



Improving Our Maternity Care Now: Four Care Models State Policymakers Must Implement for Healthier Moms and Babies

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Starting to Solve the Maternal Health Crisis

The U.S. maternity care system fails to provide many childbearing people* and newborns with equitable, respectful, safe, effective, and affordable care. More people die per capita as a result of pregnancy and childbirth in the United States than in any other high-income country.¹ Our health care system spectacularly fails communities struggling with the burden of structural inequities and other forms of disadvantage, including Black, Indigenous, and other people of color (BIPOC), rural communities, and people with low incomes.²

In the long term, we must transform the maternity care system using multiple levers, from delivery and payment system reform, to workforce diversification and training, to consumer engagement. Nevertheless, our dire maternal health crisis, which has been compounded by the COVID-19 pandemic, and highlighted in the context of a national reckoning on racism, demands that we mitigate needless harm now.

Fortunately, research shows that specific care models in use today lead to demonstrably higher quality care and improved outcomes. We just have to take action to make them readily and widely available. Specifically, clear evidence shows that **midwifery care, care in “community birth” settings** (in birth centers and at home), and **doula support** that includes prenatal, childbirth, and postpartum periods, provide excellent and appreciated woman- and family-centered experiences, leading to improved birth outcomes. In addition, **community-led perinatal health worker (CPHW) groups** are a newer, hybrid model of care emerging as a very promising practice, particularly in

* We recognize and respect that pregnant, birthing, postpartum, and parenting people have a range of gendered identities, and do not always identify as “women” or “mothers.” In recognition of the diversity of identities, this report uses both gendered terms such as “women” or “mothers” and gender-neutral terms such as “people,” “pregnant people,” and “birthing persons.”

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reducing racial and ethnic inequities. In general, CPHW organizations are established and directed by BIPOC leaders and explicitly aim to meet community needs and priorities – particularly in communities of color. They provide a wide range of services, including in many cases some combination of midwifery care, doula support, and care in community birth settings.

These four models of care differ from typical maternal care in several ways:

- They minimize the overuse of unneeded care and increase high-value underused care.
- Care team members are deeply committed to meeting their clients where they are.
- They provide individualized, respectful, trusted, and relationship-based care tailored to meet families’

physical, emotional, and social needs holistically.

- They promote and support physiologic childbearing as an alternative to over-medicalized birth.
- They deliver better outcomes for communities that struggle with deep birth inequities.

Unfortunately, the availability of these forms of care is unable to meet the demand.

State policymakers and other health care stakeholders can play an essential role in advancing these successful, high-value models of maternity care, supporting diverse maternity care teams and centering on culturally congruent care, to improve the health of mothers and infants – especially in communities suffering from deep inequities.

THE MATERNAL HEALTH CRISIS: TERRIBLE OUTCOMES AND DEEP INEQUITIES

The United States lags behind every other high-income country, with the highest rates of infant and maternal mortality. Between 1987 and 2016, pregnancy-related deaths more than doubled – from 7.2 to 16.9 deaths per 100,000 live births.³ Between 2006 and 2015, severe maternal morbidity, often reflecting a “near miss of dying,” rose by 45 percent, from 101.3 per 10,000 hospitalizations for birth to 146.6.⁴

In communities of color, the crisis is far greater. Compared to white non-Hispanic women, Black women are more than three times as likely – and Native women are more than twice as likely – to experience pregnancy-related deaths. Black, Hispanic, and Asian and Pacific Islander women disproportionately experience births with severe maternal morbidity relative to white non-Hispanic women.⁵ Additionally, there are geographic disparities: Rural residents have a 9 percent greater risk of severe maternal morbidity and mortality, compared with urban residents.⁶

Multiple factors contribute to maternal mortality and to racial, ethnic, and geographic disparities. These include: gaps in health coverage and access to care; unmet social needs, like transportation and time off from paid work for medical visits, and safe and secure housing; poor quality of care, including implicit and explicit bias; and structural and institutional racism in health care and community settings.⁷ The terrible impacts of these inequities are unfair and unconscionable, considering that 60 percent of pregnancy-related deaths are preventable.⁸ One strategy to prevent maternal mortality and severe morbidity is to increase access to high-quality, culturally and linguistically congruent, evidence-based maternity care.

High-Quality Models of Maternity Care



Midwifery Care

In nearly all nations, midwives provide first-line maternity care to childbearing people and newborns. However, in the United States, the vast majority of births are attended by obstetricians, while midwives attend only about 10 percent of births.⁹ In general, midwifery is a high-touch, low-tech approach to maternity care, based on the core understanding that childbearing for most women is a normal process to be monitored in case higher levels of care are needed. Midwifery emphasizes building a relationship of trust over time, promoting health, providing information that birthing people need to make their own informed care decisions, and tailoring care to individual needs and preferences. In contrast, the medicalized approach tends to be more pathology-focused and procedure-intensive, which may not always be needed or appropriate.¹⁰

There are three nationally recognized midwifery credentials with education programs recognized by the U.S. Department of Education. Certified nurse-midwives (CNMs) have completed a nursing degree in addition to their midwifery training. They are licensed to practice, and be Medicaid providers, in all jurisdictions. In the 1990s, two additional credentials were created: certified midwife (CM) and certified professional midwife (CPM). The CM educational program content and certification exams are the same as for CNMs, except that CMs are not required to hold a nursing degree. Both CNMs and

CMs practice in hospitals, birth centers, and in homes. The CPM training focuses on community birth (birth centers and homes).¹¹ At this time, seven states regulate CMs, and 34 states and the District of Columbia have a path to CPM licensure, with ongoing efforts for legal recognition in remaining states and U.S. territories. Medicaid reimburses CMs in just one state, and CPMs in 15 states.¹²

States that have more fully integrated midwifery care tend to have better birth outcomes. More integrated states (measured by indicators such as regulation of the profession, Medicaid payment for their

services, and the degree to which regulations allow them to practice autonomously) were more likely to report:

- Higher rates of physiologic childbearing;
- Lower rates of cesarean and other obstetric interventions;
- Lower risk of adverse newborn outcomes such as preterm birth, low birth weight, and infant mortality; and
- Increased breastfeeding both at birth and at six months postpartum.¹³

In light of the intractable maternal health crisis plaguing the country, investing more resources in training and supporting high-quality, high-value midwifery care is a powerful strategy for rapidly expanding access to high-quality maternity care services, especially considering that roughly one in three U.S. counties are considered maternity care deserts.¹⁴ Compared to the time and money it takes to train an obstetrician or family physician, midwives can be ready to serve pregnant people and their families more quickly and at a lower cost.¹⁵ This is especially important given how racial and ethnic inequities in maternal and infant health mirror educational and economic inequities.

In recent years, concerns about how maternity care is failing many childbearing people have escalated. Many, including those who have suffered tragic outcomes, have reported disrespectful care: being ignored,

having restricted choices, having concerns dismissed, and otherwise being mistreated.¹⁶ Midwives who provide racially centered or congruent care, which is likely to be considered physically and emotionally safe and integrate a focus on racial justice and combating inequity, can make a measurable difference for BIPOC families.¹⁷ Diversifying and supporting midwifery will enable more women of color to obtain high-quality care that mitigates the racism they experience in health care and beyond.¹⁸

Despite the clear value of midwifery care, especially to help solve the nation's maternal health crisis, its availability is limited. In 2016, 55 percent of U.S. counties did not have a practicing CNM.¹⁹ While many factors contribute to this shortage, most boil down to a lack of financial support. There is no systemic funding for midwifery education (like there is for medical residencies through Medicaid and Medicare Graduate Medical Education programs).²⁰ Payment for midwifery services is often inadequate, including through Medicaid, the largest payer of births in the country.²¹ Medicaid payment levels also vary widely, and the average payment for CNMs is just 65 percent of the CNM Medicare fee schedule rate.²² In addition, unnecessary restrictions that, for example, require these independent professionals to have physician supervision, curb their prescriptive authority, or limit their reimbursement, are associated with reduced midwifery practice, and thus appear to reduce women's access to midwifery care.²³



Community Birth: Birth Centers and Home Birth

While the vast majority of births in the United States occur in hospitals, demand is growing for alternatives outside of hospitals and within communities – both in birth centers and at home. Collectively known as “community birth,” these two options safely serve people with medically low-risk pregnancies who wish to have a physiologic childbirth, avoid the over-medicalization that is common in hospitals, retain more autonomy and control, and receive more personalized care.*

Birth center care differs in fundamental ways from care in hospitals. In addition to the standard clinical checks, significant time is invested in building relationships and trust, providing support and education, and answering questions. During labor and birth, birth centers provide care options not typically available in hospitals, allowing birthing persons to experience more freedom and autonomy. For example, birthing persons are encouraged to eat and drink if they want, have freedom of movement, and use non-pharmacologic tools for coping with labor challenges, including tubs, hot or cold compresses, and massage.²⁴ After birth, skin-to-skin contact and early breastfeeding initiation are highly encouraged and supported, and discharge to home typically occurs several hours after birth.

Home birth care also contrasts notably with hospital care, and it shares attributes with birth center care. While home births are a small fraction of births in the country, they are growing in popularity. About 85 percent of home births are planned. Most planned home births are attended by midwives, although some physicians do so as well. For most people, the values and preferences that guide their choice to birth at home are similar to those that move people to choose birth centers. In fact, some birth centers provide home birth as an option for their clients. Birthing at home in familiar surroundings can provide the maximum freedom and autonomy to have a physiologic birth. Midwives who attend home births bring needed tools and supplies to provide care similar to that provided in birth centers.²⁵

* It is important to note that these options are not appropriate for people with medically high-risk pregnancies who require specialized care, which are a smaller proportion of all births.

Community births are a very small – but rapidly growing – fraction of births in this country. From 2004 to 2017, community births rose by 85 percent,²⁶ with home births growing by 77 percent and birth center births more than doubling. This likely reflects both increasing interest, as well as loss of hospital maternity units in rural areas.²⁷ More recently, there is much anecdotal evidence that the COVID-19 pandemic is spurring an interest in these settings,²⁸ as people become increasingly concerned about avoiding exposure, and many hospitals have set hard limits on who birthing people can have with them during labor and birth.

Compared to hospitals, birthing in birth centers results in lower rates of cesarean birth, lower rates of episiotomy, and higher rates of intact perineum.²⁹ Serious complications are extremely rare, and the reviewed studies reported no incidents of maternal death.³⁰ Home birth care is associated with higher rates of breastfeeding initiation and exclusive breastfeeding six to eight weeks postpartum, compared to hospital care.³¹

Community birth is also more likely to offer respectful, individualized, and person-centered care.³² An integrative review of maternal outcomes in birth centers found that, compared to women birthing in hospitals, women birthing in birth centers reported greater satisfaction, greater likelihood of feeling that prenatal care elevated their self-esteem, and a desire to use this care model again.³³ Women birthing at home perceived increased control in the birthing process, avoiding common use of

pain medications, and being in a restful and comfortable setting as the benefits of not birthing in a hospital setting.³⁴ Community birth can also offer more opportunities for people of color to receive the additional benefits of racially congruent care that acknowledges a person’s cultural identity as central to the clinical encounter, upholds racial justice, fosters agency, and practices cultural humility.³⁵

In addition to being safe and promoting better health outcomes, community birth is also a good value. A review of the costs of birthing at home and in birth centers found that resource use was generally lower in community birth settings due to fewer interventions, shorter lengths of stay, or both.³⁶

Given this evidence, the benefits of community birth for medically low-risk pregnant people are clear. However, the many barriers to access to midwifery care, noted above, currently limit access to midwifery-led community birth as well. While the number of birth centers has been growing in the United States, 10 states and the U.S. territories do not have birth center licensure. Thus, this care option still does not exist in many communities.³⁷ Payment of CPM services by private insurance and Medicaid is uneven, as is payment of other midwives when practicing in community settings.³⁸ This lack of legal recognition and insurance coverage for community birth providers creates insurmountable financial barriers for many people who would otherwise choose to give birth in these settings. In 2017, only 3.4 percent of hospital births were paid out of pocket, but about two

in three (67.9 percent) planned home births, and one in three (32.2 percent) birth center births were self-pay.³⁹

Another reason for this mismatch between supply and demand is that Medicaid coverage pays for 42 percent of births in this country.⁴⁰ Medicaid payments are so

low that operating a birth center with a large proportion of Medicaid clients is not financially sustainable. As a result of financial barriers, those with greatest interest and who might especially benefit from this care model are the least able to choose it, so new payment models are needed.⁴¹



Doula Support

Doulas are advocates, empowering birthing people to achieve their desired birth experience and better outcomes. They provide information about childbirth, foster communication between women and members of the care team, and offer support for drug-free comfort during labor. They provide both practical and emotional support, and they help give the birthing person confidence and a sense of control.⁴² An extended model of doula support that begins during pregnancy helps build a trusting relationship, understand a woman's preferences, and prepare for birth.⁴³ Continued support after birth can help with myriad postpartum challenges, including recovery, newborn care, and changing family dynamics.

Initially, doulas focused on supporting women around the time of birth and were only available to women who could pay for their services out of pocket. The private-pay postpartum doula role was also created to support women with recovery from birth, breastfeeding, household chores, and other needs after birth.

More recently, as a response to the spiraling maternal health crisis and recognition of

the extreme impact of racism on health, a community-based approach to doula support has been developed to help meet the particular needs of birthing people and families from communities of color and other marginalized groups. This model tends to provide culturally congruent, trauma-informed support that extends from pregnancy through birth and into the postpartum period. Many community-based organizations offer doula training that, in

addition to covering the practical skills and knowledge needed to provide physical, emotional, and informational support, also focus on birth justice and mitigating the harmful effects of racism and systemic oppression. Financial support for this model varies, but rarely includes either public or private insurance. Bills have been filed in many states to provide more reliable financing, especially through Medicaid.⁴⁴

The benefits of continuous support given by doulas, hospital staff, and members of a woman's social network include higher rates of satisfaction with the childbirth experience, lower rates of using pain medications, and greater likelihood of vaginal births with neither vacuum nor forceps.⁴⁵ Evidence also shows that doula support is a high-value service. A series of cost analyses have concluded that Medicaid coverage of doula services would likely yield a favorable return on investment.⁴⁶

Doulas help communicate women's preferences and needs to clinicians, and in turn translate medical information to women, helping women feel heard and empowered. A qualitative synthesis found that women value doulas' assistance during labor as sources of both information and myriad non-pharmacologic approaches to comfort and coping. This support contributes to a positive birth experience and feelings of safety, strength, confidence, and security. By contrast, women without a labor companion may feel alone, vulnerable,

stressed, afraid, and isolated. Women without a companion also may be more vulnerable to mistreatment, neglect, and poor communication.⁴⁷

A study of women from under-resourced communities who received community-based doula services found that 91 percent felt that their labor and birth experience was improved, and 87 percent would use a doula again.⁴⁸ In particular, community-based doulas can be advocates for immigrant, refugee, and foreign-born women, and help them feel confident and have a positive experience. BIPOC doulas are well positioned and highly motivated to support women from their own racial, ethnic, and cultural communities, leveraging cultural knowledge and understanding. BIPOC doulas recognize the biases incorporated into the health care system and can provide culturally congruent support that helps mitigate the impact of racism. They can also connect women with the social and community services they need.⁴⁹ In addition to helping women navigate maternity services, doulas who support marginalized women may help improve life circumstances, services that are not reliably available to women with usual care.⁵⁰

Despite their value, doula services remain out of reach for many, because most public and private insurers do not consistently pay for them. State policymakers have an important opportunity to make these quality-enhancing services more available.



Community-Led Perinatal Health Worker (CPHW) Groups: A Promising Hybrid Model

Standard approaches to maternity services are failing BIPOC and other under-resourced communities. A growing number of CPHW groups have been established organically across the country, responding to the dearth of high-quality, respectful, trustworthy, culturally centered, language-accessible maternity care options in BIPOC communities struggling with maternal and infant health inequities.⁵¹ Typical maternity care often undermines the agency and health of BIPOC people in many ways, including the over-medicalization of maternity care and persistent interpersonal, institutional, and structural racism within the medical establishment. We must trust and support community-led efforts to build on existing relationships, that ground care in an authentic understanding of the priorities, needs, and barriers families face, and design and provide individualized, respectful, culturally tailored care.

CPHW organizations generally offer a wide range of support services, including doulas, lactation support, mental health support, and health care and social services navigation. Many also provide clinical services, such as midwifery and birth center care. Frequently, they create programs to address unmet community needs, such as long-term parenting support for young families. Many offer birth worker training tailored to their communities. Furthermore, their explicit focus on dignity and respect and on mitigating and dismantling racism and discrimination enables them to understand their clients' intersectional

identities (such as race, ethnicity, gender, sexual orientation) and alleviate the toxic stress and trauma they may experience, both in engaging with the health care system and in their daily lives.⁵²

As community-based organizations, CPHW groups' impact extends beyond the improved health of the families they serve directly, to broader community development. They provide new services, educational opportunities, and employment; strengthen families; improve health literacy and agency; and mitigate the harmful effects of racism and other forms of oppression.⁵³



While few CPHW groups have been evaluated as complex interventions, incorporating multiple evidence-based services such as midwifery care, birth center care, and doula support may have powerful synergistic effects. For example, one case study of one CPHW group, Commonsense Childbirth, documented greatly improved outcomes with regard to cesareans, preterm births, low birthweight, and breastfeeding, among others.⁵⁴

Unfortunately, the wider adoption of CPHW organizations has been challenging because there are not yet clear, reliable sources of financial support. If reimbursable clinical services are provided, payments may be

spread to also provide modest support to non-clinical services. However, given the high-touch, resource-intensive support they provide families, there are practical limits to how many families CPHW groups can serve. At present, just a fraction of the childbearing families that might benefit from this model of care have access to it.⁵⁵ A reliable source of funding is needed to provide communities who seek to establish CPHW programs and unleash the wisdom, vision, leadership, and power to provide the comprehensive, culturally congruent, language-accessible, high-quality care BIPOC communities need to achieve healthier moms and babies.

Recommendations for State Decisionmakers

State decisionmakers have an essential role to play in addressing the maternal health crisis and supporting evidence-based models that improve maternity care. State decisionmakers should:

1. Enact necessary licensure in remaining jurisdictions for CMs, CPMs, and birth centers.
2. Ensure that midwives with nationally recognized credentials are paid at the same level as physicians for the same service.
3. Ensure that state Medicaid and CHIP programs pay for:
 - Services provided by CMs and CPMs.
 - Facility fees of licensed birth centers and professional fees of midwives with nationally recognized credentials practicing in licensed birth centers.
 - Home births attended by midwives with nationally recognized credentials.
 - Doula support, including for extended model support and aid for specific segments (e.g., birth doula) as desired by women.
4. Amend unnecessarily restrictive midwifery practices to enable midwives to work “at the top of their license” according to their full competencies and education.
5. Provide payment for extended doula support at a level that sustainably provides them with a living wage, and can help attract and retain these critically important birth workers.
6. Ensure that doula training is tailored to the specific needs of the Medicaid population (including trauma-informed care, maternal mood disorders, intimate partner violence, and systemic racism).
7. Promote racial, ethnic, and language diversity in the doula workforce that better aligns with the childbearing population covered by Medicaid and CHIP.
8. Pursue partnerships with community-based perinatal health worker groups, using Medicaid levers such as value-based contracts, managed care organization regulations, and state plan amendments.

The Time to Act Is Now!

The U.S. maternal and infant health crisis requires urgent action, and luckily, we know what works. Midwifery care, community birth, doula support, and the services of community-based perinatal health groups are examples of proven solutions to many of the failings of usual maternity care. Inequitable, disrespectful, inaccessible, costly approaches are not delivering on quality, experiences, and outcomes.

Especially as the twin pandemics of COVID-19 and structural and interpersonal racism make birthing in this country even riskier for many people, we must invest in what we know works, and quickly scale these models.

The evidence is clear: Moms and babies will be healthier if more families are able to access these types of care. We will have fewer premature and underweight babies. We will have fewer cesarean births, including for women with a history of cesareans. More babies and mothers will enjoy the long-term emotional and health benefits of breastfeeding. We will see concrete progress toward eliminating our country's intractable racial and ethnic maternal and infant health inequities.

Less tangible, but no less important, is the models' potential to instill confidence, agency, and empowerment at this crucial time of transformation in women's lives. They are more likely



to provide respectful, attentive, dignifying, relationship-based, culturally congruent care and invest heavily in health-promoting prenatal and postpartum care and support.

As we work to transform the maternity care system, midwifery care, community birth, doula support, and the services of community-based perinatal health groups must be central to solving for quality, value, and equity. Most importantly, they help us achieve healthier families.

We can't afford to wait. It is past time for state decisionmakers to take action.

Endnotes

¹ Julia Belluz. “We Finally Have a New U.S. Maternal Mortality Estimate. It’s Still Terrible,” *Vox*, January 30, 2020, <https://www.vox.com/2020/1/30/21113782/pregnancy-deaths-us-maternal-mortality-rate>

² National Partnership for Women & Families. “Maternity Care in the United States: We Can – and Must – Do Better,” February 2020, <https://www.nationalpartnership.org/our-work/resources/health-care/maternity-care-in-the-united.pdf>

³ “Pregnancy Mortality Surveillance System.” Centers for Disease Control and Prevention. Revised February 4, 2020. <https://www.cdc.gov/reproductivehealth/maternal-mortality/pregnancy-mortality-surveillance-system.htm>

⁴ Kathryn R. Fingar, Megan M. Hambrick, Kevin C. Heslin, and Jennifer E. Moore. “Trends and Disparities in Delivery Hospitalizations Involving Severe Maternal Morbidity, 2006–2015,” *Healthcare Cost and Utilization Project*, September, 2018, <https://hcup-us.ahrq.gov/reports/statbriefs/sb243-Severe-Maternal-Morbidity-Delivery-Trends-Disparities.jsp>

⁵ National Partnership for Women & Families. “Maternity Care in the United States: We Can – and Must – Do Better,” February 2020, <https://www.nationalpartnership.org/our-work/resources/health-care/maternity-care-in-the-united.pdf>; Howell, Elizabeth A. “Reducing Disparities in Severe Maternal Morbidity and Mortality,” *Clinical Obstetrics and Gynecology*, July 29, 2020, <https://doi.org/10.1097/GRF.0000000000000349>

⁶ Katy Backes Kozhimannil, Julia D. Interrante, Carrie Henning-Smith, and Lindsay K. Admon. “Rural-Urban Differences in Severe Maternal Morbidity and Mortality in the U.S., 2007–15,” *Health Affairs*, December 2019, <https://doi.org/10.1377/hlthaff.2019.00805>

⁷ E.E. Petersen, N.L. Davis, D. Goodman, et al. “Racial/Ethnic Disparities in Pregnancy-Related Deaths: United States, 2007–2016,” *Morbidity and Mortality Weekly Report*, September 6, 2019, https://www.cdc.gov/mmwr/volumes/68/wr/mm6835a3.htm?s_cid=mm6835a3_w

⁸ Wanda Barfield, William M. Callaghan, Shanna Cox, Nicole L. Davis, David Goodman, Emily Johnston, Nikki Mayes, et al. “Vital Signs: Pregnancy-Related Deaths, United States, 2011–2015, and Strategies for Prevention, 13 States, 2013–2017,” *MMWR*, May 10, 2019, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6542194/>

⁹ National Vital Statistics Reports. “Births: Final Data for 2018,” November 27, 2019, https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_13_tables-508.pdf

¹⁰ Midwives Alliance of North America. “The Midwives Model of Care,” accessed August 24, 2020, <https://mana.org/about-midwives/midwifery-model>

¹¹ National Academies of Sciences, Engineering, and Medicine. *Birth Settings in America: Outcomes, Quality, Access, and Choice*. (Washington, DC: The National Academies Press, 2020), <https://doi.org/10.17226/25636>

¹² CM regulation and reimbursement information: Karen Jefferson, personal communication, August 2020. CPM regulation and reimbursement information: Mary Lawlor, personal communication, August 2020.

¹³ Saraswathi Vedam, Kathrin Stoll, Marian MacDorman, Eugene Declercq, Renee Cramer, Melissa Cheyney, Timothy Fisher, et al. “Mapping Integration of Midwives Across the United States: Impact on Access, Equity, and Outcomes,” *Plos One*, February 21, 2018, <https://doi.org/10.1371/journal.pone.0192523>

¹⁴ March of Dimes. “Nowhere to Go: Maternity Care Deserts Across the U.S.,” 2018, marchofdimes.org/materials/Nowhere_to_Go_Final.pdf

¹⁵ Jesse S. Bushman. “The Role of Certified Nurse-Midwives and Certified Midwives in Ensuring Women’s Access to Skilled Maternity Care,” *American College of Nurse-Midwives*, November 2015, https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKewi_1P-ck6vrAhXlI3IEHYjWBJUQFjABegQIARAC&url=http%3A%2F%2Fwww.midwife.org%2Ffacnm%2Ffiles%2FclibraryFiles%2Ffilename%2F000000005794%2FMaternityCareWorkforce-11-18-15.pptx&usq=AOvVaw2eGIDudt-voBqk65Yy_C_V

¹⁶ Rose L. Molina, Suha J. Patel, Jennifer Scott, Julianna Schantz-Dunn, and Nawal M. Nour. “Striving for

Respectful Maternity Care Everywhere,” *Maternal Child Health Journal*, September 2016, doi.org/10.1007/s10995-016-2004-2

¹⁷ J. Almanza, J. Karbeah, K.B. Kozhimannil, and R. Hardeman. “The Experience and Motivations of Midwives of Color in Minnesota: Nothing for Us without Us,” *Journal of Midwifery & Women’s Health*, 2019, <https://doi.org/10.1111/jmwh.13021>; L. Guerra-Reyes and L.J. Hamilton. “Racial Disparities in Birth Care: Exploring the Perceived Role of African-American Women Providing Midwifery Care and Birth Support in the United States,” *Women and Birth*, 2017, <https://doi.org/10.1016/j.wombi.2016.06.004>

¹⁸ Jyeshtha Wren Serbin and Elizabeth Donnelly. “The Impact of Racism and Midwifery’s Lack of Racial Diversity: A Literature Review,” *Journal of Midwifery & Women’s Health*, December 7, 2016, <https://doi.org/10.1111/jmwh.12572>

¹⁹ March of Dimes. “Nowhere to Go: Maternity Care Deserts Across the U.S.,” 2018, marchofdimes.org/materials/Nowhere_to_Go_Final.pdf

²⁰ American College of Nurse-Midwives. “Midwifery and Addressing the Shortage of Maternal Care Providers,” accessed August 25, 2020, <http://www.midwife.org/acnm/files/ccLibraryFiles/Filename/000000005444/MidwiferyAndShortages2.pdf>

²¹ —. “Medicaid Fee-for-Service Reimbursement Rates for CNMs and CMs as of September 2013,” 2012, <https://www.midwife.org/ACNM/files/ccLibraryFiles/Filename/000000003389/091713%20ACNM%20Compilation%20Medicaid%20Fee%20for%20Service%20Rates.pdf>

²² —. “Variations in 2015 Medicaid CNM/CM Reimbursement for Normal Vaginal Delivery (CPT 59400): How Attractive Is Your State to These High Value Providers?” accessed August 25, 2020, <https://www.midwife.org/acnm/files/ccLibraryFiles/Filename/000000005129/MedicaidPayment-CPT59400.pdf>

²³ Y. Tony Yang and Katy B. Kozhimannil. “Making a Case to Reduce Legal Impediments to Midwifery

Practice in the United States,” *Women’s Health Issues*, 2015, <https://doi.org/10.1016/j.whi.2015.03.006>; Y. Tony Yang, Laura B. Attanasio, and Katy B. Kozhimannil. “State Scope of Practice Laws, Nurse-Midwifery Workforce, and Childbirth Procedures and Outcomes,” *Women’s Health Issues*, 2016, <https://doi.org/10.1016/j.whi.2016.02.003>

²⁴ National Academies of Sciences, Engineering, and Medicine. *Birth Settings in America: Outcomes, Quality, Access, and Choice*. (Washington, DC: The National Academies Press, 2020), <https://doi.org/10.17226/25636>.

²⁵ Ibid.

²⁶ M.F. MacDorman and E. Declercq. “Trends and State Variations in Out-of-Hospital Births in the United States, 2004-2017,” *Birth*, 2019, <https://doi.org/10.1111/birt.12411>

²⁷ K.B. Kozhimannil, P. Hung, C. Henning-Smith, M.M. Casey, and S. Prasad. “Association Between Loss of Hospital-Based Obstetric Services and Birth Outcomes in Rural Counties in the United States,” *JAMA*, 2018, <https://doi.org/10.1001/jama.2018.1830>

²⁸ Robbie Davis-Floyd, Kim Gutschow, and David A Schwartz “Pregnancy, Birth and the COVID-19 Pandemic in the United States,” *Medical Anthropology*, May 14, 2020, <https://doi.org/10.1080/01459740.2020.1761804>

²⁹ Jill Alliman and Julia C. Phillippi. “Maternal Outcomes in Birth Centers: An Integrative Review of the Literature,” *Journal of Midwifery & Women’s Health*, January/February 2016, <https://doi.org/10.1111/jmwh.12356>

³⁰ Ibid.

³¹ National Academies of Sciences, Engineering, and Medicine. *Birth Settings in America: Outcomes, Quality, Access, and Choice*. (Washington, DC: The National Academies Press, 2020), <https://doi.org/10.17226/25636>

³² Dorothy Shaw, Jeanne-Marie Guise, Neel Shah, Kristina Gemzell-Danielsson, K.S. Joseph, Barbara Levy, Fontayne Wong, *et al.* “Drivers of Maternity Care in High-Income Countries: Can Health Systems Support Woman-Centered Care?” *The Lancet*, November 5, 2016, _

[https://doi.org/10.1016/S0140-6736\(16\)31527-6](https://doi.org/10.1016/S0140-6736(16)31527-6)

³³ Jill Alliman and Julia C. Phillippi. "Maternal Outcomes in Birth Centers: An Integrative Review of the Literature," *Journal of Midwifery & Women's Health*, 2016, <https://doi.org/10.1111/jmwh.12356>

³⁴ Kelly Ackerson, Lisa Kane Low, and Ruth Zielinski. "Planned Home Birth: Benefits, Risks, and Opportunities," *International Journal of Women's Health*, April 8, 2015, <https://doi.org/10.2147/IJWH.S55561>

³⁵ J. Karbeah, R. Hardeman, J. Almanza, and K.B. Kozhimannil. "Identifying the Key Elements of Racially Concordant Care in a Freestanding Birth Center," *Journal of Midwifery & Women's Health*, 2019, <https://doi.org/10.1111/jmwh.13018>

³⁶ J. Henderson and S. Petrou. "Economic Implications of Home Births and Birth Centers: A Structured Review," *Birth*, 2008, <https://doi.org/10.1111/j.1523-536X.2008.00227.x>

³⁷ National Academies of Sciences, Engineering, and Medicine. *Birth Settings in America: Outcomes, Quality, Access, and Choice*. (Washington, D.C.: The National Academies Press, 2020), <https://doi.org/10.17226/25636>

³⁸ *Ibid.*

³⁹ *Ibid.*

⁴⁰ Women's Health Policy. "Medicaid's Role for Women," March 28, 2019, <https://www.kff.org/womens-health-policy/fact-sheet/medicaids-role-for-women/>

⁴¹ Jill Alliman and Kate Bauer. "Next Steps for Transforming Maternity Care: What Strong Start Birth Center Outcomes Tell Us," *Journal of Midwifery & Women's Health*, April 11, 2020, <https://doi.org/10.1111/jmwh.13084>

⁴² M.A. Bohren, B.O. Berger, H. Munthe-Kaas, and Ö. Tunçalp. "Perceptions and Experiences of Labour Companionship: A Qualitative Evidence Synthesis." *Cochrane Database of Systematic Reviews*, 2019, <https://doi.org/10.1002/14651858.CD012449.pub2>

⁴³ *Ibid.*

⁴⁴ National Health Law Program. "Doula Medicaid Project," accessed August 31, 2020, <https://healthlaw.org/doulamedicaidproject/>

⁴⁵ M.A. Bohren, G.J. Hofmeyr, C. Sakala, R.K. Fukuzawa, and A. Cuthbert. "Continuous Support for Women During Childbirth." *Cochrane Database of Systematic Reviews*, 2017, <https://doi.org/10.1002/14651858.CD003766.pub6>

⁴⁶ Katy B. Kozhimannil, Rachel R. Hardeman, Fernando Alarid-Escudero, Carrie A. Vogelsang, Cori Blauer-Peterson, and Elizabeth A. Howell. "Modeling the Cost-Effectiveness of Doula Care Associated with Reductions in Preterm Birth and Cesarean Delivery," *Birth*, March 2016, <https://doi.org/10.1111/birt.12218>; Katy Backes Kozhimannil, Rachel R. Hardeman, Laura B. Attanasio, Cori Blauer-Peterson, and Michelle O'Brien. "Doula Care, Birth Outcomes, and Costs Among Medicaid Beneficiaries," *American Journal of Public Health*, April 2013, <https://doi.org/10.2105/AJPH.2012.301201>; Will Chapple, Amy Gilliland, Dongmei Li, Emily Shier, and Emily Wright. "An Economic Model of the Benefits of Professional Doula Labor Support in Wisconsin Births," *WMJ*, April 2013, <https://wmjonline.org/wp-content/uploads/2013/112/2/58.pdf>; Karen S. Greiner, Alyssa R. Hersh, Sally R. Hersh, Jesse M. Remer, Alexandra C. Gallagher, Aaron B. Caughey, and Ellen L. Tilden. "The Cost-Effectiveness of Professional Doula Care for a Woman's First Two Births: A Decision Analysis Model," *Journal of Midwifery & Women's Health*, July 2019, <https://doi.org/10.1111/jmwh.12972>.

⁴⁷ Meghan A. Bohren, Blair O. Berger, Heather Munthe-Kaas, Özge Tunçalp, and Cochrane Effective Practice and Organisation of Care Group. "Perceptions and Experiences of Labour Companionship: A Qualitative Evidence Synthesis," *Cochrane Database of Systematic Reviews*, March 2019, <https://doi.org/10.1002/14651858.CD012449.pub2>

⁴⁸ Lynn Deitrick and Patrick Draves. "Attitudes towards Doula Support during Pregnancy by Clients, Doulas, and Labor-and-Delivery Nurses: A Case Study from Tampa, Florida," *Human Organization*, Winter 2008, <https://www.jstor.org/stable/44127804>

⁴⁹ Kristina Wint, Thistle I. Elias, Gabriella Mendez, Dara

D. Mendez, and Tiffany L. Gary-Webb. "Experiences of Community Doulas Working with Low-Income, African American Mothers," *Health Equity*, April 8, 2019, <https://doi.org/10.1089/heq.2018.0045>

⁵⁰ Katy B. Kozhimannil, Carrie A. Vogelsang, Rachel R. Hardeman, and Shailendra Prasad. "Disrupting the Pathways of Social Determinants of Health: Doula Support during Pregnancy and Childbirth," *Journal of the American Board of Family Medicine*, May-June 2016, <https://www.jabfm.org/content/jabfp/29/3/308.full.pdf>

⁵¹ Groundswell Fund. "Birth Justice Fund Docket 2019," <https://groundswellfund.org/birth-justice-fund/>

⁵² National Partnership for Women & Families. "Tackling Maternal Health Disparities: A Look at Four Local Organizations with Innovative Approaches," 2019, <https://www.nationalpartnership.org/our-work/resources/health-care/maternity/tackling-maternal-health-disparities-a-look-at-four-local-organizations-with-innovative-approaches.pdf>

⁵³ *Ibid.*

⁵⁴ Sakala, Carol, Hernández-Cancio, Sinsi, Coombs, Sarah, et al. "Improving Our Maternity Care Now Four Care Models Decisionmakers Must Implement for Healthier Moms and Babies." The National Partnership for Women and Families, September 2020. <https://www.nationalpartnership.org/our-work/resources/health-care/maternity/improving-our-maternity-care-now.pdf>

⁵⁵ *Ibid.*



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Check out the complete report for a full discussion of these models and key recommendations for other decisionmakers:

<https://www.nationalpartnership.org/our-work/health/maternity/improving-our-maternity-care.html>



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