**Community collaborators:** Cheron Phillips (left) and Richelle Smith serve on EleVATE's curriculum committee, calling on their own experiences to inform how the program serves prenatal patients in St. Louis, Missouri.

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A SERIES ON
**HEALTH SYSTEM TRANSFORMATION**

# Patients Lift Their Voices To Advance Maternal Health

*Designed by and for Black women, a St. Louis–based group prenatal care program incorporates trauma-informed care and behavioral health services.*

BY MICHELE COHEN MARILL

Fluorescent bulbs bathe the basement room in bright light as cheerful as sunshine, even though the windows only look out onto office corridors. Richelle Smith stands before a projection screen, her hands clasped, her voice loud and clear behind her COVID-19-safe black face mask. This is her moment to flip the script—to look out at maternal health providers sitting around a conference table and tell them what it's like to be their patient.

Smith, 29, grew up in North St. Louis, just a couple of miles from the city's downtown skyline and iconic Gateway Arch but a world away from all that they represent. Instead of projecting an image of progress and possibility, the neighborhoods north of Delmar Boulevard bear the scars of systemic neglect.

Overgrown and rubble-strewn lots mar blocks where the massive Pruitt-Igoe housing project was torn down about fifty years ago. Victorian-era houses, ghosts of a past century's heyday, are boarded up and crumbling. Cement barriers block off tonier streets that intersect the area—a clear sign of the divisions that have isolated many of the city's mostly poor and Black residents.

Affinia Healthcare's federally qualified health center sits at 1717 Biddle Street, an oasis in the section of the city known as Carr Square, surrounded on all sides by red brick housing projects—some newly built, some aging and worn, some undergoing redevelopment behind chain-link fences. As with other safety-net providers that belong to the St. Louis Integrated Health Network, Affinia seeks to counteract the entrenched disadvantages of its patients. That mission led to the creation in 2016 of a new maternal health program called EleVATE, which stands for "elevating voices, addressing depression, toxic stress and equity." It aims to improve maternal and infant health outcomes by engaging the community as a partner.

EleVATE offers group-based prenatal care with a curriculum designed by and for Black women. Groups of five to ten pregnant women and their companions (fathers, partners, relatives, or friends) meet with an obstetric clinician and group facilitator at least monthly to talk about issues in pregnancy and birth. Smith is one of six "community collaborators"—moms who joined EleVATE just after its inception in this Affinia basement conference room and who now serve on its steering committee.

Putting patients in a leadership role is a vital step toward reducing racial disparities in preterm birth and pregnancy complications, says Melissa Tepe, an



*Photographs by Michael Thomas*

obstetrician and Affinia's chief medical officer. "If we want an equitable outcome, we need to build a system for [patients] and we need to let them help us build that process," she says.

Smith now lives with her husband, five-year-old daughter, and two stepchildren in St. Louis's West End, a relatively diverse neighborhood just north of Delmar, and works as an early childhood educator. But she recalls growing up "very poor" in a neighborhood beset by random bursts of violence, where an argument can swiftly escalate into gunfire. She describes how the instinctive reaction—fight, flight, or freeze—becomes ingrained as a response to threatening or confrontational situations.

Stress from systemic racism is an ever-present backdrop. It has been eight years since Michael Brown was shot by a White police officer in the St. Louis suburb of Ferguson, and although many in the White community may have moved on, the incident remains an underlying trauma for the area's Black residents, Smith says. That disconnect is part of what she hopes to bridge through her training of health professionals.

"Thank you for being here as I present this," she begins. "Me presenting this as a community collaborator is like the person who really gets it. A person whose been there, who's pulled through it, who really puts it all together."

She is here to talk about trauma and about trauma-informed care, which has become a central priority for the program and its community collaborators. Smith moves through PowerPoint slides to give definitions and examples of trauma, exuding the confidence of an expert. And she is one: an expert in the lived experiences of the clinic's patient population. She speaks without a script but follows a framework developed by Alive and Well Communities, a St. Louis–based nonprofit that seeks to address community stress and trauma.

Smith is far from shy, but she once felt silenced by the white-coated authority of doctors. Now she has learned to speak her truth. "Sometimes you feel like your voice is small. This is changing things," she says of EleVATE. "My voice doesn't feel small. It feels mighty. It's going out in a big room to people who need to hear it."

**Feedback:** About six months after Cheron Phillips had her daughter, leaders of the St. Louis Integrated Health Network invited her to provide feedback on her experience. Phillips would go on to serve as a community collaborator within the EleVATE program, helping improve how care is delivered for future patients.

## Engaging Communities In Equity

Hearing the voices of Black women such as Smith becomes even more important in the context of the nation's maternal health crisis. In 2020 maternal mortality in the US rose for the second year in a row, making the nation's rate of 23.8 pregnancy-related deaths per 100,000 live births[1] an outlier compared with the rates for other high-income countries, which have rates in the single digits.[2] Racial disparities in the US are stark: Black women in the US are almost three times more likely to die in pregnancy, in childbirth, or postpartum than White women.[1]

The picture is just as bleak for infant health. In 2020, 10.1 percent of US live births were preterm (born before thirty-seven weeks), which is barely below the rate of 10.2 percent in 2019.[3] Black babies had the highest preterm rate, at 14.4 percent of live births,[3] and also the highest rate of infant death.[4]

Maternal health providers have worked hard to standardize their care. All but five states use protocols developed by the Alliance for Innovation on Maternal Health, a quality improvement initiative supported by the American College of Obstetricians and Gynecologists and the Health Resources and Services Administration of the Department of Health and Human Services.[5]

Yet racial disparities persist, driven by barriers to care, social and economic factors, and the impact of systemic racism.[6] To promote equity, advocates for Black maternal health want to see a shift in the most direct dynamic: the relationship between clinicians and their Black patients.

"The community should be part of the decision-making team" in designing interventions and priorities, says Ndidiamaka Amutah-Onukagha, a maternal health expert who is director and founder of the Maternal Outcomes for Translational Health Equity Research (MOTHER) Lab and the new Center for Black Maternal Health and Reproductive Justice at Tufts University, in Medford, Massachusetts. "Until we get to that place, we're not going to be able to push forward this conversation of maternal health and equity."

"I philosophically believe that community members are experts by experience," says Monica McLemore, an associate professor of family health nursing at the University of California San Francisco and a leading researcher in and advocate of reproductive justice. "If in health care we believe the gold standard of being able to diagnose and treat and use all our algorithms is patient-reported medical history, on the community side that means [tapping into] the expertise they have of living every day in their communities."

EleVATE's founders quickly came to that same conclusion. In 2016, two years after the Brown's death, Tepe approached the leadership of the St. Louis Integrated Health Network, a coalition of the city's safety-net providers. Although the maternal care programs at different health systems compete for patients and health care dollars, Tepe was convinced that they needed to come together to confront the racial disparity in preterm birth.

Individually, the St. Louis providers had been working on the problem for some time. Some had already offered group prenatal care to give their patients the option of additional support through an evidence-based program called CenteringPregnancy, which was

created by Connecticut nurse-midwife Sharon Schindler Rising in the 1990s.[7] Group prenatal care visits typically allow patient cohorts to spend at least ninety minutes together with a health care provider; that contrasts with the short encounters of individual prenatal care, which usually involve visits of about fifteen minutes. A 2007 randomized controlled trial of 1,047 pregnant women found that those participating in CenteringPregnancy groups were significantly less likely to have preterm births than women in individual care.[8]

The network's clinicians took other measures to reduce the risk for preterm labor, such as prescribing progesterone, as appropriate, to at-risk women. (The benefit of progesterone has since been shown to be unclear in patients who didn't have a previous preterm birth.)[9]

Yet racial disparity in preterm births in St. Louis persisted. A report on infant health by the Missouri Foundation for Health found that during 2010–14, 18.9 percent of Black babies in St. Louis were born prematurely—a rate higher than the national average—and Black infants were three times more likely to die than White infants.[10]

"In contrast to the rest of the industrialized world, there are neighborhoods in St. Louis City and County with an infant mortality rate that is worse than some developing countries, like Uzbekistan and Vietnam," the report's authors noted.[10]

For the community in North St. Louis, inequity has a different touchstone. From 1937 to the mid-1950s the Homer G. Phillips Hospital flourished in a segregated but thriving Black neighborhood known as the Ville, serving as the nation's largest teaching hospital for Black physicians. The hospital struggled with a loss of city funding just as desegregation opened new options for Black patients, medical trainees, and physicians. Still, "Homer G," as it was affectionately known, remained a point of pride, and the city's decision to close the hospital in 1979 sparked street protests. It then sat mostly vacant for decades—a symbol of broken trust—until the sprawling building was renovated and reopened in 2003 as senior housing.[11]

Bitterness from that history still lingered when Brown's 2014 killing stirred the community's simmering pain and rage over systemic racism. The Ferguson Commission's 2015 report, *Forward through Ferguson*, offered a reset by issuing calls to action for "a path toward racial equity."[12] At Affinia Healthcare, Tepe was ready to have a deeper conversation about reducing health disparities.

**Putting patients in a leadership role is a vital step toward reducing racial disparities in preterm birth and pregnancy complications.**

Tepe reached out to Bethany Johnson-Javois, then CEO of the St. Louis Integrated Health Network. Johnson-Javois, who served on the Ferguson Commission, saw the potential to move from a history of empty promises to real change. Generate Health, a local nonprofit organization focused on maternal health, and the Missouri Foundation for Health, a philanthropic organization, already had launched an initiative on infant health in 2013 and were sources of support.

"The [Michael Brown] protests reflected a consciousness and a conscience that we had lost in this region," says Johnson-Javois, who is now president and CEO of Deaconess Foundation, an advocacy and philanthropic organization affiliated with the United Church of Christ. She calls community-engaged work "protest in action"—a way to center the community voice. "You can't sustain marching in the street for eight years. But you can sustain the spirit of the 'why,' that injustice can never happen again," she says.

An impassioned discussion ensued in the initial 2016 meeting of maternal health clinicians convened by Johnson-Javois and Tepe. But as Tepe looked around the room, she saw highly educated and economically privileged people, mostly White, talking about the challenges of people who were mostly poor, Black, and disadvantaged. Johnson-Javois encouraged the clinicians to reach out to former patients for input.

That was the first and last meeting held solely with medical professionals. Soon after, in 2017, the clinicians invited some moms to be a part of the project team for a new collaborative and offered them compensation and help with transportation and child care. The initial aim was to tailor group prenatal care to the needs of the community. Beyond that broad vision, however, a lot of work remained to iron out the details.

"At this point we didn't even know what we were going to do, we just knew we wanted to do something that was going to improve the lives of the people we served and their babies," says Ebony Carter, a high-risk obstetrician at Barnes-Jewish Hospital and an EleVATE cofounder.

## Centering Community Voices

When Cheron Phillips came to her first group prenatal care visit at three months pregnant, she wasn't a new mom, but she felt like one. At thirty-three, she was having her second child about ten years after her daughter was born. "I was just really unprepared to go back into the process of having a kid again," she recalls. "I felt overwhelmed. At that moment, I felt like my life was going down. So many things were stacking up."

Her nurse practitioner at SSM Health St. Mary's Hospital suggested group prenatal care, where she could meet other moms. The program offered child care and provided snacks, which sounded pretty good to Phillips. On her first visit she followed instructions to take her own measurements—weight and blood pressure—and give a urine sample. (An exam table behind a screen provides private space for brief one-on-one interactions with providers, as necessary.) Then she took her seat in the circle.

Phillips figured she would just sit back and observe. She was working the overnight shift as a dispatcher for a security company, and she was feeling stressed. But then the conversation got surprisingly intimate. The women talked about breastfeeding and how they would feel about doing it in public. They discussed what family traditions they might want to carry on and what family habits they wanted to quash. She began to look forward to the next monthly meeting. "Everybody started to connect the dots with each other," she says. "It felt good."

Her baby was about six months old when she got a call from Kelly McKay-

Gist, the program coordinator of the new collaborative, inviting her to join the team that was developing a new group care model. When asked for feedback about her own experience, Phillips said that she felt supported by the program through her pregnancy in a way that helped ease her anxiety, but she still saw some room for improvement. Like, why was a weight chart with body mass index at the front of the workbook? That made her self-conscious about her weight gain. And she wanted to see more Black women like herself reflected in the images of mothers and babies—and with the fathers, too. "Representation matters," Phillips says.

As the collaborative convened, the need for equity in prenatal care was becoming widely recognized. In 2016 the Centering Healthcare Institute, the nonprofit organization that developed and supports the CenteringPregnancy model, launched a national strategy to address racial disparities in maternal health that was focused on birth equity, according to CEO Angie Truesdale. Today about 70 percent of women in about 500 CenteringPregnancy groups around the country are on Medicaid or uninsured, and groups are tailored to community needs, she says. The Centering model "was designed to build relationships and trust between provider and patient and a community of support for the cohort group," she says. "We ask providers to take off their white coats and stethoscopes and sit alongside patients in the circle."

The St. Louis clinicians had concerns about how to best meet their patients' needs. According to Carter, some 80 percent of low-income prenatal patients there screen positive for depression, anxiety, or trauma. Yet there were so many barriers to obtaining mental health care, including a shortage of behavioral health providers.

The collaborative team decided to infuse behavioral health interventions such as mindfulness and cognitive behavioral therapy into group prenatal care. To do that, clinicians would need training, as well as resources for making referrals. "We believed that improving mental health would go hand in hand with improving birth outcomes," says Carter, who is also an associate professor and chief of the Division of Clinical Research in the Department of Obstetrics and Gynecology at Washington University School of Medicine, in St. Louis.

**Hearing the voices of Black women becomes even more important in the context of the nation's maternal health crisis.**

But how should the clinicians approach the issue of trauma, which is both personal and community based? They debated whether it was a good idea to question patients about exposure to trauma and worried that the conversation itself would be retraumatizing. Finally, the community collaborators spoke up. "You have to ask us about it," Phillips recalls saying. "Just because you don't ask us about [trauma] doesn't mean it didn't happen. Nobody asks us, and that's part of the problem."

The collaborative team agreed on a name that would reflect its mission: "elevating voices, addressing depression, toxic stress and equity," or EleVATE. A two-year, $368,798 grant, awarded in 2016 from the Missouri Foundation for Health, supported behavioral health, trauma-informed care, and antiracism training of the collaborative team and maternal health professionals at the group sites. Under the auspices of the Integrated Health Network, the team hired McKay-Gist and began work on a curriculum with an equity focus.

The community collaborators served on the steering committee and the curriculum committee and received compensation for their time, initially with gift cards, but then with pay, a subtle change that marked their recognition as valued consultants. The new skills they've learned have been transformative. In a career shift, Phillips, for example, became a community health worker, and she launched a community organization to support families postpartum, called For Parent, For Baby, For Life.

"What we're trying to do is truly listen to these women," says Amanda Stoermer, director of evaluation, quality, and learning at the Integrated Health Network. "They're truly in the driver's seat. They have full veto power. If they say no [to a decision about the group care model], we hit the brakes and then try to figure out how to move forward."

## Engaging Community In Research

From the beginning, Carter knew that she wanted to document the work and, ideally, answer some important questions: Does group prenatal care lead to better outcomes, especially for Black women? If maternal health clinicians provide basic behavioral health interventions, will patients have lower levels of depression and anxiety? What attributes of group care provide the greatest benefit?

The answers could make a difference throughout Missouri. As in most states, Missouri's Medicaid program lacks a specific funding mechanism for group care. Nine states provide enhanced Medicaid reimbursement for group prenatal care, although others provide some additional support through grants or alternative payment systems such as Medicaid managed care plans.[13] Otherwise, the sessions are billed as if each patient had an individual visit, which may fail to fully cover the extended time, training, and extra preparation, Stoermer says. For example, group care sessions are facilitated by two health professionals, such as a nurse-midwife or physician and a medical assistant, and may include a lactation consultant or other specialist. If the EleVATE collaborative can show that group care leads to better outcomes, maternal health providers can argue for a policy of enhanced Medicaid reimbursement, Carter says.

Carter began her research by analyzing prior studies that compared group versus individual prenatal care, publishing a 2016 meta-analysis in *Obstetrics & Gynecology*.[14] Overall, she and her colleagues found no significant difference in preterm birth rates. But when Carter looked at the two high-quality studies that included data by race, she found a hopeful sign: Preterm births were significantly lower among Black women who had group prenatal care compared with those receiving traditional, individual care.

In 2018 she and obstetrician Katherine Mathews, her coinvestigator at St. Mary's

Hospital and Saint Louis University, then conducted a small pilot study with forty-eight women at St. Mary's Hospital, Affinia Healthcare, and Barnes-Jewish Hospital, thirty-seven of whom were in group care (twenty-three with the new EleVATE model) and eleven of whom were in individual care. The study wasn't large enough to detect statistically significant differences, but it tested the feasibility of training maternal health providers to use behavioral health techniques. Women in group care did show a trend toward lower rates of perinatal depression and anxiety.[15]

But another finding was most striking. "We were completely shocked when we looked at the patients in EleVATE [and found that] none of them had a preterm birth," Carter says. Based on the 2016 rate of about 12.6 percent in St. Louis County, at least four of the women in group care would be expected to have a preterm birth.[16] (National methodology for determining preterm birth changed in 2016, and a breakdown by race was not available for that year, so that estimate does not reflect the higher rate of preterm births among Black women.)

"The fact that in a small sample of forty-eight patients we had no instances of preterm birth among patients in EleVATE suggests that there might be something worth studying there," Carter says. (There was one preterm birth among group prenatal care patients who were not in EleVATE.)

Even so, it wasn't easy to get funding. When the Missouri Foundation for Health grant ended, the EleVATE collaborative sought other grants. Generate Health, Integrated Health Network member organizations, and Washington University helped temporarily cover expenses, including the salary for McKay-Gist, who is now program manager–perinatal health equity.

Then, in 2020, just as the funding situation seemed dire, the National Institute of Mental Health awarded a $4 million, five-year grant to Carter; co–principal investigator clinical psychologist Shannon Lenze; and colleagues at the Brown School at Washington University, Affinia Healthcare, Barnes-Jewish Hospital, CareSTL Health, Family Care Health Centers, St. Mary's Hospital and St. Louis University School of Medicine, University of Missouri Kansas City, and University Health Kansas City to conduct a randomized controlled trial comparing EleVATE with individual care. With the funding, EleVATE is expanding to other sites with low-income patients from historically underserved populations across the state of Missouri. At least one site is predominantly Spanish speaking. Although the primary aim is to reduce rates of depression, the study also is looking at the effect of group care on preterm birth and low birthweight.

**That may ultimately be the greatest value of group care, as clinicians build deeper relationships with patients through extended conversations.**

Just as in the initial program development, the EleVATE research is guided by its community collaborators. That community-engaged approach has gained traction in quality improvement and research more broadly; it became an integral strategy of the National Institutes of Health in the efforts to reduce disparities during the COVID-19 pandemic.[17]

"There's an understanding and appreciation of what it means to have diverse perspectives," says Charisee Lamar, deputy director of the Division of Extramural Activities at the National Institute of Mental Health. Lamar was previously director of the Office of Health Equity at the Eunice Kennedy Shriver National Institute of Child Health and Human Development, which promotes community partnerships in research.

Maternal health advocates are ready to meet the moment. In 2018 the Preeclampsia Foundation and a coalition of twenty-one other maternal health organizations created MoMMA's (Maternal Mortality and Morbidity Advocates) Voices. Supported by a grant from the philanthropic global initiative Merck for Mothers, MoMMA's Voices trains and certifies "patient family partners" to work on maternal health quality improvement in a variety of settings.

Certified partners have joined Institute for Healthcare Improvement workgroups that design maternal health protocols. They bring a consumer voice to state-run maternal mortality review committees and hospital advisory boards. MoMMA's Voices also is training health care providers in "lived experience integration," a quality improvement project funded by the Alliance for Innovation on Maternal Health.

"At the end of the day, we want to see patient voices integrated at every level of the system of care, from the smallest rural outpatient clinic or hospital all the way up to the higher-level work we do at [the Alliance for Innovation on Maternal Health] and Merck for Mothers," says Laney Poye, director of communications and engagement at the Preeclampsia Foundation.

The goal, Poye says, is for patients who have experienced serious pregnancy complications to "really feel their voice is heard and the trauma they've been through is having a benefit in changing the way health care functions in the US."

## Shifting The Lens

Bright green and billowy, the image of a tree projected on the screen in the conference room at first evokes a sense of growth and thriving. At closer look, however, the illustration reveals something darker and more insidious. It is a symbol of trauma's hidden reach, seeping from the roots (prenatally), through the trunk and branches (childhood and adolescence), and into the leaves (adulthood).

Wariness replaces joyfulness. Rage, panic, shutting down—all reactions to trauma—resurface in unpredictable moments. "Community and environmental experiences are your roots," Smith explains. "This is the soil I grew up in."

Smith asks the health professionals to have some empathy—for the pregnant woman who is chronically late because she has no reliable transportation, for the mom who has no child care and sometimes misses appointments, for the patients who can't describe and might not even fully understand the trauma they've been through. Individual trauma, community trauma, historic trauma, systemic racism—these are all part of the experience of many patients, she says.

Reframe your encounters, she implores. "We need to shift the lens from 'What's wrong with you?' to 'What happened to you?'" Smith says.

When she finishes and asks for questions, no one speaks up. But she has shifted some perspectives. "It's easy to look at someone and judge them for what they've done or what they're not doing," says LeAnn Frazier, a maternal child clinical manager at Affinia Healthcare's health center. "When you don't know the background or the how or the why or the what, then you make assumptions."

That may ultimately be the greatest value of group care, as clinicians build deeper relationships with patients through extended conversations. "When you spend so much time with patients, you can't help but feel the burden of the things they're experiencing in their lives," Carter says.

Maternal health disparities are often attributed to patient factors, such as obesity, poor diet, smoking, or lack of health care access. But Carter is interested in a different dynamic. Maybe changing the way clinicians interact with patients can, in itself, improve outcomes and equity, she says.

"All the [maternal health] work has been laser-focused on patients. What if it's 30 percent about the patients and 70 percent about the clinicians and the way they show up?" Carter says. "That's what we're going to try to find out." ■

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## NOTES


1 Hoyert DL. Maternal mortality rates in the United States, 2020 [Internet]. Hyattsville (MD): National Center for Health Statistics; 2020 [cited 2022 Jun 22]. Available from: https://www.cdc.gov/nchs/data/hestat/maternal-mortality/2020/maternal-mortality-rates-2020.htm

2 Tikkanen R, Gunja MZ, FitzGerald M, Zephyrin L. Maternal mortality and maternity care in the United States compared to 10 other developed countries [Internet]. New York (NY): Commonwealth Fund; 2020 Nov 18 [cited 2022 Jun 22]. Available from https://www.commonwealthfund.org/publications/issue-briefs/2020/nov/maternal-mortality-maternity-care-us-compared-10-countries

3 Centers for Disease Control and Prevention. Premature birth [Internet]. Atlanta (GA): CDC; 2021 Nov 1 [cited 2022 Jun 22]. Available from: https://www.cdc.gov/reproductivehealth/features/premature-birth/index.html

4 Valenzuela CP, Gregory ECW, Martin JA. Decline in perinatal mortality in the United States, 2017–2019 [Internet]. Hyattsville (MD): National Center for Health Statistics; 2022 Jan 18 [cited 2022 Jun 22]. (NCHS Data Brief No. 429). Available from: https://stacks.cdc.gov/view/cdc/112643

5 Alliance for Innovation on Maternal Health. AIM state participation [Internet]. Washington (DC): AIM; [cited 2022 Jun 22]. Available from: https://safehealthcareforeverywoman.org/aim/about-us/aim-state-participation-2/

6 Artiga S, Pham O, Orgera K, Ranji U. Racial disparities in maternal and infant health: an overview [Internet]. San Francisco (CA): Henry J. Kaiser Family Foundation; 2020 Nov 10 [cited 2022 Jun 22]. Available from: https://www.kff.org/report-section/racial-disparities-in-maternal-and-infant-health-an-overview-issue-brief/

7 Rising SS. Centering Pregnancy. An interdisciplinary model of empowerment. J Nurse Midwifery. 1998;43(1):46–54.

8 Ickovics JR, Kershaw T, Westdahl C, Magriples U, Massey Z, Reynolds H, et al. Group prenatal care and perinatal outcomes: a randomized controlled trial. Obstet Gynecol. 2007;110(2 Pt 1):330–9. [Erratum in Obstet Gynecol. 2007;110(4):937.]

9 Norwitz ER. Progesterone supplementation to reduce the risk of spontaneous preterm labor and birth. UpToDate [serial on the Internet]. 2022 Jun 7 [cited 2022 Jun 22]. Available from: https://www.uptodate.com/contents/progesterone-supplementation-to-reduce-the-risk-of-spontaneous-preterm-labor-and-birth

10 Xaverius PK, Kiel D, Salas J, Cooper B. Infant health in greater St. Louis (2010 to 2014) [Internet]. St. Louis (MO): Missouri Foundation for Health; 2018 Feb [cited 2022 Jun 22]. Available from: https://www.flourishstlouis.org/wp-content/uploads/MFH-Infant-Health-in-Greater-St.-Louis.pdf

11 Berg DR. A history of health care for the indigent in St. Louis: 1904–2001. St Louis Univ Law J. 2003;48(1):191–224.

12 Ferguson Commission. Forward through Ferguson: a path toward racial equity [Internet]. St. Louis (MO): The Commission; 2015 Oct 14 [cited 2022 Jun 22]. Available from: https://forwardthroughferguson.org/report/executive-summary/

13 Prenatal-to-3 Policy Clearinghouse. Group prenatal care [Internet]. Nashville (TN): Prenatal-to-3 Policy Impact Center; 2021 Aug 1 [cited 2022 Jun 22]. Available from: https://pn3policy.org/policy-clearinghouse/2021-group-prenatal-care/#how-does-group-prenatal-care-vary-across-the-statesix

14 Carter EB, Temming LA, Akin J, Fowler S, Macones GA, Colditz GA, et al. Group prenatal care compared with traditional prenatal care: a systematic review and meta-analysis. Obstet Gynecol. 2016;128(3):551–61.

15 Carter E, McKay-Gist K, Phillips C. Equity in infant and maternal vitality. Oral presentation at: Safety Action Series, National Improvement Challenge winning programs: reduction of peripartum racial/ethnic disparities [Internet]. Washington (DC): Council on Patient Safety in Women's Health Care, 2019 Dec 11 [cited 7 Jul 2022]. Available from: https://safehealthcareforeverywoman.org/wp-content/uploads/Safety-Action-Series_12.2019.mp4

16 St. Louis Partnership for a Healthy Community. Community dashboard: preterm births, 2016 [Internet]. St. Louis (MO): The Partnership; 2019 May [cited 2022 Jun 22]. Available from: https://www.thinkhealthstl.org/indicators/index/view?indicatorId=6051&localeId=1649&comparisonId=7177&periodId=271

17 National Institutes of Health [Internet]. Bethesda (MD): NIH. Press release, NIH funds community engagement research efforts in areas hardest hit by COVID-19; 2020 Sep 16 [cited 2022 Jun 22]. Available from: https://www.nih.gov/news-events/news-releases/nih-funds-community-engagement-research-efforts-areas-hardest-hit-covid-19