



Published in final edited form as:

Womens Health Issues. 2021 ; 31(3): 204–218. doi:10.1016/j.whi.2021.01.002.

Bridging the Chasm between Pregnancy and Health over the Life Course: A National Agenda for Research and Action

Lois McCloskey, DrPH^{a,*}, Judith Bernstein, RNC, PhD^a, The Bridging the Chasm Collaborative^b

^aCommunity Health Sciences Department, Boston University School of Public Health, Boston, Massachusetts

^bThe names and affiliations of all authors in the Bridging the Chasm Collaborative are listed in Table 1

Abstract

Background: Many pregnant people find no bridge to ongoing specialty or primary care after delivery, even when clinical and social complications of pregnancy signal need. Black, indigenous and all other women of color are especially harmed by fragmented care and access disparities, coupled with impacts of racism over the life course and in health care.

Methods: We launched the initiative “Bridging the Chasm between Pregnancy and Health across the Life Course” in 2018, bringing together patients, advocates, providers, researchers, policymakers, and systems innovators to create a National Agenda for Research and Action. We held a 2-day conference that blended storytelling, evidence analysis, and consensus building to identify key themes related to gaps in care and root causes of inequities. In 2019, more than 70 stakeholders joined six working groups to reach consensus on strategic priorities based on equity, innovation, effectiveness, and feasibility.

Findings: Working groups identified six key strategic areas for bridging the chasm. These include: 1) progress toward eliminating institutional and interpersonal racism and bias as a requirement for accreditation of health care institutions, 2) infrastructure support for community-

* Correspondence to: Lois McCloskey, DrPH, Associate Professor Director, Center of Excellence in Maternal and Child Health Education, Science and Practice Department of Community Health Sciences, Boston University School of Public Health, 801 Massachusetts Ave, CT 436, Boston, MA 02118. Phone: (617) 358-1346; fax: 617-358-1700. loism@bu.edu.

Author Descriptions

Lois McCloskey, DrPH, MPH, is Associate Professor of Community Health Sciences and Director of the Center of Excellence in Maternal and Child Health at Boston University School of Public Health. She conducts policy-focused research designed to achieve equity in women’s health.

Judith Bernstein, RNC, PhD, is Professor Emerita of Community Health Sciences, Boston University School of Public Health. Her interests include access to quality care for reproductive age women and long-term consequences of pregnancy events for women’s health over the life cycle.

The 70 Bridge the Chasm (BtC) Collaborative members include patients, advocates, clinicians, researchers, health care innovators, and policy experts, whose affiliations are noted. They bring extensive expertise in women’s health reflected in the BtC National Agenda for Research and Action presented here.

Supported in part by PCORI, United States #6947-BUSPH, and NIH, United States RO1 DK107528 and NIH Office of Research on Women’s Health.

Conflicts of Interest: The authors declare no conflicts of interest.

Supplementary Data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.whi.2021.01.002>.

based organizations, 3) extension of holistic team-based care to the postpartum year and beyond, with integration of doula and community health workers on the team, 4) extension of Medicaid coverage and new quality and pay-for-performance metrics to link maternity care and primary care, 5) systems to preserve maternal narratives and data across providers, and 6) alignment of research with women's lived experiences.

Conclusions: The resulting agenda presents a path forward to remedy the structural chasms in women's health care, with key roles for advocates, policymakers, researchers, health care leaders, educators, and the media.

A distinct, siloed system of maternity care exists to optimize the health of pregnant people during pregnancy and to achieve the birth of healthy infants. The structure of specialties (e.g., obgyn vs. internal medicine) and differences in clinical training, reimbursement policies, and quality metrics limit focus to pregnancy and the immediate postpartum period. Such an approach perpetuates the division of women's bodies into "reproductive" and "other" parts, forcing women to switch back and forth between distinct and largely non-communicating specialties and care settings with little continuity of care. Whereas pediatric well-child care sustains attention on the health and development of infants, no such system exists to support women's health after the official postpartum period (6–12 weeks). Despite calls for inter-conception care (Johnson et al., 2006; Weisman, Chuang, & Scholle, 2010), once the immediate postpartum period ends, new mothers typically find that they are without a bridge to primary care for themselves (Bennett et al., 2014) and have few, if any, practices and policies to protect their health going forward (Johnson, Applegate, & Gee, 2015). The recent initiative of the American College of Obstetricians and Gynecologists, "Optimizing Postpartum Care," (American College of Obstetricians and Gynecologists, 2018) is the first step towards expanded postpartum care (it calls for multiple visits in the "fourth trimester"), but does not address the chasm between maternity and primary care.

Research has demonstrated that pregnancy is a form of stress test, predicting future challenges to a woman's health. Complications such as gestational diabetes mellitus (GDM), pregnancy-induced hypertension, depression, and substance use disorder point to the risk for future chronic illness (Allalou et al., 2016; Honigberg et al., 2020; Seely et al., 2020). For example, women with GDM have 10 times the risk of developing type 2 diabetes (9.51; 95% confidence interval, 7.14–12.67; $p < .001$) as healthy controls (Vounzoulaki et al., 2020) and have a two-fold higher risk of cardiovascular events in the following decade (Kramer, Campbell, & Retnakaran, 2019). Despite these alarming statistics, women worldwide with a history of GDM continue to have low rates (20%–55%) of recommended follow-up glucose tolerance testing and monitoring (Shah, Lipscombe, Feig, & Lowe, 2011). In the United States, this gap is further exacerbated by racial and ethnic inequities in health care (Martin et al., 2018; McCloskey et al., 2019b). Black, Latina, and Native women are least likely to be tested and followed despite their disproportionate risk of type 2 diabetes (Jones, Hernandez, Edmonds, & Ferranti, 2019). These observations highlight the asymmetry between the significant attention to and investment in pregnant people aimed at healthy babies versus the under-investment in women's own health and well-being before, between, and beyond pregnancy.

Fragmentation in women's health care can only be understood and addressed through the lens of health equity, racial and social justice, and human rights, paying attention to both upstream and downstream effects that require comprehensive solutions. Structural and interpersonal racism, experienced in communities of color across the life course, affects health status and ability of the immune system to respond effectively to challenge; this is the upstream story that requires a racial and social justice lens. Then discontinuities and fragmentation in systems of care combine with concrete barriers of access to further reduce the likelihood of positive health outcomes; this is the downstream story that requires a health equity/human rights lens. For example, compared with their White and Latina counterparts, Black women experience twice the rate of severe maternal morbidities and three times the rate of pregnancy-related deaths (Eichelberger, Doll, Ekpo, & Zerden, 2016), with one-third of the deaths occurring in the extended postpartum period (between 1 week and 1 year after birth) (Petersen et al., 2019).

Structural racism (Bailey et al., 2017; Garcia & Sharif, 2015; Hardeman et al., 2016), implicit bias and unequal treatment (Collins et al., 2000; Dominguez, Dunker-Schetter, Glynn, Hobel, & Sandman, 2008; Mustillo et al., 2004; Vedem et al., 2017), and well-documented inequities in health care access (Institute of Medicine, 2012) are important determinants of these adverse maternal and infant outcomes. The interpersonal and institutional racism historically embedded in the medical system (Bailey, Feldman & Bassett, 2020) and the lack of culturally and linguistically appropriate services for Latinas and women of other ethnicities lead many women to avoid care or seek care in other ways (Timmons, 2002). National Culturally and Linguistically Appropriate Standards were instituted in 1995 and affirmed again in 2020 (Office of Minority Health & U.S. DHHS 2020). This set of 15 action steps was intended to advance health equity, improve quality, and help eliminate health care disparities by providing a blueprint for individuals and health and health care organizations to implement culturally and linguistically appropriate services. However, application of these standards has been slow and spotty, and there are no penalties for violations (Diamond, Wilson-Stronks, & Jacobs, 2010). The lack of access to respectful and equitable care, to well-matched, diverse providers, and to adequate health care resources in segregated urban areas and many rural communities in the United States contributes to longstanding health inequities between Black, Latina, and Native women and more privileged and resourced White women (Cyr, Etchin, Guthrie, & Benneyan, 2019; Kozhimannil, Hernandez, Mendez, & Chapple-McGruder, 2019).

Remedies have not yet emerged for the siloed nature of women's health care and the manifestations of systemic racism within maternal health care in particular. Clearly, such remedies must be multifaceted to: 1) address fragmentation, especially the lack of continuity when women transition from pregnancy to care across the life course; 2) undo institutional and interpersonal racism that produces unequal treatment and inequitable outcomes; 3) center the voices of birthing people in the design of health services/systems, research projects, and policies intended to serve them (Vedem et al., 2019); and 4) translate into action what we now know about links between pregnancy complications and health across the life course.

“Bridging the Chasm (BtC) between Pregnancy and Women’s Health across the Life Course” was conceived and implemented as a national initiative to engage advocates, patients, clinicians, researchers, policy makers, and health system innovators to forge a path towards holism, continuity, and equity in women’s health care, with a focus on the period after and between pregnancies with particular attention to the needs of Black, indigenous and all other women of color (BIWOC). The overall aims of this project were to 1) form a network of diverse stakeholders to collectively create an Agenda for Research and Action to Bridge the Chasm (referred to hereafter as the Agenda), bringing together all forms of expertise, and 2) set the stage for policy, research, and practice changes needed to create a coherent, holistic, equitable health care system and experience for all birthing people across the life course.

BtC was conceived and carried out as a “women’s health initiative”; as such, we largely refer to “women” and “mothers” throughout this article. We recognize that transgender and nonbinary people who experience pregnancy are all too often invisible, inadequately cared for, and discriminated against before, during, and beyond pregnancy (Hoffkling, Obedin-Maliver, & Sevelius, 2017); thus, we also use the more inclusive language “birthing people” or “pregnant people.” The BtC Agenda applies to all birthing people.

Methods

To produce a strategic path that could lead to a sustainable movement for change, we adapted an existing systematic consensus-building methodology and implemented it in an iterative fashion. The manual *Seeds for Change* (2013), designed for cooperatives and communities, operationalizes the directives for consensus building put forward in *Principles for Community Engagement* (Centers for Disease Control and Prevention, 2011). Table 2 chasms in women’s health care, took to adapt and implement the model in a three-phase project over a two-year period.

In Phase 1, we recruited the BtC Stakeholder Engagement Leadership Council (SELC), consisting of community and advocacy organizations and academic partners whose missions aligned with BtC, to plan and guide the project. We selected organizational partners for the SELC that would represent each of the key stakeholder “sectors” that BtC sought to engage: patient engagement and advocacy (Black Women’s Health Imperative, Diabetes Sisters, National Alliance for Hispanic Health); health systems innovation (Primary Care Collaborative), federal policy-makers (Office of Research on Women’s Health); and cross-specialty clinical care (Boston University Schools of Medicine (ob-gyn and primary care), Public Health, and Social Work; and communication and theatre art specialists). Members of the SELC are starred in Table 2. We conducted a systematic review of literature describing gaps in health care following delivery, with a focus on the impact of pregnancy complications on women’s ongoing health status and access to care. The review focused on gestational diabetes as the case in point. We selected GDM for reasons noted in the introduction—its relevance to women’s longitudinal health and missed opportunities for prevention, the disproportionate toll on Black, Latina, Native and Asian women and the need for systems change to break the cycle of risk. See www.pcori.org/research-results/2017/

[bridging-the-chasm-between-pregnancy-and-women's-health-over-the-life-course](#) for the full report of the literature review methods and findings.

In Phase 2, we convened a 2-day BtC conference that engaged a diverse network of 75 stakeholders (advocates, patients, clinicians, researchers, policy experts, and health care innovators) to co-create the outline for the National Agenda for Research and Action. Each organizational member of the SELC invited constituents to the conference to assure equal participation across all stakeholder groups. The conference attendees included 17 patient representatives, 15 academic researchers, 10 members of health care advocacy organizations, nine government and non-governmental policy and funding agency representatives, and six members of health care transformation organizations, in addition to SELC members and eight theater artists and documentarians. A full list of attendees is presented in Table 1. The conference was supported by funding from the Patient Centered Outcome Research Institute (PCORI) Eugene Washington PCORI Engagement Award, and two agencies of the National Institutes of Health: the National Institute of Diabetes, Digestive, and Kidney Diseases and the Office of Research on Women's Health.

Table 2 details the conference methodology. Day 1 began with short welcome and keynote talks, proceeded with improvisational theatre activities to engage and build trust among participants across stakeholder groups, and culminated in the sharing of stories crafted in workshops. Day 2 began with highlights from the annotated bibliography that had been distributed prior to the conference and proceeded with roundtable discussions to generate ideas for strategic approaches to bridge the chasm. Conference leaders gathered and clustered the ideas into 11 approaches, and participants joined roundtable discussions to identify strategic priorities for each. The process resulted in a framework for the Agenda.

In Phase 3 (Year 2) we clustered the approaches identified at the conference and convened 70 stakeholders (a mix of conference attendees and new recruits) into six working groups (Table 3). We created an online portal to serve as the communication hub for the ongoing work of BtC. Each working group, co-led by two members of the BtC Collaborative, included volunteer representatives from all stakeholder groups. Working group facilitators are designated by a "+" in Table 1.

Each working group held five conference calls over 5 months and advanced the Agenda through a consensus process to create 1) a problem statement, 2) a synthesis of findings based on an analysis of peer-reviewed and gray literature and key informant interviews, 3) a ranked order list of the strategic priorities to constitute the Agenda for Action and Research to Bridge the Chasm. Refer to Table 2 for details on the methodology.

Working group members deliberated on the merits of strategies based on four criteria: promotion of health equity, effectiveness, innovation, and feasibility. Following the rigorous process of evidence review and synthesis, we used a two-tiered Qualtrics survey process to elicit from all working group members their ranking of proposed strategies based on four criteria: likelihood of increasing equity, effectiveness, level of innovation, and feasibility. In the final step, we held a conference call with the SELC members and working group facilitators to review survey results, refine the groupings of highly ranked priorities, identify

strategies that cut across working groups, and sort strategies by who (which constituencies) could act on them.

Results

We describe here the final planks of the BtC Agenda. Within each, we present the specific strategies that the WGs identified as having the greatest potential to achieve the desired transformation of the health care system for women's care, with the justification and evidence base for each. See www.pcori.org/research-results/2017/bridging-the-chasm-between-pregnancy-and-women's-health-over-the-life-course for the full report of BtC deliberations. Table 3 presents the detailed actions for each of the strategic priorities below. The first two planks presented here are fundamental to each of the planks and strategies that follow.

Eliminate Disrespect and Bias in Health Care

Ensure accountability to principles and practices of anti-racism at interpersonal and institutional levels among all professionals (clinical and administrative) in maternity and primary care, through design of a longitudinal, experience-based curriculum with ties to accreditation and quality metrics.

Rationale

There is extensive evidence that unconscious biases can lead to differential treatment of patients and affect health outcomes (Hall et al., 2015; Institute of Medicine, 2003; Joint Commission, 2016). Discrimination by race, gender, weight, age, language, income, and insurance status results in overuse and underuse of services; affects patient safety for Black, Latina, Native and Asian women and immigrants (Cooper & Roter, 2003); and creates physiologic inflammation that leads to or exacerbates chronic illness in later life (Slopen et al., 2010; Sullivan et al., 2019). Evidence of racism and disrespect of Black women in maternal health care, with its dire consequences, has been laid bare by investigations of maternal and infant deaths (Martin & Montagne, 2017; Taylor, Novoa, C., Hamm, & Phadke, 2019). Tackling disrespect and racism within maternal health care and establishing a culture of equity and safety is a prerequisite to other meaningful structural changes. Accreditation bodies are already considering steps as proposed by Hardeman, Medina, and Boyd (2020) to divest from racial health inequities, desegregate the health care workforce, make mastering the health effects of structural racism a professional medical competency, and mandate and measure equitable outcomes.

Regulatory bodies (e.g., the Accreditation Council for Graduate Medical Education, the Accreditation Commission for Education in Nursing, the Commission on Collegiate Nursing Education and others) should engage recognized experts in health equity to develop a mandatory competency-based longitudinal professional training curriculum as a precondition for accreditation, and require continued demonstrated progress and accountability for the elimination of all forms of institutional and interpersonal racism and bias in policies and in clinical practice.

Invest in Communities and Community-Led Organizations

Provide sustainable funding and technical support for community-based organizations (CBOs) run by and for BIWOC and dedicated to the health of women.

Rationale

CBOs are well-situated to support women across the chasm between pregnancy and ongoing health, and to partner with policymakers and researchers to find solutions. Small- and moderate-sized CBOs are at an enormous disadvantage when competing for limited financial resources. Both public and private funding streams are limited, have restrictions, require data or evidence that is often out of reach, are geared toward larger and well-established organizations, and fail to cover costs of infrastructure building. Consequently, many CBOs fail to thrive, and the vibrancy and connectivity offered by community-centered organizations—especially those run by, for and with BIWOC—can be lost.

The federal government should create a tax break to incentivize private and public funders to allocate a significant percentage of annual expenditures for capacity building and infrastructure development when they award grants that include partnerships with small CBOs. (“Small” is defined as an annual budget of <\$1 million). Build capacity of CBOs dedicated to the health of BIWOC over the life course.

Rationale.

CBOs play a vital role in caring for and uplifting BIWOC voices across the life course. In particular, organizations that deliver care for birthing and parenting people are renowned for meeting critical needs that larger institutions cannot address. Organizations led by BIWOC, including midwives and doulas, that care for women and their families during and after pregnancy typically do so with holism, respect, and cultural dignity. They advocate for and support mothers, engage in community activism, and often struggle to raise funds and maintain their businesses. Examples include those in the BtC Collaborative, such as BoldDoula, Mother Earth Doula Care, iCare Connect Healthcare, Inc., Quietly United in Loss Together, Resilient Sisterhood, and many others with innovative pregnancy care models. Some wish to expand their scope of services beyond pregnancy, but the lack of infrastructure support makes it challenging to do so.

Private foundations should fund a Center for CBO Capacity Building that would provide technical support to grassroots organizations owned or managed by BIWOC, whose missions relate to women’s health and well-being over the life course. The Center would also consolidate leadership, management, and grant writing resources currently available on the local level from nonprofits and universities, and it would connect CBOs to existing services.

Health Systems Transformation

Redesign health care delivery to address longitudinal women's health needs, re-imagining health systems and models of care to ensure continuity, holism, and equity.

Transform and extend the model of care

Extend high-touch, comprehensive, collaborative models of care throughout pregnancy and the full postpartum year and beyond.

Rationale.—Comprehensive care models offered by collaborative teams with holistic and “high touch” approaches offer a pathway to equity and continuity for all birthing people, and are especially important for those with social and clinical challenges during pregnancy. “High touch” refers to models of care designed to offer frequent check-ins and support consistent with women's choices and needs, delivered by trusted caregivers. “Collaborative” encompasses integration, communication, and coordination across disciplines. Collaborative care has a long history in obstetrics, family medicine, and emergency medicine (Avery et al., 2018; Achkar, Hanauer, Colavecchia, & Seehusen, 2018; Institute of Medicine, 2011). Integration of behavioral health and primary care has also been a major focus (Green & Cinfuentes, 2015), yet integration and communication across specialties have been the exception in the chasm between maternity and primary care. Where team approaches do exist, they do not, in many cases, include practitioners with community-rooted doulas and community health workers (CHWs), who are critical to achieving equity in maternal health. The Black Mamas Matter Alliance sets the standard for holistic care for Black women who are disproportionately impacted (Muse, 2018). A robust body of evidence supports the safety and effectiveness of the woman-centric nurse-midwifery model of care (Johantgen et al., 2012) as well as its value for continuity, cost savings, and patient satisfaction (Centers for Medicare and Medicaid Services [CMS] Findings at a Glance, 2019; Institute for Medicaid Innovation, 2020a). Collaborative teams that include nurse-midwives, doulas, and CHWs can extend care across the chasm, ensure standards of holism and “high touch,” and position women for care across the life course (Celi et al., 2019). Racial and ethnic diversity among team members is especially important given the current lack of diversity among physicians and nurses.

The CMS should incentivize collaborative, team-based models, using the competitive funding process for Accountable Care Organization designation and a cost containment bonus for Integrated Delivery Networks. These models should extend to at least a year post-delivery and ensure a warm handoff to a primary care home, particularly focusing on pregnancies complicated by social determinants and/or clinical complications.

Build on successful models of group care to support mothers in the postpartum year.

Rationale.—Evidence is growing to support the effectiveness and benefits of group prenatal care in diverse populations (Carter et al., 2016; Catling et al., 2015). Group prenatal care reduces preterm birth and low birthweight (Cunningham et al., 2019) and provides

greater satisfaction with prenatal care among women with Medicaid insurance (Abshire, McDowell, Crockett, & Fleischer, 2019), fosters mental health (Heberlein et al., 2016; Ickovics, et al., 2011; Kennedy et al., 2009, 2011), and improves outcomes for women with high risk profiles (Byerley & Haas, 2018; Ickovics et al., 2016), GDM (Schellinger et al., 2017), and opioid use disorder (Sutter et al., 2019). The largest study of group prenatal care for pregnant people with Medicaid insurance, *Strong Start*, had mixed results but found that costs, emergency room visits, and very low birthweight were lower for group care participants than those in individual clinical care with enhancements (CMS Findings at a Glance, 2019). CenteringParenting, an evidence-based two-generation intervention, emphasizes infant health and parenting challenges in the postpartum period. Studies of its feasibility and effectiveness are small and as yet inconclusive. Group care that focuses on the health, well-being, and self-care of women in the full postpartum year should be considered based on existing and emerging evidence.

Medicaid Health Plans of America should develop and pilot a group model of maternal healthcare to be offered during the full year postpartum, geared to women's lived experience, information and story-sharing, follow-up of pregnancy complications, that assures connection to a primary care home.

Build on the evidence-based patient-centered medical home model to create women's health homes to provide comprehensive primary care.

Rationale.—Patient-centered medical homes generally improve utilization, reduce cost, and enhance quality (Jabbapour, DeMarchis, Bazemore, & Grundy, 2017). The Veterans Administration is the only known system to implement patient-centered medical homes for women, offering multispecialty care coordination across time with reported success (Chuang et al., 2017; Clancy & Sharp, 2013; Yano et al., 2010). Key elements of the model include team-based care inclusive of CHWs; integration of physical, mental, and social health; quality metrics and system-level accountability; a systems focus on chronic illness and preventive care; accountability to specified populations; and a culture of patient-centeredness (Bodenheimer & Pham, 2010).

Medicaid Health Plans of America should develop and pilot a Women's Health Home model that directly addresses equity, engages patients and community members in the design and local implementation of the model, and includes "community health doulas" and/or "community women's health workers" as full participants on the health care team. The model should be piloted and evaluated among women covered by Medicaid with an eye to eventually expanding to privately insured populations. This is particularly important in light of Medicaid's ability to demonstrate how doulas and CHWs can be equitably reimbursed and included in team-based care plans.

Establish initiatives to support women's health in the postpartum year and beyond in communities where women live, work, and bring their families.

Rationale.—Reaching busy new mothers with resources and supports for their own health requires co-locating information and referrals where they already gather: at pediatric clinics

(Verbiest, Bonzon, & Handler, 2016; Henderson et al., 2016), Head Start programs (Silverstein et al., 2017, 2018), and community locations such as places of worship and beauty salons (Linnan, D'Angelo, & Harrington, 2014; Campbell et al., 2007).

Local and state public health departments should fund CBOs and advocacy groups to bring resources and information to mothers where they live, work, and gather with family and friends.

Workforce transformation

Support and sustain the role of doula and CHWs on clinical care teams across the chasm.

Rationale.—Doula are widely recognized as community-rooted birth workers whose woman-centric, holistic approach to care is crucial for bringing equity to maternal health in the United States. Doula support during pregnancy, childbirth, and the immediate postpartum period is associated with improved overall satisfaction among mothers, reduced preterm birth and cesarean rates, increased breastfeeding initiation, improved parenting practices, increased mother-child interaction, and decreased postpartum depression (Bohren, Hofmeyr, Sakala, Fukuzawa, & Cuthbert, 2017; Campbell, Lake, Falk, & Backstrand, 2006; Fortier et al., 2015; Gentry, Nolte, Gonzalez, Pearson, & Ivey, 2010; Hans et al., 2013; Narvaez, 2018). Doula, as well as specially trained maternal CHWs, can go on to play a vital role in the full postpartum year as mothers navigate both their own and their infants' health and connections to needed community resources. A rapidly growing grassroots movement is advocating for state and national legislatures to support doula care as a critical component of maternity care, including reimbursement at an equitable rate (Bakst, Moore, George, & Shea, 2020; Health Connect One, 2019). State Medicaid programs also have the authority to adopt this approach and an increasing number are considering doing so (National Health Law Program, 2019). Challenges to incorporating doula in clinical settings include establishing state-by-state certification and training requirements and standards for reimbursement; reporting of best practices for adoption of doula care will be an important task.

State Medicaid programs and health care institutions should support doula as essential maternity care providers, increase reimbursement, and extend the role of doula across the continuum from pregnancy through 1 year postpartum.

Develop and implement cross-training models to prepare inter-professional teams to collaborate effectively and equitably together.

Rationale.—Interprofessional teams need interprofessional education (IPE) to work collaboratively together, because experiential training increases cohesiveness and ensures safety, quality, equity, and patient satisfaction. IPE training models are prevalent in emergency and family medicine residency programs (Achkar et al., 2018), and evidence suggests that team training enhances inpatient outcomes (Sobero, Farley, Mattke, & Lovejoy, 2008). The Blueprint for Advancing High-Value Maternity Care (National Partnership for Women and Families, 2018b) also recommended IPE. An experiential training model for IPE teams at the intersection of maternity and primary care is a key innovation for BtC; it

must be coupled with evaluation of outcomes, because the evidence for change in practice behaviors after training is inconclusive (Kwant, Custers, Jongen-Hermus, & Kluijtmans, 2015). The engagement of doulas and CHWs in the cross-training is critical to ensure a culture of equity on teams and for patients.

The CMS Innovation Center should incentivize academic medical centers to create and implement cross-training models for collaborative teams composed of Ob-Gyns, family practice physicians, nurses and nurse-midwives, physician assistants, and CHWs and doulas.

Develop educational units required for licensure that link maternity care with primary care.

Rationale.—Primary care for women is limited by a shortage of primary care providers, especially women’s health specialists; coverage barriers to seeking care; and chronic underinvestment (Zephyrin, 2020). Referral to primary care is an essential component of the postpartum visit after a complicated pregnancy. This requires providers to understand and convey potential future health concerns and assume responsibility for continuity of care (McCloskey et al., 2019a). Requiring modules for accreditation ensures that clinicians obtain necessary knowledge, although evidence that training modules lead to changes in practice behaviors is inconclusive (Kwant et al., 2015).

All accrediting bodies for maternity and primary care training programs in medicine and nursing should require a creditbearing unit that ties together maternity and primary care for women.

Policy Supports to Support and Sustain Equitable and Quality Health Care across the Chasm

Medicaid policy reforms

Expand Medicaid insurance coverage, payment, and benefits to support women across the full postpartum year.

Rationale.—As the insurer for almost half of all U.S. births annually (Centers for Disease Control and Prevention, 2011; Markus, Andres, West, Garro, & Pellegrini, 2013), Medicaid has a vital role to play in assuring continuity of coverage and care. However, women who are eligible for Medicaid only on the basis of pregnancy lose coverage after 60 days postpartum, and many lack another source of coverage (Equitable Maternal Health Coalition, 2020; Ranji, Gomez, & Salganicoff, 2019). Moreover, 4 out of 10 Medicaid beneficiaries do not have a postpartum visit in the 6-10 weeks after giving birth (Rodin, Silow-Carroll, Cross-Barnet, Courtot, & Hill, 2019). Medicaid coverage has a positive impact on timely use of prenatal care (Daw, Hatfield, Swartz, & Sommers, 2017; Johnson et al., 2015); extending coverage beyond the postpartum period may similarly allow new mothers to tend to their own health. A recent study (Gordon, Sommers, Wilson, & Trivedi, 2020) found that new mothers in a state without Medicaid expansion had greater loss of Medicaid insurance and fewer outpatient visits between 1 and 6 months postpartum, compared to counterparts in a state with expansion and lower rates of coverage loss at 60 days postpartum. The difference was greatest among those with chronic conditions. These

findings point to the potential of this strategy to prevent maternal deaths. There is strong federal- and state-level momentum for this strategy, with support from the Equitable Maternal Health Coalition (2020) and at least six bills posted during the 116th Congress (Babbs et al., 2021; Black Maternal Health Momnibus Act, H.R. 6142, 116th Cong., 2020; Johnson et al, 2020). While insurance coverage is a necessary strategy to promote continuity of care across the chasm, it must also be accompanied by payment and benefit reforms (Johnson et al., 2015).

The 117th Congress should pass legislation that ensures automatic, continuous enrollment in Medicaid through the postpartum year for all enrollees eligible through the pregnancy option, and reforms payment through an extended bundle or unbundled postpartum payment to optimize maternal health in year after delivery.

Establish a mechanism to reward documented, effective referrals from obstetrics to primary care.

Rationale.—Health care transitions that are accompanied by clear communication with patients, between providers, and across systems lead to better processes of care, outcomes, and patient satisfaction. Evidence from the transition between adolescent and adult care (Schmidt, Ilango, McManus, Rogers, & White, 2020) and between cancer screening and treatment (Zapka et al., 2004) provide excellent examples. Maternity and primary care providers should be accountable for referrals between them (Kripalani et al., 2007). Such handoffs are an essential component of safe, preventive care for women after complicated pregnancies. Institutionalizing transition best practices through payment and quality metrics helps to ensure that warm handoffs become a standard of care. For practitioners, incentives have been shown to be more effective for changing practice than disincentives (Ashcroft, Silveira, & Mckenzie, 2016).

The CMS should use its program authority to support the development, implementation, and evaluation of new ways to support linkage to primary care through pay-for-performance policies that reward: 1) warm handoffs between obstetric and primary care providers and 2) documentation of handoff in the medical record.

Integrate social determinants of health into all aspects of health care during pregnancy and throughout the postpartum year through ACOs and Integrated Delivery Networks.

Rationale.—ACOs and Integrated Delivery Networks across the country are addressing specific social determinants of health (SDOH) issues (LaPointe, 2017; Center for Health Law and Policy, 2019), and existing models can be used as templates for the extended postpartum year (e.g., a preventive food pantry accessed by prescription at Boston Medical Center, employment and transportation assistance at Advocate Health Care in Chicago, a housing program in Hennepin County, Minnesota, and an Immigrant Medical Legal Partnerships in Nebraska.) The PRAPARE toolkit offers a map for SDOH risk assessment and implementation (National Association of Community Health Centers, Inc., 2019).

The CMS should promote partnerships between ACOs and CBOs to address SDOH (see examples elsewhere in this article), using the Innovation waiver process.

Quality Measures

Address lack of quality measures specific to the transition from postpartum to primary care and to women's health care experiences.

Rationale

Quality metrics are integral to our health care system and its accountability to payers and patients; they play a significant role in the era of value-driven care and reimbursement. In maternal health care, quality metrics in the Healthcare Effectiveness Data & Information Set have been extremely limited, confined to measures of prenatal and postpartum care attendance. When measures are overly focused on easy-to-measure items or developed without patient and community input, they can lack meaning and be counterproductive (Saver et al., 2015). The National Quality Forum has convened a multistakeholder task force to recommend new measures related to maternal mortality and morbidity, and the National Birth Equity Coalition and the California Maternal Care Quality Collaborative are developing patient reported experience measures based on input from hundreds of BIWOC across the nation. The BtC Agenda calls for a cluster of measures that focus on continuity and equity across the chasm, can be built into or from existing efforts, and can have an impact on maternal mortality and morbidity in the extended postpartum period and on prevention of chronic illness.

The National Quality Forum should develop and Healthcare Effectiveness Data & Information Set implement new postpartum quality measures, including 1) completion of a glucose tolerance test for women with GDM within 1 year postpartum, 2) discharge with a blood pressure cuff for women with pregnancy-induced hypertension, 3) patient reported experience measure that captures patient experiences of respect/disrespect and implicit and explicit bias/fair treatment during prenatal, intrapartum and postpartum care, and 4) documentation of completed referral (warm handoff to primary care provider at the conclusion of postpartum care). Measures #3 (patient reported experience measure) and #4 (warm hand off to primary care) also should be pay-for-performance measures within Medicaid, given their critical importance to continuity and equity.

Preserve the Narrative through Data System Innovations

Institute innovations for patients and providers to fill gaps in the medical record.

Rationale

Improving the flow of information and communication between providers and patients and within and across health data systems raises complex challenges: time constraints, the absence of appreciation for the patient's story, and lack of electronic "highways" to connect health records across specialties, time, and illness episodes. Electronic medical records (EMRs) have improved documentation of medical details (Haskew et al., 2015; Manca, 2015), but have also added burdens for providers (Backman et al., 2017) and reduced time

for meaningful patient-provider communication (Gawande, 2018; Haskew et al., 2015; Johnson et al., 2017; Koven, 2016; Varghese, 2018). Furthermore, the “problem list” in a birth discharge record is not automatically saved in most EMR versions and advanced to non-obstetric providers; this gap is a woman-specific case of “treat and release” akin to the lack of handoffs from emergency room care to appropriate providers in the general population (Cheung et al., 2009). Accessibility of key information is critical for preventing morbidity and mortality in the year after childbirth and chronic illness over the life course. Birthing people’s experiences during pregnancy and childbirth have an impact on their mental and physical health and whether they seek further care, yet they are not reflected in the medical record (Fogel, 2018; Koven, 2016). Inviting pregnant people to read clinical notes in the EMR and record brief stories (in ways providers could read or hear) can empower them and inform their providers about important issues that might otherwise have been missed (Leveille et al., 2020).

EMR companies (or institutions with capacity to revise EMR structure) should develop an electronic record postpartum discharge template with coded fields specific to patient risks for future pregnancies and long-term health, as well as key transition information for primary care providers and patients, and create a place in the record for mothers to write or record their own notes.

Place information and self-care strategies in women’s hands, either by harnessing digital technology or creating a hard-copy *Mother’s Health Book*

Rationale

Web-based online platforms have been shown to improve outcomes after GDM (Nicklas et al., 2014), increase postpartum visits (Himes et al., 2017), provide emotional and informational support to women with or at risk for postpartum depression (Lee, Denison, Hor, & Reynolds, 2015), and allow postpartum women to monitor their blood pressure at home (Hirshberg, Aviles, & Srinivas, 2019). These platforms can be adapted to diverse populations and should augment and not substitute for systems change.

Private funders (e.g., non-profits, tech companies, pharmaceutical foundations) should establish initiatives for development of digital technologies (web- and mHealth-based) to place in women’s hands the tool needed to follow their own health needs after pregnancy, across the chasm and through connection to primary care.

Enrich data sources on maternal mortality and severe morbidities that occur in the postpartum period.

Rationale

State-wide Maternal Mortality Review Committees (MMRCs) provide one important way for maternal deaths to be understood and scrutinized for preventable causes. In the United States, an estimated 40 states have MMRCs, yet they vary in methods and accountability and generally address only clinical data. The patient experience and family narrative is missing, a gap that is especially (but not only) problematic for postpartum deaths, and review panels rarely include patient representatives. In December 2018, the Preventing Maternal Deaths

Act (HR 1318) was passed into law. As noted by Kozhimannil et al. (2019), the Act is an important first step to support existing MMRCs, but not a panacea. Additional legislation is needed to inform efforts to eliminate preventable pregnancy-related deaths and near misses and remove intolerable racial inequities in these outcomes.

The 117th Congress should pass legislation that expands the Preventing Maternal Deaths Act of 2018 to require all states to implement MMRCs, standardize types of data collected and reported on, expand scope to include severe maternal morbidities, and include family interviews to capture the patient experience.

Align Research with Women’s Lived Experience

Expand funding for longitudinal, holistic, culturally based and racially just research in women’s health that centers their lived experience, with an emphasis on the use of community-based participatory research methodology.

Rationale

Funding opportunities for research in women’s health are often narrowly focused on pregnancy or specific medical conditions to the exclusion of SDOH or women’s holistic lived experience. Medical research involving women is divided up territorially by body parts, with different agencies responsible for specific organ systems. For women with GDM and hypertensive diseases of pregnancy and their children, holistic research on effective practices for preventive testing, surveillance, and treatment of potentially chronic diseases across the life span is best accomplished through funding multidisciplinary collaborations that center the voices and agency of women and their lived experience, including community-based participatory research (Chung et al., 2010; Wallerstein & Duran, 2010).

The National Institutes of Health, Health Resources & Services Administration, and private foundations should create new research funding sources, new approaches to patient and community engaged research, and a new focus on study of outcomes of health care innovations during the postpartum year. They should prioritize mentoring and funding for BIWOC to conduct this research, because what becomes evidence depends on who is asking the questions.

Discussion

BtC between Pregnancy and Health over the Life Course

A National Agenda for Research and Action is the first national initiative to synthesize the expertise of diverse stakeholders to address persistent gaps and inequities in women’s health care between pregnancy and primary care over the life course. The BtC Agenda is the product of a national stakeholder leadership council and a network of more than 150 members with expertise based in lived experience and technical knowledge. Co-created by patients, advocates, providers, researchers, policymakers, and health system innovators, the Agenda reflects a shared commitment to continuity, holism, and, above all, equity in women’s health care across the life course. It draws on and expands upon myriad efforts now underway to transform maternity care in the United States (Black Mamas Matter Alliance, 2018; Institute for Medicaid Innovation, 2020b; National Partnership for Women

and Families, 2018a), extending the reach to the full postpartum year and beyond. The BtC Agenda addresses two deeply rooted problems—siloed specialties and structural racism—that stand in the way of quality care for women across the life course, and presents an ambitious blueprint that, if implemented, will prevent pregnancy-related deaths and morbidities in the postpartum year as well as disability and premature death from preventable chronic illness across the life course.

Implications for Practice and/or Policy

Research publications and media interest have focused significant attention on gaps and inequities in access and quality in maternity care and the postpartum period, largely focused on preventable pregnancy-related mortality and severe morbidities. Less attention has been paid to gaps in the transition to primary care in the extended postpartum period and beyond, with a broader focus on solutions that would prevent chronic illness over the life course. Solutions that have been proposed and tested tend to be issue-specific and lack the comprehensive lens of multiple stakeholders. The BtC Agenda, in contrast, is a comprehensive, multipronged approach to break down the myriad structural barriers to seamless, high quality, and equitable care for all women after pregnancy and the immediate postpartum period. Conference attendees and the multiexpertise working groups that followed identified key strategic areas with specific actions designed to bridge the chasm. These include areas 1) progress toward eliminating institutional and interpersonal racism and bias as a requirement for accreditation of health care institutions, 2) infrastructure support for CBOs, 3) extension of holistic team-based care to the postpartum year and beyond, with integration of doulas and CHWs on the team, 4) extension of Medicaid coverage and new quality and pay-for-performance metrics to link maternity care and primary care, 5) systems to preserve maternal narratives and data across providers, and 6) alignment of research with women's lived experiences. Table 3 describes in detail specific tasks needed to achieve the goal of eliminating inequities and improving care and outcomes, and Table 4 lists them in a format that can be readily adopted and supported by all who have a role to play: state and federal government agencies, researchers and funders, foundations, health care organizations, professional organizations, private sector quality measure developers, advocacy organizations, educators, and journalists. Taken together, the BtC Agenda provides a roadmap to transform health care in the reproductive years and beyond for everyone giving birth in the United States, while also eliminating deeply entrenched race-based inequities in care and the growing inequities in outcomes across the life course.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

We wish to acknowledge first and foremost the 75 individuals who participated in the 2018 “Bridging the Chasm” Conference that launched the initiative and produced the outline of the National Agenda. Each patient, advocate, researcher, clinician, policy-maker, health system innovator and theatre artist brought to the task enormous expertise, energy and spirit of collaboration, without which the Bridging the Chasm Collaborative could not have gone on to produce the final, comprehensive Agenda.

We also wish to recognize the invaluable guidance from Andrew Bremer, MD, PhD, our project officer at NIH, and from Janine Austin Clayton, MD, the Director of the NIH Office of Research on Women's Health. We owe a debt to Marguerite M. White M.D., GobaCommunityWriter, for her editorial assistance, and to the research support of Judy Margo, MPH, DrPH.

References

- Abshire C, Mcdowell M, Crockett AH, & Fleischer NL (2019). The impact of CenteringPregnancy Group prenatal care on birth outcomes in Medicaid eligible women. *Journal of Womens Health (Larchmont)*, 28(7), 919–928.
- Achkar AA, Hanauer M, Colavecchia C, & Seehusen DA (2018). Interprofessional education in graduate medical education: Survey study of residency program directors. *BMC Medical Education*, 18(1), 11. [PubMed: 29321024]
- Allalou A, Nalla A, Prentice K, Liu Y, Zhang M, Dai FF, & Wheeler MB (2016). A predictive metabolic signature for the transition from gestational diabetes mellitus to type 2 diabetes. *Diabetes*, 65(9), 2529–2539. [PubMed: 27338739]
- American College of Obstetricians and Gynecologists, Committee on Obstetric Practice. (2018). Optimizing postpartum care (ACOG Committee opinion No.736). Available: www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/05/optimizing-postpartum-care. Accessed: August 10, 2020.
- Ashcroft R, Silveira J, & Mckenzie K (2016). A qualitative study on incentives and disincentives for care of common mental disorders in Ontario Family Health Teams. *Healthcare Policy*, 12(1), 84–96. [PubMed: 27585029]
- Avery MD, Bell AD, Bingham D, Corry MP, Delbanco SF, Gullo SL, ... Shah NT (2018). Blueprint for advancing high-value maternity care. National Partnership for Women and Families. Available: www.nationalpartnership.org/our-work/resources/health-care/maternity/blueprint-for-advancing-high-value-maternity-care.pdf. Accessed: August 19, 2020.
- Babbs G, McCloskey L, & Gordon SH (2021). Expanding postpartum Medicaid benefits to combat maternal mortality and morbidity. *Health Affairs Blog*. Available: <https://www.healthaffairs.org/doi/10.1377/hblog20210111.655056/full/>. Accessed: February 11, 2021.
- Backman R, Bayliss S, Moore D, & Litchfield I (2017). Clinical reminder alert fatigue in healthcare: A systematic literature review protocol using qualitative evidence. *Systematic Reviews*, 6(1), 255. [PubMed: 29237488]
- Bailey ZD, Kreiger N, Agenor M, Graves J, Linos N, & Bassett MT (2017). Structural racism and health inequities in the USA: Evidence and interventions. *Lancet*, 389(10077), 1453–1463. [PubMed: 28402827]
- Bailey ZD, Feldman JM, & Bassett MT (2020). How structural racism works—racist policies as a root cause of U.S. racial health inequities. *New England Journal of Medicine*. 10.1056/NEJMms2025396. Advance online publication
- Bakst C, Moore JE, George KE, & Shea K (2020). Community-based maternal support services: The role of doula and community health workers in Medicaid, Institute for Medicaid innovation, May 2020. Available: www.medicaidinnovation.org/_images/content/2020-IMI-Improving_Maternal_Health_Access_Coverage_and_Outcomes-Report.pdf. Accessed: August 13, 2020.
- Bennett WL, Chang HY, Levine DM, Wang L, Neale D, Werner EF, & Clark JM (2014). Utilization of primary and obstetric care after medically complicated pregnancies: An analysis of medical claims data. *Journal of General Internal Medicine*, 29(4), 636–645. [PubMed: 24474651]
- Black Mamas Matter Alliance. (2018). Setting the standard for holistic care of and for Black women. Available: http://blackmamasmatter.org/wp-content/uploads/2018/04/BMMA_BlackPaper_April-2018.pdf. Accessed: August 13, 2020.
- Black Maternal Health Momnibus Act, H.R. 6142, 116th Cong. (2020). Available: www.congress.gov/bill/116th-congress/house-bill/6142?s=1&r=5. Accessed: August 10, 2020.
- Bodenheimer T, & Pham H (2010). Primary care: Current problems and proposed solutions. *Health Affairs*, 29(5), 799–805. [PubMed: 20439864]

- Bohren MA, Hofmeyr GJ, Sakala C, Fukuzawa RK, & Cuthbert A (2017). Continuous support for women during childbirth. *Cochrane Database of Systematic Reviews*, 7, CD003766.
- Byerley BM, & Haas DM (2017). A systematic overview of the literature regarding group prenatal care for high-risk pregnant women. *BMC Pregnancy and Childbirth*, 17, 329. [PubMed: 28962601]
- Campbell DA, Lake MF, Falk M, & Backstrand JR (2006). A randomized control trial of continuous support in labor by a lay doula. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 35(4), 456–464.
- Campbell NC, Murray E, Darbyshire J, Emery J, Farmer A, & Griffiths F (2007). Designing and evaluating complex interventions to improve health care. *BMJ*, 334–455. [PubMed: 17303861]
- Carter EB, Temming LA, Akin J, Fowler S, Macones GA, Colditz GA, & Tuuli MG (2016). Group prenatal care compared with traditional prenatal care: A systematic review and meta-analysis. *Obstetrics and Gynecology*, 128,551–56. [PubMed: 27500348]
- Catling CJ, Medley N, Foureur M, Ryan C, Leap N, Teate A, & Homer CSE (2015). Group versus conventional antenatal care for women (review). *Cochrane Database of Systematic Reviews* 2015, 2, CD007622.
- Celi AC, Seely EW, Wang P, Thomas AM, & Wilkins-Haug LE (2019). Caring for women after hypertensive pregnancies and beyond: Implementation and integration of a postpartum transition clinic. *Maternal and Child Health Journal*, 23(11), 1459–1466. [PubMed: 31257555]
- Center for Health Law and Policy. (2019). Flexible services program: Guidance document companion guide [PDF file]. Available: www.chlpi.org/wp-content/uploads/2013/12/Flexible-Services-Guidance-Document-Companion-Slides-vF.pdf. Accessed: August 10, 2020.
- Centers for Disease Control and Prevention. (2011). Principles for Community Engagement, 2nd ed. (NIH Publication No. 11-7782). Available: www.atsdr.cdc.gov/communityengagement/pdf/PCE_Report_508_FINAL.pdf. Accessed: June 30, 2020.
- Cheung D, Kelly J, Beach C, Berkeley R, Bitterman R, Broida RI, ... White M (2009). Improving handoffs in the emergency department. *Annals of Emergency Medicine*, 55(2), 171–180. [PubMed: 19800711]
- Chuang E, Brunner J, Mak S, Hamilton AB, Canelo I, Darling J, ... Yano EM (2017). Challenges with implementing a patient-centered medical home model for women veterans. *Women's Health Issues*, 27(2), 214–220. [PubMed: 28063848]
- Chung B, Jones L, Dixon EL, Miranda J, Wells K, & Community Partners in Care Steering Council (2010). Using a community partnered participatory research approach to implement a randomized controlled trial: Planning community partners in care. *Journal of Health Care for the Poor and Underserved*, 21(3), 780–795. [PubMed: 20693725]
- Clancy C, & Sharp B (2013). Women's health during health care transformation. *Journal of General Internal Medicine*, 28(Suppl 2), 500–503.
- CMS Findings at a Glance. (2019). Strong start for mothers and newborns: Evaluation of full performance period (2018). Available: <https://innovation.cms.gov/files/reports/strongstart-prenatal-fg-finalevalrpt.pdf>. Accessed: August 10, 2020.
- Collins JW, David RJ, Symons R, Handler A, Wall SN, & Dwyer L (2000). Low-income African-American mothers' perception of exposure to racial discrimination and infant birth weight. *Epidemiology*, 11(3), 337–339. [PubMed: 10784254]
- Cooper LA, & Roter DL (2003). Patient-provider communication: The effect of race and ethnicity on process and outcomes of healthcare. In Smedley BD, Stith AY, & Nelson AR (Eds.), *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. Washington, DC: National Academy Press.
- Cunningham SD, Lewis JB, Shebl FM, Boyd LM, Robinson MA, Grilo SA, ... Ickovics JR (2019). Group prenatal care reduces risk of preterm birth and low birth weight: A matched cohort study. *Journal of Women's Health*, 28(1), 17–22.
- Cyr ME, Etchin AG, Guthrie BJ, & Benneyan JC (2019). Access to specialty healthcare in urban versus rural US populations: A systematic literature review. *BMC Health Services Research*, 19(1), 974. [PubMed: 31852493]

- Daw JR, Hatfield LA, Swartz K, & Sommers B (2017). Women in the United States experience high rates of coverage ‘churn’ in months before and after childbirth. *Health Affairs*, 36(4), 598–606. [PubMed: 28373324]
- Diamond LC, Wilson-Stronks A, & Jacobs EA (2010). Do hospitals measure up to the National Culturally and Linguistically Appropriate Services Standards? *Medical Care*, 48(12), 1080–1087. [PubMed: 21063229]
- Dominguez TP, Dunker-Schetter C, Glynn LM, Hobel C, & Sandman CA (2008). Racial differences in birth outcomes: The role of general, pregnancy, and racism stress. *Health Psychology*, 27(2), 194–203. [PubMed: 18377138]
- Eichelberger KY, Doll K, Ekpo GE, & Zerden ML (2016). Black lives matter: Claiming a space for Evidence-Based Outrage in Obstetrics and Gynecology. *American Journal of Public Health*, 106(10), 1771–1772. [PubMed: 27626348]
- Equitable Maternal Health Coalition (ACOG, AMCHP, MoD, SMFM). (2020). Making the case for extending Medicaid coverage beyond 60 days postpartum: A toolkit for State advocates, June 2020. Available: <https://static1.squarespace.com/static/5ed4f5c9127dab51d7a53f8e/t/5ee12b312ecd4864f647fe67/1591814991589/State+White+Paper+061020-V6.pdf>. Accessed: August 13, 2020.
- Fogel H (2018). Why storytelling matters in medicine: An interview with Dr. Suzanne Koven. *Harvard Health Policy Review*. Available: www.hhpronline.org/articles/2018/11/11/why-storytelling-matters-in-medicine-an-interview-with-dr-suzanne-koven. Accessed: October 23, 2019.
- Fortier ME, Perron T, Fountain DM, Hinic K, Vargas M, Swan BA, & Heelan-Fancher L (2015). Health care in the community: Developing academic/practice partnerships for care coordination and managing transitions. *Nursing Economics*, 33(3), 167–181. [PubMed: 26259341]
- Garcia J, & Sharif MZ (2015). Black lives matter: A commentary on racism and public health. *American Journal of Public Health*, 105(8), e27–e30.
- Gawande A (2018). Why doctors hate their computers. *The New Yorker*, Nov 12 2018. Available: www.newyorker.com/magazine/2018/11/12/why-doctors-hate-their-computers. Accessed: August 10, 2020.
- Gentry QM, Nolte KM, Gonzalez A, Pearson M, & Ivey S (2010). Going beyond the call of doula: A grounded theory analysis of the diverse roles community-based doulas play in the lives of pregnant and parenting adolescent mothers. *Journal of Perinatal Education*, 19(4), 24–40.
- Gordon SH, Sommers BD, Wilson IB, & Trivedi AN (2020). Effects of Medicaid expansion on postpartum coverage and outpatient utilization. *Health Affairs*, 39(1), 77–84. [PubMed: 31905073]
- Green LA, & Cinfuentes M (2015). Advancing care together by integrating primary care and behavioral health. *Journal of the American Board of Family Medicine*, 28(Suppl. 1), S1–S6. [PubMed: 26359466]
- Hall WJ, Chapman MV, Lee KM, Merino YM, Thomas TW, Payne BK, ... Coyne-Beasley T (2015). Implicit racial/ethnic bias among health care professionals and its influence on health care outcomes: A systematic review. *American Journal of Public Health*, 105(12), e60–e76.
- Hans SL, Thullen M, Henson LG, Lee H, Edwards RC, & Bernstein VJ (2013). Promoting positive mother-infant relationships: A randomized trial of community doula support for young mothers. *Infant Mental Health Journal*, 34(5), 446–457.
- Hardeman RR, Medina EM, & Boyd RW (2020). Stolen breaths. *New England Journal of Medicine*, 383(3), 197–199.
- Hardeman RR, Medina EM, & Kozhimannil KB (2016). Structural racism and supporting Black lives—The role of health professionals. *New England Journal of Medicine*, 375(22), 2113–2115.
- Haskew JH, Ro G, Saito K, Turner K, Odhiambo G, Wamae A, ... Sugishita T (2015). Implementation of a cloud-based electronic medical record for maternal and child health in rural Kenya. *International Journal of Medical Informatics*, 84(5), 349–354. [PubMed: 25670229]
- HealthConnectOne®: Every Baby Our Baby. (2019). Issue Brief: Creating Policy for Equitable Doula Access, 2019. Available: www.healthconnectone.org/wp-content/uploads/bsk-pdf-manager/2019/10/HCO_Issue_Brief-final_102419.pdf. Accessed: August 19, 2020.

- Heberlein EC, Picklesimer AH, Billings DL, Covington-Kolb S, Farber N, & Fongillo EA (2016). The comparative effects of group prenatal care on psychosocial outcomes. *Archive of Women's Mental Health*, 19(2), 259–269.
- Henderson V, Stumbras K, & Caskey R (2016). Understanding factors associated with postpartum visit attendance and contraception choices: Listening to low-income postpartum women and health care providers. *Maternal Child Health Journal*, 20, 132–143. [PubMed: 27342600]
- Himes KP, Donovan H, Wang S, Weaver C, Grove JR, & Facco FL (2017). Healthy beyond pregnancy, a web- based intervention to improve adherence to postpartum care: Randomized controlled feasibility trial. *JMIR Human Factors*, 4(4), e26. [PubMed: 29017990]
- Hirshberg A, Aviles DJ, & Srinivas S (2019). Text message remote blood pressure monitoring eliminated racial disparities in postpartum hypertension care. *American Journal of Obstetrics and Gynecology*, 221(3), 283–285. [PubMed: 31121137]
- Hoffkling A, Obedin-Maliver J, & Sevelius J (2017). From erasure to opportunity: A qualitative study of the experiences of transgender men around pregnancy and recommendations for providers. *BMC Pregnancy and Childbirth*, 17, 332. [PubMed: 29143629]
- Honigberg M, Riise H, Daltveit A, Tell G, Sulo G, Inland J, ... Rich-Edwards J (2020). Long-term risk of heart failure in women with hypertensive disorders of pregnancy. *Journal of the American College of Cardiology*, 75, 1948. 10.1016/S0735-1097(20)32575-4
- Ickovics JR, Reed E, Magriples U, Westdahl C, Rising SS, & Kershaw TS (2011). Effects of group prenatal care on psychosocial risk in pregnancy: Results from a randomized controlled trial. *Psychology and Health*, 26(2), 235–250. [PubMed: 21318932]
- Ickovics JR, Earnshaw V, Lewis JB, Kershaw TS, Magriples U, Stasko E, ... Tobin JN (2016). Cluster randomized controlled trial of group prenatal care: Perinatal outcomes among adolescents in New York City health centers. *American Journal of Public Health*, 106(2), 359–365.
- Institute for Medicaid Innovation. (2020a). Midwifery support in States leads to better birth outcomes, May 5, 2020. Available: www.medicaidinnovation.org/news/item/midwifery-support-in-states-leads-to-better-birth-outcomes-new-report-offers-guidance-for-improving-maternal-health-in-medicaid. Accessed: August 13, 2020.
- Institute for Medicaid Innovation. (2020b). Improving Maternal Health Access, Coverage and Outcomes in Medicaid: A resource for State Medicaid agencies and Medicaid managed care organizations, 2020. Available: www.medicaidinnovation.org/current-initiatives/womens-health. Accessed: August 10, 2020.
- Institute of Medicine. (2011). *The future of nursing: Leading change, advancing health*. Washington (DC): National Academies Press (US).
- Institute of Medicine. (2003). *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care* (2003). Available: <https://www.nap.edu/catalog/10260/unequal-treatment-confronting-racial-and-ethnic-disparities-in-health-care>. Accessed: February 11, 2021.
- Institute of Medicine. (2012). What progress in reducing health disparities has been made? A historical perspective. Available: <https://www.ncbi.nlm.nih.gov/books/NBK100492/>. Accessed: February 11, 2021.
- Jabbapour Y, DeMarchis E, Bazemore A, & Grundy P (2017). The impact of primary care practice transformation on cost, quality and utilization: Annual review of evidence 2016-2017. Washington, DC: Patient-Centered Primary Care Collaborative. Available: www.pcpc.org/resource/impact-primary-care-practice-transformation-cost-quality-and-utilization. Accessed: August 10, 2020.
- Jackson FM, Hogue CR, & Phillips MT (2005). The development of a race and gender-specific stress measure for African-American women: Jackson, Hogue, Phillips contextualized stress measure. *Ethnicity & Disease*, 15(4), 594–600. [PubMed: 16259481]
- Johantgen M, Fountain L, Zangaro G, Newhouse R, Stanik-Hutt J, & White K (2012). Comparison of labor and delivery care provided by certified nurse-midwives and physicians: A systematic review, 1990 to 2008. *Women's Health Issues*, 22, E73–E81. [PubMed: 21865056]
- Johnson K, Applegate M, & Gee RE (2015). Improving Medicaid: Three decades of change to better serve women of childbearing age. *Clinical Obstetrics and Gynecology*, 58(2), 336–354. [PubMed: 25860326]

- Johnson KR, Hagadorn JI, & Sink DW (2017). Alarm safety and alarm fatigue. *Clinical Perinatology*, 44(3), 713–728.
- Johnson K, Posner SF, Biermann J, Cordero JK, Atrash HK, Parker CS, ... Curtis MG (2006). Recommendations to improve preconception health and health care—United States. A report of the CC/ATSDR Preconception Care Work Group and the Select Panel on Preconception Care. *MMWR Recommendations and Reports*, 55, 1–23 Available: www.cdc.gov/mmwr/preview/mmwrhtml/rr5506a1.htm. Accessed: August 19, 2020.
- Johnson K, Rosenbaum S, & Hanley M (2020). The next steps to advance maternal and child health in Medicaid: Filling gaps in postpartum coverage and newborn enrollment. *Health Affairs Blog*. Available: www.healthaffairs.org/doi/10.1377/hblog20191230.967912/full/. Accessed: February 11, 2020.
- Joint Commission, Division of Health Care Improvement. (2016). Implicit bias in health care. *Quick Safety*, 23. Available: www.jointcommission.org/-/media/deprecated-unorganized/imported-assets/tjc/system-folders/joint-commission-online/quick_safety_issue_23_apr_2016pdf.pdf?db=web&hash=A5852411BCA02D1A918284EBAA775988. Accessed: August 10, 2020.
- Jones EJ, Hernandez TL, Edmonds JK, & Ferranti EP (2019). Continued disparities in postpartum follow-up and screening among women with gestational diabetes and hypertensive disorders of pregnancy: A systematic review. *Journal of Perinatal and Neonatal Nursing*, 33(2), 136–148. [PubMed: 31021939]
- Kennedy HP, Farrell T, Paden R, Hill S, Jolivet R, Willetts J, & Rising SS (2009). “I wasn’t alone”—a study of group prenatal care in the military. *Journal of Midwifery & Women’s Health*, 54(3), 176–183.
- Kennedy HP, Farrell T, Paden R, Hill S, Jolivet R, Cooper BA, & Rising SS (2011). A randomized clinical trial of group prenatal care in two military settings. *Military Medicine*, 176(10), 1169–1177. [PubMed: 22128654]
- Kozhimannil KB, Hernandez E, Mendez DD, & Chapple-McGruder T (2019). Beyond the Preventing Maternal Deaths Act: Implementation and further policy change. *Health Affairs Blog*. . Accessed: February 4, 2019.
- Koven S (2016). As hospitals go digital, human stories get left behind. Available: www.statnews.com/2016/04/06/electronic-medical-records-patients/. Accessed: October 22, 2019.
- Kramer CK, Campbell S, & Retnakaran R (2019). Gestational diabetes and the risk of cardiovascular disease in women: A systematic review and meta-analysis. *Diabetologia*, 62(6), 905–914. [PubMed: 30843102]
- Kripalani S, LeFevre F, Phillips CO, Williams MV, Basaviah P, & Baker DW (2007). Deficits in communication and information transfer between hospital-based and primary care physicians: Implications for patient safety and continuity of care. *Journal of the American Medical Association*, 297(8), 831–841. [PubMed: 17327525]
- Kwant KJ, Custers EJFM, Jongen-Hermus FJ, & Kluijtmans M (2015). Preparation by mandatory E-modules improves learning of practical skills: A quasi-experimental comparison of skill examination results. *BMC Medical Education*, 15, 102. [PubMed: 26058347]
- LaPointe J (2017). Accountable care organization saves \$4.8m with nutrition aid. *RevCycle Intelligence*. Available: <https://revcycleintelligence.com/news/accountable-care-organization-saves-4.8m-with-nutrition-aid>. Accessed: August 18, 2020.
- Lee EW, Denison FC, Hor K, & Reynolds RM (2015). Web-based interventions for prevention and treatment of perinatal mood disorders: A systematic review. *BMC Pregnancy and Childbirth*, 16, 38.
- Leveille DP, Fitzgerald P, Harcourt K, Dong Z, Bell S, DesRoches C., & Walker J (2020). Patients evaluate visit notes written by their clinicians: A mixed methods investigation. *Journal of General Internal Medicine*. 10.1007/s11606-020-06014-7. Available: . Accessed: August 10, 2020.
- Linnan LA, D’Angelo H, & Harrington CB (2014). A literature synthesis of health promotion research in salons and barbershops. *American Journal of Preventive Medicine*, 47(1), 77–85. [PubMed: 24768037]
- Manca DP (2015). Do electronic medical records improve quality of care? Yes. *Canadian Family Physician*, 61, 846–847. [PubMed: 26472786]

- Markus AR, Andres E, West KD, Garro N, & Pellegrini C (2013). Medicaid covered births, 2008 through 2010, in the context of the implementation of health reform [published correction appears in *Women's Health Issues*, 23 (6), e411]. *Women's Health Issues*, 23(5), e273–e280. [PubMed: 23993475]
- Martin JA, Hamilton BE, & Osterman MJK (2018). Births in the United States, 2017. (NCHS Data Brief, no 318). Hyattsville, MD: National Center for Health Statistics. Available: www.cdc.gov/nchs/data/databriefs/db318.pdf. Accessed: August 10, 2020.
- Martin N, & Montagne R (2017). Lost mothers: Nothing protects black women from dying in pregnancy. Not education. Not income. Not even being an expert on racial disparities in health care. ProPublica. Available: <https://www.propublica.org/article/nothing-protects-black-women-from-dying-in-pregnancy-and-childbirth>. Accessed: February 11, 2021.
- McCloskey L, Quinn E, Ameli O, Heeren T, Craig M, Lee-Parritz A, ... Bernstein J (2019a). Interrupting the pathway from gestational diabetes mellitus to type 2 diabetes: The role of primary care. *Women's Health Issues*, 29(6), 480–488. [PubMed: 31562051]
- McCloskey L, Sherman ML, St. John M, Siegel H, Whyte J, Iverson R, ... Bernstein J (2019b). Navigating a 'perfect storm' on the path to prevention of type 2 diabetes mellitus after gestational diabetes: Lessons from patient and provider narratives. *Maternal and Child Health Journal*, 23(5), 603–612. [PubMed: 30949932]
- Muse S (2018). Setting the standard for holistic care of and for Black women [Black paper]. Available: http://blackmamasmatter.org/wp-content/uploads/2018/04/BMMA_BlackPaper_April-2018.pdf. Accessed: May 11, 2020.
- Mustillo S, Kreisler N, Gunderson EP, Sidney S, McCreath H, & Kiefe CI (2004). Self-reported experiences of racial discrimination and Black-white differences in preterm and low-birthweight deliveries: The CARDIA Study. *American Journal of Public Health*, 94(12), 2125–2131. [PubMed: 15569964]
- Narvaez A (2018). Incorporating doula services for better maternal and child health outcomes in Medicaid populations. Pittsburgh: University of Pittsburgh. Available: <http://d-scholarship.pitt.edu/34292/>. Accessed: October 26, 2019.
- National Association of Community Health Centers, Inc., Association of Asian Pacific Community Health Organizations, Oregon Primary Care Association. (2019). PRAPARE implementation and action toolkit. Available: www.nachc.org/research-and-data/prapare/toolkit/. Accessed: August 13, 2020.
- National Health Law Program Doula Medicaid Project. (2019). Available: www.healthlaw.org/doulamedicaidproject/. Accessed: August 10, 2020.
- National Partnership for Women and Families [Health policy report]. (2018a). Black women's maternal health: A multifaceted approach to addressing persistent and dire health disparities. Available: www.nationalpartnership.org/our-work/health/reports/black-womens-maternal-health.html. Accessed: May 11, 2019.
- National Partnership for Women and Families. (2018b). Blueprint for advancing high-value maternity care through physiologic childbearing. Available: www.nationalpartnership.org/our-work/health/reports/maternity-blueprint.html. Accessed: August 18, 2020.
- Nicklas J, Zera C, England L, Rosner BA, Horton E, Levkoff SE, & Seely EW (2014). A web-based lifestyle intervention for women with recent gestational diabetes mellitus: A randomized controlled trial. *Obstetrics and Gynecology*, 124(3), 563–570. [PubMed: 25162257]
- Office of Minority Health, U.S. DHHS. (2020). The National CLAS Standards. Available: <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=2&lvlid=53>. Accessed: February 11, 2021.
- Petersen EE, Davis NL, Goodman D, Cox S, Syverson C, Seed K, ... Barfield W (2019). Racial/ethnic disparities in pregnancy-related deaths—United States, 2007–2016. *MMWR Morbidity and Mortality Weekly Report*, 68(35), 762–765. [PubMed: 31487273]
- Ranji U, Gomez I, & Salganicoff A (2019). Expanding postpartum Medicaid coverage. Kaiser Family Foundation Issue Briefs, May 2019. Available: <https://files.kff.org/attachment/Issue-Brief-Expanding-Postpartum-Medicaid-Coverage>. Accessed: August 25, 2020.

- Rodin DS, Silow-Carroll S, Cross-Barnet C, Courtot B, & Hill I (2019). Strategies to promote postpartum visit attendance among Medicaid recipients. *Journal of Women's Health*, 28(9), 1246–1253.
- Saver BG, Martin A, Adler RN, Candib LM, Deligiannidis KE, Golding J, ... Topolski S (2015). Care that matters: Quality measurement and health care. *PLoS Medicine*, 12(11), e1001902. [PubMed: 26574742]
- Schellinger MM, Abernathy MP, Amerman B, May C, Foxlow LA, Carter AL, ... Haas DM (2017). Improved outcomes for Hispanic women with gestational diabetes using the Centering Pregnancy© group prenatal care model. *Maternal and Child Health Journal*, 21(2), 297–305. [PubMed: 27423239]
- Schmidt A, Ilango SM, McManus MA, Rogers K, & White PH (2020). Outcomes of pediatric to adult health care transition interventions: An updated systematic review. *Journal of Pediatric Nursing*, 51, 92–107. [PubMed: 31981969]
- Seeds for Change Lancaster Co-operative Ltd. (2013). A consensus handbook: Cooperative decision-making for activists, co-ops and communities, Seeds for Change. Available: www.seedsforchange.org.uk/handbookweb.pdf. Accessed: August 18, 2020.
- Seely EW, Celi AC, Chausmer J, Graves C, Kilpatrick S, Nicklas JM, ... Rich-Edwards JW (2020). Cardiovascular health after preeclampsia: Patient and provider perspective. *Journal of Womens Health (Larchmont)*. 10.1089/jwh.2020.8384. Advance online publication
- Shah BR, Lipscombe LL, Feig DS, & Lowe JM (2011). Missed opportunities for type 2 diabetes testing following gestational diabetes: A population-based cohort study. *British Journal of Obstetrics and Gynaecology*, 118(12), 1484–1490. [PubMed: 21864326]
- Silverstein M, Diaz-Linhart Y, Cabral H, Beardslee W, Broder-Fingert S, Kistin CJ, Patts G, & Feinberg E (2018). Engaging mothers with depressive symptoms in care: results of a randomized controlled trial in Head Start. *Psychiatric Services*, 69, 1175–1180. [PubMed: 30256184]
- Silverstein M, Diaz-Linhart Y, Cabral H, Beardslee W, Hegel M, Haile W, Sander J, Patts G, & Feinberg E (2017). Efficacy of a maternal depression prevention strategy in head start: A randomized clinical trial. *JAMA Psychiatry*, 74, 781–789. [PubMed: 28614554]
- Sloven N, Lewis TT, Gruenewald TL, Mujahid MS, Ryff CD, Albert MA, & Williams DR (2010). Early life adversity and inflammation in African Americans and whites in the midlife in the United States survey. *Psychosomatic Medicine*, 72(7), 694–701. [PubMed: 20595419]
- Sobero ME, Farley DO, Mattke S, & Lovejoy S (2008). Outcome measures for effective teamwork in inpatient care (RAND technical report TR-462-AHRQ). Arlington, VA: RAND Corporation. Available: www.rand.org/pubs/technical_reports/TR462.html. Accessed: August 19, 2020.
- Sullivan S, Hammadah M, Al Mheid I, Shah A, Sun YV, Kutner M, ... Lewis TT (2019). An investigation of racial/ethnic and sex differences in the association between experiences of everyday discrimination and leukocyte telomere length among patients with coronary artery disease. *Psychoneuroendocrinology*, 106, 122–128. [PubMed: 30978531]
- Sutter MB, Watson H, Bauers A, Johnson K, Hatley M, Yonke N, & Leeman L (2019). Group prenatal care for women receiving medication-assisted treatment for opioid use disorder in pregnancy: An interprofessional approach. *Journal of Midwifery & Women's Health*, 64(2), 217–224.
- Taylor J, Novoa C, Hamm K, & Phadke S (2019). Eliminating racial disparities in maternal and infant mortality: A comprehensive policy blueprint. Center for American Progress, May, 2019. Available: www.americanprogress.org/issues/women/reports/2019/05/02/469186/eliminating-racial-disparities-maternal-infant-mortality/. Accessed: August 13, 2020.
- Timmons C (2002). The impact of language barriers on the health care of Latinos in the United States: a review of the literature and guidelines for practice. *Journal Midwifery & Women's Health*, 47, 80–96.
- U.S. Department of Health and Human Services. (2020). National CLAS Standards. Available: <https://thinkculturalhealth.hhs.gov/clas/standards>. Accessed: December 30, 2020.
- Varghese A (2018). How tech can turn doctors into clerical workers. *The New York Times*. Available: www.nytimes.com/interactive/2018/05/16/magazine/health-issue-what-we-lose-with-data-driven-medicine.html. Accessed: August 10, 2020.

- Vedem S, Stoll K, Rubashkin N, Martin K, Rubashkin N, Partridge S, ... CCinBC Steering Council (2017). The Mother's Autonomy in Decision Making (MADM) scale: Patient-led development and psychometric testing of a new instrument to evaluate experience of maternity care. *Public Library or Science One*, 12, e0171804.
- Vedem S, Stoll K, Khemet Taiwo T, Rubashkin N, Cheyney M, Strauss N, ... U.S. Government Steering Council (2019). The Giving Voice to Mothers study: Inequity and mistreatment during pregnancy and childbirth in the United States. *Reproductive Health*, 16(1), 77. [PubMed: 31182118]
- Verbiest S, Bonzon E, & Handler A (2016). Postpartum health and wellness: A call for quality woman-centered care. *Maternal and Child Health Journal*, 20(Suppl 1), 1–7.
- Vounzoulaki E, Khunti K, Abner SC, Tan BK, Davies MJ, & Gillies CL (2020). Progression to type 2 diabetes in women with a known history of gestational diabetes: Systematic review and meta-analysis. *British Medical Journal*, 369, m1361. [PubMed: 32404325]
- Wallerstein N, & Duran B (2010). Community-based participatory research contributions to intervention research: The intersection of science and practice to improve health equity. *American Journal of Public Health*, 100 Suppl 1(Suppl 1), S40–S46. [PubMed: 20147663]
- Weisman CS, Chuang CH, & Scholle SH (2010). Still piecing it together: Women's primary care. *Women's Health Issues*, 20(4), 228–230. [PubMed: 20620910]
- Yano EM, Hayes P, Wright S, Schnurr PP, Lipson L, Bean-Mayberry B, & Washington DL (2010). Integration of women veterans into VA quality improvement research efforts: What researchers need to know. *Journal of General Internal Medicine*, 25(Suppl.1), 56–61. [PubMed: 20077153]
- Zapka JG, Puleo E, Taplin SH, Goins KV, Yood MU, Mouchawar J, ... Manos MM (2004). Processes of care in cervical and breast cancer screening and follow-up: The importance of communication. *Preventive Medicine*, 39(1), 81–90. [PubMed: 15207989]
- Zephyrin L (2020). Transforming primary health care for women – Part 1: A framework for addressing gaps and barriers (Commonwealth Fund and Manatt Health, July 2020). Available: 10.26099/8c0s-fj12. Accessed: August 13, 2020.

Table 1

List of Bridging the Chasm Collaborative Members (Authors)

Project Leads: Lois McCloskey and Judith Bernstein	
Ndidimaka Amutah-Onukagha, Tufts University School of Medicine	Lisa Heelan-Fancher, University of Massachusetts, Boston School of Nursing
Jodi Anthony, Mathematica	Teri Hernandez, University of Colorado School of Nursing
+ Mary Barger, University of San Diego, Hahn School of Nursing	Kay Johnson, Johnson Group Consulting
Candice Belanoff, Boston University School of Public Health	* Emily Jones, University of Oklahoma Health Sciences Center, Ziegler College of Nursing
Trude Bennett, University of North Carolina Gillings School of Global Public Health	NeKeshia Jones, Health Resources in Action
+ Chloe E. Bird, The RAND Corporation	Stacey Klamann, University of North Carolina Gillings School of Global Public Health
Denise Bolds, Bold Doula	Barbara Lund, Fresenius Medical Care
Brenna, Burke-Weber, Boston University School of Public Health	Monica Mallampalli, HealthyWomen
Rebecca Carter, Tulane University School of Public Health	+ Lilly Marcelin, Resilient Sisterhood Project
Ann Celi, Brigham and Women's Hospital, Harvard Medical School	Cassandra Marshall, University of California, Berkeley School of Public Health
Breanna Chachere, Boston Medical Center, Perinatal Quality Improvement Network	Bridgette Maynard, Boston University School of Public Health
+ Joia Crear-Perry, National Birth Equity Collaborative	Shondra McCage, Chicksaw Nation Department of Health
*+ Chase Crossno, University of North Texas Health Sciences Center/Texas Christian University School of Medicine	Suzanne Mitchell, Boston University School of Medicine
Alba Cruz-Davis, Regis College School of Health Sciences	Rose Molina, Beth Israel Deaconess Medical Center / The Dimock Center
Karla Damus, Boston University Medical Campus, Office of Human Research Affairs	Suzi Montasir, YMCA
Alissa Dangel, Tufts Medical Center	Jacinda Nicklas, University of Colorado School of Medicine
Zendilli Depina, Boston University School of Public Health	Alyson Northrup, Association of MCH Programs
Phyllisa Deroze, Black Diabetic Info.com , DiabetesnotDefeated.com	* Anna Norton, DiabetesSisters
Colette Dieujuste, Simmons University School of Nursing	Ebere Oparaekwe, Boston University School of Public Health
Annie Dude, University of Chicago School of Medicine	* Athena Ramos, University of Nebraska Medical Center
Joyce Edmonds, Boston College Connell School of Nursing	Sue Rericha, DiabetesSisters
Daniel Enquobahrie, University of Washington School of Public Health	Elena Rios, National Hispanic Medical Association
Ebosetale Eromosele, Boston University School of Public Health	Joan Rosen Bloch, Drexel University College of Nursing and Health Sciences
Erin Ferranti, Emory University N. H. Woodruff School of Nursing	+ Cassie Ryan, Boston College Connell School of Nursing
Mary Fitzmaurice, Centering Healthcare Institute	*+ Suzanne Sarfaty, Boston University School of Medicine
+ Christina Gebel, March of Dimes, Massachusetts	Ellen Seely, Brigham and Women's Hospital, Harvard Medical School
*+ Linda Goler Blount, Black Women's Health Imperative	Vivienne Souter, University of Washington School of Public Health, ACOG
* Ann Greiner, Primary Care Collaborative	Martina Spain, Boston University School of Public Health
+ Sue Gullo, Ariadne Labs	Randiesha Spires, iCare Connect Healthcare, Inc.
Amy Haddad, Association of MCH Programs	Suzanne Theberge, National Quality Forum
Nneka Hall, Quietly United in Loss Together (QUILT)	
Arden Handler, University of Illinois at Chicago School of Public Health	

Project Leads: Lois McCloskey and Judith Bernstein

Irene Headen, Drexel University Dornsife
School of Public Health

Tamara
Thompson, Mother Earth Doula Care
Madi Wachman, Boston University
Center for Innovation in Social
Work and Health
‡ Tina Yarrington, Boston
University School of Medicine
Lynn M. Yee, Northwestern
University, Feinberg School of Medicine
Chloe Zera, Beth Israel
Deaconess Medical Center, Harvard Medical
School

Working Group Advisors
Janine Clayton,
NIH Office of Research in Women's Health
Christina
Lachance, HRSA Office of Women's Health

*
SELC Member

‡
WG Facilitator.

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Table 2 The Bridging the Chasm Community Consensus Process and Skills: Active Listening, Summarizing, and Synthesis*

Steps to Consensus	Conference Day 1	Conference Day 2	Year 2: Advancing the Consensus Process
<p>Step 1: Introduce/clarify the issue(s) to be decided.</p> <ol style="list-style-type: none"> 1. Share relevant information. What are the key questions? 2. Build sense of community and trust between participants. 	<p>Issue framing: the four components of the chasm were introduced; keynote speakers shared perspectives from advocates, patients, clinicians, and health care system innovators. In storytelling exercises, led by a team of drama coaches, experiences as recipients and providers of clinical care became shared narratives, building cohesion and trust.</p>	<p>Day 1 homework: participants were tasked with revisiting a review of the literature and asked to bring in three ideas for change. Assignment to different groups and networking during lunch allowed cross-communication. Small group leaders (SELC members) facilitated participation.</p>	<p>Snowball recruitment identified additional experts consistent with the BiC mission. Discussion with the SELC resulted in formation of 7 working groups (WGs) drawn from 11 Day 2 WG topics and developed a portal to exchange information, build consensus, and work collectively.</p>
<p>Step 2: Explore the issue, look for ideas, and refine.</p> <ol style="list-style-type: none"> 1. Gather thoughts, issues, and concerns. 2. Collect/write down problem solving ideas. 3. Hold a broad-ranging discussion of pros & cons; decide as a group to eliminate some ideas and short list others. 	<p>12 participants volunteered to share their stories on video with the large assembly. These narratives became a reference point against which to evaluate potential strategies for Bridging the Chasm for relevance and significance.</p>	<p>Roundtables—<i>World Café</i></p> <p><i>i.</i> Small groups mixed by roles and regions used flipcharts and large sticky notes to generate a list of ideas, with brainstorming based on insights from experience (Day 1) and data (annotated bibliography).</p>	<p>35 conference calls over 5 months resulted in a problem statement, a synthesis of existing literature on the WG topic, a menu of strategy options with rationale for the importance of each strategy, and strategy generation.</p>
<p>Step 3: Look for emerging proposals (synthesis).</p> <ol style="list-style-type: none"> 1. Weave together the best elements of the ideas presented and discussed. 2. Look for solutions that address key concerns. 	<p>The group was struck by the commonality and intensity of the emotions expressed in stories, and the huge impact of pregnancy complications and lack of post-delivery care on storytellers' lives (patients and clinicians).</p>	<p>Ideas were clustered into 11 topic areas by leadership, with extensive group discussion. Some topics were renamed, proposed strategies were refined, and some ideas were shifted from one topic to another.</p>	<p>Each WG selected and prioritized 3 strategies with rationales, and evaluated each strategy for stakeholders, potential collaborators, related initiatives, supportive factors, challenges, and action steps.</p>
<p>Step 4: Discuss, clarify, and amend.</p> <ol style="list-style-type: none"> 1. Ensure that remaining concerns are heard and that everyone can contribute. 2. Amend to enhance consensus. 	<p><i>World Café 2: 11</i> small groups (self-selected) identified, discussed, and refined three ideas for equity, innovation, feasibility, and effectiveness. Results were reported out to the assembly and discussed. No blocks nor stand-asides occurred, and there were few reservations.</p>	<p><i>World Café 2: 11</i> small groups (self-selected) identified, discussed, and refined three ideas for equity, innovation, feasibility, and effectiveness. Results were reported out to the assembly and discussed. No blocks nor stand-asides occurred, and there were few reservations.</p>	<p>In a Qualtrics survey the WGs prioritized and evaluated strategies against the 4 criteria of equity, innovation, feasibility, and effectiveness. WG facilitators and BiC leadership refined and bundled the options and surveyed WG members to assess for priority and consensus.</p>
<p>Step 5: Test for agreement.</p> <ol style="list-style-type: none"> 1. Check for blocks, stand-asides and reservations. 			

* Adapted from: *A Consensus Handbook: Co-operative Decision-Making for Activists, Co-ops and Communities*, Seeds for Change, 2013. ISBN: 978-0957587106 (www.seedsforchange.org.uk/handbookweb.pdf).

Table 3

Recommended Strategic Steps, in Detail

Agenda Planks	Strategic Steps
I. Eliminate disrespect and bias in health care	<p>Create a regional or national board of experts in health equity to promote best practices, assess and approve the quality of curricula, develop and disseminate measures of accountability for continued progress by individuals and institutions in the elimination of racism and bias in clinical practice, and oversee evaluation of the impact of such curricula on practices;</p> <p>Engage patients in the design and implementation of the curriculum;</p> <p>Embed the curriculum longitudinally in the initial training of all health care workers and licensing of clinical providers;</p> <p>Address directly the historic/structural roots of racism in institutional policies and clinical practice, and encourage the American College of Obstetrics and Gynecology to establish administration of the Jackson-Hogue stress scale to Black women as a standard of practice (Jackson, Hogue, & Phillips, 2005);</p> <p>Incorporate innovative methods/best practices to strengthen empathy, knowledge, and understanding (drawing from narrative medicine, theater, film, and the visual arts); and Fund evaluation of education programs to establish impact on clinicians' behaviors over time and tie the results to accreditation of training programs.</p>
II. Invest in communities: Build technical capacity of CBOs dedicated to the health of BIWOC over the life course	<p>Create a tax break to incentivize public/private funders to allocate 2% of annual expenditures for CBO capacity building and infrastructure building; and</p> <p>Fund a technical support center to collect and disseminate resources for:</p> <ul style="list-style-type: none"> Governance and board development; Financial management and operations and 501(c)(3) process; Donor relations; fundraising, grant writing, and strategic partnering for innovative grantmaking; Program development, budgeting, and monitoring and evaluation; Communication to increase visibility and funding; Community engagement skills and advocacy strategies for policy change; Identification of local legal and business resources for pro bono services; and Acquisition of paid seats at the table of local public.

Agenda Planks

- III. Transform and extend the model of care for the postpartum year:
 - 1. Develop team-based approaches

Strategic Steps

Create multidisciplinary teams composed of clinicians (physicians, advanced practice nurses, midwives, social workers, mental health therapists) and CHWs (doulas, and/or peer navigators);
 Equip nurse-midwives and extend the nurse-midwifery model to care for women across the chiasm and across reproductive years, with special attention to the needs of those whose pregnancies signal a risk for chronic illness based on pregnancy complications or substantial SDOH;
 Enhance existing education and certification mechanisms to equip team members for extended postpartum collaborative practice AND create innovative cross-training for collaborative teams;
 and
 Extend the CMS bundled payment in amount and timeframe to cover the entire postpartum year, or create a new reimbursement bundle that allows for multidisciplinary, integrated services after the postpartum period.

Medicaid Health Plans of America should develop and pilot an in-person model based on lessons learned from CenteringPregnancy and CenteringParenting;
 Conduct feasibility studies regarding the best setting for group model extended postpartum care—obstetrics, pediatrics, primary care, or other site based on how services for women are organized; and
 Investigate feasibility of virtual models to accommodate demanding schedules of new mothers, transportation and childcare issues, and geographic distances.

Fund new models for comprehensive primary care (structural transformation), and
 Use CMS innovation program authority to support WHHs to provide structure for connectivity and integration in women’s health care before, during, and after pregnancy for at least 1 and up to 3 years, to be piloted by Medicaid Health Plans of America.

Create/sustain Regional/National Training Centers, led by representatives of all the components of the newly expanded workforce, to design competency-based training modules for the postpartum year and conduct innovative, experiential team-based training;
 Incorporate BiC competencies and resources into existing training and certification processes for doulas, CHWs, and patient navigators (peers) to tie together maternity and primary care;
 Identify opportunities for cross-training community-based caregivers (CHWs, doulas, patient navigators); and
 Enhance Programs for Nurse-Midwifery and Advanced Practice Nursing Education (including continuing education) to prepare for collaborative practice at the intersection of postpartum and primary care.

Pass federal and state legislation to extend Medicaid coverage from 60 days post-delivery to 12 months for all states, not just those with waivers or expanded Medicaid under the Affordable

- 2. Develop group models of care

- 3. Create patient-centered Women’s Health Homes

- 4. Develop/implement cross-training models for IPE

- IV. Transform health care systems
 - 1. CMS policy reforms

Agenda Planks

Strategic Steps

Care Act.

Extend the CMS bundled payment or create new bundled reimbursement for the period between 10 weeks postpartum (last postpartum visit) and 1 year postpartum.

Use CMS program

authority to support development and evaluation of new ways to support linkage to primary care through pay-for-performance policies that reward: 1) warm handoff between obstetric and primary care providers, and

2) documentation of handoff templates in electronic medical systems.

Fund ACO partnerships with CBOs to identify and address local SDOH through CMS Innovations and

Expand the Preventing

Maternal Deaths Act to require all states to implement MMRCs for both severe maternal morbidity and mortality in order to collect and apply data related to SDOH impact.

2. New quality measures

Design and implement new quality measures for the NQF/HEDIS, including follow-up of gestational diabetes, discharge with blood pressure cuff for gestational hypertension, and documentation of a warm handoff to primary care;

Develop a PREM that captures

patient experience of implicit bias/racism within maternity and postpartum care and use it as an evaluation tool for an institution to measure its progress toward health equity and accreditation by the JCAHO;

The PREM capturing racism/bias and the warm handoff to

primary care should be pay-for-performance measures within Medicaid as well as quality metrics within HEDIS for accreditation;

Encourage

states to use the set of postpartum measures defined by the Physician Consortium for Performance Improvement (i.e., family planning,

postpartum depression screening, postpartum glucose screening) following GDM as Medicaid quality measures for the postpartum visit; and

Design and implement new quality measures for the NQF/HEDIS that support adoption of the Women's Clinical Preventive Services covered under the Affordable Care Act, in Medicaid and private insurance;

V. Preserve the narrative through data systems innovations

Develop an electronic record postpartum

discharge template with coded fields (i.e., not free text), including specifics about patient risks and key information for the PCP, and preparation for next pregnancy, with a copy for patients;

Create

structure and support for women to write or narrate significant experiences during pregnancy and childbirth, focused on what they see as most important for providers to hear and what will impact their health and health care going forward;

Fund digital technologies (web-

and mHealth-based) or a hard-copy *Mother's Health*

Book geared to promoting follow-up and primary care after pregnancy complications for medical and social stressors; and

Pass legislation to require MMRCs in all states and expand

Agenda Planks

VI. Align research with women’s lived experience

Strategic Steps

scope to include severe maternal morbidity and family interviews and have people with lived experience on review panels.

Develop new funding sources dedicated to Bridging the Chasm (RFAs, cooperative grants, multisource collaborations) in both public and private venues, with review by a special emphasis panel;

Develop and test interventions with patient engagement to address the role of social, behavioral, and environmental factors responsible for ethnic, immigrant, racial, and sociodemographic disparities in pregnancy complications;

Conduct patient-engaged research to further define what kind of information diverse women with pregnancy complications will want, need, and find easy to use;

Evaluate outcomes associated with innovations (e.g., Women’s Health Home model);

Test the effectiveness of a multipronged, high-touch approach (e.g., group-based care at intervals throughout the postpartum year, enhanced by frequent in-person or patient-facing technology contacts) to engage women in their own care and facilitate care plans; and

Study the impact of providing consistent, comprehensive care to women through an extended postpartum period, in women’s health home models, by practitioner type, within states/regions that extend Medicaid to 12 months postpartum; and

NIH should assess investigator qualifications (lived experience and close ties to communities under study) as part of the proposal review process.

Abbreviations: ACO, Accountable Care Organization; BIWOC, Black, indigenous and all other women of color; BIC, Bridge the Chasm; CBOs, community-based organization; CHWs, community health workers; CMS, Centers for Medicaid and Medicare Services; GDM, gestational diabetes; HEDIS, Healthcare Effectiveness Data & Information Set; IPE, interprofessional education; JCAHO, Joint Commission on Accreditation of Health Care Organizations; MMRC, Maternal Mortality Review Committees; NIH, National Institutes of Health; NOF, National Quality Foundation; PCP, primary care provider; PREM, patient reported quality measure; RFA, request for application (NIH); SDOH, social determinants of health; WHH, Women’s Health Homes.

Table 4

Implementing the Agenda: Tasks by Constituency

What Each Constituency Can Do:

Government and state/federal agencies

Pass federal and state legislation to extend Medicaid coverage to 12 months post-partum with automatic enrollment, and promote women’s medical homes for continuity and integration of care pre-pregnancy through the postpartum year;

Workforce development: Incentivize entry to primary care, home visiting for postpartum women and team-based care;

Actively support inclusion of community-based organizations in state and local planning;

Co-locate information and resources for the postpartum year; at sites where women gather and trainstaff to refer; and

Fund a National Workforce Development Center to increase the number of Black and Latinx health care providers.

Researchers and funders

Develop requests for proposals to fund knowledge gaps;

Evaluate new models of care;

Develop/fund templates

for discharge to primary care; and Study the long-term impact of pregnancy complications and social predictors of health on future health.

Foundations

Fund and grow community-based organizations to bridge the chasm; and Allocate significant dollars for infrastructure support (training and resources).

Health care organizations

Require anti-racism training and assessment;

Develop flexible postpartum models of support and wrap-around care (doulas, community health workers and navigators)

Negotiate with national electronic medical systems to develop a template for transfer of pregnancy history to primary care and record handoffs to primary care at discharge from the obstetrical service;

Implement a *Mother’s Health Book* for personal record keeping and instructions for transfer to primary care;

Support women to share their stories with providers and motivate providers to listen; and

Promote a Centering Model of Care for the postpartum year, especially after pregnancy complications.

Professional organizations

Develop guidelines for integrated care in the postpartum year and require them for accreditation;

Educate members about the need to develop research that ties pregnancy complications to future health outcomes, especially chronic disease;

Collaborate to associate new quality metrics with outcomes that can be tied to accreditation; and

Require anti-racism training for professional licensure and renewal.

Corporations and businesses

Create woman-friendly practices and policies for the postpartum year (flexible hours, paid family leave, etc.).

Quality measure developers

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Create standards of care for the postpartum year; and Design and promote quality metrics and pay for performance measures that promote warm handoff to primary care and metrics that incorporate the patient experience.

Advocacy organizations and community-based organizations

Advocate for state and federal legislation to extend the postpartum period to 1 year with coverage and support; Lobby state and local agencies for participation in planning processes; Testify at legislative hearings to highlight the impact of pregnancy experiences on future health; and Lead anti-racism education efforts.

Educators

Form inter-professional collaborations for continuing medical education offerings that connect pregnancy experiences with future health; Develop and implement anti-racism training and assessment; and Create innovative technologies to connect women to each other, to providers, and to resources.

Media experts

Develop public service announcements to enhance the value of women’s health to society; Create an anti-racism campaign to address inequities in maternal morbidity and mortality and the health of Black, Latina, Native and Asian women over the life cycle; and Develop fundraising videos for community-based organizations that demonstrate accomplishments that can increase fundability.

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