



The Maternal and Newborn Care Provider Role

Provide whole-person care to achieve maternal health equity



Supported by the Robert Wood Johnson Foundation. The views expressed in this report do not necessarily reflect the views of the Foundation. edicated and hardworking maternal and newborn care providers have faced several years of unprecedented demands during a grueling pandemic. They are also being called upon to improve care, equity, experiences, and outcomes of childbearing families. The recommendations below support an effective response to these expectations, with a focus on strengthening the structures that support provision of excellent maternal-newborn care. Improving structures and processes can raise the bar for childbearing families, enhance professional satisfaction, and mitigate burnout and turnover.

To deliver optimal care for birthing people* and their families and mitigate the maternal health crisis, provider institutions should recognize that a family's life context has at least as much influence on maternal and infant health outcomes as the clinical care they receive. Provider institutions should understand and address people's health needs in the context of their overall physical, mental, emotional, spiritual, social, behavioral, and environmental well-being. Providing "whole-person care" is critical for birthing families, and even more so for families who must also contend with racism, ableism, and other forms of structural inequities that undermine their health. Healthcare provider institutions should develop and implement policies, programs, and practices tailored to that reality. Lastly, structures of accountability should reinforce this pathway for achieving optimal maternal and newborn health.

While addressing the drivers of maternal-newborn health is not the exclusive responsibility of healthcare provider institutions, they have a central role to play within their mission. Concretely, this requires rethinking *how* care is provided and *by whom*.

Providing comprehensive, high-quality, culturally centered whole-person care takes time and skill and ideally should be tailored to people's varying needs and contexts. This will likely require a range of activities, from strengthening clinical systems to enhancing the social drivers of health in their community (see Advocate Role, page 78). To effectively provide whole-person care, care teams should include personnel such as midwives, mental health providers, reproductive healthcare providers, social workers, care navigators, lactation counselors, and doulas (see Employer Role, page 38). Developing and resourcing partnerships with local community-based organizations will be instrumental in doing this well (see Community Partner Role, page 60).

Whole-person care must focus on the dignity, personal agency, and bodily autonomy of birthing people. It should be free from racism and other forms of bias and discrimination, and respect the autonomy of birthing people and their culture. This may include enabling alternative complementary practices.

^{*} We recognize and respect that pregnant, birthing, postpartum, and parenting people have a range of gender identities and do not always identify as "women" or "mothers." In recognition of the diversity of identities, this report uses both gendered terms, as well as gender-neutral terms such as "people," "pregnant person," and "birthing people." In referencing studies, we use the typically gendered language of the authors.

Spotlight on Innovation

A Multifaceted Strategy to Improve Black Maternal Health

Who: Penn Medicine Department of Obstetrics and Gynecology

Where: Greater Philadelphia, PA

What: Within a systemwide program to advance health equity, the Penn Medicine Department of Obstetrics and Gynecology is implementing multifaceted strategies to advance maternal health equity. Within one year, they reduced severe pregnancy complications in Black women by nearly one-third.

WHY: In 2020, as outrage over the police killing of George Floyd sparked worldwide attention on institutional racism, the University of Pennsylvania's health system committed to take anti-racist action and establish a new institutional culture. The need for change was urgent in Philadelphia, where almost one in four residents lives in poverty, and roughly two-thirds are people of color. Moreover, community violence, limited access to fresh food, and other factors associated with worse health outcomes – including childbearing complications – are abundant.

Relative to the national Black maternal health crisis, disparities are more pronounced in Philadelphia, where Black women are four times more likely to die in pregnancy, childbirth,

and the first year postpartum than white women. To alter these sobering statistics, Penn Medicine tackled racial disparities in maternal morbidity, declaring maternal health equity a priority for the 2021 fiscal year.

GOAL: The Ob-Gyn Department and Women's Health Service Line developed and implemented Penn Medicine's goal of reducing maternal morbidity and mortality among Black women across the system's five maternity units.

Six Levers to Advance Black Maternal Health Equity

- 1. Bold leadership
- 2. Workforce diversity
- 3. Embedding equity in quality improvement and research
- 4. Addressing biases
- 5. Leveraging technology
- 6. Engaging the community

HOW: The department and service line identified major factors contributing to maternal morbidity and created a composite quality metric. Adding this goal created personal stakes for over 600 senior leaders whose level of compensation — from 10 to 40 percent of it — would depend on their ability to meet team goals. By tying executive salaries to reduction of severe complications related to childbirth, the hospital system signaled its commitment to maternal health equity.

Addressing hemorrhage, a serious complication of childbirth, was a priority. The Penn Medicine team leveraged system-wide partnerships to pool resources and foster structural change. They created a learning collaborative across the system's five maternity units. Monthly meetings covered evidence-based practices, including how to assess hemorrhage risk, measure blood loss, and respond quickly. The ob-gyn staff frequently carry out simulations to respond according to structured protocols when hemorrhage occurs. The team also made progress toward more equitable use of cesarean birth, with staff intentionally applying evidence-based practices and using standardized labor induction guidelines.

RESULTS: After a year of implementing the program, severe pregnancy-related complications in Black women declined by 29 percent.

MORE ON THE MODEL: The team goal was a part of a comprehensive strategy with six major levers the ob-gyn department developed to advance maternal health equity. The first requires bold leadership from the CEO, management, and the ob-gyn department chair to tackle maternal morbidity and mortality among Black women. The approach also includes recruiting and retaining a diverse workforce, embedding equity across quality improvement efforts and a robust research portfolio, implicit bias trainings and mechanisms for reporting bias; innovative technology platforms to improve outcomes and reduce disparities, and engaging the community in quality, safety, and research efforts. Achieving maternity health equity will require sustained commitment to this multipronged strategy.

The Takeaway

With high stakes for executive leaders and comprehensive collaborative approaches to address the causes of maternal mortality, the Penn ob-gyn department's strategy and health equity improvements are a model for other health systems nationwide.

Healthcare can and must be better at supporting birthing women and people

In the United States, rates of maternal mortality, severe maternal morbidity, and other more common complications are increasing, and maternal and newborn outcomes are inequitable and lag behind other high-income nations.¹ This underperformance suggests that there are opportunities for the maternity care system to more reliably provide women and other birthing people with the high-quality care, services, and support that they need to thrive and have healthy children. The great majority of dollars paid for maternity services are allocated to the brief window of hospital care around the time of birth,² and to a model that provides technology-intensive care to nearly all moms and babies, regardless of need or preference. This leaves just a fraction of resources to support people in pregnancy and postpartum, when needs and opportunities to improve outcomes are great. Concerns about the quality of maternity care include broad practice variation, with considerable overuse of unneeded care and underuse of preventive and other beneficial practices,³ and challenges in identifying and meeting social and mental health needs, which affect maternal and infant health outcomes.⁴

Crucially, the burden of these concerns is inequitably distributed and disproportionately impacts communities that have been adversely affected by racism and other forms of discrimination. These include communities of color, LGBTQIA+ individuals, people with disabilities or low incomes, and rural communities. Childbearing families living at the intersection of these identities experience compounding layers of harm that widen gaps in care, experiences, and outcomes.⁵

One of the most pervasive and intractable concerns is the disrespectful treatment of birthing people, especially those who have been structurally marginalized, which contributes to preventable adverse outcomes. Studies show that many women who gave birth in hospitals, where almost all U.S. births take place, were mistreated during childbirth.⁶ Among the kinds of mistreatment experienced, one study found that being yelled at or scolded was the most common, followed by being ignored or having a request for help refused.⁷ Another study found that a quarter of women who were induced or had a cesarean birth felt pressured to consent to those interventions, and nearly 60 percent who had episiotomies were not asked to give consent.⁸

Many Black women and other women of color describe how they are disrespected and ignored by the system and individual providers, and studies have confirmed a pattern of mistreatment.⁹ The racial disparities on some mistreatment indicators were particularly pronounced, with Black, Hispanic, Asian, and Indigenous women all being twice as likely as white women to report being ignored or having their request for help refused. Young women, immigrant women, and women having their first child were also more likely to report mistreatment.¹⁰ Birthing people also report experiencing ableist,¹¹ transphobic,¹² and anti-fat¹³ bias, which can compound the mistreatment of people of color.

These experiences of disrespect and mistreatment have direct negative impacts on the health of birthing people and their babies. For example, a study of maternal mortality in California found that provider factors – such as delayed response to clinical warning signs – were the most common contributor to maternal deaths.¹⁴ This is particularly disturbing given the racial disparities in providers ignoring or refusing requests for help from women of color.

Actions that raise the bar for providing high-quality, equitable, whole-person maternity care

1. Provide maternal-newborn care tailored to diverse socioeconomic and cultural life contexts and needs.

Given the disproportionate burden of poor maternal-newborn health among those from communities that have been marginalized by racism and other structural inequities, healthcare provider institutions should actively work to redesign care for birthing people to make it truly high-quality, culturally centered, and accessible for everyone in our rapidly diversifying nation. Institutions should ensure that all people and families can access the pregnancy, birthing, postpartum, and comprehensive reproductive healthcare and support they need, with a special focus on mitigating – if not eliminating – barriers, including financial, physical, geographic, and those rooted in sexism, racism, homophobia, and ableism.

2. Establish and sustain a trusting environment where all childbearing families are treated with dignity and respect and feel welcomed.

The stories of birthing people – especially Black women and other women of color – being dismissed and ignored underscore the urgency of sustaining environments built on trust, and for healthcare provider institutions to consistently act in a trustworthy manner. The history of sterilization and other reproductive and sexual health appropriation, manipulation, and exclusion can still impact treatment today. Healthcare provider institutions must acknowledge

the link between historical mistreatment, discrimination, and racism and the contemporary experience of discrimination and bias. They should actively work to elicit and listen to the experiences of birthing people and their families as a first step toward establishing a culture of dignity. Healthcare provider institutions should follow through on commitments to being anti-racist and continue to take active steps to eradicate all forms of racism and bias from their work. This could include a comprehensive assessment of how the remnants of patterns based on white supremacy, misogyny, and other types of discrimination affect care. Striving for virtuous cycles of caring and respect can help build and sustain trust.

3. Provide holistic, effective, high-quality care responsive to the needs and preferences of childbearing women and people, as well as plans co-created with individuals, families, and caregivers.

Whole-person care requires recognizing the expertise each person has in their own body, life, needs, and desired childbearing experience. A holistic model of care engages the birthing person in understanding their needs and preferences and making their maternity care plans, understanding that one size will not fit all. Plans should be co-created; they should cover care from pregnancy through the first year postpartum and center on effective communication. They should not only cover physical health goals, but also account for social, mental health, and emotional support needs. Given the importance of social conditions for maternal-infant health and the opportunities for maternity care to help address unmet social needs across this long episode of care, initial and periodic screening for social needs is essential for creating and implementing an optimal care plan. The care plans should be accessible to the birthing person and to all members of the care team through electronic health records and patient portals. Ideally, plans should integrate the full range of personnel - home- and community-based health workers, social workers, licensed behavioral health professionals, and others - and organizations needed to deliver effective and comprehensive care, including social services and public health agencies. Plans should be dynamic, in recognition of the birthing person's evolving circumstances and preferences. Lastly, the plans should be supported and encouraged by the care team in ways that demonstrate their commitment to not only the plan, but the birthing person's agency.

There are opportunities for maternity care to help address unmet social needs across this long episode of care.



Raising the bar for whole-person maternity care in your organization: Priority recommendations

Operationalizing the above vision will require breaking it down into sequential strategies and concrete tactics. Your organization can start by recognizing and using existing structures (and data) for patient safety and quality improvement efforts.

Effective leadership will be the most important factor in any effort to achieve this needed evolution. The executive leadership (e.g., chief executive, operating, financial, medical, and nursing officers (CEO, COO, CFO, CMO, CNO), chair of the board of directors) should commit to this work, set expectations and accountability, and provide the budgets and other resources needed. The relevant senior leadership for the selected improvement from among vice presidents and directors must prioritize implementation. Clinical and front-line staff should set meaningful goals and help identify needed support and resources. This will in many instances bring together staff from outside the department that provides maternal care to achieve institutional alignment and optimal results.

Executive leadership

Raising the bar for better maternal healthcare, experiences, and outcomes starts with you. Your enthusiasm and commitment will drive your managers and staff toward measurable success. Clear directives, accompanied by necessary resources (budgets, infrastructure, and personnel), are indispensable.

Assessing your organization's current conditions and activities should be your first step. An effective plan should be tailored to your organization's starting point and ongoing initiatives. Therefore, a comprehensive assessment is a necessary first step for data-driven improvement. To be sure, you can take immediate actions while such an assessment is underway. Nevertheless, assessment will provide a "gut check" on what you are currently doing and where identified gaps call for further action. Assessments should be informed by available data and should involve those who are familiar with the needed information. The assessment team could include a combination of people from your quality improvement department, clinical innovation team, community health team, and patient experience team. It should also include input from those using or seeking those services.

Building on and updating progress to date, the assessment should include the following:

- Latest maternal and infant health access, outcomes, quality, and experience data, stratified by self-identified race, ethnicity, limited English proficiency, disability, sexual orientation and gender identity, and type of coverage, with historical trends if available (CMO and/or Quality Improvement (QI) team).
- Inventory and assessment of clinical maternity and reproductive healthcare services (preconception, pregnancy, childbirth, and postpartum practices) through the lens of wholeperson care (CMO and/or QI team).
- Inventory and assessment of the intercultural competence of leaders and organization (CMO and/or QI team).¹⁵
- Inventory and assessment of the capacity to support the mental health and social needs of diverse childbearing women and people (CMO and/or QI team).
- Assessment of the current capability to effectively and respectfully serve specific groups of people who wish to become pregnant, are currently pregnant, or recently gave birth (QI team, CMO, COO). These groups include:
 - ▶ People from communities experiencing historical and ongoing racism.¹⁶
 - ▶ Immigrants, including those without legal status.¹⁷
 - ▶ People with limited English proficiency.¹⁸
 - ▶ People with disabilities.¹⁹
 - ▶ People with varied sexual orientations and transgender and gender-nonconforming people.²⁰

- Survey of current and potential birthing people about their expectations for and recommended improvements of maternity-related services, co-designed with service users (QI, patient experience, community health team).
- Hospital assessment of facility readiness to support breastfeeding using CDC's mPINC 10 Steps Assessment Tool.²¹

Once the assessment is complete, it is essential to discuss the findings with the executive team and senior leadership to identify priority areas for action and investment and create an implementation plan. The executive leadership and the board of directors should set the vision and commitment to whole-person, equity-centered care that spans the full episode of maternity care.

Senior leadership team

Once the executive leadership sets a direction, develop and implement the budgets and plans to carry out this commitment. Senior leadership may include directors of functions such as quality improvement, maternity services, community health, patient experience, outpatient services, DEI, and even human resources. Below are recommended next steps.

- Allocate the necessary budget(s) to improve institutional readiness for exemplary service to diverse populations.
 - Why: Changing the status quo both to improve patient care and the work environment and burdens on staff – requires resources. People with disabilities or limited English proficiency, and people who are transgender or gendernonconforming, among others, might require specific staff, staff training, equipment, facility modifications, signage, forms, website changes, or other modifications to access high-quality, equitable, person-centered care. Depending on the kinds of changes needed, different department or office heads may need to work together and think creatively about how to repurpose savings. Making these kinds of investments will help to relieve existing pressures.

How (examples):

- □ For purchasing new equipment, the CFO, COO, facilities management lead, and DEI staff must work together.
- □ Improving the readability of the website may require involvement from IT.
- Training staff on how to work respectfully with people of different sexual orientations and gender identities might need to involve HR.

- Establish performance metrics across executive management and other staff.²²
 - ▶ Why: Excellent outcomes for equitable whole-person maternal care will require the involvement and accountability of people across the institution. Therefore, your organization should adopt position-specific performance metrics.

How (examples):

- Tying executive compensation to improvements in outcomes and reductions in inequities.
- □ Implementing associated performance metrics at various levels complying with the requirement will be measured for all staff in their performance reviews.
- Provide DEI training with respect to preconception, prenatal, birthing, and postpartum care for all relevant staff.
- Implement best practices for equitable maternal care delivery, with a focus on mitigating the impact of racism, addressing social needs, and dismantling systemic racism and other structural inequities.²³
 - **Why:** Racism and unmet social needs are clearly linked to poorer birthing outcomes, and a number of care models and interventions have been shown to mitigate these factors.
 - How (examples):
 - ☐ Tailor initiatives to minimize specific departures from high-quality care implicated in disparate outcomes, such as hemorrhage, hypertension, cardiac conditions, substance use disorder, inequitable breastfeeding, and safely avoidable cesarean birth, including repeat cesarean birth.²⁴
 - Review severe maternal morbidity (SMM) cases²⁵ and apply lessons.
 - Ensure that policies enable birthing families to choose who and how many can accompany them during appointments and birthing.
 - □ Enhance institutional ability to provide racial/ethnic and language-concordant care by diversifying staff (see Employer Role, page 38).²⁶
 - Provide anti-racist and inclusive training to all personnel who interact with childbearing people and set aside time to process learnings.

Excellent and equitable maternal care outcomes will require the involvement and accountability of people across the institution.



Specific opportunities to improve maternity care quality, equity, and outcomes

Given the urgency of the maternal health crisis, healthcare provider institutions should begin implementing recommendations while the assessment is still in progress and before developing a comprehensive improvement plan. Senior leaders should consider the following options that should have near-universal benefit for birthing families, irrespective of the specific pain points that the assessment will uncover. (See <u>Implementation Toolbox</u> for detailed recommendations.)

• Make care more accessible.

- > Offer evening and weekend appointments.
- Offer telehealth visits, in-home visits, mobile clinics, and other options for expanding access to care.
- Co-locate laboratory, imaging, mental and behavioral health, and other services to facilitate one-stop prenatal and postpartum visits.
- > Ensure the accessibility of exam rooms and other service areas.
- Make translators available and ensure signage and websites are available in priority languages.

- Increase access to maternity services in rural areas. Health systems and hospitals without

 or at risk of losing rural maternity services should explore options to make essential
 high-quality maternity services available, including:
 - Considering the clinical and business case for operating maternity units in critical access hospitals.
 - ▶ Relying on birth centers to make essential, high-quality maternity services available.
 - ▶ Expanding local capabilities through provider access to telehealth, electronic databases, clinical pathways, protocol cards, and life flight.
 - Providing telehealth to childbearing families for routine visits, lactation and mental health support, and other services.
 - Expanding professional skill sets (e.g., general surgeon proficiency in cesarean birth, and nurse-midwife proficiency as surgical first assist, and in ultrasonography, assisted vaginal birth, and mental health).
- Ensure birthing people can access a diverse, well-equipped, and effective care team.
 - Include a range of clinical care providers and support personnel, such as midwives, maternal-fetal medicine specialists, mental health providers, comprehensive reproductive healthcare providers, lactation support providers, care navigators, community-based doulas, and other community-based providers.
 - Establish contracts with community-based organizations that can provide culturally congruent support and care.
 - Create a no-wrong-door approach for connecting with needed social and community services.
 - Enable birthing people to contribute to, help coordinate, and implement their care plans.
- Implement evidence-based practices associated with vaginal birth and reduction of safely avoidable cesarean births.
 - Track and report:
 - □ The nationally endorsed cesarean birth performance measure.
 - ☐ The nationally endorsed balancing measure to ensure safe levels of cesarean birth (Unexpected Complications in Term Newborns).
 - □ The Vaginal Birth after Cesarean (VBAC) Delivery Rate, Uncomplicated measure.
 - Implement proven practices for increasing the likelihood of vaginal birth, including midwives,²⁷ and continuous support during labor, especially from a doula.²⁸

- Screen for physical and mental health and social needs at key points in pregnancy and the postpartum period.
 - Use robust, culturally responsive screening tools.
 - Co-create and consistently update care plans with the birthing person.
 - ▶ Facilitate access to the plan by all members of the care team.
- Prioritize meeting mental and behavioral health needs during pregnancy and the postpartum period.
 - Measure and report the Prenatal Depression Screening and Follow-Up and Postpartum Depression Screening and Follow-Up performance measures.
 - ▶ Offer telehealth options for mental health services.
 - ▶ Publicize the National Maternal Mental Health Hotline.
 - > Provide referrals to respected support and community organizations.



- Support the reliable provision of respectful maternal-newborn care.
 - Measure respectful care, disaggregated by race and ethnicity, for internal improvement and accountability.
 - > Use existing toolkits and frameworks to promote respectful maternity care.
 - Support staff's ability to provide respectful, appropriate care and customer service for diverse families.
- Expand options for prenatal care and track engagement.
 - Advance innovative models with added value relative to standard prenatal care, such as:
 - □ Midwifery-led prenatal care.
 - Group prenatal care options.
 - □ Telehealth and home monitoring programs.
 - During pregnancy, track patient activation by reporting the nationally endorsed Gains in Patient Activation Measure (PAM) Scores.
- Provide non-coercive, culturally centered support for lactation.
 - ▶ Report the nationally endorsed Exclusive Breast Milk Feeding performance measure.
 - Provide access to peer counselors and lactation specialists to support human milk feeding
 - Establish breastfeeding-friendly spaces and adhere to the 10 Steps to Successful Breastfeeding.
- Provide postpartum services for at least 12 months.
 - Optimize the current two postpartum visits recommended by the American College of Obstetricians and Gynecologists.
 - ▶ Report the nationally endorsed Contraceptive Care-Postpartum performance measure.
 - Provide access to educational programs, including Post-Birth Warning Signs and Hear Her.
- Participate in your state's perinatal quality collaborative (PQC) and in sequential highimpact quality improvement initiatives.
 - Identify inequities by race, ethnicity, and other demographic variables within the quality improvement programs.

- Ensure that staff responsible for interacting with childbearing families have the skills and knowledge to reliably inform and connect them to necessary social supports. Examples include:
 - > Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).
 - > Information about available state and local paid family and medical leave programs.
 - ▶ Legal protections relating to job security and workplace accommodations.
 - > Written statements to managers about any needed temporary accommodations.
- Implement a consistent, streamlined process for accessing financial assistance or charitable care, within and outside the provider institution, that is not punitive or predicated on the existence of medical debt. Healthcare provider institutions can assist patients by:
 - Not pursuing legal action to collect unpaid medical debts from patients eligible for financial assistance.
 - > Preventing, detecting, and reporting billing fraud and abuse.
 - Providing onsite financial navigators, increasing repayment flexibility, and proactively identifying patients at risk of medical debt.
 - Providing understandable information to patients on costs and access to financial assistance.
- Establish and sustain an active and well-supported, maternity-specific patient and family advisory council (PFAC) that is representative of the community served.
 - Incorporate members' expertise on policy changes, new programming, and other concrete maternal health activities.
- Ensure access to high-quality comprehensive reproductive healthcare as a necessary complement to maternal healthcare.
 - Provide medically accurate, evidence-based information on options for abortion care and non-stigmatizing support for people considering pregnancy termination.
 - Understand obligations and protections under both the HIPAA (Health Insurance Portability and Accountability Act) privacy rule and the Emergency Medical Treatment and Labor Act regarding patients who are pregnant or experiencing pregnancy loss.

Endnotes

¹ National Partnership for Women & Children. "Maternity Care in the United States: We Can – and Must – Do Better," February 2020, <u>https://www.nationalpartnership.org/our-</u> work/resources/health-care/maternity-care-in-the-united. <u>pdf</u>

² Truven Health Analytics. "The Cost of Having a Baby in the United States," January 2013, <u>https://chqpr.org/downloads/</u> <u>Cost_of_Having_a_Baby.pdf</u>

³ See Note 1.

⁴ Joia Crear-Perry and Sinsi Hernández-Cancio. "Saving the Lives of Moms and Babies: Addressing Racism and Socioeconomic Influencers," National Partnership for Women & Children, accessed January 7, 2023, <u>https://www. nationalpartnership.org/momsandbabies</u>

⁵ Joia Crear-Perry, Rosaly Correa-de-Araujo, Tamara Lewis Johnson, Monica R. McLemore, et al. "Social and Structural Determinants of Health Inequities in Maternal Health," Journal of Women's Health, February 2021, https://doi. org/10.1089/jwh.2020.8882; Willi Horner-Johnson, Mekhala Dissanayake, Nicole Marshall, and Jonathan M. Snowden. "Perinatal Health Risks And Outcomes Among U.S. Women with Self-Reported Disability, 2011–19," Health Affairs, September 1, 2022, https://doi.org/10.1377/hlthaff.2022.00497; Jessica L. Gleason, Jagteshwar Grewal, Zhen Chen, Alison N. Cernich, et al. "Risk of Adverse Maternal Outcomes in Pregnant Women With Disabilities," JAMA Network Open, December 1, 2021, https://doi.org/10.1001/ jamanetworkopen.2021.38414; Bethany G. Everett, Michelle A. Kominiarek, Stefanie Mollborn, Daniel E. Adkins, et al. "Sexual Orientation Disparities in Pregnancy and Infant Outcomes," Maternal and Child Birth Journal, January 2019, https://doi.org/10.1007/s10995-018-2595-x; Katy Backes Kozhimannil, Julia D. Interrante, Carrie Henning-Smith, and Lindsay K. Admon. "Rural-Urban Differences in Severe Maternal Morbidity and Mortality in the U.S., 2007–15," Heath Affairs, December 2019, https://doi.org/10.1377/ hlthaff.2019.00805; Heidi Moseson, Laura Fix, Jen Hastings, Ari Stoeffler, et al. "Pregnancy Intentions and Outcomes Among Transgender, Nonbinary, and Gender-Expansive People Assigned Female or Intersex at Birth in the United States: Results from a National, Quantitative Survey," International Journal of Transgender Health, November 17, 2022, https:// doi.org/10.1080/26895269.2020.1841058

⁶ Saraswathi Vedam, Kathrin Stoll, Tanya Khemet Taiwo, Nicholas Rubashkin, *et al.* "The Giving Voice to Mothers Study: Inequity and Mistreatment During Pregnancy and Childbirth in the United States," *Reproductive Health*, June 11, 2019, <u>https://doi.org/10.1186/s12978-019-0729-2</u> 7 Ibid.

⁸ Eugene R. Declercq, Carol Sakala, Maureen P. Corry, Sandra Applebaum, *et al.* "Listening to Mothers III: Pregnancy and Birth," National Partnership for Women & Children," May 2013, <u>https://www.nationalpartnership.org/our-work/</u> <u>resources/health-care/maternity/listening-to-mothers-iii-</u> <u>pregnancy-and-birth-2013.pdf</u>

⁹ Sang Hee Won, Shanon McNab, Angela D. Aina, Anna Abelson, et al. "Black Women's and Birth Workers' Experiences of Disrespect and Abuse in Maternity Care: Findings from a Qualitative Exploratory Research Study in Atlanta," Black Mamas Matter Alliance, 2022, https://blackmamasmatter.org/wp-content/ uploads/2022/04/BMMA_AMDDReport_FINAL.pdf; Laura Murphy, Fugin Liu, Rebecca Keele, Becky Spencer, et al. "An Integrative Review of the Perinatal Experiences of Black Women," Nursing for Women's Health, December 2022, https://doi.org/10.1016/j.nwh.2022.09.008; Priya Fielding-Singh and Amelia Dmowska. "Obstetric Gaslighting and the Denial of Mothers' Realities," Social Science & Medicine, May 2022, https://doi.org/10.1016/j.socscimed.2022.114938; Tiffany E. Byrd, Lucy A. Ingram, and Nkechi Okpara. "Examination of Maternal Near-Miss Experiences in the Hospital Setting Among Black Women in the United States," Women's Health, November 2, 2022, https://doi. org/10.1177/17455057221133830

¹⁰ See Note 6.

¹¹ Suzanne C. Smeltzer. "Pregnancy in Women with Physical Disabilities," *Journal of Obstetric, Gynecologic & Neonatal Nursing*, January 1, 2007, <u>https://doi.org/10.1111/j.1552-</u> 6909.2006.00121.x

¹² Alexis Hoffkling, Juno Obedin-Maliver, and Jae Sevelius. "From Erasure to Opportunity: A Qualitative Study of the Experiences of Transgender Men Around Pregnancy and Recommendations for Providers," *BMC Pregnancy and Childbirth*, November 8, 2017, <u>https://doi.org/10.1186/s12884-</u> 017-1491-5

¹³ Briony Hill and Angela C. Incollingo Rodriguez. "Weight Stigma Across the Preconception, Pregnancy, and Postpartum Periods: A Narrative Review and Conceptual Model," *Seminars in Reproductive Medicine*, November 2020, <u>https://doi.org/10.1055/s-0041-1723775</u>; Angela C. Incollingo Rodriguez, Stephanie M. Smieszek, Kathryn E. Nippert, and A. Janet Tomiyama. "Pregnant and Postpartum Women's Experiences of Weight Stigma in Healthcare," *BMC Pregnancy and Childbirth*, August 27, 2020, <u>https://doi.org/10.1186/ s12884-020-03202-5</u> ¹⁴ Elliott K. Main, Christy L. McCain, Christine H. Morton, Susan Holtby, *et al.* "Pregnancy-Related Mortality in California: Causes, Characteristics, and Improvement Opportunities," *Obstetrics and Gynecology*, April 2015, <u>https://doi.org/10.1097/aog.000000000000746</u>

¹⁵ Intercultural Development Inventory. "The Roadmap to Intercultural Competence Using the IDI," accessed January 7, 2023, <u>https://idiinventory.com/</u>

¹⁶ Joia A. Crear-Perry, Carmen Green, and Kiara Cruz. "Respectful Maternity Care: Shifting Medical Education and Practice Toward an Anti-Racist Framework," *Health Affairs*, April 16, 2021, <u>http://www.doi.org/10.1377/</u> <u>forefront.20210413.303812</u>

¹⁷ Anika Winn, Erin Hetherington, and Suzanne Tough. "Systematic Review of Immigrant Women's Experiences with Perinatal Care in North America," *Journal of Obstetric, Gynecologic & Neonatal Nursing*, September 1, 2017, <u>https://</u> <u>doi.org/10.1016/j.jogn.2017.05.002</u>

¹⁸ Brandon M. Togioka, Katherine M. Seligman, and Carlos M. Delgado. "Limited English Proficiency in the Labor and Delivery Unit," *Current Opinion in Anaesthesiology*, June 1, 2022, <u>https://doi.org/10.1097/aco.0000000000001131</u>

¹⁹ Mariëlle Heideveld-Gerritsen, Maartje van Vulpen, Martine Hollander, Sabine Oude Maatman, *et al.* "Maternity Care Experiences of Women with Physical Disabilities: A Systematic Review," *Midwifery*, May 2021, <u>https://doi.org/10.1016/j.midw.2021.102938</u>; Lesley A. Tarasoff, Fahmeeda Murtaza, Adele Carty, Dinara Salaeva, *et al.* "Health of Newborns and Infants Born to Women with Disabilities: A Meta-Analysis," *Pediatrics*, December 2020, <u>https://doi.org/10.1542/peds.2020-1635</u>; Lesley A. Tarasoff. "Experiences of Women with Physical Disabilities During the Perinatal Period: A Review of the Literature and Recommendations to Improve Care," *Health Care for Women International*, September 2, 2013, <u>https://doi.org/10.1080/07399332.2013.81</u> 5756

²⁰ Stephanie A. Gedzyk-Nieman and Jacquelyn McMillian-Bohler. "Inclusive Care for Birthing Transgender Men: A Review of the Literature," *Journal of Midwifery & Women's Health*, July 21, 2022, <u>https://doi.org/10.1111/jmwh.13397</u>; Megan McCracken, Gene DeHaan, and Juno Obedin-Maliver. "Perinatal Considerations for Care of Transgender and Nonbinary People: A Narrative Review," *Current Opinion in Obstetrics and Gynecology*, April 21, 2022, <u>https://doi.org/10.1097/gco.000000000000771</u>; Isabel Gregg. "The Health Care Experiences of Lesbian Women Becoming Mothers," *Nursing for Women's Health*, February 1, 2018, <u>https://doi.org/10.1016/j.nwh.2017.12.003</u>

²¹ U.S. Centers for Disease Control and Prevention. "mPINC 10 Steps Assessment Tool," October 27, 2021, <u>https://www.cdc.</u> gov/breastfeeding/data/ten-steps-assessment-tool/index. <u>html</u>

²² Michael Bailit and Deepti Kanneganti. "A Typology for Health Equity Measures," *Health Affairs*, March 21, 2022, <u>http://www.doi.org/10.1377/forefront.20220318.155498</u>

²³ Society for Maternal-Fetal Medicine, Mara B. Greenberg, Manisha Gandhi, Christina Davidson, *et al.* "Society for Maternal-Fetal Medicine Consult Series No. 62: Best Practices in Equitable Care Delivery – Addressing Systemic Racism and Other Social Determinants of Health as Causes of Obstetrical Disparities," August 2022, <u>https://www.ajog. org/action/showPdf?pii=S0002-9378%2822%2900266-6</u>

²⁴ California Maternal Quality Care Collaborative. "Maternal Quality Improvement Toolkits," 2022, <u>https://www.cmqcc.</u> <u>org/resources-tool-kits/toolkits;</u> —. "QI Initiatives," accessed January 7, 2023, <u>https://www.cmqcc.org/qi-initiatives</u>

²⁵ Carrie Wolfson, Jiage Qian, Pamela Chin, Cathy Downey, et al. "Findings from Severe Maternal Morbidity Surveillance and Review in Maryland," JAMA Network Open, November 1, 2022, https://doi.org/10.1001/jamanetworkopen.2022.44077

²⁶ Jean Guglielminotti, Goleen Samari, Alexander M. Friedman, Allison Lee, *et al.* "Nurse Workforce Diversity and Reduced Risk of Severe Adverse Maternal Outcomes," *American Journal of Obstetrics and Gynecology MFM*, September 2022, <u>https://doi.org/10.1016/j.ajogmf.2022.100689</u>; Brad N. Greenwood, Rachel R. Hardeman, Laura Huang, and Aaron Sojourner. "Physician-Patient Racial Concordance and Disparities in Birthing Mortality for Newborns," *Proceedings of the National Academy of Sciences U.S.A.*, September 1, 2020, <u>https://doi.org/10.1073%2Fpnas.1913405117</u>

²⁷ Jane Sandall, Hora Soltani, Simon Gates, Andrew Shennan, et al. "Midwife-Led Continuity models Versus Other Models of Care for Childbearing Women," *The Cochrane Database of Systematic Reviews*, April 28, 2016, <u>https://</u> doi.org/10.1002/14651858.cd004667.pub5; Meg Johantgen, Lily Fountain, George Zangaro, Robin Newhouse, et al. "Comparison of Labor and Delivery Care Provided by Certified Nurse-Midwives and Physicians: A Systematic Review, 1990 to 2008," *Women's Health Issues*, January-February 2012, <u>https://doi.org/10.1016/j.whi.2011.06.005</u>

²⁸ Meghan A. Bohren, G. Justus Hofmeyr, Carol Sakala, Rieko K. Fukuzawa, *et al.* "Continuous Support for Women During Childbirth," *The Cochrane Database of Systematic Reviews*, July 6, 2017, <u>https://doi.org/10.1002/14651858.cd003766.pub6</u>