, & Simon, 2016; You et al., 2012). In women with gestational diabetes, those with lower educational levels had worse outcomes (Chung et al., 2006). Women who live in poorer environments also were at increased risk for infant mortality and other adverse perinatal outcomes (El-Sayed, Paczkowski, Rutherford, Keyes, & Galea, 2015).

Accounting for education and economic stability does not eliminate racial and ethnic disparities in maternal outcomes. Black women are at greater risk of preterm birth than White women, even after adjustment for socioeconomic factors (Yee, Liu, Sakowicz, Bolden, & Miller, 2016). Although Black women are at increased risk of preterm birth, they are less likely to receive treatments such as progesterone that have been associated with preterm birth reduction (Bryant, Worjoloh, Caughey, & Washington, 2010; Yee, Liu, et al., 2016). In the case of Hispanic women, there is evidence that improved economic fortunes may not protect against worse health outcomes: recent Hispanic immigrants had pregnancy outcomes that were as good as non-Hispanic White women born in the United States, but these outcomes deteriorated with longer residency in the United States (Chung, Boscardin, Garite, Lagrew, & Porto, 2003).

These findings underscore that although economic vulnerability contributes to racial and ethnic disparities in maternal and perinatal outcomes, it is not the sole reason that these disparities exist. Accordingly, a bundle devoted to the reduction of maternal racial and ethnic disparities must address factors in a health care system that disadvantage women with fewer economic and educational resources. The bundle must also directly address factors that disadvantage women based on race and ethnicity per se (Kindig, 2017). In the following sections, we discuss factors that help to sustain racial and ethnic perinatal disparities within the health care system and that may be modified by targeted approaches.

Sources of Obstetric Disparities and Approaches to Overcome Them Within the Health Care System

Inability to Assess Disparities Because They Are not Reliably Measured

Measurement of maternity care safety and quality has dominated discussion of measurement in the field of obstetrics and gynecology, and although the concepts of safety and quality are crucially important, this emphasis has left other aspects of measurement less developed (Bailit et al., 2016; Janakiraman & Ecker, 2010). Efforts to resolve racial and ethnic disparities in maternal health are constrained by lack of (a) reliable data on patient identity (including race, ethnicity, nativity, and language) and (b) patient and staff education on the best practices for ascertaining information related to identity.

First, the limitations of available data on identity hamper our ability to understand and to combat systemic disparities in care. In administrative data, including hospital discharge records, billing data, and birth certificates, information on race may be assigned by the person doing data entry or, even when self-reported, may be subject to constraints that do not allow each individual to accurately self-identify. The result is a myriad of inaccuracies and high levels of missing information on race and ethnicity in many of the data sources used by researchers, clinicians, insurers, and health care delivery systems (Baumeister, Marchi, Pearl, Williams, & Braveman, 2000; Lain et al., 2012; Reichman & Schwartz-Soicher, 2007).

For this type of information to become a routine part of data collection in maternity care, patients and staff need education on its importance and procedures for consistent, reliable, and respectful collection of these data. This process starts with women's understanding of the purpose of data collection, which is particularly important for people of color and other populations that have experienced exploitation through research and unethical practices (e.g., forced sterilization, experimentation without consent). Additionally, clinicians and other staff must understand the purpose and context for data collection around identity. In so doing, the staff should be aware of the historic context of the measurement of race, ethnicity, language, and nativity as well as the imperative to collect these data carefully and thoroughly to better understand differences between groups in access to and quality of care. To this end, the development and dissemination of best practices for the routine collection of self-reported data on race, ethnicity, language, and nativity could improve measurement practices in service of the goal of enhancing equity.

Lack of Recognition of Disparities at Both the Personal and Systems Level

Implicit bias.—Byrne and Tanesini (2015) suggested that "there appears to be a fundamental inconsistency between research which shows that some racial and ethnic minority groups consistently receive lower quality healthcare and the literature indicating that healthcare workers appear to hold equality as a core personal value." One explanation for this apparent paradox is that these disparities persist because of implicit or unconscious bias that can affect a clinician's perceptions and decisions, thereby creating disparities in access, patient–provider interactions, treatment decisions, and health outcomes (Penner, Blair, Albrecht, & Dovidio, 2014).

Implicit bias refers to the attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner and cause us to have attitudes about other people based on personal characteristics including but not limited to age, race and ethnicity, body habitus, disability, gender, or sexual orientation. These biases are pervasive, subconscious, and activated involuntarily (Blair, Steiner, & Havranek, 2011; Dasgupta, 2013; Rudman, 2004). These associations are reinforced by the media, news programming, and by passive observation of those who occupy valued or devalued roles in the community (Dasgupta, 2013). Acting on implicit bias is not a conscious decision. Indeed, the pervasiveness of implicit personal bias has prompted social scientist David R. Williams to emphatically state, "Because [implicit bias is] an automatic and unconscious process, people who engage in this unthinking discrimination are not aware of the fact that they do it" (Wilkerson, 2013).

There have been comprehensive reviews on measuring implicit bias in health care (Hall et al., 2015). The most common tool used to assess implicit bias is the Implicit Association Test, which is available online (https://implicit.harvard.edu/implicit). Hall et al. (2015), in a systematic review of 15 studies that assessed implicit bias in health care, reported that the majority of studies focused on differences in treatment or outcome for black compared with white patients. The findings indicated that adverse outcomes were most frequently related to patient–provider interactions, emphasizing the importance of communication and the need for health care providers to be aware of their own implicit biases given their influence in the setting of cross-cultural communications. There have been isolated studies focused on other groups at risk for implicit bias, including but not limited to individuals who are Asian, Native American, immigrants, religious minorities, women, and those with low English proficiency. These studies all supported the presence of bias toward “outgroup” patient populations. The potential influence of implicit bias is especially relevant in the setting of environments prone to cognitive overload or high stress such as emergency department or labor and delivery settings, where reliance on automatic or unconscious processes, when stereotypes and unconscious beliefs are more likely to be activated, are more frequently used (Johnson et al., 2016).

It is important to recognize and emphasize that implicit associations against most people arise outside of conscious awareness and many times may be counter to perspectives explicitly and sincerely endorsed by an individual. It is also important to recognize that implicit bias is different from overt and intentional discrimination. Recognition of its existence is not meant to evoke guilt but spur awareness and the concomitant commitment to overcome its effects; yet, given that implicit bias is unconscious, with consequences that may thwart the explicit intentions of individuals devoted to equity, attempts to counter its effects are challenging.

Nevertheless, investigators suggested that implicit biases are malleable (Dasgupta, 2013) and are remediable traits that can be improved through increased personal awareness and concerns about the effect of that bias. Indeed, participation in specific strategies such as cognitive and behavioral interventions has been shown to be effective in reducing bias (Carnes et al., 2012; Devine, Forscher, Austin, & Cox, 2012).

One intervention suggested to decrease individuals’ implicit bias is mindfulness. Mindfulness requires not only personal recognition of the “normal but potentially harmful unconscious cognitive processes” that lead to bias, but also the active commitment to proceed with training to reduce the likelihood that implicit biases will be unconsciously activated (Burgess, Beach, & Saha, 2017). The State of the Science Implicit Bias Review from the Kirwan Institute provided an excellent summary of additional approaches that can be used for decreasing implicit biases:

1. Intergroup contact: Research findings demonstrated that contact and interethnic friendships can improve interethnic attitudes (Aberson, Shoemaker, & Tomolillo, 2004). Intergroup contact can be used as a debiasing mechanism, particularly when involving individuals of a similar status engaging in a cooperative activity (Pettigrew & Tropp, 2006).
2. Perspective tracking or taking the perspective of others: This is often done through vignettes or storytelling (Yonas et al., 2006).
3. Mindfulness (see previous).
4. Individuation: This is defined as “intentionally focusing on individual patients’ information apart from their social group” (Chapman, Kaatz, & Carnes, 2013). White and Stubblefield-Tave (2017) provided a list of 18 recommendations that clinicians can use to decrease the likelihood of biased care and to communicate with a patient in a way that connects the health care provider’s humanness with the patient’s humanness.

Institutional bias.—Bias may arise not only at the level of the individual, but also at the level of structures or institutions. For example, although the laws that sustained slavery and explicitly sanctioned racial segregation are no longer in place, remnants of that social, cultural, and political structure continue today as evidenced by disparities in housing, education, employment, wealth, and criminal justice (Jones, 2000; Nittle, 2018). With regard to health care, "cultural values, frameworks, and meanings shape institutional policies and … [are] a critical mechanism through which racial inequities and social determinants of health not only develop but persist" (Griffith, Johnson, Ellis, & Schulz, 2010). Institutional racism is sometimes also referred to as structural racism, systemic racism, or institutionalized racism.

In an effort to counter the effects of institutional racism on health care and outcomes, national health care advisory bodies have advocated that health care systems promote cultural competency as an organizational strategy (Weech-Maldonado et al., 2016). National standards for culturally and linguistically appropriate services have been developed and endorsed by numerous stakeholders, advisory boards, and accrediting agencies, including the U.S. Department of Health and Human Services, Institute of Medicine, National Quality Forum, and The Joint Commission (Betancourt et al., 2008; Koh, Gracia, & Alvarez, 2014; Weech-Maldonado et al., 2016). Although cultural competency is necessary to bring about the sustained changes needed for health equity, it alone is not sufficient, and interventions at the system level needed to mitigate against institutional racism are multifactorial. These interventions include (a) educating students and staff about bias and the importance of minimizing disparities; (b) making a diverse, multicultural staff an institutional priority; and (c) using change management and quality improvement principles to change the institutional culture to promote a culture of respect.

There are multiple concrete steps health care institutions can take to accomplish these objectives. The importance of education and self-awareness has already been discussed. Health care systems can actively develop and implement diversity and inclusion strategies at all levels. Clinician education should include diversity and culture as crosscutting competencies throughout the training curriculum, and curricula should critically examine issues related to race and ethnicity (Taboada, 2011). Professional development also may include role playing and routine feedback for all levels of trainees and faculty in an effort to decrease negative interactions (Boscardin, 2015). Such development includes teaching the skill of explicitly discussing race and racism and its implications for clinical practice and patient well-being (Betancourt et al., 2008).

One hospital system has reported on the challenge to develop a culture of respect, and their experience serves as a useful example (Sokol-Hessner, Folcarelli, & Sands, 2016). The hospital leadership developed respect and dignity workgroups to define the scope of the problem and to build the case for urgency. They operationalized the definition of respect as "the actions taken towards others that protect, preserve, and enhance their dignity" and demanded that it should be provided not just to patients, but to visitors and staff as well. Using the existing quality improvement infrastructure, they started tracking complaints and grievances that described "disrespectful experience" and set boundaries for what events required action. These events were tracked quarterly on a dashboard and shared publicly within the institution. Staff members involved were not disciplined for their actions, but were coached on how to prevent future harms.

Principles of just and safe culture.—The approach to reporting discussed previously emphasizes optimizing a culture of reporting and an institutional response that must be perceived as fair. Just culture is defined as a strategic accountability system in which leaders attempt to optimize the balance between individual and system accountability. In a just culture, health care institutions are accountable for the systems they design, and staff, patients, and visitors are accountable for the choices they make within those systems. A just culture supports robust reporting systems, because well-intentioned employees can feel confident that the contents of the report will remain confidential and will lead to reflective system improvements instead of reflexive punishment (Khatri, Brown, & Hicks, 2009).

Currently, just culture is a common institutional strategy used to optimize patient safety, but this approach could support institutional missions of health equity as well. In the context of patient safety, just culture distinguishes between human error and malicious action. Human error is defined as inadvertent action (doing anything other than what was intended) and can be expected even among well-intentioned health care providers. The most appropriate institutional response to human error is to focus on health system redesign to reduce or eliminate the possibility of a similar error in the future and to enhance the capacity for recovery.

Similarly, with the challenge of reducing racial and ethnic disparities, an understanding of individual intention and awareness serves as the starting point for the institutional response. Reports of inequity, miscommunication, and disrespect warrant careful review to identify system-level opportunities to better meet the needs of racial and ethnic minority populations. Some antecedent conditions that led to the episode (e.g., insufficient staffing, inefficient care processes) can be modified or addressed to improve clinicians' ability to reliably provide patient-centered care. Many situations may best be addressed by coaching and education to increase awareness of best practices and to reflect on behavioral consequences.

Specific Knowledge of the Magnitude of Racial and Ethnic Disparities That Exist Within a Health Care System

Two central principles are used in quality improvement: (a) knowing why you need to improve and (b) having a way to get feedback to demonstrate that improvement is happening (Langley et al., 2009). The magnitude of racial and ethnic perinatal disparities within institutions, however, is often not assessed. For organizations seeking to establish a system of quality improvement to ameliorate racial and ethnic disparities, one focus should be on local measurement opportunities to identify specific strategies to improve outcomes.

Any such system should track not only differences in outcomes but differences in care as well (Langley et al., 2009). Outcome data alone are not sufficient to create an understanding of the variation that may exist in the care that is linked to a specific outcome (Draycott et al., 2010). Assessment of the types of care received—often called process measurement—allows one to study whether changes made have influenced the system to perform desired actions in an improved manner. Data (process and outcomes) collected should be determined based on a plan that ensures that the data will allow relevant questions to be answered and concerns to be addressed (Langley et al., 2009).

In the white paper released in 2016, the Institute for Healthcare Improvement provided guidance on establishing a framework for organizations to achieve health care equity (Wyatt, Botwinick, Mate, & Whittington, 2016). The first point in this framework stresses the importance of the commitment of leadership to equity; part of that commitment can be the development of structures and processes to support quality improvement measurement specifically directed toward racial and ethnic disparities in maternity care and outcomes (Wyatt et al., 2016). Such efforts can include a dashboard of measures that not only illustrates a hospital's or system's overall results, but also stratifies these measures by race and ethnicity in an effort to understand and quantify the disparities that exist locally. Such dashboards are an important snapshot of system performance, and the data contained therein can then be measured over time to monitor system performance and change toward a goal. Once the racial and ethnic disparities that exist at a local level are better understood, other tools from the "quality toolbox" can be used to uncover and lessen the factors within a system that contribute to any observed disparities. These tools include driver diagrams, failure modes effects analysis, fishbone charts, and root cause analysis techniques. A full description of these approaches is beyond the scope of this discussion, but many sources may be used for reference (Institute for Healthcare Improvements, n.d.).

Communication Barriers

Another component of high-quality, patient-centered care, and one that contributes to maternal racial and ethnic disparities, is patient–provider communication (Attanasio & Kozhimannil, 2015; Cooper et al., 2003). Effective communication is a cornerstone of quality care and patient safety (Bartlett, Blais, Tamblyn, Clermont, & MacGibbon, 2008). More patient-centered communication has been associated with better patient recall of information, greater satisfaction with care, and better health outcomes (Roter et al., 1997; Stewart, 1995). Although patient–provider communication is complex, recommendations in the bundle are focused primarily on two approaches: addressing language barriers for women with limited English proficiency and using shared decision-making in all clinical encounters.

Limited English proficiency is a characteristic that describes an individual who has a limited ability to read, speak, write, or understand English when English is not her primary language (LEP.gov, n.d.). Data from the 2015 American Community Survey indicated that 9% of the U.S. population (i.e., more than 25 million people) had limited English proficiency (Batalova & Zong, 2016). Language barriers result in ineffective communication with health care providers and have been shown to result in an increased frequency of medical errors and readmissions (Nápoles, Santoyo-Olsson, Karliner, Gregorich, & Pérez-Stable, 2015; Ngai et al., 2016). Disparities in labor pain management have also been shown among women of limited English proficiency (Toledo et al., 2016).

People prefer language-concordant health care (Wallace, Mendez-Luck, & Castañeda, 2009), and federal mandates are in place to assure linguistic support to patients with limited English-proficiency. Title VI of the Civil Rights Act of 1964 states that no person shall be subjected to discrimination on the basis of race, color, or national origin under any program or activity that receives federal financial assistance (National Archives, 2004). This includes individuals of limited English proficiency because language can be a barrier to accessing federal benefits and services. Reasonable steps should be taken to provide meaningful opportunities for access. The National Culturally and Linguistically Appropriate Services Standards in Health and Health Care state that an interpreter must be available to patients at no cost and that print and multimedia materials should be available in the languages commonly used in the location (U.S. Department of Health & Human Services, n.d.).

Interpreter services have reduced disparities through better understanding of health care provider recommendations, increased use of preventive services, reduced emergency department visits, and greater patient satisfaction (Baker, Hayes, & Fortier, 1998; Baker, Parker, Williams, Coates, & Pitkin, 1996; Jacobs et al., 2001; Manson, 1988). Several interpretation options exist in the health care setting, including in-person, telephonic, or video interpreters, use of health care provider second language skills, and ad hoc interpreters. However, the quality of interpretation has been shown to vary with differing modes of interpretation. In a cross-sectional study published in 2015, Nápoles et al. (2015) compared the accuracy of in-person, video, and ad hoc interpretation during primary care visits with individuals of limited English proficiency. Up to 30% of the interpreted information was inaccurate. Ad hoc interpretation was associated with more errors (54%) than in-person (25%) or video conference interpretation (23%). Despite known differences in the quality of interpretation, clinicians often choose to forgo professional interpreters and instead rely on patients' friends or family members or their own second language skills. The National Culturally and Linguistically Appropriate Services Standards in Health and Health Care state that if second language skills are to be used, competence in the use of the language should be evaluated and the use of untrained individuals (e.g., minors, family members) should be avoided (U.S. Department of Health & Human Services, n.d.).

Shared decision-making is another communication strategy that may be used to reduce perinatal racial and ethnic disparities. During the process of shared decision-making, the clinician shares relevant risk and benefit information with the woman as well as any treatment alternatives. Women also share relevant personal information that might make one treatment more or less tolerable than others (Kaplan, 2004; King, Eckman, & Moulton, 2011). Best practices for shared decision-making, however, are often not used. Results of a cross-sectional study of primary care office visits in 1999 demonstrated that only 9% of all encounters met the definition of complete informed consent (Braddock, Edwards, Hasenberg, Laidley, & Levinson, 1999). The DECISIONS study, published in 2010, was a nationally representative survey to evaluate the medical decision-making process (Zikmund-Fisher et al., 2010). Eighty-two percent of all survey respondents reported making at least one medical decision in the preceding 2 years (Zikmund-Fisher et al., 2010). The respondents often lacked key knowledge that would allow them to make informed decisions, and many respondents understood much less than they thought they did when discussing their medical conditions and decisions (Sepucha et al., 2010; Zikmund-Fisher et al., 2010). As a result, respondents were not able to be full active participants in the health care decision-making process.

Several strategies exist for improving shared decision-making. One strategy is the use of the teach-back technique, in which a woman is asked to reiterate in her own words her understanding of the information that had been shared (The Joint Commission, 2010). It is important not to ask, “Do you understand?” because often people will say, “yes” even if they do not. Best practices suggest that communication with patients should avoid the use of jargon, and written materials should be written at or below the sixth grade reading level (Centers for Medicare & Medicaid Services, n.d.; Office of Disease Prevention and Health Promotion, 2016). The National Patient Safety Foundation’s Ask Me 3 campaign encourages people to ask three questions during the health care encounter: What is my main problem? What do I need to do? Why is it important for me to do this? The use of the Ask Me 3 questions alone will not lead to shared decision-making per se; however, it is a useful tool to increase understanding and thereby increase individual engagement in decision-making (National Patient Safety Foundation & Institute for Healthcare Improvement, n.d.).

Another commonly used strategy for improving shared decision-making is the use of decision aids. Decision aids may be pamphlets, brochures, or videos that contain detailed information about the diagnosis or treatment option being discussed. Women may learn about the condition or treatment at home and may share the information with their family members, who are commonly influential in decision-making (American College of Obstetricians and Gynecologists, 2018; King et al., 2011). Authors of a 2009 Cochrane Review found decision aids not only improve patients’ knowledge, but also improve their comfort with the decision-making process (O’Connor et al., 2009). Models and training programs, including those that emphasize the importance of autonomy and respect for people of diverse racial and ethnic backgrounds, can assist clinicians with implementation of shared decision-making in clinical practice (Agency for Healthcare Research and Quality, 2014).

Differences in the Structure of Care

Because of the overlap of race and ethnicity with economic disadvantage, approaches that lessen the challenges faced by individuals with lower economic status in their interaction with the health care system may improve care for all and may also potentially reduce racial and ethnic disparities. For example, one factor implicated in adverse perinatal outcomes is the fragmentation of preconceptional, prenatal, and interpregnancy care (Grande, Srinivas, & Society for Maternal-Fetal Medicine Health Care Policy Committee, 2013). Maternity care is especially vulnerable to fragmentation, because it is a time of intense utilization when care is delivered across ambulatory practices, hospitals, and other facilities within and across health care networks. Fragmentation of care is exacerbated for economically disadvantaged women such as when they receive outpatient antepartum care from one group of health care providers (e.g., at a federally qualified health center or local health department) but intrapartum care from a different group of health care providers or health system. Interpregnancy care is also more problematic because some women gain insurance coverage during pregnancy only to lose it when they are no longer pregnant (Grande et al., 2013).

The maternity health care record is the primary mode of communication with other clinicians involved in perinatal care and has been touted as one of the most, if not the most, organized health care record system in the United States (Phelan, 2008). The implementation of electronic perinatal health records has led to improved access to outcome data (Nielsen, Thomson, Jackson, Kosman, & Kiley, 2000), communication among clinicians (Bernstein, Farinelli, & Merkatz, 2005), and care coordination (Sherer, Meyerhoefer, Sheinberg, & Levick, 2015). However, these benefits may not accrue to women as they transition among health sites and systems that do not share a common record system.

Lagrew and Jenkins (2014) described a vision of the patient as the “owner” of her/his health information. Researchers found that pregnant women were more likely to use web-based personal health records if the education provided was tailored rather than general (Shaw et al., 2008), that placing health records on a USB drive was an acceptable means to provide access to records and improved satisfaction with prenatal care (Wackerle et al., 2010), and that personal health records may improve access to health care among women during the postpartum period. Results of a Cochrane Review suggested that women carrying their own prenatal records may lead to an increased sense of control and availability of prenatal records at the hospital (Brown, Smith, Mori, & Noma, 2015).

Efforts to ensure that women can access their health information from any place at any time and provide it to their clinicians will likely enhance the provision and quality of care. Accordingly, health care systems should seek to provide convenient access to health records (paper or electronic) without delay, at minimal to no fee to the woman, in a clear and simple format that summarizes information most pertinent to perinatal care and wellness (Oza-Frank, Gilson, Keim, Lynch, & Klebanoff, 2014). Written, basic information about clinical encounters is a fundamental and foundational step to ensure that women have documentation of key information related to their care and health status.

Another tactic to reduce effects of fragmentation of care is to communicate consistently to women the importance of maximizing their health before conception. Women’s health care providers are well positioned to play a pivotal role in the achievement of health equity by creating an atmosphere of expectancy of preconceptional and interpregnancy care for women considering pregnancy or not actively preventing pregnancy. Women should be counseled about the association of adequate nutrition, weight, and appropriately managed health conditions (e.g., diabetes mellitus) with less frequent adverse pregnancy and perinatal outcomes. Because women from racial and ethnic minority groups are disproportionately affected by comorbidities and poor nutritional status, and are also less likely to receive preconceptional and interpregnancy care, these women stand to benefit disproportionately from such care enhancements. One further opportunity to coordinate and expand care opportunities is through linkages to community-based public health, mental, and social services.

Postpartum home visitation and care coordination have shown promise in lengthening interpregnancy intervals and improving subsequent birth outcomes in women of color (Biermann, Dunlop, Brady, Dubin, & Brann, 2006; Dunlop et al., 2008). Many of these services are available through local public health and federally qualified health centers

in many communities. One vital component of preconceptional and interpregnancy care is the reproductive plan, which entails a conversation about the desire for and timing of future pregnancy, along with a determination of the most appropriate contraceptive approach based on those plans. Reproductive plans have been integrated into the Federal Title X guidelines as a means of reducing unintended pregnancies and increasing interpregnancy intervals. For women desiring a pregnancy in the next 3 to 5 years, long-acting reversible contraceptives may seem to be the best option. However, it is imperative that women's health care providers maintain a nonjudgmental, noncoercive, and woman-centered approach toward contraceptive counseling, especially when recommending long-acting reversible contraceptives to lowincome racial and ethnic minority women who might fear an inability to have it removed in the future as a result of loss of insurance or lack of finances.
It is important for women's health care providers to be mindful that a history of past contraceptive misuses and abuses of racial and ethnic minority women may hamper communication and trust regarding contraception recommendations and use.

Discussion

It is well-established that marked racial and ethnic disparities exist in maternal outcomes. These disparities have persisted for years and are related to a variety of factors, including those within and beyond the day-to-day control of health care systems or the health care providers who work within these systems. The unremitting nature and multifactorial origins of these disparities may lead some to believe that their resolution is beyond the capacity of the health care system to improve or eliminate, yet rather than inducing a feeling of helplessness, it is this unremitting nature and the fact that a portion of the disparities arise within and are potentially modifiable by the health system that should strengthen the resolve of maternity care clinicians to work toward remediation.

Alternatively, some may believe that resolution of the disparities should be accomplished through more general quality improvement efforts, including those directed toward improvement of specific and well-defined pathologies such as postpartum haemorrhage or hypertension. Although quality improvement initiatives directed toward these pathologies have shown value, it is by no means guaranteed that overall quality improvement initiatives will narrow or eliminate racial and ethnic disparities. Quality improvement efforts, for example, may improve outcomes for all, but allow the differential outcomes related to race and ethnicity to remain. Alternatively, quality efforts may be differentially adopted in more resource-rich settings and actually exacerbate disparities (Sehgal, 2003).

Indeed, the goal of equity in care and outcomes can be accomplished only if it is treated the same as the goal of other quality improvement initiatives, namely, as a desired end in and of itself, embedded within a culture of safety that is specifically acknowledged, discussed, measured, monitored, and the subject of continuous quality improvement efforts. Admittedly, the concepts that underlie these disparities and the tools necessary to combat them may be less familiar to many health care providers than those of other factors that lead to perinatal morbidity. Implicit bias and its solutions may seem less familiar than postpartum hemorrhage and a hemorrhage cart. However, unfamiliarity should not breed contempt. Basic principles of safety and quality were relatively unknown in the health care community even a few years ago; in a short time, they have increasingly pervaded maternity care and their adoption has been associated with improved outcomes (Howell & Zeitlin, 2017). Although some disparity in outcomes may arise because racial and ethnic minority women are more likely to receive care in different hospital settings (i.e., disparities resulting from interhospital differences), this difference in site of care cannot explain the extent of disparities that exist, and evidence exists for racial and ethnic disparities within individual hospitals as well (i.e., intrahospital differences; Howell & Zeitlin, 2017). Whether the disparities are rooted in within or between-hospital differences, many of the remedies are the same.

We aimed to provide clinicians who care for pregnant women and health systems with essential background materials that will promote insight into racial and ethnic disparities, the etiologies that are modifiable within a health care system, and resources that can be used to address these etiologies and achieve the desired end of safe and equitable health care. The final recommendation by the workgroup is that patient safety bundles endorsed by the National Partnership for Maternal Safety, within the Council on Patient Safety in Women's Healthcare, should be expanded to include a "5th R—Reduction of disparities." Equity is a crosscutting dimension of quality health care and therefore is an essential component of quality improvement efforts in the care of all childbearing women.

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Table 1:

Reduction of Peripartum Racial–Ethnic Disparities Bundle: Commentary Linkage

Theme in Commentary	Domain in Bundle
Inability to assess disparities because they are not reliably measured	1. Readiness • Establish systems to accurately document self-identified race, ethnicity, and primary language 2. Reporting and Systems Learning • Build a culture of equity, including systems for reporting, response, and learning similar to ongoing efforts in safety culture
Lack of recognition of disparities at both the personal and systems level	1. Readiness • Provide staff-wide education on peripartum racial and ethnic disparities and their root causes 2. Recognition • Provide staff-wide education on implicit bias • Establish a mechanism for patients, families, and staff to report inequitable care and episodes of miscommunication or disrespect 3. Response • Ensure a timely and tailored response to each report of inequity or disrespect
Specific knowledge of the magnitude of racial and ethnic disparities that exist within a health care system	1. Readiness • Engage diverse patient, family, and community advocates who can represent important community partnerships on quality and safety leadership teams 2. Reporting and Systems Learning • Develop a disparities dashboard that monitors process and outcome metrics stratified by race and ethnicity with regular dissemination of the stratified performance data to staff and leadership • Implement quality improvement projects that target disparities in health care access, treatment, and outcomes • Consider the role of race, ethnicity, language, poverty, literacy, and other social determinants of health, including racism at the interpersonal and system level when conducting multidisciplinary reviews of severe maternal morbidity, mortality, and other clinically important metrics
Communication barriers	1. Readiness • Evaluate non-English language proficiency (e.g., Spanish proficiency) for providers who communicate with patients in languages other than English • Educate all staff (e.g., inpatient, outpatient, community-based) on interpreter services available within the health care system 2. Response • Engage in best practices for shared decision-making
Differences in the structure of care Fragmentation of care	1. Recognition

Theme in Commentary	Domain in Bundle
	• Provide convenient access to health records without delay (paper or electronic), at minimal to no fee to the maternal patient, in a clear and simple format that summarizes information most pertinent to perinatal care and wellness 2. Response • Address reproductive life plan and contraceptive options not only during or immediately after pregnancy, but at regular intervals throughout a woman's reproductive life • Establish discharge navigation and coordination systems post childbirth to ensure that women have appropriate follow-up care and understand when it is necessary to return to their health care provider

Note. Bundle domains are from American College of Obstetricians and Gynecologists. Patient safety bundle: reduction of peripartum racial/ethnic disparities. Council on Patient Safety in Women's Health Care. Washington, DC; American College of Obstetricians and Gynecologists: 2016. Retrieved from http://safehealthcareforeverywoman.org/patient-safety-bundles/reduction-of-peripartum-racialethnic-disparities/. Reprinted with permission.