Title

Antibias Efforts in United States Maternity Care: A Scoping Review of the Publicly Funded Health Equity Intervention Pipeline

Journal

Clinical Obstetrics & Gynecology, 66(1)

ISSN

0009-9201

Authors

Garrett, Sarah B

Walia, Anjali

Miller, Fiona

et al.

Publication Date

2023-03-01

DOI

10.1097/grf.0000000000000761

Peer reviewed

HHS Public Access

Author manuscript

Clin Obstet Gynecol. Author manuscript; available in PMC 2024 March 01.

Published in final edited form as:

Clin Obstet Gynecol. 2023 March 01; 66(1): 110–123. doi:10.1097/GRF.0000000000000761.

Antibias efforts in U.S. maternity care: A scoping review of the publicly-funded health equity intervention pipeline

Sarah B. Garrett[1], **Anjali Walia**[2], **Fiona Miller**[2], **Peggy Tahir**[3], **Linda Jones**[4], **Julie Harris**[4], **Breezy Powell**[4], **Brittany Chambers**[5,*], **Melissa A. Simon**[6,*]

[1]Philip R. Lee Institute for Health Policy Studies, University of California, San Francisco, CA

[2]School of Medicine, University of California, San Francisco, CA

[3]University of California San Francisco Library, University of California, San Francisco, CA

[4]California Preterm Birth Initiative, University of California, San Francisco, CA

[5]Department of Human Ecology, University of California, Davis

[6]Feinberg School of Medicine, Northwestern University

Abstract

Antibias training is increasingly identified as a strategy to reduce maternal health disparities. Evidence to guide this work is limited. We conducted a community-guided scoping review to characterize new antibias research. Four of 508 projects met our criteria: US-based, publicly-funded, initiated 1/1/2018 – 6/30/2022, and featuring an intervention to reduce bias or racism in maternal healthcare providers. Training was embedded in multicomponent interventions in three projects, limiting its evaluation as a stand-alone intervention. Major public funders have sponsored few projects to advance antibias training research in maternal health. More support is needed to develop a rigorous and scalable evidence base.

Keywords

Bias; racism; birth equity; interventions; community-based participatory research; scoping review

Background

In the United States, Black women and birthing people are 3 to 4 times more likely to die from a pregnancy-related cause than white women and birthing people, and they experience significantly higher rates of preeclampsia, preterm birth, and neonatal mortality.[1–3] Black women and birthing people's elevated risk for maternal mortality and severe maternal

Corresponding author: Sarah B. Garrett, PhD, Philip R. Lee Institute for Health Policy Studies, 490 Illinois Street, 7211, San Francisco, CA 94158, Phone: (415) 476-8578 / Fax: (415) 476-0705 / Sarah.Garrett@ucsf.edu.

*Co-senior authors

Declaration of Interest

No authors have conflicts of interest to declare. In the spirit of full transparency, we report that two of the coauthors (Chambers, Simon) are principal investigators of projects that appear in the scoping review. We have taken multiple steps to minimize bias in our review and to ensure the description of their studies are similar in length and tone to the other described studies.

morbidity exists across the socioeconomic spectrum.[2,3] Women and birthing people from Indigenous, and other historically marginalized groups are additionally burdened by disproportionate rates of maternal mortality and morbidity.[3] The need for interventions that advance racial and ethnic equity in maternal health is urgent.

Maternal health interventions have long focused on changing patient behaviors or knowledge.[4–7] In recent years, however, there has been increasing recognition of the role racial bias, interpersonal racism and structural racism play in the historic and current disparities in maternal health.[4,5,8,9] Generations of racist and classist policies have resulted in Black, Indigenous, and other women and birthing people of color having less access to safe neighborhoods, education, fair sentencing, health insurance, well-paying jobs, and high-quality prenatal and perinatal care, among other supports, than their white counterparts.[10,11] Within maternal healthcare settings, interpersonal racial bias and racism contribute to disrespectful care, poor communication, lack of utilization of life-saving interventions, suboptimal clinical outcomes, and even human rights violations such as coercion for procedures.[1,2,7,12]

Interventions to reduce racism and racial and ethnic biases are an integral part of numerous conceptual frameworks for improving the care of Black and Indigenous women and other birthing people of color (BIPOC),[13–17] and have been described as a key “lever to reduce disparities on labor and delivery.”[2] The need for antibias/antiracism training has been endorsed not only by BIPOC community members, but also by perinatal care providers who have witnessed racist stereotypes and discrimination leading to the mistreatment of Black patients.[10,18,19] Antibias training for healthcare providers—often targeting “implicit” or subconscious biases—is now mandated in some states (e.g., California),[20] and recommended by the federal government,[21] professional societies,[22] and birth equity leaders.[23]

Regulators and hospital leaders need an evidence base in order to select and implement effective antibias training.[20,22] Though many studies have found implicit bias trainings to have limited effects, literature suggests it can be optimized through features like engaging counter-stereotypical exemplars, improving clinicians’ communication skills, incorporating cognitive reframing techniques, and implementing ongoing and patient-informed programs.[2,22] Piloting interventions with these types of components in maternal healthcare is necessary to develop evidence-based guidelines. However, a recent international systematic review on interventions to reduce stigma and discrimination in sexual and reproductive healthcare settings[24] identified only one evaluated intervention designed to reduce bias among US maternal healthcare providers.[25]

In light of the increase in public and governmental support for antibias and antiracism interventions,[4,20,21] we sought to investigate whether recent national public funding reflects this heightened priority. Our inquiry aligns with documented community interest in interventions designed to protect them from biased care and with recent findings that provider factors are key drivers of preventable maternal mortality.[1,19,26] Though the integration of antibias training into medical school curricula[27,28] is a positive development, this inquiry focuses on interventions in the current maternity healthcare workforce.[2] It

additionally focuses on public grant-makers as they have substantial resources to support large, rigorous and scalable research on health and healthcare interventions, and they publicly document their grantmaking in searchable databases.

Methods & data

Under the guidance of a community advisory panel of three Black women and mothers (LJ, BP, JH), we conducted a rapid scoping review[29] of publicly-funded grants. A rapid scoping review was appropriate for this task because we sought to characterize and map the types of research and interventions in this space, rather than to evaluate the quality or effectiveness of them.[29,30] We nevertheless employed processes to be "systematic, transparent, and replicable", described further below.[30,31]

We conducted the review in the Dimensions database (https://www.dimensions.ai), a comprehensive registry of federal (e.g., National Institutes of Health (NIH), Agency for Healthcare Research and Quality (AHRQ)), public/private (e.g., Patient Centered Outcomes Research Institute (PCORI)), and large philanthropic (e.g., Robert Wood Johnson Foundation, Commonwealth Fund) grantees. In collaboration with a medical librarian coauthor (PT), we designed a search to be inclusive of all studies relevant to our inquiry. We conducted a broad and sensitive search and developed multiple synonyms for each key concept to retrieve all relevant projects. Search parameters included terms related to bias, racism, equity, and inequities; maternal health and healthcare; and interventions (e.g., trainings, curricula; Table 1). We limited the search to start dates from January 1, 2018, through July 7, 2022, approximately 4.5 years.

Three co-authors worked iteratively to establish, operationalize, and refine criteria for the review (BC, FM, SG). The purpose of the review was to identify proposals that met all of the following criteria: motivated by and/or designed to advance maternal health equity; focused on (e.g., designing, developing, implementing, and/or evaluating) a U.S.-based intervention designed to reduce racism, bias, and/or discrimination in healthcare clinicians and/or staff; and supported by national publicly-funded entities. See Supplemental Material (https://pretermbirthca.ucsf.edu/file/12221) for full definitions.

In order to ensure our review database represented distinct studies, we identified and removed from the final count duplicate cases that had identical abstracts. For example, we considered multisite studies that had different site-specific grant numbers to be part of one funded project. K99 and R01 projects were counted as one funded project.

Two co-authors (AW, SG) implemented the refined screening criteria across three iterative rounds of review of different subsections of the database, identifying discrepancies of interpretation, discussing with coauthors, and further refining the criteria. Those two authors then independently coded the full database.

After identifying the grants that met all of our review criteria ("focal projects"), we conducted an additional assessment of the adequacy of our search: we assessed the top five grants that Dimensions identified as "similar" to each of the focal projects. This step yielded no new projects that met our criteria. To describe the focal projects, we used the full

Dimensions entry, the funder's online entry, and additional information requested from the grantees, as possible.

Findings

The database search yielded 508 funded projects, from which we removed 25 duplicates. Of the 483 unique projects, nearly one-quarter proposed an intervention intended to advance maternal health equity (Figure 1). We identified four projects that met all of our criteria: each was focused on an intervention intended to reduce bias/racism in maternal healthcare providers, US-based, and funded partly or wholly by national public funders. The coders evidenced a high degree of agreement at each stage of independent coding, including full agreement about the four focal projects (Figure 1, Table 2). No further adjudication was necessary.

Of the four focal projects, two (principal investigators Chambers, Johnson/Meghea) are funded by NIH's National Institute on Minority Health and Health Disparities (NIMHD). Two projects (Herring/McNeil, Tang/Urrutia) are funded by PCORI, a large nonprofit, nongovernmental organization authorized by Congress in 2010 to fund patient-centered and comparative-effectiveness research. All four projects had a start date in 2020 or 2021 and name Black women and birthing people as the focal group to benefit from the proposed interventions.

The role of antibias/antiracism training varies across the focal projects. Three studies implement antibias/antiracism training as one part of multi-component interventions. Herring/McNeil proposed a primary intervention of community support, with antiracism training implemented at all study sites and not experimentally analyzed. Johnson/Meghea and Tang/Urrutia include antibias training as part of a package of interventions that will be experimentally evaluated. A fourth study (Chambers), focuses wholly on refining, pilot testing, and experimentally evaluating the effects of a "racial equity training" itself.

Overviews of focal studies

Chambers: "Community Racial Equity Training And Evaluation of Current and Future Health Care Clinicians (CREATE) Study," a mentored NIH career grant, proposes a "racial equity training" for perinatal care clinicians with the goal of benefitting Black women receiving prenatal care. The training is the main focus of the project, which aims to refine and package the training for prenatal care settings; pilot test the effects of the training on clinicians; and explore the impact of the training on "disparities in adequate care in a sub-sample of Black and white women." The hour-long interactive online training will consist of five modules developed with guidance from a stakeholder board comprised of Black women and perinatal clinicians. Clinician outcomes to be assessed include pre-post changes in implicit racial attitudes, awareness of the causes of racism and health disparities, and motivation to use queried approaches to provide respectful care to Black women. Electronic health record data from 12 months pre-intervention and 6 and 12 months post-intervention will be analyzed to determine whether Black-white disparities in prenatal care attendance and timing decreased for patients of clinicians who participated in the training.

Herring/McNeil: "The Path to Optimal Black Maternal Heart Health: Comparing Two CVD Risk Reduction Interventions," a PCORI-funded grant co-led by a community stakeholder advisory board, proposes to deliver an antiracism training to medical providers with the goal of reducing Black and African American patients' experiences of racism or mistreatment and promoting respectful maternity care. The overall aim of the study is to reduce Black maternal mortality by comparing two approaches that address multiple factors leading to heart disease among Black pregnant women: (a) an intervention package that includes provider antiracism training and patient-facing "nutrition and physical activity text messages and home blood pressure self-monitoring" vs. (b) an intervention package with these features as well as supports "for Black women by Black women (community doula care, mental health services, and lactation consultation)." The antiracism training is employed in both arms of the study. Change in blood pressure is the primary outcome. The study also investigates implementation of the intervention and additional outcomes such as social isolation, depression, and patient experiences of respectful maternity care.

Johnson/Meghea: "Meeting women where they are: Multilevel intervention addressing racial disparities in maternal morbidity and mortality," an NIMHD-funded R-level grant, proposes a five-year, multilevel intervention that was co-developed with community partners. Its goal is to reduce the rate of maternal morbidity and mortality among Medicaid-insured African American women by intervening at the community, provider/practice, and system levels. Antibias training is the provider/practice level component which will engage physicians, midwives, hospital administrators, and front desk staff. It is a day-long experiential training that incorporates discussion, reflection and experiential activities to address bias "and corresponding structures and practices" and increase providers' capacity to "hear, respect and meet the needs of perinatal African American women." It will utilize training materials developed by the CDC's Racial and Ethnic Approaches to Community Health (REACH) project that was previously implemented in one of the study counties and which yielded changes to providers' self-reported understanding of racism and to select behaviors (e.g., seeing patients who were late to appointments rather than rescheduling them). The study will experimentally evaluate whether counties that implement the multilevel intervention experience lower rates of severe maternal morbidity and mortality. However, the study's fidelity assessments of the antiracism training, specifically, will track changes in provider knowledge and self-reported equity-promoting actions.

Tang/Urrutia: Reducing Racial Disparities in Maternal Care through Data-Based Accountability and Doula Support," a PCORI-funded grant co-led by a stakeholder advisory board, implements an "interactive racial equity training" as part of a package of provider- and clinic-facing interventions. The training is designed to help prenatal clinic staff to recognize their implicit biases and "understand how racism affects pregnancy care for patients of color." The two-year training, based on the People's Institute for Survival and Beyond (PISAB) Undoing Racism™ framework, entails an initial session and eight quarterly booster sessions. Changes in participant knowledge will be assessed after each session. The training will be implemented alongside clinic-based "data accountability interventions" (e.g., clinic-specific disparities dashboards). This set of provider- and clinic-facing approaches will be experimentally evaluated alone, as well as in combination with,

a community-level doula support intervention for high-risk patients. Both intervention approaches are designed to decrease pregnancy complications for North Carolina prenatal care patients overall, and especially for Black patients, “by decreasing institutional racism and bias in healthcare and improving community level social support during pregnancy.” The primary outcome of the study is decrease in low birthweight deliveries. Decreases in patients’ experiences with discrimination during prenatal care is a secondary outcome.

Discussion

Using a rapid scoping review, we found four projects supported by U.S. public funding in recent years that designed, implemented, or evaluated an intervention aiming to reduce bias, racism, or discrimination in maternal healthcare workers. To our knowledge, this is the first review to characterize the newest generation of publicly-funded antibias interventions in maternal health. It is crucial for funders, researchers, and advocates to understand this landscape and assess whether there is sufficient research in the pipeline to support the wave of legislative and institutional mandates calling for such interventions.[20] Echoing an international study on published strategies to reduce stigma and discrimination in sexual and reproductive healthcare, we found “limited interventional work” supported by major public funders.[24]

The reviewed projects employ promising and innovative components, such as community-based participatory research and multi-component, multi-level interventions. They are responsive to community-identified needs for interventions on non-patient targets. However, the fact that we identified only four antibias/antiracism projects supported by national public funding since 2018 affirms community concerns that there is little material in support of intervening on bias and interpersonal racism in maternal health. This is the case even though scholars have identified numerous gaps in the evidence base, e.g., how best to develop and implement implicit bias training, and where, how, and for whom antibias training improves patient outcomes.[20,22,32] As more legislation and institutions require provider-level interventions, the field will need more research to guide this work.

Three of the focal projects embedded antibias training in multicomponent interventions, which will be helpful for understanding how interventions that simultaneously touch different levels of the healthcare system affect patient outcomes. Such multidimensional interventions are well-suited to complex problems like maternal health disparities.[2,4] The focal project designed to improve and evaluate anti-bias training itself is also important, as it will illuminate the role of anti-bias training as a standalone intervention. Such insights are crucial for understanding how new state-level antibias training requirements may or may not affect desired outcomes. The four focal projects represent promising examples of rigorous antibias/antiracism research, but more is needed. As states and health systems across the country seek to select and implement anti-bias training, research on the training by itself and as part of broader interventions will be needed across a wide variety of regions, communities, and healthcare contexts.[20,22]

Philanthropically-funded and community-grounded work will be especially important to help bridge this knowledge gap. Reproductive justice scholars have critiqued philanthropy

for failing to address root causes of inequities and supporting research that is neither grounded in nor relevant to historically-marginalized communities, particularly Black women and birthing people.[33] Fortunately, there are clues that this tide is turning—revealing promising examples for public funders to consider. Some recent examples include the work of Joia Crear-Perry, MD, FACOG, and the National Birth Equity Collaborative, with the support of the Robert Wood Johnson Foundation (RWJF) and in collaboration with Black birth equity stakeholders, who helped develop a framework to guide antiracism training for maternity care providers.[34] Karen Scott, MD, MPH, FACOG, received funding from multiple philanthropies to co-develop a measure of obstetric racism with Black birthing people; the measure will be employed to assess and improve intrapartum care.[35] Rachel Hardeman, PhD, MPH, and Diversity Science, an Oregon-based company that specializes in DEI training, received funding from the California Health Care Foundation to develop an online curriculum responsive to California's implicit bias training requirements for perinatal providers.[36,37] In recent years RWJF has funded multiple "Community Power-Building" grants to support birth justice work and antiracism efforts led by BIPOC communities. These examples—which constitute a subset of such privately-funded efforts—highlight the variety and creativity of projects that could flourish with even more major funder support.

There are many reasons scholars and interventionists pursue philanthropic funding rather than federal funding, including faster timelines and a greater willingness to fund novel types of interventions or team structures. In light of federal and state support for clinician implicit bias training,[20,21] public funders have the opportunity to become more agile and to fund a wider range of interventions and coalitions than they have historically. At the same time, they should heed the counsel of birth equity advocates and community-based scholars to ensure that more rapid grant-making does not inadvertently reproduce or exacerbate inequities in funding.[38] Throughout all of this work, large national funders should support gatherings where community members, researchers, interventionists, providers, and policy-makers can learn from each other, share insights that may be relevant across settings, and identify needs to support the next generation of antibias interventions.

Finally, it is important to note that individual level antibias inventions are only one facet of changes needed to advance maternal health equity.[1,5,39–41] Our review surfaced numerous projects that sought to mitigate racism and its harms in other ways. One approach focused on structural racism and its effects, including proposals to integrate new resources into communities or replace harmful models of care. Recent publicly-funded examples of such structural-level interventions include a study that evaluates a novel integrated-care model involving community doula support and safety bundles guided by "mothers of color" (Amutah-Onukagha R01MD016026) and a trial that initiates and evaluates a program of patient-centered community doula navigators, working inter-professionally with perinatal care teams, as an alternative to standard perinatal care (Simon R01MD016280). Another approach focused on attenuating the effects of interpersonal bias and racism on patients, rather than targeting provider-level bias itself. For example, an NIH-funded project proposed a standardized labor induction protocol as a way to "inhibit" the influence of perinatal provider bias in labor management (Hamm K23HD102523). These interventions reflect growing support for systemic change[4,18,21,39] and provide crucial tools to complement provider bias-reduction efforts. Similarly, high-quality measures of patients' maternity

care experiences—particularly those co-developed by Black women and birthing people and other communities inequitably burdened by racist care[12,35,42,43] —will be critical to understanding where interventions are needed, whether they are effective, and for whom. All of these interventions and innovations will be needed to address the problem of maternal health disparities.

Limitations

This study has several limitations, such as its exclusive focus on large domestic publicly-funded grants. As described above, there are innovative privately-funded interventions that are doing important work in advancing maternal health equity, as well as promising projects funded by state and local entities, schools of medicine, and international sources. Future reviews of these projects would be an important contribution to public knowledge. We note that such reviews may be difficult to perform systematically as no existing database supports them. Additionally, our focus on provider-level interventions centers an important but insufficient tool in the collective work toward birth equity; substantial and durable improvements will require system-level change as well. Finally, as with any review, it is possible that relevant projects were not captured. Our broad search criteria and our use of two coders served to minimize this risk, but our review was nevertheless limited to the content PIs presented in their public abstracts. Future reviews should be conducted to determine if more antibias/antiracism interventions enter the publicly-funded pipeline in order to meet maternal health equity goals.

Conclusion

There are clear needs and opportunities for large national funding agencies to increase support for interventions that address the root causes of maternal health inequities, including systems of oppression, racism, and discrimination. Such support will speed the development of a rigorous evidence base for this work. Large funders should additionally support iterative national reviews of emergent research and convene multiple sectors—including policymakers, payers, providers, community members, and patients—to align interventions and policies with new evidence while centering the needs of Black women, birthing people, and others harmed by bias and racism in the healthcare system.

Acknowledgements

Dr. Garrett had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Funding Sources

This work was supported by the Agency for Healthcare Research and Quality (Garrett: AHRQ T32HS022241); the California Preterm Birth Initiative (Garrett, Chambers, Miller); and National Institutes of Health (Chambers: NIMHD K01MD015785; Simon: NIMHD R01MD014068, NIMHD R01MD016280; and Garrett: National Center for Advancing Translational Sciences through UCSF-CTSI KL2 KL2 TR001870). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the NIH or AHRQ. Funding sources had no involvement in the study design; collection, analysis, or interpretation of data; writing of the report; or decision to submit the article for publication.

Data availability

Interested parties may contact the first author to inquire about accessing the data spreadsheet.

Appendix: SUPPLEMENTARY MATERIALS for "Antibias efforts in U.S. maternity care: A scoping review of the publicly-funded health equity intervention pipeline" (Garrett et al.)

I. Definitions used for abstract review process

Focused on maternal health (MH):

Does the proposed project aim to generate knowledge about and/or improve maternal health ("Maternal health refers to the health of women [*OR birthing people - author addition*] during pregnancy, childbirth and the postnatal period" – World Health Organization website).

Inclusion examples:

Preterm birth. Unless grant authors report they are focusing exclusively on infant outcomes, we consider preterm birth to be relevant to maternal health.

Exclusion examples:

if the project is designed exclusively to improve or understand infant/neonatal outcomes, code as 'no'.

Focused on advancing maternal health equity:

Does the grant proposal aim to advance equity in MH outcomes, access, care, and related? This includes decreasing disparities/inequities.

Inclusion examples:

if this focus included in the framing and/or motivation of the proposal, code it as yes. Include if the project focuses on a population (e.g., racial, immigrant) that is reported to have worse outcomes and/or worse access even if the authors do not explicitly frame the project in terms of equity/disparities.

Intervention:

Does the proposed project concern an intervention? Merriam-Webster defines intervention as: "the act of interfering with the outcome or course especially of a condition or process (as to prevent harm or improve functioning)."

Inclusion examples:

The project could develop, implement, study, or support an intervention, or any combination of these. Include policies (federal, state, local, facility-based), changes to protocol, trainings,

new treatments or initiatives, new resources, and similar, as interventions. If the proposal mentions studying or evaluating an intervention, code as intervention.

Exclusion examples:

Retrospective studies of unplanned changes to care models (e.g., COVID telehealth). Exclude projects that exclusively improve scholarship/research on an MH topic, and grants designed to invest in an organization that is not currently/not yet developing interventions.

Antibias/antiracism Intervention:

Does the proposed intervention aim to reduce interpersonal biases, racism, and/or discrimination in medical staff and/or in healthcare settings?

Inclusion examples:

implicit bias training, antiracism lecture series, microaggression interruption trainings; sharing patient reports of racism with staff. Note that we coded these types of interventions as intended to reduce bias/racism if the authors refer to this in the abstract.

Exclusion examples:

Many interventions are designed to improve the care of populations that we know have been historically burdened by bias/discrimination, but which are not interventions specifically designed to reduce interpersonal bias/discrimination/racism on the part of clinicians/providers/staff; those are more distal than what we're talking about here.

US Based.

Is the proposed research wholly or at least partly based in the United States? As the search is limited to US funders, we assume it is US-based unless the focus outside of the US is mentioned in the abstract.

II. Abstracts of focal projects (n=4)

(Emphasis added by reviewer[s])

PI: CHAMBERS

Community Racial Equity and Training Interventions and Evaluation of Current and Future Healthcare Clinicians (CREATE)

BRITTANY D. CHAMBERS University of California, Davis

K01MD015785, National Institute on Minority Health and Health Disparities

https://app.dimensions.ai/details/grant/grant.9843964

Study Project Summary/Abstract: Black women face disproportionately high rates of maternal morbidity and mortality in the United States, both of which are on the rise, in direct contrast to the improved rates globally. Prenatal care has been identified as a way to

potentially mitigate these risks, but racism and racial discrimination are barriers to women in accessing prenatal care. The 2019–2023 Trans-NIH Strategic Plan for Women's Health calls for research that addresses these stark health disparities for women of color. My long-term career goal is lead research to inform interventions that will optimize the reproductive health and wellbeing of Black women. I aim to become a leading investigator applying a reproductive justice framework to understand clinical and structural factors underpinning health adversities experienced by Black women. In this K01 Mentored Research Scientist Development Award, I propose to 1) Refine a racial equity training intervention for prenatal care settings; 2) Pilot test the effects of the racial equity training intervention on clinician outcomes; and 3) Explore the impact of the racial equity training intervention in reducing disparities in adequate care in a sub-sample of Black and white women. I will seek advanced training to support these research goals in 1) intervention development and implementation science, 2) clinical research in cluster randomized designs, and 3) professional skills in project management, leadership, and grantsmanship. These endeavors will benefit from interdisciplinary mentorship from world-renowned scholars including primary mentor Monica McLemore, PhD, MPH, RN, FAAN (clinical obstetric care, racial equity, reproductive justice), and co-mentors Miriam Kuppermann, PhD, MPH (perinatal care models, shared decision-making, professional leadership at UCSF), Charles McCulloch, PhD (biostatistics), and Cynthia Harper, PhD (human centered design and health education). In addition, faculty advisor Andrea Jackson, MD, MAS will provide expertise in prenatal and delivery healthcare settings. The Department of Epidemiology and Biostatistics at the University of California at San Francisco will provide the infrastructure to support these activities. The department made a competitive offer to recruit me into a faculty position in 2018, and departmental leadership is highly committed to my success, providing both resources and protected time. The training and research activities proposed in this K01 build on my strong background in health behavior and racial inequities in reproductive health and give me essential new skills to facilitate my transition to an independent investigator. I aim to lead research using a multi-method approach to understand the mechanisms by which the social ecology produces sexual and reproductive health disparities and to inform interventions to advance Black women's health.

PIs: HERRING/MCNEIL

The Path to Optimal Black Maternal Heart Health: Comparing Two CVD Risk Reduction Interventions

Sharon Herring, Saleemah McNeil, Temple University

grant.9747351, Patient-Centered Outcomes Research Institute

https://app.dimensions.ai/details/grant/grant.9747351

What is this research about? Heart disease (e.g., heart attack, stroke) is a major threat to safe motherhood and is the leading cause of maternal death in the United States, responsible for nearly 50 percent of pregnancy-related deaths among Black women, three times the rate of white women, and is largely preventable. It is well established that eating healthy foods and monitoring blood pressure can help prevent heart disease. While

prior studies addressing these individual behaviors have led to some success, a single individual-level approach has not been enough to stop the rising rate of Black maternal mortality. Researchers have also established that depression, social isolation, and stress from racism lead to poor heart outcomes. But few studies have treated these psychosocial and structural factors in addition to individual behaviors to ensure optimal Black maternal heart health, particularly for mothers at higher risk (e.g., those with high blood pressure and/or obesity).To meet this need, the research team plans to compare two approaches that treat multiple factors leading to heart disease among 432 patients age 18 and older who self-identify as Black or African American, have either obesity and/or high blood pressure, are less than 24 weeks pregnant, and have a smart phone. Both approaches address individual behaviors through nutrition and physical activity text messages and home blood pressure self-monitoring as well as provide training to medical care providers in order to reduce patients' experiences of racism or mistreatment. But only one of the approaches being studied also adds supports for Black women by Black women (community doula care, mental health services, and lactation consultation) during their pregnancy, birth, and postpartum in order to learn if these supports lead to lower blood pressure and also treat social isolation, depression, and increase experiences of respectful maternity care. Who can this research help? This study will increase Black mothers' understanding of the many influences on their heart health. Findings from this study will help Black women with obesity and/or high blood pressure make informed decisions about the use of community doulas, lactation professionals, and psychotherapists as part of their care to reduce risks for heart disease during pregnancy or in the first year after their baby is born. Results may also strengthen health systems' commitment to anti-racism training as part of their efforts to provide quality health care for Black pregnant and postpartum people. And further, this research may provide evidence to insurance companies that coverage of this study's package of supports is needed. What outcomes are being studied? The primary outcome is change in maternal blood pressure at six weeks and one year after giving birth. The team will also evaluate how well the treatments are implemented and able to reach patients, be adopted into practice consistently, and lead to healthcare provider and patient satisfaction. The team will analyze outcomes that patient partners have identified as important. These include perinatal mood and anxiety disorders (e.g., postpartum depression), emotional and informational support, stress, and experiences of respectful maternity care. In addition, the study team will look at clinical outcomes including if and for how long patients breastfeed, maternal body weight, blood pressure disorders of pregnancy, how the patient gave birth (e.g., vaginal or cesarean), baby's birth weight, and how many weeks pregnant mothers were at the time of birth. How long does this study last? Final follow-up of primary outcomes is at one year postpartum (i.e., approximately 18 months from enrollment).How are stakeholders involved? The research team believes that efforts to improve Black maternal heart health will be most effective when partnered with patients and community leaders that have shared lived experience. Study leadership is an equitable partnership by an academic physician-researcher and community-based Black provider who herself experienced heart health complications in her pregnancy. There are three other patient investigators who will also be involved in all aspects of the planning, delivery, and evaluation of the treatments, including serving as lead doulas, therapists, and lactation professionals. Patient representatives will make up the majority of the study's advisory board to give feedback and further guide the

team's efforts throughout the five years of the project. Finally, patient, health system, and community provider stakeholders will provide feedback and guidance through focus groups over the entire study duration to ensure adoption of treatments.

[Note: co-PI McNeil's name is misspelled in the PCORI link and Dimensions output. We have listed it correctly here and in associated review materials.]

PIs: JOHNSON/MEGHEA

Meeting women where they are: Multilevel intervention addressing racial disparities in maternal morbidity and mortality

JENNIFER E JOHNSON, CRISTIAN IOAN MEGHEA Michigan State University

R01MD016003, National Institute on Minority Health and Health Disparities

https://app.dimensions.ai/details/grant/grant.9412456

Severe maternal morbidity and mortality in the U.S. disproportionately affect African-American (AA) women. Inequities occur at many levels, including community, provider/practice, and health system levels. This proposal will test the effectiveness and cost-effectiveness of a multilevel intervention to address AA maternal morbidity and mortality in two Michigan counties: Genesee County (which includes Flint) and Kent County (which includes Grand Rapids). Interventions were developed or co-developed by our partners in these counties, who include AA women residents, enhanced prenatal and postnatal care (EPC) staff (including race-matched community health workers), and physician/health system staff and providers. Community level intervention. We will expand access to EPC services (i.e., home visiting programs, Healthy Start programs) using telehealth and flexible scheduling. Despite being designed for minority women, about 60% of eligible AA women in Michigan do not enroll in EPC services. Pilot work indicates that 50% of minority women who declined EPC services would participate if a telehealth option was available. We will provide this option. Provider/practice level intervention. We will address provider and health system implicit and explicit bias and corresponding structures and practices and make this learning actionable using daylong experiential trainings. Training will include didactics, reflection, discussion, windshield tours, and brainstorming ways to tailor participants' practices and settings to better meet the needs of perinatal AA women. Training will include everyone from physicians to front desk staff. System level intervention. We will implement community care patient safety bundles targeting maternal health disparities throughout the intervention counties. We will test the effects of the multilevel intervention using a quasi-experimental difference-in-difference with propensity scores approach to compare pre (2016–2019) to post (2021–2024) changes in outcomes among Medicaid women in the two intervention counties with similar women in other Michigan counties. The sample will include all Medicaid insured women observed during pregnancy, at birth, and/or up to 1 year postpartum, who delivered in Michigan from 2016 – 2024 (approximately 540,000 births, including ~162,000 births to AA women). Measures will be taken from a pre-existing linked dataset that includes Medicaid claims, death records, birth records, and EPC program data. The specific aims are to: (1) Assess the effectiveness of the multilevel intervention

on AA severe maternal morbidity and mortality; (2) Test improved service utilization and non-severe maternal morbidity as mechanisms of the effect of the multilevel intervention on severe maternal morbidity, and (3) Evaluate the cost-effectiveness of the multilevel intervention. This project will be among the first to evaluate a multilevel intervention to reduce AA maternal morbidity and mortality at the population level. The trial tests whether the intervention engages the mechanisms presumed to underlie intervention effects and provides cost-effectiveness data that systems need to make informed decisions about adoption, speeding implementation.

PIs: TANG/URRUTIA

Reducing Racial Disparities in Maternal Care through Data-Based Accountability and Doula Support

Jennifer Tang, Rachel Urrutia, University of North Carolina at Chapel Hill

grant.9747354, Patient-Centered Outcomes Research Institute

https://app.dimensions.ai/details/grant/grant.9747354

Pregnancy complications are increasing in the United States, and this is worse for Black patients, who are three to four times more likely to die from pregnancy than White patients. Pregnancy complications and deaths cause large physical, social, and financial burdens for patients and their families. Black patients who experience higher levels of institutional racism and discrimination from healthcare providers and institutions are more likely to have pregnancy complications, such as delivering a baby with low birthweight. Low birthweight (less than 5 pounds 9 ounces) is related to many short-term and long-term health problems for both baby and mother. This study, Accountability for Care through Undoing Racism and Equity for Moms (ACURE4Moms), aims to decrease pregnancy complications for all patients, but especially for Black patients, by decreasing institutional racism and bias in health care and improving community-based social support during pregnancy. The primary outcome will be to decrease low birthweight deliveries among Black women. The team will get information about low birthweight and other pregnancy outcomes from prenatal practice electronic healthcare records. A secondary outcome will be to decrease experiences with discrimination during prenatal care among Black patients; this information will be collected from an internet survey that will be completed at four time points between a patient's first prenatal visit and three months after delivery.To meet the study aims, the team will test two types of interventions. The first type (the "Data Accountability interventions") will be focused on healthcare providers and their clinics. The team will improve accountability by setting up electronic Maternal Warning Systems to notify the clinics whenever a patient has a risk factor for low birthweight that needs to be treated or misses a scheduled appointment. Nurse navigators and provider champions from each clinic will make sure the clinic acts on the warning. Secondly, the team will improve transparency by showing the clinics their pregnancy-related complication data for different racial groups every three months through a Disparities Dashboard. This dashboard will show the providers any differences in pregnancy complications for people of different races in their clinic and encourage them to come up with ways to improve the quality of their care to decrease those differences. The team will

hire practice facilitators to help the clinics improve their workflows and communication with patients. Finally, all the staff at the clinics will undergo interactive racial equity training to help them recognize any implicit biases they have and understand how racism affects pregnancy care for patients of color. The second type of interventions will be focused on improving community-level support for high-risk pregnant patients. The team will do this by matching community-based doulas who are trained to provide culturally relevant care with high-risk patients after their first prenatal appointment. The doulas will then provide support to these patients during pregnancy and up to one year after birth by setting up peer support groups for clients with similar due dates, attending two prenatal visits with them, supporting them for up to 24 hours during labor, and performing a postpartum home visit (the “doula interventions”).To test how each of these interventions improves low birthweight alone and when combined together, the team will randomize 40 prenatal practices across North Carolina, into one of four groups: (a) no interventions; (b) data accountability interventions; (c) doula interventions; or (d) both the data accountability and doula interventions. The team predicts that about 30,000 patients will start prenatal care at one of the 40 practices during the study. For the patient survey, the team plans to enroll 100 Black patients from each of the 40 practices, for a total of 4,000 patients. The team will also interview up to 463 practice staff, doulas, patients, and practice facilitators to understand how well the study interventions fit their needs. This study is led by a stakeholder advisory board, which includes patients of color who have had a pregnancy complication, community doulas, practice representatives, health insurance payers, a patient advocacy group, healthcare organizations, and the North Carolina Department of Public Health. The majority of members will be people of color. The board will meet every three months throughout the study to advise us about patient-centered outcomes, assist with dissemination of results, and advocate for related policy change.

III. Additional materials provided by focal study PIs

Additional information about focal studies were provided via personal communication from focal study PIs to the lead author (Garrett) in August 2022. The PIs have not yet approved these materials for public circulation. Interested parties may contact the lead author who will negotiate access requests with focal study PIs.

References

1. Crear-Perry JA, Green CL, Cruz K. Respectful Maternity Care: Shifting Medical Education And Practice Toward An Anti-Racist Framework. Health Aff Forefr. Published online 2021. doi:10.1377/forefront.20210413.303812
2. Hamm RF, Kumar NR, Riegel M, Hapuarachchy B, Wheeler SM, Howell EA. Addressing Disparities in Care on Labor and Delivery. Curr Obstet Gynecol Rep. 2022;11(3):143–151. doi:10.1007/s13669-022-00338-3
3. Artiga S, Pham O, Orgera K, Ranji U. Racial Disparities in Maternal and Infant Health: An Overview. Kaiser Family Foundation; 2020. https://www.kff.org/report-section/racial-disparities-in-maternal-and-infant-health-an-overview-issue-brief/
4. Crear-Perry J, Correa-de-Araujo R, Lewis Johnson T, McLemore MR, Neilson E, Wallace M. Social and Structural Determinants of Health Inequities in Maternal Health. J Womens Health 2002. 2021;30(2):230–235. doi:10.1089/jwh.2020.8882

5. Green TL, Zapata JY, Brown HW, Hagiwara N. Rethinking Bias to Achieve Maternal Health Equity: Changing Organizations, Not Just Individuals. Obstet Gynecol. 2021;137(5):935–940. doi:10.1097/AOG.0000000000004363 [PubMed: 33831936]
6. Scott KA, Britton L, McLemore MR. The Ethics of Perinatal Care for Black Women: Dismantling the Structural Racism in "Mother Blame" Narratives. J Perinat Neonatal Nurs. 2019;33(2):108–115. doi:10.1097/JPN.0000000000000394 [PubMed: 31021935]
7. Aina AD, Asiodu IV, Castillo P, et al. Black Maternal Health Research Re-Envisioned: Best Practices for the Conduct of Research with, for, and by Black Mamas. Harv Law Policy Rev. 2019;14:393.
8. Davis DA. Obstetric Racism: The Racial Politics of Pregnancy, Labor, and Birthing. Med Anthropol. 2019;38(7):560–573. doi:10.1080/01459740.2018.1549389 [PubMed: 30521376]
9. Altman MR, Oseguera T, McLemore MR, Kantrowitz-Gordon I, Franck LS, Lyndon A. Information and power: Women of color's experiences interacting with health care providers in pregnancy and birth. Soc Sci Med. 2019;238:112491. doi:10.1016/j.socscimed.2019.112491 [PubMed: 31434029]
10. Chambers BD, Arabia SE, Arega HA, et al. Exposures to structural racism and racial discrimination among pregnant and early post-partum Black women living in Oakland, California. Stress Health. 2020;36(2):213–219. doi:10.1002/smi.2922 [PubMed: 31919987]
11. Bailey ZD, Feldman JM, Bassett MT. How Structural Racism Works — Racist Policies as a Root Cause of U.S. Racial Health Inequities. Malina D, ed. N Engl J Med. 2021;384(8):768–773. doi:10.1056/NEJMms2025396 [PubMed: 33326717]
12. Logan RG, McLemore MR, Julian Z, et al. Coercion and non-consent during birth and newborn care in the United States. Birth. Published online June 23, 2022:birt.12641. doi:10.1111/birt.12641
13. Matthews K, Morgan I, Davis K, Estriplet T, Perez S, Crear-Perry JA. Pathways To Equitable And Antiracist Maternal Mental Health Care: Insights From Black Women Stakeholders. Health Aff (Millwood). 2021;40(10):1597–1604. doi:10.1377/hlthaff.2021.00808 [PubMed: 34606342]
14. Howell EA. Reducing Disparities in Severe Maternal Morbidity and Mortality. Clin Obstet Gynecol. 2018;61(2):387–399. doi:10.1097/GRF.0000000000000349 [PubMed: 29346121]
15. Howell EA, Brown H, Brumley J, et al. Reduction of Peripartum Racial and Ethnic Disparities: A Conceptual Framework and Maternal Safety Consensus Bundle. J Obstet Gynecol Neonatal Nurs. 2018;47(3):275–289. doi:10.1016/j.jogn.2018.03.004
16. Howell EA, Sofaer S, Balbierz A, Kheyfets A, Glazer KB, Zeitlin J. Distinguishing High-Performing From Low-Performing Hospitals for Severe Maternal Morbidity: A Focus on Quality and Equity. Obstet Gynecol. Published online May 19, 2022:10.1097/AOG.0000000000004806. doi:10.1097/AOG.0000000000004806
17. Russell S Eradicating Racism From Maternity Care Begins With Addressing Implicit Bias. Nurs Womens Health. 2021;25(3):167–169. doi:10.1016/j.nwh.2021.03.005 [PubMed: 33905673]
18. Chambers BD, Taylor B, Nelson T, et al. Clinicians' Perspectives on Racism and Black Women's Maternal Health. Womens Health Rep. 2022;3(1):476–482. doi:10.1089/whr.2021.0148
19. Altman MR, McLemore MR, Oseguera T, Lyndon A, Franck LS. Listening to Women: Recommendations from Women of Color to Improve Experiences in Pregnancy and Birth Care. J Midwifery Womens Health. 2020;65(4):466–473. doi:10.1111/jmwh.13102 [PubMed: 32558179]
20. Cooper LA, Saha S, van Ryn M. Mandated Implicit Bias Training for Health Professionals—A Step Toward Equity in Health Care. JAMA Health Forum. 2022;3(8):e223250. doi:10.1001/jamahealthforum.2022.3250 [PubMed: 36218984]
21. Biden-Harris Administration. White House Blueprint for Addressing the Maternal Health Crisis. The White House; 2022. Accessed July 14, 2022. https://www.whitehouse.gov/wp-content/uploads/2022/06/Maternal-Health-Blueprint.pdf
22. Siden JY, Carver AR, Mmeje OO, Townsel CD. Reducing Implicit Bias in Maternity Care: A Framework for Action. Womens Health Issues. 2022;32(1):3–8. doi:10.1016/j.whi.2021.10.008 [PubMed: 34774401]
23. Black Mamas Matter Alliance,. Black Mamas Matter: Advancing the Human Right to Safe and Respectful Maternal Healthcare. Center for Reproductive Rights; 2018. Accessed July 1, 2021. http://blackmamasmatter.org/wp-content/uploads/2018/05/USPA_BMMA_Toolkit_Booklet-Final-Update_Web-Pages-1.pdf

24. Bohren MA, Corona MV, Odiase OJ, et al. Strategies to reduce stigma and discrimination in sexual and reproductive healthcare settings: A mixed-methods systematic review. PLOS Glob Public Health. 2022;2(6):e0000582. doi:10.1371/journal.pgph.0000582
25. Seybold D, Calhoun B, Burgess D, Lewis T, Gilbert K, Casto A. Evaluation of a Training to Reduce Provider Bias Toward Pregnant Patients With Substance Abuse. J Soc Work Pract Addict. 2014;14(3):239–249. doi:10.1080/1533256X.2014.933730 [PubMed: 26207103]
26. Mitchell C, Lawton E, Morton C, McCain C, Holtby S, Main E. California Pregnancy-Associated Mortality Review: Mixed Methods Approach for Improved Case Identification, Cause of Death Analyses and Translation of Findings. Matern Child Health J. 2014;18(3):518–526. doi:10.1007/s10995-013-1267-0 [PubMed: 23584929]
27. Hardeman RR, Burgess D, Murphy K, et al. Developing a Medical School Curriculum on Racism: Multidisciplinary, Multiracial Conversations Informed by Public Health Critical Race Praxis (PHCRP). Ethn Dis. 28(Suppl 1):271–278. doi:10.18865/ed.28.S1.271
28. Weiner S Medical schools overhaul curricula to fight inequities. American Association of Medical Colleges - News. Published May 25, 2021. Accessed August 7, 2022. https://www.aamc.org/news-insights/medical-schools-overhaul-curricula-fight-inequities
29. Peters MDJ, Godfrey CM, Khalil H, McInerney P, Parker D, Soares CB. Guidance for conducting systematic scoping reviews. JBI Evid Implement. 2015;13(3):141–146. doi:10.1097/XEB.0000000000000050
30. Grant MJ, Booth A. A typology of reviews: an analysis of 14 review types and associated methodologies. Health Inf Libr J. 2009;26(2):91–108. doi:10.1111/j.1471-1842.2009.00848.x
31. Munn Z, Peters MDJ, Stern C, Tufanaru C, McArthur A, Aromataris E. Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. BMC Med Res Methodol. 2018;18(1):1–7. doi:10.1186/s12874-018-0611-x [PubMed: 29301497]
32. Zestcott CA, Blair IV, Stone J. Examining the presence, consequences, and reduction of implicit bias in health care: A narrative review. Group Process Intergroup Relat. 2016;19(4):528–542. doi:10.1177/1368430216642029 [PubMed: 27547105]
33. Scott KA, Bray S, McLemore MR. First, Do No Harm: Why Philanthropy Needs to Re-Examine Its Role in Reproductive Equity and Racial Justice. Health Equity. 2020;4(1):17–22. doi:10.1089/heq.2019.0094 [PubMed: 32219193]
34. Green CL, Perez SL, Walker A, et al. The Cycle to Respectful Care: A Qualitative Approach to the Creation of an Actionable Framework to Address Maternal Outcome Disparities. Int J Environ Res Public Health. 2021;18(9):4933. doi:10.3390/ijerph18094933 [PubMed: 34066381]
35. White VanGompel E, Lai JS, Davis DA, et al. Psychometric validation of a patient-reported experience measure of obstetric racism© (The PREM-OB ScaleTM suite). Birth. 2022;n/a(n/a). doi:10.1111/birt.12622
36. Bill Text - SB-464 California Dignity in Pregnancy and Childbirth Act. Accessed September 3, 2020. https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200SB464
37. Diversity Science. Eliminating Inequities in Perinatal Health Care Project. Diversity Science. Accessed September 12, 2020. https://www.diversityscience.org/training-and-education/equal-perinatal-care/
38. Lett E, Adekunle D, McMurray P, et al. Health Equity Tourism: Ravaging the Justice Landscape. J Med Syst. 2022;46(3):17. doi:10.1007/s10916-022-01803-5 [PubMed: 35150324]
39. Brown AF, Ma GX, Miranda J, et al. Structural Interventions to Reduce and Eliminate Health Disparities. Am J Public Health. 2019;109(S1):S72–S78. doi:10.2105/AJPH.2018.304844 [PubMed: 30699019]
40. Carter EB, Mazzoni SE. A paradigm shift to address racial inequities in perinatal healthcare. Am J Obstet Gynecol. 2021;224(4):359–361. doi:10.1016/j.ajog.2020.11.040 [PubMed: 33306974]
41. McLemore MR. Using Retrofit, Reform, and Reimagine to Advance Toward Health Equity. J Perinat Neonatal Nurs. 2022;36(2):99–102. doi:10.1097/JPN.0000000000000639 [PubMed: 35476759]

42. Scott KA, Chambers BD, McKenzie-Sampson S, et al. The Virtual Perinatal Quality Improvement Prioritization By Affected Communities (V-QPAC) Protocol. Health Serv Res. 2021;56(S2):56–57. doi:10.1111/1475-6773.13776

43. Vedam S, Stoll K, Taiwo TK, et al. The Giving Voice to Mothers study: inequity and mistreatment during pregnancy and childbirth in the United States. Reprod Health. 2019;16(1):1–18. doi:10.1186/s12978-019-0729-2 [PubMed: 30621726]

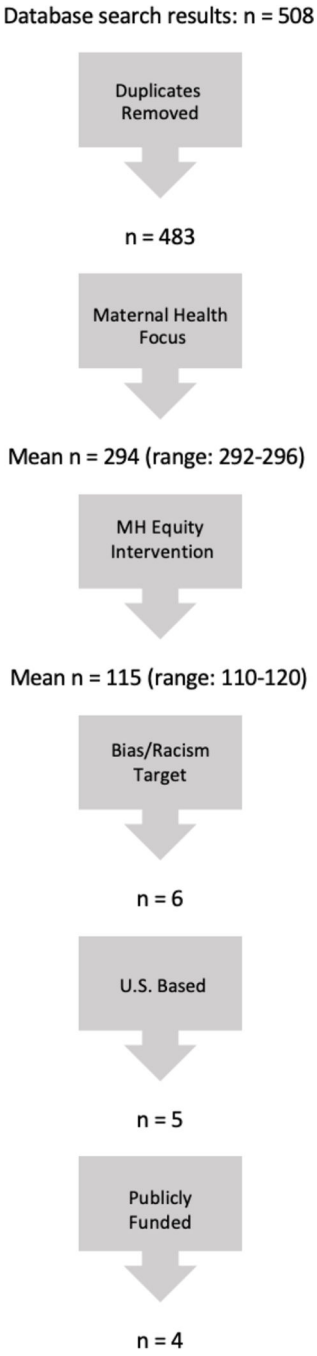

Figure 1. Flow diagram of grant-funded project selection & review

Note. Figure is adapted from PRISMA. For intermediary steps in the review where independent coders did not experience full agreement, we present the mean and range of projects identified by the two coders.

Table 1 –

Search terms for Dimensions database

Concepts represented	Search terms
Bias, racism, inequity/Equity, justice	v01: (“implicit bias” OR bias OR racism OR prejudice OR discrimination OR “culturally competent” OR “culturally sensitive” OR “cultural competence” OR racial OR ethnic OR inequity OR inequities OR inequitable OR disparities OR disparity OR inequality OR “health equity” OR “structural competency” OR “structural competence” OR “cultural humility” OR “reproductive justice” OR “reproductive equity” OR “birth equity” OR “birth justice” OR “respectful care” OR anti-racism) v02: All version 1 content and added “antiracism”
Maternal health	v01: AND (“maternity” OR “maternal” OR pregnant OR pregnancy OR obstetric OR obstetrics OR prenatal OR “pre-natal” OR antenatal OR “ante-natal” OR perinatal OR “peri-natal” OR postpartum OR “post-partum” OR “OB/GYN”) v02: AND (“maternity care” OR “maternal care” OR “maternal healthcare” OR “maternal health” OR pregnant OR pregnancy OR obstetric OR obstetrics OR prenatal OR “pre-natal” OR antenatal OR “ante-natal” OR perinatal OR “peri-natal” OR postpartum OR “post-partum” OR “OB/GYN” OR “obstetrician” OR “midwives” OR “midwife” OR “midwifery” OR “maternal-fetal medicine” OR “labor nurs*” OR “labor and delivery” OR “intrapartum” OR “intra-partum” OR childbirth)
Intervention	AND (reduce OR reducing OR reduction OR eradicate OR eradicates OR eradication OR program OR programs OR programme OR programmes OR education OR educational OR intervention OR interventions OR intervene OR training OR train OR curriculum OR policy OR protocol)

Note: Searches proceeded in two rounds. The version of the search terms is noted when applicable.

Round 1: Searched using v01 of parameters on May 18 2022. n=454. Coded those independently.

Round 2: We refined our search, adding search terms e.g., “labor and delivery” and “intrapartum,” and removing very broad terms that alone were catching many unrelated grants (e.g., “maternal”).

The updated search using v02 parameters yielded 438 projects in July 7, 2022, which added 54 new projects to our review.

Table 2 –

Overview of Projects that Satisfied all Review Criteria (“Focal Projects”)

Principal investigator and organization at time of award	Grant #	Project title	Funder	Year awarded	Grant website	Antibias/antiracism intervention	Role of antibias/antiracism intervention with regard to key study foci and outcomes
Brittany **Chambers**, University of California San Francisco	K01MD015785	Community Racial Equity Training And Evaluation of Current and Future Health Care Clinicians (CREATE) Study	National Institute on Minority Health and Health Disparities (NIMHD, NIH)	2021	http://projectreporter.nih.gov/project_info_description.cfm?aid=10302028	Interactive online racial equity training in prenatal care setting. Training modules will total 60 minutes and address: “1) Overview of Racism in the US; 2) Black Women’s Experiences; 3) Racism in Healthcare Settings; 4) Clinicians’ Perspectives and Outcomes; and 5) Action Plan and Reflection.”[1]	Training is the central focus of the study. The study is designed to: refine an interactive, online racial equity training for prenatal clinicians based on input from clinicians and Black women; pilot test its effects on clinician outcomes such as their implicit racial attitudes; and “explore the impact of the [training] in reducing disparities in adequate care in a sub-sample of Black and white women.” Prenatal care initiation and attendance at 12 months prior to the intervention, 6 months post-intervention, and 12 months post-intervention will be compared in this sub-sample.[1]
Sharon **Herring**, Saleemah **McNeil**, Temple University	N/A	The Path to Optimal Black Maternal Heart Health: Comparing Two CVD Risk Reduction Interventions	Patient-Centered Outcomes Research Institute (PCORI)	2021	https://www.pcori.org/research-results/2021/path-optimal-black-maternal-heart-health-comparing-two-cvd-risk-reduction-interventions	Provider training to reduce pregnant patients’ experience of racism or mistreatment	Training is employed in both intervention approaches evaluated, which are designed to improve Black maternal heart health. Both approaches feature provider antiracism training and patient-facing supports (e.g., educational texts); one approach additionally features supports “for Black women by Black women” (community doula care, mental health services, lactation consultation). The primary outcome is change in maternal postpartum blood pressure. Secondary outcomes include experiences of respectful maternity care and other patient-level outcomes.
Jennifer **Johnson**, Cristian Ioan **Meghea**, Michigan State University	R01MD016003	Meeting women where they are: Multilevel intervention addressing racial disparities in maternal morbidity and mortality	National Institute on Minority Health and Health Disparities (NIMHD, NIH)	2020	http://projectreporter.nih.gov/project_info_description.cfm?aid=10263288	Daylong experiential trainings to “address provider and health system implicit and explicit bias and corresponding structures and practices.” Experienced community partners will lead trainings, which will include “didactics, reflection, discussion, windshield tours, and brainstorming ways	Training is embedded in a multicomponent intervention. It is the “provider/practice level” component of a five-year, multilevel intervention that will be assessed experimentally for its effect on county-level maternal health disparities. The study’s internal fidelity assessments of the antibias training will assess changes in participants’ knowledge (e.g. about how race and racism impacts health) and actions that participants expect to take or have taken to reduce

Clin Obstet Gynecol. Author manuscript; available in PMC 2024 March 01.

Principal investigator and organization at time of award	Grant #	Project title	Funder	Year awarded	Grant website	Antibias/antiracism intervention	Role of antibias/antiracism intervention with regard to key study foci and outcomes
						to tailor participants' practices and settings to better meet the needs of perinatal African American women."[2]	focal maternal health disparities in their clinical setting.[2]
Jennifer **Tang**, Rachel **Urrutia**, University of North Carolina at Chapel Hill	N/A	Reducing Racial Disparities in Maternal Care through Data-Based Accountability and Doula Support	Patient-Centered Outcomes Research Institute (PCORI)	2021	https://www.pcori.org/research-results/2021/reducing-racial-disparities-maternal-care-through-data-based-accountability-and-doula-support	"Interactive racial equity training" to help prenatal clinic staff and providers to recognize implicit biases and "understand how racism affects pregnancy care for patients of color." It will involve an initial informational session, followed by eight quarterly "booster sessions." The two-year training will be developed with key stakeholders and be based on an established antiracism framework.[3]	Training is embedded in a multicomponent intervention. It is one of three components in a provider/clinic-focused intervention that will be experimentally evaluated in 40 prenatal care practices against and/or in combination with a community-level doula intervention. Primary outcome assessed is low birth weight; secondary outcomes include decreases in discrimination during prenatal care. Changes in training participants' self-reported changes in knowledge about health equity-related topics (e.g., clinic-based health outcomes, the effects of facility protocols and power dynamics) will be assessed after each training session.[3]

Note. Project descriptions include content from public sources and, where noted, from information provided by project PIs (e.g., specific aims pages).

[1]Personal communication with Chambers 8/25/2022

[2]Personal communication with Johnson 8/9/2022

[3]Personal communication with Tang 8/8/2022, 8/15/2022.