



Report of the Special
Commission on

RACIAL INEQUITIES IN MATERNAL HEALTH

COMMONWEALTH OF MASSACHUSETTS

About the Special Commission on Racial Inequities in Maternal Health

The Special Commission on Racial Inequities in Maternal Health was created by a legislative act signed by Governor Charlie Baker in January 2021. The 28-member body's charge was to investigate and study methods to reduce racial inequities in maternal health.

This is the final report of the Special Commission on Racial Inequities in Maternal Health.

The report, executive summary, and other information about the Commission are available on the General Court of the Commonwealth of Massachusetts website at:

<https://malegislature.gov/Commissions/Detail/539>

MAY 2022

TABLE OF CONTENTS

Special Commission Members	02
Acknowledgments	03
List of Acronyms	04
Executive Summary	05
Introduction	08
1 Family and Community Engagement	10
<i>Family and Community Engagement, Call to Action</i>	22
<i>Family and Community Engagement, Task Force Call to Action</i>	25
2 Public Health Infrastructure	26
<i>Public Health Infrastructure, Call to Action</i>	36
3 Healthcare Systems Improvement	41
<i>Healthcare Systems Improvement, Call to Action</i>	52
Conclusion	53
Sources	54
Appendices	58
A. <i>Chapter 348 of Acts of 2020</i>	59
B. <i>Participants in Stakeholder Listening Sessions</i>	61
C. <i>Glossary of Terms</i>	64
D. <i>Directory of Organizations</i>	65
E. <i>H.2341/S1519 Fact Sheet</i>	67
F. <i>H.3881 Fact Sheet</i>	69

Special Commission on Racial Inequities in Maternal Health

HOUSE AND SENATE CHAIRS OF THE JOINT COMMITTEE ON PUBLIC HEALTH

Representative Marjorie Decker,
25th Middlesex District

Senator Jo Comerford, *Hampshire, Franklin, and Worcester District*

CHAIR OF THE MASSACHUSETTS BLACK AND LATINO LEGISLATIVE CAUCUS (DESIGNEE)

Representative Liz Miranda,
5th Suffolk District

COMMISSIONER OF THE DEPARTMENT OF PUBLIC HEALTH (DESIGNEE)

Dr. Hafsatou Fifi Diop, *MD, MPH*

EXECUTIVE DIRECTOR OF THE HEALTH POLICY COMMISSION (DESIGNEE)

Jasmine Bland, *MPH*

APPOINTMENTS BY THE HOUSE AND SENATE CHAIRS OF THE JOINT COMMITTEE ON PUBLIC HEALTH

Member of the Massachusetts Maternal Mortality and Morbidity Review Committee

Dr. Allison Bryant, *MD, MPH*

Member of the Massachusetts Medical Society who shall specialize in childbirth or maternal health, including, but not limited to, obstetrics and gynecology, maternal-fetal medicine, or family medicine

Dr. Charles Anderson, *MD, MPH, MBA, President & CEO, Dimock Center*

Member of the Massachusetts Chapter of the American College of Obstetricians and Gynecologists who shall specialize in childbirth or maternal health, including, but not limited to, obstetrics and gynecology, maternal-fetal medicine, or family medicine

Dr. Teju Adegoke, *MD*

Member of the Massachusetts affiliate of American College of Nurse-Midwives

Susan J. Hernandez, *CNM, MSN, FACNM*

Member of the Perinatal-Neonatal Quality Improvement Network of Massachusetts

Dr. Audra Meadows, *MD, MPH, FACOG, Co-Director, PNQIN MA*

Member of the Ellen Story Commission on Postpartum Depression

Dr. Leena P Mittal, *MD, FACLP*

Member of the Massachusetts COVID-19 Maternal Equity Coalition who is a public health professional specializing in racial inequities in maternal health

Dr. Ndidiamaka Amutah-Onukagha, *PhD, MPH, Founder and Director, MOTHER Lab™*

Medical professional who practices in a birthing center working with women who experience high or disparate rates of maternal mortality or severe maternal morbidity

Ginny Miller, *CNM, Co-owner, Seven Sisters Midwifery and Community Birth Center. She services a significant number of Medicaid clients and many birthing people who despite being low risk, typically*

experience higher rates of maternal mortality or severe morbidity. Through the midwifery model of care, evidence-based practice and awareness of the diverse needs of the community, her practice is working to demonstrate that better outcomes are achievable.

Doula from the Birth Sisters Program at Boston Medical Center

Linda Spencer

Certified Professional Midwife from Sister Soul Midwifery, LLC

Stephanie Johnson, *DEM, CLC, CBE*

Representative of the Bridges to Moms Program at Healthcare Without Walls, Inc.

Dr. Jo-Anna Rorie, *PhD, MSN, MPH, CNM*

Representative of the Resilient Sisterhood Project, Inc.

Lilly Marcelin, *Executive Director*

Representative of Quietly United in Loss Together Corporation

Nneka Hall, *Founder*

Representative of the Commonwealth Mental Health & Wellness Center, Inc.

Leah Randolph, *Executive Director*

A person who identifies as a father who belongs to a community that experiences high or disparate rates of maternal mortality or severe maternal morbidity

Dr. Charles C. Daniels, Jr., *LICSW, M.Div., PhD, Co-founder & CEO, Fathers' Uplift, Inc.*

A parent whose partner has experienced maternal mortality or severe maternal morbidity and belongs to a community that

experiences high or disparate rates of maternal mortality or severe maternal morbidity

Robert Saba

Member of the Massachusetts COVID-19 Maternal Equity Coalition who is a maternal peer recovery coach working with women who experience high or disparate rates of maternal mortality or severe maternal morbidity

Soraya DosSantos, a member of the Southcoast Massachusetts region that is an expert in maternal health and postpartum care

Member from communities that experience high or disparate rates of maternal mortality or severe maternal morbidity

Glorimar Irizarry, Program Director for Children and Adolescents, Holyoke Health Center

Member from communities that experience high or disparate rates of maternal mortality or severe maternal morbidity

Morgan Taylor, MPA, Assistant Director of the Boston Healthy Start Initiative

Member from communities that experience high or disparate rates of maternal mortality or severe maternal morbidity

Dr. Craig S. Andrade, RN, MPH, DrPH, Associate Dean for Practice/Activist Lab Director at Boston University School of Public Health

Medical professional who shall specialize in pediatrics

Dr. Renée Boynton-Jarrett, MD, ScD, Associate Professor of Pediatrics, Boston Medical Center/ Boston University School of Medicine and Founding Director, Vital Village Networks

APPOINTMENTS BY THE GOVERNOR

A person who has lost an immediate family member because of maternal mortality and belongs to a community that experiences high or disparate rates of maternal mortality or severe maternal morbidity

Donnette McManus

A person who has experienced severe maternal morbidity and belongs to a community that experiences high or disparate rates of maternal mortality or severe maternal morbidity

Angela Middleton

CORE WORKING GROUP

Dr. Ndidi Amutah-Onukagha
Dr. Renée Boynton-Jarrett
Sen. Jo Comerford
Dr. Charles Daniels
Rep. Marjorie Decker
Dr. Hafsatou Fifi Diop
Dr. Audra Meadows
Angela Middleton
Rep. Liz Miranda

Family and Community Engagement Working Group

Dr. Renée Boynton-Jarrett
Dr. Charles Daniels, Jr.
Soraya DosSantos
Donnette McManus
Rep. Liz Miranda
Morgan Taylor
Robert Saba

Public Health Infrastructure Working Group

Dr. Craig Andrade
Sen. Jo Comerford
Dr. Hafsatou Fifi Diop
Soraya DosSantos
Dr. Leena Mittal
Leah Randolph
Morgan Taylor

Healthcare Systems Improvement Working Group

Dr. Teju Adegoke
Dr. Ndidi Amutah-Onukagha
Dr. Charles Anderson
Jasmine Bland
Dr. Allison Bryant
Susan Hernandez
Glorimar Irizarry
Donnette McManus
Dr. Audra Meadows
Angela Middleton
Dr. Leena Mittal
Ginny Miller
Leah Randolph
Dr. Jo-Anna Rorie
Linda Spencer

ACKNOWLEDGEMENTS

The Special Commission on Racial Inequities in Maternal Health is grateful to the many individuals and organizations that contributed their time, talents, expertise, and resources:

Dr. Vanessa Nicholson, DrPH, MPH, Chief Report Editor and Lead Technical Writer

Olga Vanegas, Report Designer

Dr. Sharma Joseph, MD

Staff of Representative Marjorie Decker, Senator Jo Comerford, and Representative Liz Miranda

Kate Alicante, MPH, Research Analyst for the Joint Committee on Public Health and Staff Lead for the Commission

Legislative Information Services

Reproductive Equity Now, formerly NARAL Pro Choice

Maternal Health Working Group
led by the Boston Public Health Commission

LIST OF ACRONYMS

ASL	American Sign Language
CBHC	Community Behavioral Health Center
ASD/IDD	Autism Spectrum Disorder/Intellectual or Developmental Disability
CAPTA	Child Abuse Prevention and Treatment Act
CARA	Comprehensive Addiction and Recovery Act
CDC	Centers for Disease Control and Prevention
CNM	Certified Nurse Midwife
CPM	Certified Professional Midwife
L&D	Labor and Delivery
MDPH	Massachusetts Department of Public Health
MMMRC	Maternal Mortality & Morbidity and Review Committee
MPQC	Massachusetts Perinatal Quality Collaborative
NeoQIC	Neonatal Quality Improvement Collaborative
PELL	Pregnancy to Early Life Longitudinal data system
PNQIN	Perinatal Neonatal Quality Improvement Network of Massachusetts
POC	People of Color
PRAMS	Pregnancy Risk Assessment Monitoring System
SMM	Severe Maternal Morbidity

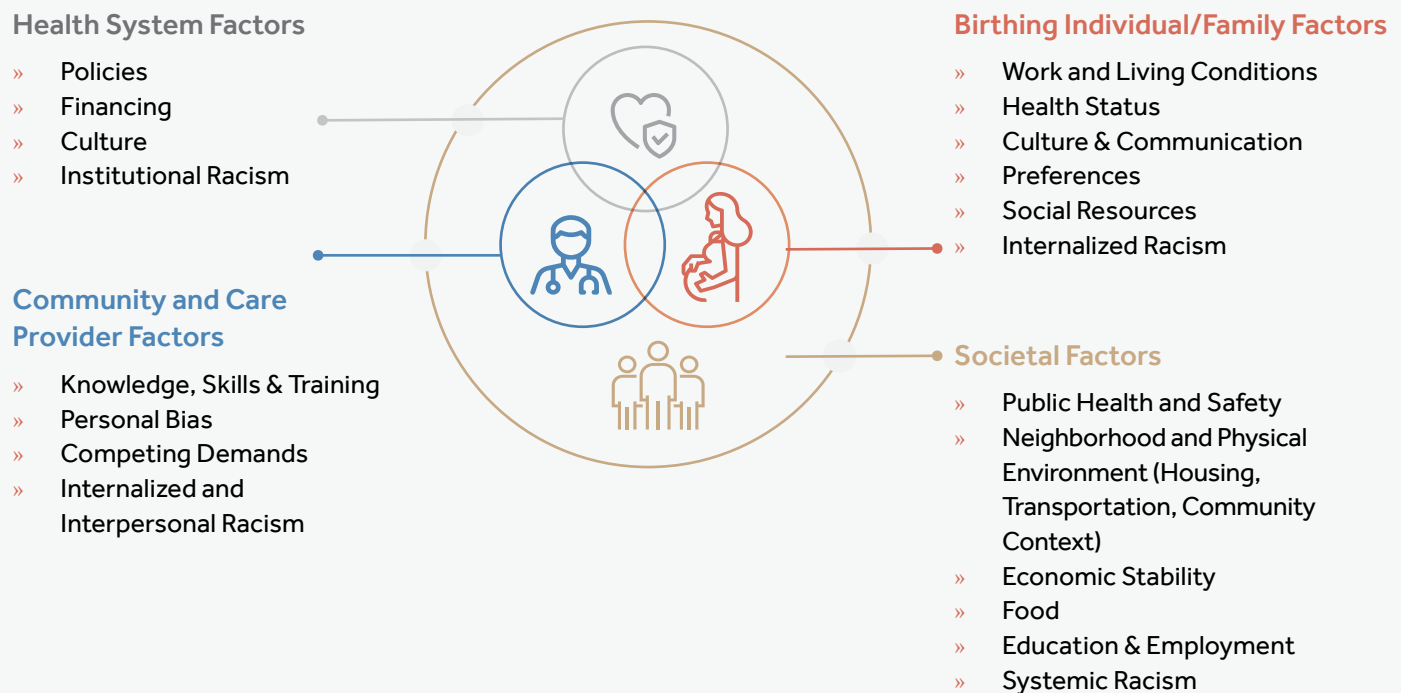
CURRENT STATE OF RACIAL EQUITY IN MATERNAL HEALTH IN MASSACHUSETTS

The purpose of this report is to highlight the need to improve maternal health outcomes and experiences for the historically and currently most vulnerable residents in the state of Massachusetts, with a particular attention on racial inequities. Racial inequities are apparent on a multi-systems level and have over time exacerbated maternal health disparities. These inequities are widening the gap between White birthing people compared to Black and People of Color (POC) birthing people in the same state. Throughout the report, commission members have included findings, recommendations, and established calls to action. The calls to action prompt legislative leaders to implement and enforce these changes to optimize maternal health. Personal stories and commentary are also featured as they provide further insight into some of the challenges that birthing people (including birthing mothers), their partners, and providers have witnessed and endured at all stages of pregnancy, including postpartum. Some have been burdened with years-long lasting effects of these traumatic experiences.

Over a one-year period, stakeholders including elected officials, experts in the maternal health field, and community members came together to discuss the current state of racial equity and inequity regarding maternal health in the state of Massachusetts (**See Appendix A**). The purpose of these meetings was to identify and understand the magnitude of maternal health inequity associated with structural racism and to collaboratively establish suggested solutions that would help inform policy initiatives. The meetings were conducted in the form of listening sessions as people and families shared their personal stories on their birthing experiences (**See Appendix B**). The working group structure for the commission is based on the framework of factors that influence care experiences and outcomes related to health systems, community and provider factors, individual and family factors, and societal factors. The framework recognizes and asserts that the target of interventions should not be individuals but instead systems of care in health, public health, and communities. As the framework applies to the maternal health crisis, natural workgroups emerged that included **family and community engagement, public health infrastructure, and healthcare improvement**.

Dr. Vanessa J. Nicholson, DrPH, MPH, Chief Report Editor and Lead Technical Writer
Assistant Professor, Department of Public Health & Community Medicine
Tufts University School of Medicine
Boston, MA

FIGURE 1 Factors that Influence Maternal Care Experience, Outcomes, and Inequities



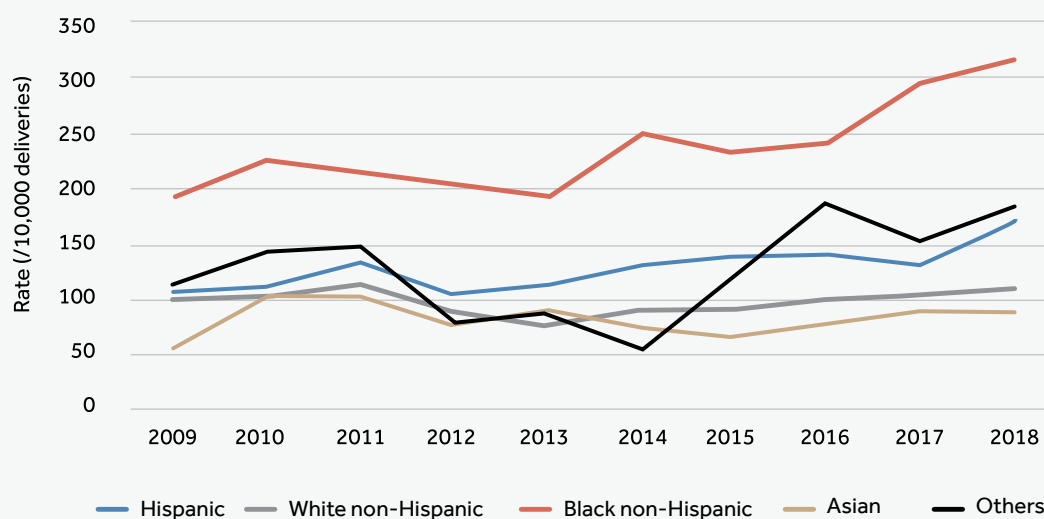
Sources: 1. Byrd, WM, Clayton, LA. *An American Health Dilemma. Race, Medicine, and Health Care in the United States. 1900-2000.* New York: Routledge, 2002.
 2. Smedley, BD, Stith, AY, Nelson, AR (2003). *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.*
 3. Byrd WM, Clayton, LA. *Racial and Ethnic health and health care disparities. Historical and contemporary issues. A Two-Part Seminar. Commonwealth Fund Lecture Series. Harvard Medical School/Harvard School of Public Health. 2014.*

Findings were established via the use of peer-reviewed articles that include evidence-based literature and four primary data surveillance systems: the Pregnancy Risk Assessment Monitoring System (PRAMS), the Pregnancy to Early Life Longitudinal (PELL) data system, the Maternal Mortality Review Information Application (MMRIA), and the Perinatal-Neonatal Quality Improvement Network of Massachusetts (PNQIN). PRAMS is an ongoing survey by most states in partnership with the CDC. The survey assesses attitudes, behaviors, and experiences before, during, and shortly after pregnancy. PRAMS collects several state-specific data including, but not limited to, responses to racism, maternity leave, disability status, as well as race and ethnicity. PELL links delivery records to their corresponding hospital discharge records for the delivery event for mothers and their infants, and to any non-birth-related inpatient admissions, observational stays, and emergency department visits over time, as well as death data for birthing people and their children. More than 99% of all deliveries in MA from 1998-2019 have been linked in PELL. The PELL linkage allows children born to the same person to be linked together, and multiple hospitalization records belonging to the same people or children to be attributed as such. MMRIA is a data system available to all Maternal Mortality and Morbidity Review Committees (MMMRC) to support essential review functions. PNQIN collects hospital specific data used for quality improvement activities among participating hospitals. PNQIN of Massachusetts is an umbrella collaborative that unites the efforts of the Neonatal Quality Improvement Collaborative (NeoQIC) and the Massachusetts Perinatal Quality Collaborative (MPQC).

Findings and recommendations of this report conclude that efforts and enforcements towards racial equity will likely significantly improve overall maternal health outcomes for Massachusetts residents. Racial inequities are present at multiple levels (i.e. within communities, public health, and in healthcare settings); thus, the achievement in reducing SMM and maternal mortality will be dependent upon the redesigning of health delivery infrastructures and the standardization of collaboration within and across community settings, education, mental health assistance, housing, support of doulas and certified nurse midwives, improved competency among providers, improved access for birthing moms, and enactment of laws pertaining to maternal health delivery.

The following graphic provides a context that highlights the overall maternal health disparity between Black birthing persons and their peer groups as measured by the outcome of severe maternal morbidity in Massachusetts using PELL data.

FIGURE 2 Severe Maternal Morbidity (Blood Transfusion not Included) among Deliveries in Massachusetts, 2009-2018



Source: Massachusetts Department of Health

Severe maternal morbidity (SMM) as defined by the Centers of Disease Control (CDC) includes unexpected labor and delivery outcomes that result in significant short-or-long term consequences to a woman's health. Figure 1 shows that between 2009 and 2018, Black birthing persons have experienced the highest rate of SMM compared to their peer groups. Over time, data show that the rate at which Black people have experienced SMM compared to their white counterparts has doubled, and the disparity gap has increased and widened overtime.

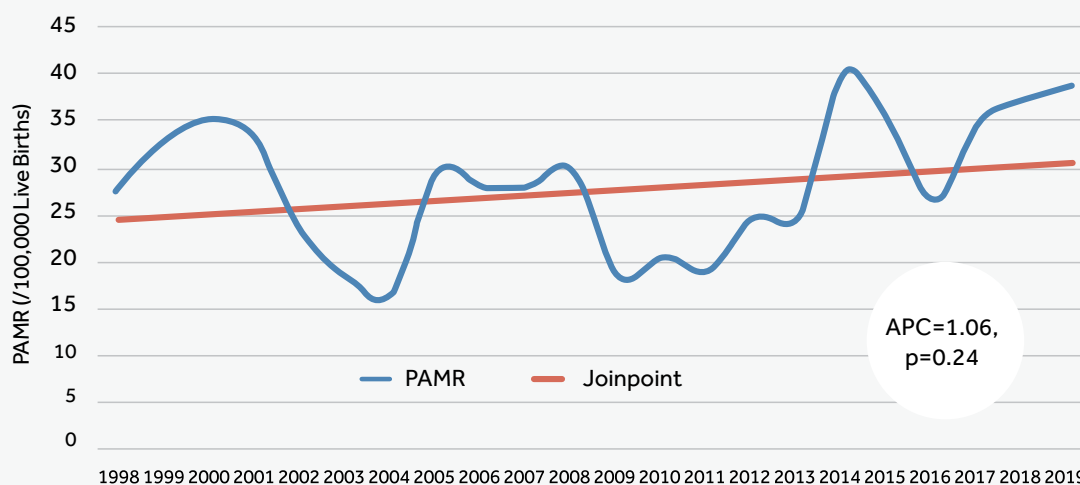
INTRODUCTION

Maternal racial health inequities in the U.S remain unsettlingly prevalent. Racism, not race, is a primary driver of the social determinants of health. It drives inequities in housing, income, and education, especially among communities of color. Racism is powerful as it acts as an underlying structural determinant that sets the foundation for all other social determinants. Despite being a country that continuously ranks highly in technology and innovation, the U.S. continues to rank the lowest in maternal health outcomes for birthing persons of color. Racial disparities persist as Black birthing persons are three times more likely to die from a pregnancy-related cause than white birthing persons. A range of factors contribute to these unfortunate outcomes including variations in the quality of care, underlying chronic conditions, implicit bias, and structural racism. Historically, many people from racial and ethnic minority groups including Black birthing persons have been prevented from having fair opportunities for economic, physical, and emotional health (*Centers for Disease Control, 2022*).

The outcomes have gotten worse over time. For example, in 2020, 861 women were identified as having died of maternal causes in the U.S. compared with 754 in 2019. The maternal mortality rate for 2020 was 23.8 deaths per 100,000 live births compared with a rate of 20.1 in 2019 (*Centers for Disease Control, 2020*). In 2020, the maternal mortality rate for non-Hispanic Black women was 55.3 deaths per 100,000 live births, 2.9 times the rate for non-Hispanic White women (*Hoyert, 2020*).

Since 1998, rates of pregnancy-associated mortality in Massachusetts have steadily risen (Figure 1). Massachusetts is consistently among the ten healthiest states in the country, but hidden in that accomplishment is the fact that racial and ethnic health inequities do exist and have persisted for decades despite efforts to improve outcomes. Data from the Massachusetts Department of Public Health (MDPH) indicate that Black non-Hispanic women are 1.9 times more likely to die during pregnancy or within one year postpartum compared to white non-Hispanic women. MDPH data also confirm alarming trends of rising severe maternal morbidity (SMM), defined by the Centers for Disease Control (CDC) as unexpected

FIGURE 3 Trends in Pregnancy-Associated Mortality: Massachusetts 1998-2019



Source: Massachusetts Department of Health

TABLE 1 Number of live births, maternal deaths, and maternal mortality rates, by race and Hispanic origin and age: United States, 2018–2020

Race and Hispanic origin and age	2018			2019			2020		
	Live births	Maternal deaths	Maternal mortality	Live births	Maternal deaths	Maternal mortality	Live births	Maternal deaths	Maternal mortality
	Number	Rate ¹		Number	Rate ¹		Number	Rate ¹	
Total ²	3,791,712	658	17.4	3,747,540	754	20.1	3,613,647	861	23.8
Under 25	907,782	96	10.6	877,803	111	12.6	825,403	114	13.8
25–39	2,756,974	458	16.6	2,739,976	544	19.9	2,658,445	607	22.8
40 and over	126,956	104	81.9	129,761	98	75.5	129,799	140	107.9
Non-Hispanic White ³	1,956,413	291	14.9	1,915,912	343	17.9	1,843,432	352	19.1
Under 25	391,829	41	10.5	374,129	49	13.1	348,666	40	11.5
25–39	1,504,888	207	13.8	1,480,595	248	16.8	1,433,839	253	17.6
40 and over	59,696	43	72.0	61,188	46	75.2	60,927	59	96.8
Non-Hispanic Black ³	552,029	206	37.3	548,075	241	44.0	529,811	293	55.3
Under 25	176,243	27	15.3	169,853	32	18.8	159,541	46	28.8
25–39	358,276	137	38.2	360,206	179	49.7	351,648	198	56.3
40 and over	17,510	42	239.9	18,016	30	166.5	18,622	49	263.1
Hispanic	886,210	105	11.8	886,467	112	12.6	866,713	158	18.2
Under 25	275,553	21	7.6	270,948	23	8.5	258,635	20	7.7
25–39	579,553	72	12.4	584,109	71	12.2	576,690	111	19.2
40 and over	31,104	12	*	31,410	18	*	31,388	27	86.0

* Rate does not meet National Center for Health Statistics standards of reliability.

¹Maternal mortality rates are deaths per 100,000 live births.

²Total includes race and origin groups not shown separately, including women of multiple races and origin not stated.

³Race groups are single race.

NOTES: Maternal deaths are those assigned to code numbers A34, O00–O95, and O98–O99 of the International Classification of Diseases, 10th Revision. Maternal deaths occur while pregnant or within 42 days of being pregnant.

SOURCES: National Center for Health Statistics, National Vital Statistics System, Mortality and Natality.

Source: <https://www.cdc.gov/nchs/data/hestat/maternal-mortality/2020/maternal-mortality-rates-2020.htm> Table from <https://dx.doi.org/10.15620/cdc:113967>

outcomes of labor and delivery such as hemorrhage, blood clot, kidney failure, stroke, heart attack, and other severe complications (Crear-Perry, 2021; Megibow, et. al 2021; Chambers, et al. 2021; Chambers, 2020). SMM is 50 to 100 times more common than maternal death, and racial/ethnic inequalities in SMM exist: Black women have a 70% greater risk of SMM than their white counterparts. These racial inequities are worthy of being addressed as maternal health inequities reflect structural and systemic fragmentation in the health care systems. Action is required at multiple levels, as systemic challenges call for systemic solutions, particularly at the health care systems, community, and policy levels.

Evidence to Support Improvements

Below is a summary of the Commission's key findings and recommendations in response to its charge. The findings and recommendations correspond to three domain areas— family and community engagement, public health infrastructure, and healthcare systems improvement. To streamline the various focus areas, each domain was addressed by an assigned working group.



Section 1

FAMILY AND COMMUNITY ENGAGEMENT

The Family and Community Engagement working group investigated the social, structural, and contextual factors that influence poorer maternal health outcomes for Black birthing persons and their families, along with strategies to counteract those factors. These strategies include developing processes that are inclusive of the perspectives, experiences, assets, and ideas of individuals, families and communities most impacted by maternal health inequities and creating partnerships with communities, residents, and community-based organizations. Specific areas of investigation included:

- Culturally responsive and affordable doula support
- Targeted support and health literacy for partners
- Accessible and affordable birthing centers
- Diversity of healthcare providers and community health workers
- Cultural competency of providers as it influences obstetric racism
- Barriers to medical and community care
- Historic and current forms of racism

I. Culturally competent and affordable doula support

A doula is a non-medical companion trained to provide informational, emotional, and physical support to another person and their family during a significant health experience such as childbirth. Doulas help pregnant and birthing people experience care that is individualized, safe, and equitable. Doulas can play a key role in enhancing communication between the birthing person and their medical providers by assisting and empowering pregnant persons or those who are giving birth to express their values and preferences, and advocate for their needs. Doula services are also associated with decreased risk of postpartum depression.



Previous research has demonstrated that birthing persons experience lower rates of preterm birth and decreased risk for cesarean birth with the presence of a doula who can provide continual emotional and relational support through birth (*Gruber, Cupito, Dobson, 2013*). Despite this, few Black women in Massachusetts are offered or have access to their services. Studies have shown that this type of personalized and consistent support for birthing persons improves not only the birth experience and the physical and psychological outcomes for a mother and baby, but also has a positive impact on the well-being of a whole family (*Mather, 2021*).

One of the major barriers to accessing a doula is cost, as few health plans cover the cost of doulas which can range from \$800 to \$2000. This makes doula support out of reach for many birthing people, including Black birthing persons who are the most impacted by SMM and maternal mortality (*Kozhimannil, Attanasio, 2014*). Boston Medical Center's Healthy Start Program provides health insurance in order to improve access to early, comprehensive, and continuous prenatal care to improve the health of newborns and their mothers. The program serves only very low-income, uninsured pregnant women and does not cover doulas. To qualify for Healthy Start, family group income must be at or below 200% of the federal poverty level. For a family of four, this is equivalent to an annual income of \$53,000 (*Healthy Start Program, 2022*). To see program impact on Black maternal mortality rates, broader eligibility would be required. The Boston Healthy Start Initiative whose aim is to reduce racial inequities in infant mortality and poor birth outcomes has broader eligibility with no explicit income restrictions; however, does not offer doulas. Instead, the program offers Family Partners who essentially operate as community health workers, using prenatal

KEY FINDINGS

- » There is a lack of cultural competence among certain maternal health professionals
- » Birthing resources such as doula care may not be offered or accessible to parents in need, causing stress and potential harm

RECOMMENDATIONS

- » Offer integrated culturally competent doula, social work, and maternal mental health professionals at all stages of the birthing process
- » Integrate consultations with a doula and mental health professional into prenatal visits, especially during high-risk pregnancies
- » Educate for birthing persons on services and support provided by doulas, midwives, mental health professionals and obstetricians
- » Ensure that all pregnant and post-partum people enrolled in Medicaid who want access to a doula will have one. See: [Doula Medicaid Project](#)

“During our healing sessions, it was confirmed that women of color don't feel like they are heard after their losses and that this feeling of being unheard can start way before a loss even occurs. Many, many mothers, especially women of color do not feel safe to advocate for themselves during pregnancy, childbirth and beyond.”

- STEPHANIE CRAWFORD,
DOULA AND GRIEF SUPPORT
FACILITATOR

“As a doula I have supported black mothers who have struggled to understand what happened during birth and why decisions were made about their bodies without them and are afraid that this will happen again. And then next pregnancy, they often feel rushed to decide and their partners feel helpless and confused during the process. My job as a doula has been to ensure that they know what to expect, and the outcomes that may arise, so that they can make informed decisions. I also stay close during the postpartum stage for issues that may come up.”

– STEPHANIE CRAWFORD,
DOULA AND GRIEF SUPPORT
FACILITATOR

and well-child visits as a gateway to connect families to resources, health education, care coordination and advocacy. The current limitations highlight a need for community-based doulas to collaborate with similar programs and initiatives that extend support outside of the health centers and in chosen environments to birth by families (*Boston Public Health Commission*). States such as Oregon and Minnesota have already expanded Medicaid to support doula services (*Kozhimannil, Hardeman, 2016*).

Doula care can vary significantly depending on training and approach. Traditional structures have historically not centered the voices or experiences of people of color or low-income communities. Community-based doulas and community-based doula programs focus on cultural humility, and providing culturally appropriate, and kindred spirited non-clinical, emotional, physical, and informational support before, during, and after birth. Furthermore, community-based doula programs identify and train women who are trusted members of the community to provide doula services at low or no cost. These programs help to improve prenatal care, raise breastfeeding rates, decrease unnecessary medical interventions, increase positive birth experiences, improve parenting skills, and boost referrals for needed health services (*Kozhimannil, Attanasio, 2014*). The programs play a vital role in combating the discrimination, racism, and loss of autonomy that Black people who give birth frequently report experiencing (*Wint, Elias, et.al. 2019*). Also unique to community-based doula practice is the collaboration with social service providers when necessary to facilitate resources for transportation, housing stability, food insecurity, alcohol, tobacco, and other drug (ATOD) cessation, and intimate partner violence. Community-based doulas are trained to help those who are pregnant or giving birth to feel empowered to advocate for themselves.

Community-based doula training programs emphasize the historical and educational cultural context on how race, institutional and interpersonal bias, and other social determinants play an integral role in birth disparities affecting Black and minority populations. The support, advocacy, and continuity of care community-based doulas provide may be central to reducing health disparities and improving maternal health equity for women of color and women from low-income and underserved communities in Massachusetts.



II. Support & Health Literacy for Partners

In addition to the birthing persons having the support of a doula pre-labor, labor, and postpartum, commissioners also suggest support for partners and families. The following story from Commissioner Saba and his wife Timoria McQueen Saba demonstrates how the partners of Black mothers deeply desire to support them, and how their inability to properly assist their partner is a burden. Although the couple has had their own unique experience, it's important to note that these stories highlight the necessary need for change in how Black/POC women are treated and care for by the health system at all stages of pregnancy.

Specifically, Commissioners call on the State of Massachusetts to create a similar statewide commission such as the Ohio Commission on [Fatherhood](#), whose mission is to enhance the well-being of Ohio's children by providing opportunities for fathers to become better parents, partners, and providers. These fatherhood programs help fathers and families to:

1. Improve economic stability when they help fathers prepare and retain employment;
2. Foster responsible parenting through skills-based classes and individualized mentoring; and
3. Promote health relationships through conflict resolution and communications skills training.

In addition to funding fatherhood programs throughout the state, the Commission on Fatherhood in Massachusetts can make policy recommendations regarding fathers, engage community members, and train local county leaders on how to mobilize their community to promote responsible fatherhood. This framework would allow for the Commission in Massachusetts to strategically promote successful fatherhood on all levels as it has proven to work in Ohio.

“When the mothers of our children grieve, we grieve. When they don't know how to answer questions, we feel helpless, hopeless, and depressed. Black and Brown men feel separate and distant from this healthcare system; feel like they don't have a voice; no one gives them the time to share how they feel. We may not be able to experience physical pregnancy, but fathers experience emotional pregnancy. We're in this together. It's important to have support for them as well.”

- DR. CHARLES DANIELS, COMMISSIONER

KEY FINDINGS:

- » Scarce resources are available to educate partners and spouses on how to support a partner who just gave birth and perform self-care
- » Partners are often ill-informed of the risks of childbirth and are ill-equipped to handle adverse events

RECOMMENDATIONS:

- » Support local efforts to build community-based birthing centers and postpartum care centers with providers who reflect the communities in which they serve
- » Use available data and concepts from Ohio Commission on Fatherhood Model
- » Provide early access to holistic services and informed care
- » Make resources available for birthing individuals and their families on potential medical complications surrounding birth

STORY HIGHLIGHT

Commissioner Robert Saba

Commissioner Robert Saba is the husband of Timoria McQueen Saba who is African American, and they have two daughters, ages eight and 12.

"Timoria survived multiple birth traumas in the United States. Statistically speaking, she should not be around today. Black women in the United States are more likely to die today during childbirth than they were even 12 years ago, when Timoria was initially pregnant. What I'm trying to do here is share with you my perspective, going through a bit of a timeline, in terms of our birthing experience, starting with prenatal, the birthing process, postpartum and through advocacy work.

We first found out that Timoria was pregnant with our first daughter in August of 2009. At that time, we were very new parents, relatively newlyweds, and we were very excited to be parents and we were very fortunate to have great insurance. We were living in the New York metropolitan area at the time. We had a choice of doctors. Timoria was very healthy, a model pregnant woman and I did everything I could to help prepare us to be parents. We were informed. However, the birthing class we took did not adequately inform us of the risks of childbirth, postpartum mood disorders or what services are provided by Doulas or Midwives. Additionally, it did not adequately cover how to be a supportive spouse or partner.

Timoria experienced racism from the receptionists to the nurses and the doctors. Timoria was forced to switch physicians between her second and third trimesters due to being on the receiving end of microaggressions and racism. She entered pregnancy under the best of circumstances (healthy, informed, great insurance, best doctors) but the poor care received caused her undue stress, anxiety, and forced her to find a new doctor at 28 weeks pregnant. As her husband, I felt useless as there was little that I could do to improve the situation. With Timoria's Primary OB unavailable at the time, we were checked in by another physician at the hospital. Having a couple of labor "false alarms" with our second child, Timoria was likely checked in to give birth too soon. This led to more stress and a very

long labor. The actual delivery was perfect. The possibility of a near-death experience during childbirth was not on my radar at all. It was not discussed during our birthing class or with the hospital. I was ill-equipped at the moment and felt completely helpless. There was nothing that I could do to help.

We were fortunate to have an experienced OB and a great surgeon available to perform the embolization to stop Timoria's bleeding and save her life. The following night, having to stay awake after being up for 30+ hours took beyond human strength by Timoria. When it was over, we were offered no resources beyond being able to stay in the hospital for three extra days. I was feeling a sense of hurt but had no resources or coping skills.

My biggest regret of the whole process is rushing back to work and not being more available to help Timoria recover from almost dying, life-saving surgery, and trauma while she's caring for our child. In retrospect, I used work to get back to a sense of "normal" and didn't process the trauma until years later. Access to timelier childcare, maternal health care and mental health would have been hugely beneficial. For our family, we never set out to be social justice warriors. I am not a political person. Timoria had a successful private sector career before this experience. But by sharing our story and advocating for others, we have been able to take a horrendous experience and bring about some positive changes. We want to see a safer and fairer health care system for our two daughters, being Black and Middle Eastern, and all of our daughters by the time they are pregnant and giving birth. Systems needs to change to reverse negative trends and improve birthing experiences and outcomes for Black women."

—Commissioner Saba

The following chart was submitted by Commissioner Saba of the Family and Community Engagement Working Group. Furthermore, the recommendations have been highlighted in the Call-to-Action section for the Family and Community Engagement working group of this report.

STAGE	KEY FINDINGS	RECOMMENDATIONS
Prenatal	- Black women often have their concerns and objectives ignored which causes undue stress and harm - Maternal health tests are performed without proper explanation - Race is used to explain why providers are running certain tests - Partners are often ill-informing of the risks of childbirth and are ill-equipped to handle adverse events	- Requiring Health Professional to have antiracism training and cultural care training; prioritize hospitals/regionals with higher concentration of Black people Offer training and resources to Mothers and their Partners about navigating the healthcare system, patient rights, the risks of childbirth and how to overcome adverse events.
Birthing	- Black patients are not treated with the same dignity and respect as white patients during the birthing process - Birthing resources such as social workers and doula care may not be offered to parents in need causing stress and potential harm	Greater accountability when a Mother dies or is harmed so that those responsible cannot continue to make the same mistakes Ongoing oversight to monitor progress against the recommendations from the Inequities in Maternal Health Commission and track progress to Black/POC maternal rates in Massachusetts
Postpartum	- Postpartum support was not offered to a woman who just gave birth, almost died, had major surgery and experienced trauma by the Hospital - Lack of cultural competence among certain maternal mental health professionals - Scarce resources available to educate partners and spouses on how to support a new mother and perform selfcare	Offer integrated culturally competent doula, social work and maternal mental health professional at all stages of the birthing process Increase access to postpartum support groups for Black/POC Mothers and their Partners/Spouses Support local efforts to build community-based birthing centers and postpartum care centers with providers who reflect the communities in which they serve
Advocacy	- Organizations and those in positions of power often do not publicly support Advocates while they're challenging systems and organizations to bring about real changes - Those who challenge the systems by bringing forth discrimination claims, lawsuits or provider complaints often lack social, emotional and financial support	Publicly support those who have the courage to bring to light racial discrimination issues and lawsuits against healthcare organizations to hold them accountable Providers, Legislators and Advocates who are in positions of influence should remain united and consistently challenge an inequity until real actions are taken within society to eliminate disparities

Source: Commissioner Robert Saba

KEY FINDINGS

- » Free Standing Birth Centers should be created and led by those maternal health professionals that are culturally competent and/or representative of the communities in which they serve

RECOMMENDATIONS

- » Modernize Massachusetts Birth Center Regulation which calls for a re-evaluation of regulatory and other barriers to establish and operate birth centers
- » Evaluate financial and structural barriers to establishing birth centers
- » Create pathways to increase capacity for birthing centers owned by women reflective of the community served

III. Accessible and affordable birthing centers

Birth centers are stand-alone facilities that provide prenatal, labor, and delivery care to low-risk pregnancies. They offer an alternative to the usually expensive and intervention-heavy hospital-based maternal pathway. Birth centers emphasize relationship building between providers and pregnant people, and patient-centered birth planning and labor. The centers are midwifery led and typically do not employ anesthesiologists, obstetricians, or pediatricians.

Evidence has shown that birth centers reduce the number of interventions used during labor and delivery while improving patient experience and lowering costs- saving more than \$1000 per birth (*Howell, Palmer, Benatar, 2014*). Another comprehensive review showed that 32 studies of birth centers found positive health outcomes for women including lower rates of C-sections compared with birthing persons delivering in hospitals (*Alliman, Phillippi, 2016*).

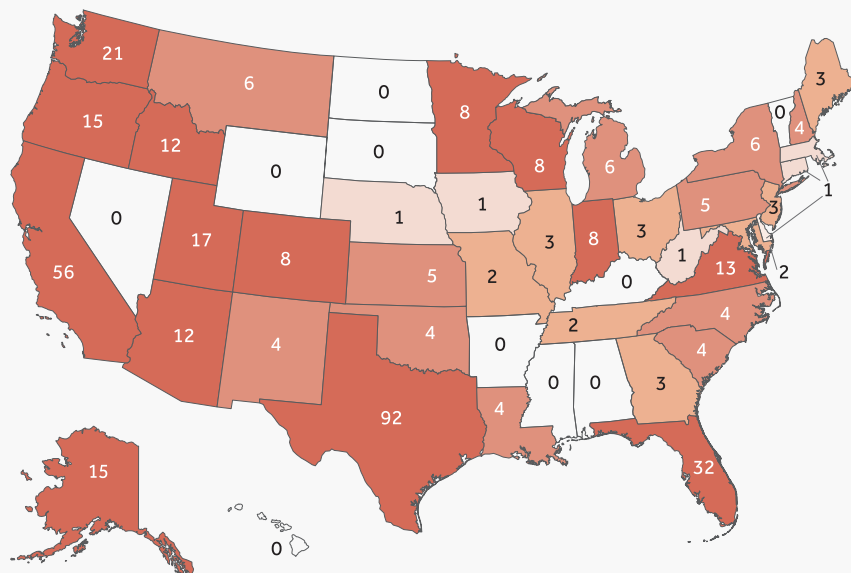
Research suggests that Black-owned, culturally competent birth centers have the means to reduce racial disparities in maternal morbidity and mortality; thereby demonstrating the capacity to advance equity (*Hardeman, Karbeah, Almanza, et al. 2020*). Of the 384 birth centers in the United States, only about 20 are led by people of color (*Highlights & Birth Centers*). According to the **Heat Map of Freestanding Birth Centers by State**, Massachusetts has fallen behind in the number of birth centers available in the state compared to other states (*American Association of Birth Centers, 2021*). Limitations to accessing capital and resources is a significant barrier to people of color in creating and owning birth centers. Additionally, Medicaid's limited or absence of reimbursement for the services they provide is another outstanding obstacle.

FIGURE 4

Heat Map of Freestanding Birth Centers by State

Data per 2021 AABC report, updated to reflect recent birth center closures in Massachusetts.

Source: American Association of Birth Centers.
<https://www.birthcenters.org/>



STORY HIGHLIGHT

State Representative Chynah Tyler

"I have a 10-year-old daughter and the process of having her was certainly one of the toughest experiences I have faced. I had serious stomach pains for a few days and decided to visit the emergency room. I would've visited my primary care doctor, yet she moved to a new hospital without my knowledge—what a time to find out. Support from the start was unstable. I simply didn't have the support I needed during my pregnancy. When I eventually had my baby, I faced a lack of care because I was so focused on the baby, everybody was focused on the baby, and on graduating college that I lost track of caring for myself. It took me over a year to find the care I deserved."

—State Representative Chynah Tyler, Chair of the Massachusetts Black & Latino Legislative Caucus

Based on the evidence presented above, Commissioners suggest that a way to improve the lived experience of people of color who give birth is through the establishment of affordable birthing centers, as Black and Indigenous women are more likely to be delivered by cesareans. Having the support of a doula may mitigate some of these risks. Health system integration is paramount with advantages that include a wide perinatal safety net and few delays in the transfer of care in the instance the pregnant person desire epidural analgesia for prolonged labor or the birthing person or baby require advanced interventions only capable in a hospital setting. Birthing centers are needed in historically marginalized communities. To promote sustainability of these birth centers, Commissioners have proposed for the investment of birth centers and community-based organizations including Black Mamas Matter. They have called for the further exploration and application of policies including the [Ohio State Policy](#) and the [H.R.959 - Black Maternal Health Momnibus Act of 2021](#) and tailoring toolkits to fit the needs of Massachusetts birthing residents of color via the use of the [Black Mama's Matter Toolkit](#).

IV. Diversity, cultural competence as it influences obstetric racism

Research indicates that increasing diversity in the medical workforce could be one way to create change. Currently in the U.S., about 13% of the U.S. population is Black; however, just 5% of doctors are Black. (*Association of American Medical Colleges, 2018*). A Stanford study found that Black physicians are more likely than white physicians to serve medically underserved populations, increase access to health care for Black patients, spend more time engaging with them, and gain higher levels of their trust and satisfaction (*Alsan, Garrick, Graziani, 2018*). In a study conducted at the University of Minnesota, evidence was found that mortality rates were decreased by half for Black babies cared for by doctors of the same race after their birth (*Greenwood, Hardeman, Huang, 2020*). Racism is a psychological stressor that together with lack of

KEY FINDINGS

- » Racial diversity for all employees of health care institutions is necessary
- » At the postpartum stage of pregnancy, postpartum support was not offered to a woman who just gave birth, almost died, had major surgery, and experienced trauma by the hospital
- » Lack of cultural competence among certain maternal mental health professionals

RECOMMENDATIONS

- » Mandatory training and application of anti-racism, stigma, bias, and diversity for all employees of health care institutions
- » Mandatory health equity curriculum to educate on stigma, bias, and diversity for medical, nursing, dental social work, psychology, and allied health professional schools.
- » Mandatory trauma-informed care training for all health care settings, including behavioral health
- » Integrate culturally competent doulas, social work, and maternal mental health professionals at all stages of the birthing process
- » Increase access to postpartum support groups for Black/POC mothers and their partners/spouses

KEY FINDINGS

- » Black women and Black people who give birth have a difficult time accessing the reproductive health care that meets their needs
- » They experience higher rates of unintended pregnancies than all other racial groups, in part because of disparities in access to quality contraceptive care and counseling. For example, one study showed that among women enrolled in Medicaid, Black women were less likely than white or Latinx women to receive postpartum contraception, and when they did receive it, they were less likely to receive a highly effective method



RECOMMENDATIONS

- » Via educational counseling, offer transparency and knowledge training on various issues including infertility, pregnancy and infant loss, fibroids, and other topics related to reproductive health outside of maternal mortality
- » Include accessible translated information on postpartum depression, trauma, and loss

cultural competence may contribute to poor maternal health and overall well-being. These findings further emphasize the need for diversity initiatives and cultural competency trainings among physicians, nurses, and hospital administrators that have a conscious understanding of the prevalence of racial and ethnic disparities.

V. Barriers to medical and community care

Many systemic barriers contribute to less desirable health outcomes (e.g., SMM) for Black women. Median wages for Black women in the United States are \$36,227 per year, which is \$21,698 less than the median wages for white, non-Hispanic men (*National Partnership for Women & Families, 2018*). That is just 63 cents for every dollar paid to non-Hispanic white men. Lost wages for Black women and their families means that they have less money to support themselves and their families. Black women and Black people who give birth are more likely to be uninsured, face greater financial barriers to care when they need it, and are less likely to access prenatal care (*National Partnership for Women & Families, 2018*). For people of color, specifically Black women and birthing persons, racism has shown to have a detrimental effect on their maternal health outcomes. Only 30 percent of Black birthing persons are both eligible for and able to afford to take unpaid leave under the federal Family and Medical Leave Act (*National Partnership for Women & Families, 2018*).

STORY HIGHLIGHT

Commissioner Nneka Hall

"My name is Nneka Hall and here is my lived experience as a Black woman who has given birth in Massachusetts four times. I've been pregnant in my 20s, 30s and 40s. Becoming a mother has taught me that children can be born healthy and become sick later, be born with a chronic illness and made well, be stillborn and be perfectly healthy and born healthy. My oldest, Jelani, was born on August 9th, 2000 with 12 fingers and 10 toes. I lived in a multigenerational home. The day we came home from the hospital my mother arrived. Her first grandchild sparked something maternal. She stayed a month. We only had 1 argument, so I guess it was a good month. He was brought to me when he needed to be fed, changed or was asleep. My meals were prepared, our clothes washed, and I rested. This lasted until I returned to work part-time 3 months later. The extra fingers were removed when he was 6 months old. I found a private daycare near where we live and dropped him off before work. I was only working 3.5 to 4-hour days as an office manager at a power company. I flew through my first day back and rushed to pick up my son. To my surprise, when I arrived, he was not there. My grandmother had walked over to pick him up soon after I dropped him off, possibly before I even arrived at work. By the time I walked through the front door, my grandmother and Aunt Ann had coordinated his schedule for his first 2 years. I often came home to a living room full of Aunties. His beginning, like mine, was enveloped in nothing but love. Symone was born on August 22nd, 2005. I was married and closing on a condo when she was born with 10 fingers and 10 toes. Her breathing was off, so I called to schedule with my pediatrician before being discharged.

The next day we learned that she had a heart murmur. I was given a referral to pediatric cardiology, and we were given a September 16th appointment. We returned to see our pediatrician on August 29th. She listened to our week-old baby's heart. She looked at us, asked when our appointment with cardiology was and excused herself. She returned and told us Symone's murmur was much louder than it was the week before and that she would be seen the next day in cardiology before office hours. The next day we started a new journey. Our daughter was diagnosed with a congenital heart defect, a hemitruncus, pulmonary hypertension and a prolapsed valve. We were admitted to the hospital. I say "we" because we walked over to the NICU, where my husband and I were given a room down the hall.

The original plan was to admit her to allow medication to release the fluid that was building up and so she could grow and get stronger with hopes for surgery at six months of age. This was the plan on Tuesday. I thought I could do it all. So, I tried to normalize an abnormal situation by leaving the hospital to pick up my 5-year-old son who would be starting full day kindergarten to take him to a back-to-school event. We had a great day and I dropped him back off at my grandmother's house. When I returned to the hospital, I found out that my daughter had taken a turn for the worse and her surgery would be taking place the following week. My daughter was 2 weeks old when she had open heart surgery. The night before the surgeon met with us to have us sign the papers for surgery. Before leaving, he told us these babies die. The next morning, we were allowed to walk with the team as they took our daughter down to the operating room. To our surprise we were allowed to place our daughter on the operating table. We kissed her, said a prayer, and left the operating room. My husband left for work and went back up to our room to wait. We were discharged on September 16th and my lonely year began. My husband and I decided that it would be best for me to take off a year from work. I had short term and long-term disability insurance.

Things were good until they weren't. I was postpartum. Unlike my prior pregnancy, there were no visits and very few phone calls. My only constant was my Nana. She came by daily to pick my son up to drive him to and from school. It wasn't until she passed away last February that I realized how deep her love for me was. You see, she knew that she couldn't care for my newborn the way she had with my son. So, she did what she could. Each morning when she arrived to pick up my 5-year-old, she would find an excuse to come in. She'd look in my refrigerator and cabinets or she'd find something, anything to clean. When she arrived back each afternoon, she'd climb the stairs to fill my fridge or cabinets. I couldn't sleep, wasn't getting along with my husband and had never felt so alone in my life. With my husband working full time, I rarely had a break. I never signed up to be a housewife. I spoke with my primary care physician about how I was feeling, and she prescribed Prozac for me and sent me on my way. She called it baby blues.

My first marriage dissolved, and I married a second time. My husband and I separated during the pregnancy due to domestic violence. When I started feeling off upon entering my second trimester, my OB referenced back to my mental health challenges. My daughter had horrible hiccups. This happened for months and on August 26th, 2010, at my 39-week checkup we found out that my daughter's heart stopped beating. She was born still on August 27th, 2010, which was my 37th

birthday. In addition to immense grief, I suffered from postpartum depression, PTSD, and anxiety. Two months after Annaya's death I attempted to take my own life. The guilt of failing my child was too much! I needed answers beyond the, "These things happen" response that my OB gave me. I later found out that my kidneys began to spill trace amounts of protein during the second trimester and that I was 3+ the normal level the day I found out Annaya would be born still. For two trimesters, each urinalysis was labeled as an unclear catch. The OB who reviewed my records said I most likely had preeclampsia. This is why Annaya's placenta stopped working and caused her asphyxiation. It took me two years to get this information. Two years to breathe again. Bradleigh was my only planned pregnancy. My preconception body was a temple. I ate well, and made sure my labs reflected a healthy body. When giving a clean bill of health, I set the date of conception. Almost a week before I should have been able to test positive, I started feeling queasy. The test was positive. I had an uneventful pregnancy that ended in a planned 37-week induction. This time I had a supportive OB who made me feel safe in every way possible. For the first time ever, my OB showed me that I was in charge when it came to MY body. I was now a doula, who had a team of support during my pregnancy and postpartum.

I am a helicopter mom who lives with depression, PTSD, and anxiety. I am my children's loudest cheering section. 21-year-old Jelani holds an associate's degree in Biology and is in his 4th semester at UMASS Boston majoring in Biology. His very first semester was spent training to become an EMT. No parenting books could have prepared me for the 60 hour work weeks he lived during the height of the pandemic. After UMASS, he plans to earn his MPH before applying to medical school. His end game is emergency medicine with a specialty in nephrology. Symone is 16 and an honor student at Boston Latin Academy. She has a 4.3 GPA. At her 13-year cardiology appointment we found out her heart is 100% healthy. She will be discharged at the 18-year appointment. I'm homeschooling my little Rainbow Bradleigh. She had her first book published on her 6th birthday. She is my free spirit, and I am so grateful to have her. I've spent 10 years of my life building a legacy to honor my beautiful butterfly baby Annaya. Nneka... means mother is supreme. I launched Mother IS Supreme Inc January 2021 to change the way we care for our families during the postpartum period. It's simple, when you're pregnant and for whatever reason you're not, you are postpartum. We need to do better by our families no matter the outcome, social status or race."

—Commissioner Nneka Hall

The following suggestions and sources have been provided by Commissioner Nneka Hall:

- Commissioner Hall presented her vision on postpartum care within the Commonwealth and beyond April 2021 [here](#)
- Mother IS Supreme Inc's vision for postpartum care
- Counting Kicks should be a standard of care. I am a Massachusetts Ambassador. <https://countthekicks.org>
 - » The Black stillbirth rate has decreased by 39% in Iowa (Home state of this organization) in their first 10 years. A proven solution.
 - » Add kick counting as a way of life for all pregnant people to lessen the chances of stillbirth in the 3rd trimester.

KEY FINDINGS

- » Black women and people who give birth often have their concerns and objectives ignored which causes undue stress and harm
- » Black patients are not treated with the same dignity and respect as white patients during the birthing process
- » Maternal health tests are performed without proper explanation
- » Race is used to explain why providers are running certain tests
- » Partners are often ill informed of the risks of childbirth and are ill-equipped to handle adverse events

RECOMMENDATIONS

- » Greater accountability for providers when a mother dies or is harmed
- » Require health professionals to have anti-racism training and cultural competency training
- » Offer training and resources to birthing persons and their partners on:
 - Navigating the healthcare system
 - Patient rights
 - Risks of childbirth and how to overcome adverse events

V. Historical and current forms of racism

The U.S. medical institution has a long legacy of discriminating against and exploiting Black Americans. Historically, the medical establishment used African bodies, without consent, for its own advancement and supported medical theories, technologies, and institutions to strengthen systems of injustice (Wells, Gowda, 2020). For example, in the mid-1800s, surgical experimentation of James Marion Sims that led to successful treatment of vesicovaginal fistula was performed on enslaved Black women. This included three women, Betsey, Lucy, and Anarcha, who underwent repetitive gynecologic procedures without their consent (Khabele, Holcolmb, et al. 2021). Practices such as the ones performed by Dr. Sims have laid the foundation for how people of color are treated today, as it is often assumed that Black people have “thicker skin than whites,” and therefore, are able to bear more pain. Researchers note that Black Americans are systematically undertreated for pain relative to white Americans. A 2016 study examined racial bias among practitioners and found that half a sample of white medical students and residents reported lower pain ratings for a Black (vs. white) target (Hoffman, Trawalter, Axt, et. al. 2016). The findings suggest that individuals with at least some medical training hold and may use false beliefs about biological differences between Black people and white people to inform medical judgements, which may contribute to racial disparities in pain assessment and treatment.

“And there is this issue of trust, where no matter what you say as a Black woman, the doctors who are the people who are supposed to help you, don’t trust you. They don’t listen to what you’re saying. So, it feels like there are different levels or a double standard between the way women of color are treated during these scenarios.”

-CHARLES MUHUI, HUSBAND AND HOLBROOK RESIDENT

TABLE 2 Table 2: Percentage of white participants endorsing beliefs about biological differences between Black and white patients

Item	Study 1: Online sample (n = 92)	Study 2			
		First years (n = 63)	Second years (n = 72)	Third years (n = 59)	Residents (n = 28)
Blacks age more slowly than whites	23	21	28	12	14
Blacks' nerve endings are less sensitive than whites'	20	8	14	0	4
Black people's blood coagulates more quickly than whites'	39	29	17	3	4
Whites have larger brains than blacks	12	2	1	0	0
Whites are less susceptible to heart disease than blacks*	43	63	83	66	50
Blacks are less likely to contract spinal cord diseases*	42	46	67	56	57
Whites have a better sense of hearing compared with blacks	10	3	7	0	0
Blacks' skin is thicker than whites'	58	40	42	22	25
Blacks have denser, stronger bones than whites*	39	25	78	41	29
Blacks have a more sensitive sense of smell than whites	20	10	18	3	7
Whites have a more efficient respiratory system than blacks	16	8	3	2	4
Black couples are significantly more fertile than white couples	17	10	15	2	7
Whites are less likely to have a stroke than blacks*	29	49	63	44	46
Blacks are better at detecting movement than whites	18	14	15	5	11
Blacks have stronger immune systems than whites	14	21	15	3	4
False beliefs composite (11 items), mean (SD)	22.43 (22.93)	14.86 (19.48)	15.91 (19.34)	4.78 (9.89)	7.14 (14.50)
Range	0–100	0–81.82	0–90.91	0–54.55	0–63.64
Combined mean (SD) (medical sample only)			11.55 (17.38)		

For ease of presentation, we shortened the items; see SI Text for full items and additional information. For ease of interpretation and ease of presentation, we collapsed the scale and coded responses marked as possibly, probably, or definitely untrue as 0 and possibly, probably, or definitely true, as 1, resulting in percentages of individuals who endorsed each item. Bold entries represent the items included in the false beliefs about biological differences between blacks and whites composite.

*Items that are factual or true.

Source: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4843483/>

In addition to identifying key findings and highlighted recommendations of the family and community engagement domain, Commissioners have made a call for action. The Call for Action lists key strategies for closing the gap on systemic racial inequities, thereby optimizing maternal health for Black/POC mothers now and in the future. It is through these call for action strategies that the commission aims to be a national example in reducing racial disparities in the United States.

CALL FOR ACTION

Family & Community Engagement

1. Empower MMMRC (Maternal Mortality and Morbidity Review Committee) for On-going and Actionable Monitoring

- a. *Increase the current MMMRC Authority level.* Investigations by the existing MMMRC are authorized by the MDPH Commissioner, pursuant to M.G.L. c. 111, § 24A. This statute only allows MDPH to request birth and death records but does not require relevant entities to provide access to requested records, nor does it authorize the MMMRC to access other sources of relevant data. As a result, there are critical records not consistently available, including autopsy reports from the Office of the Chief Medical Examiner (CME), prenatal care records from private providers, outpatient and emergency department records, and Emergency Medical Services (EMS) records. The lack of authority leads to a delay in acquiring relevant data, which in turn results in a delay in issuing reports and analyses that are necessary to affect changes that reduce maternal mortality and SMM.
 - b. *Expand Role of the MMMRC:* Conduct a thorough and complete review of every pregnancy-associated death in Massachusetts and instances of SMM in Massachusetts; determine whether the death was preventable; and make recommendations for changes in law, policy, and practice that will prevent pregnancy-related and pregnancy-associated maternal mortality and SMM.
 - c. *Form a MMMRC Membership (not to exceed 20 members)*
 - Representatives of the Department of Public Health.
 - A representative of the Massachusetts
- Perinatal Neonatal Quality Improvement Network.
- The Chief Medical Examiner or a designee
 - The Chair of the Massachusetts chapter of the American College of Nurse Midwives or a designee
 - The Chair of the Massachusetts chapter of the Association of Women's Health, Obstetric and Neonatal Nurses or a designee
 - A medical professional with obstetric and neonatal nursing training
 - A medical professional with formal anesthesiology training
 - A medical professional with perinatal nursing training
 - A medical professional with maternal fetal medicine or perinatology training
 - A medical professional with psychiatric training
 - **A medical professional with family medicine training**
 - A director of a federally funded-Healthy Start program or a designee
 - **A minimum of two Doulas**
 - **A minimum of two community or family members who have been directly affected by a maternal death** and any other person, selected by majority vote of the members of the committee, with relevant expertise or knowledge
 - **A member of a Community-Based Organization**
 - A representative from the Department of Family and Children
 - A law enforcement officer
- d. *Establish a maternal mortality review committee to have greater authority to obtain data and*

- dedication to state funding sources
- e. Review maternal deaths, study incidence of pregnancy complications, eliminate preventable maternal death
- f. Conduct a landscape scan involving consistent data gathering, decision making, and recommendations
- g. [Link death certificates with birth and fetal death certificates](#). Using names or other identifying information, the death certificates of reproductive-aged women can be compared against certificates of live births and fetal deaths to identify any recent pregnancies. Studies have found that pregnancy-related deaths are substantially underestimated when cases are identified through death certificates alone, and that linking records lowers the number of missed cases.
- h. Investigate if there is a process to amend death certificates when new information from other sources (i.e., autopsy reports) become available.

2. Improve the Healthcare System

- a. Invest in targeted public-private collaborations: Such as creating a formal PNQIN participation by developing a policy to create statute to support PNQIN. Subsequently leveraging PNQIN collaboration through open data sharing to ensure data-driven decision making, evidence-based best practices and measurable quality improvements in perinatal health outcomes while eliminating health disparities and improving health equity among mothers, newborns, and their families.
 - b. Establish early training and participation by including and implementing mandatory diversity, equity and inclusion courses in maternal and child health across all public health and schools of medicine to include:
 - access to and use of maternal health outcomes data by race/ethnicity
 - Systems approach to understanding healthcare structure, payment and delivery system, evaluation and reform that focus on preventive care and care coordination based on offering high-quality, evidence-based, culturally- and linguistically competent care.
 - c. Improve reimbursement for Medicaid/ MassHealth for behavioral health screening and services.
 - d. Follow examples of perinatal care models by expanding group natal care.
 - e. Make better use of the Patient and Family Advisory Council
 - f. Promote the use of interpreter services
 - g. Invest in freestanding birthing centers
- ## 3. Invest in Birthing Centers & community-based organizations
- a. Expand the presence of birthing centers statewide. Increase the number of Neighborhood Birth Centers – a type of freestanding birthing center – locally and regionally within the state. The Neighborhood Birth Centers serve as a third option to hospital and homebirths. They will potentially improve experiences and outcomes, save delivery and other associated costs, and advance racial equity in births. For instance, Boston is proposing its first Neighborhood Birth Center which will be a personalized alternative to hospital care for people with low-risk pregnancies to give birth in a home-like environment that will include a 5,000 square foot state-of-the art-spa-like center.
- ## 4. Measure Outcomes Through the Anti-Racism Lens
- a. Expose Health System Systematic Differences in Health Outcome
 - Collect and measure patient outcomes including hospitalizations, disease severity and deaths, through the lens of anti-racism
 - Continue to measure outcomes by race and ethnicity
 - Formal system for accountability; statewide tracking
 - Consider tying compensation to Healthcare Stakeholders (healthcare systems, providers, administrators, researchers, and/or vendors) to reduced birth-related complications (Marill, 2022)
- ## 5. Reimagine Postpartum Care
- a. Understand Health System Systematic Differences in Health Outcome
 - Collect and measure patient outcomes related to postpartum care by race, ethnicity and other health measures with the aim of

understanding systematic differences in health systems related outcomes, improving perinatal healthcare delivery and outcomes, eliminating health disparities and improving health equity in maternal and child health

- b. *Uplift* support groups created with the intent to promote learning and care postpartum
 - Encourage creation and participation in birthing related support groups

6. Establish a Health Equity Committee

- c. Establish a Health Equity committee that looks at hospitalizations, disease severity, and deaths, through the lens of anti-racism.
 - Measure outcomes by race and ethnicity
 - Formalize a system for accountability

7. Advocacy and Accountability

- a. *Listen* to Communities of Color
 - Listen and center communities of color disproportionately impacted by infant and maternal morbidity and mortality
- b. *Create* a birthing justice omnibus bill closely resembling the Federal Black Maternal Health Momnibus Act of 2021, filed and passed by the Black Maternal Health Caucus. (Its 12 points are listed below.) Beyond the 12 points, this bill will include recommendations from the report filed by the Special Commission of Racial Inequities in Maternal Health and consider previously and currently filed pieces of birth and reproductive justice legislation. The 12 points of this bill would include:
 - Make critical investments in the **social determinants of health** that influence maternal health outcomes, like housing, transportation, nutrition, and education.
 - Provide funding to **community-based organizations** that are working to improve maternal health outcomes and promote equity.
 - Comprehensively study the unique maternal health risks facing **pregnant and postpartum veterans** and support VA maternity care coordination programs.
 - Grow and diversify the **perinatal workforce** to ensure that every mom and birthing person in America receives culturally congruent maternity care and support.

- Improve data curation, analyses, visualization, reporting, and quality assurance methods to better understand the causes of the maternal health crisis in the United States and inform solutions to address it.
- Support people who give birth with **maternal mental health** conditions and alcohol/substance use disorders.
- Improve maternal health care and support for **incarcerated moms and people who give birth.**
- Invest in **digital tools and other persuasive technologies** like telehealth to improve maternal health outcomes in underserved areas.
- Promote **innovative payment models** to incentivize high-quality maternity care and non-clinical perinatal support.
- Invest in federal programs to address the unique risks for and effects of **COVID-19 during and after pregnancy** and to advance respectful maternity care in future public health emergencies.
- Invest in community-based initiatives to reduce levels of and exposure to **climate change-related risks for moms, people who give birth, and babies.**
- Promote **maternal vaccinations** to protect the health and safety of moms, people who give birth, and babies.
- c. *Publicly* support those who have the courage to bring to light racial discrimination issues and lawsuits against healthcare organizations to hold them accountable
- d. *Unify* Providers, legislators and advocates who are in positions of influence
- e. *Challenge* an inequity until real actions are taken within society to eliminate disparities

In addition to the Call-to-Action items above, the Family Community Engagement working group strongly believes that a task force should be created to aide in the development of a Birthing Justice Omnibus bill, advise on continued policy changes, and guide the implementation of the MIC Report Recommendations. The Task Force should be no more than 30 persons and 10 members of the Task Force should be nominated by the Speaker of the House, Senate President and Minority leaders and/or members

of the House of Representatives and Senate, with at least 3 former members of the Maternal Inequities Commission. Further details of this Task Force are outlined in the Task Force Call to Action listed below:

Task Force Call to Action- the creation of a temporary or permanent Task Force on the state level

- Create a temporary or permanent birthing justice task force that closely resembles the 2020 Health Equity Task Force formed by the legislature to address the impact of Covid 19. The tenants of that task force include: The Birthing Justice task force shall include:
 - » 4 members appointed by the Senate President, not more than 2 shall be members of the Senate
 - » 4 members appointed by the Speaker of the House, not more than 2 of whom shall be members of the House of Representatives
 - » 1 member appointed by the minority leader of the Senate
 - » 1 member appointed by the minority leader of the House of Representatives
 - » The chair of the Massachusetts Asian-American Legislative Caucus or a designee
 - » The chair of the Massachusetts Black and Latino Legislative Caucus or a designee
 - » 2 Co-chairs of the Birthing Justice task force and the MA Women's Caucus
 - » 4 residents who are recommended that work in birthing and reproductive justice in the Commonwealth
 - » At least 2 members who have not been recommended by Senate President or Speaker
- that served in the 2021 Special Commission on Racial Inequities in Maternal Health
 - » Task force membership shall reflect diverse representation in the commonwealth including, but not limited to, diverse cultures, races, ethnicities, languages, disabilities, gender identities, sexual orientations, geographic locations and ages.
- Appointees of the Senate President, Speaker of the House, Minority Leader of the Senate and Minority Leader of the House who are not members of the general court shall be knowledgeable in public health or healthcare. When making appointments, the Senate President, Speaker of the House, Minority Leader of the Senate and Minority Leader of the House shall give consideration to individuals who have experience addressing disparities in underserved or underrepresented populations based on culture, race, ethnicity, language, disability, gender identity, sexual orientation, geographic location and age or who work in the healthcare system with a diverse patient population. Two members of the task force shall be elected by a majority of the task force membership to serve as co-chairs; provided, however, that neither member shall be a member of the general court.
- The task force should consult with the Massachusetts Department of Public Health (MDPH) to inform its work. MDPH shall provide requested information to the task force whenever possible.
- The task force shall meet monthly before July 31st, 2022, to draft and complete the birthing justice omnibus bill.
- The Task force shall hold at least 2 public conversations to share and accept public testimony regarding the birthing justice omnibus bill.



Section 2

PUBLIC HEALTH INFRASTRUCTURE

The second domain area that Commissioners addressed is the overall public health infrastructure in the Commonwealth. The working group investigated and studied the public health systems factors that influence poorer maternal health including pregnancy associated death and pregnancy related death for Black birthing people and birthing women of color and their families, along with strategies to counteract those factors. Pregnancy-associated death is defined as the death of a person during pregnancy or within one year of the end of pregnancy regardless of the cause. Pregnancy-related death (maternal death) is the death of a person during pregnancy or within one year of the end of the pregnancy from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiological effects of pregnancy.

The Public Health Infrastructure working group primarily investigated areas including:

- The greater potential of the Maternal Mortality and Morbidity and Review Committee, including greater family engagement.
- Diversity and cultural competence among community health workers as it influences obstetric racism
- Community assets and resources that support population health
- Barriers to medical and community care
- Bias in public health research and data, and historic and current forms of racism

I. The greater potential of the maternal morbidity and mortality committee include greater family engagement:

The Maternal Mortality and Morbidity Review Committee (MMMRC) in Massachusetts reviews maternal deaths, studies the incidence of pregnancy complications, and makes recommendations to improve maternal outcomes and prevent mortality. Understanding the causes of maternal deaths provides insight into the factors that contribute to both maternal morbidity and mortality. This can in turn inform strategies to reduce the incidence of these tragic events.



From 1941 through the late 1980s, the Maternal Welfare Committee at the MA Medical Society began reviewing maternal deaths that were voluntarily reported. Engagement in the process over time waned due to medical liability concerns and perceptions that maternal mortality was no longer an issue. In 2019, the MMMRC partnered with the CDC to strengthen its capacity as awareness around the issue of maternal mortality in the U.S. has grown within the maternal health field and the consequent research. Additionally, maternal mortality rates have worsened over time, especially for Black birthing persons and people of color (POC).

The MMMRC currently operates pursuant to a study authorization and does not have the authority to obtain all the data it needs to conduct comprehensive reviews. At least 35 states have established maternal mortality review committees, with varying levels of funding and authority. States such as Arkansas, Oklahoma, and Washington have recently established maternal mortality review committees in statute, which grants greater authority to obtain the data needed to assess each case of maternal death comprehensively and appropriately in those states. In states such as New York and Colorado, dedicated state funding for maternal mortality review committees has been established. Investigations by the existing MA MMMRC are authorized by the MDPH Commissioner, pursuant to M.G.L. c. 111, § 24A. This statute only allows MDPH to request birth and death records, but does not require relevant entities to provide access to requested records, nor does it authorize the MMMRC to access other sources of relevant data. As a result, critical records are consistently not available, including autopsy reports from the Office of the Chief Medical Examiner (CME), prenatal care records from private providers, outpatient and emergency department records, and Emergency Medical Services (EMS) records. The lack of authority leads to a delay in acquiring relevant data, which in turn results in a delay in issuing reports and analyses that are necessary to affect changes that reduce maternal mortality and SMM.

KEY FINDINGS

- » The current committee includes clinical and public health professionals and is lacking participation from community members, including people with lived experience in the review process and development of recommendations.
- » Currently there is no dedicated funding for the MMMRC.

RECOMMENDATIONS

- ✓
 - » Enhance the maternal mortality review process through community engagement, engaging members of the communities with lived experience, and community-based organizations
 - » Expand the scope of the committee to include clinical and non-clinical members.
 - » Inform the implementation of initiatives in the communities who need them most
 - » Engage police departments
 - » Establish funds to support MMMRC operations

STORY HIGHLIGHT

Kimberly's Story as told by her sister, Donnette McManus



On October 6, 1979, a true princess was born. She had everything going for her. She had a working class two-parent household. She had access to private healthcare, a home laced with books, an older sister and a middle-class promise that if she played her cards right, she could gain a piece of the American Dream.

Kimberly was determined to not let her disabilities affect her life! She was on a mission, and she took every minute of every day to learn and get what she needed so that she could lead a "normal" life. While Kimberly was a typical teen, she grew up making the best of what she had been given. She was reading on a third-grade level and comprehending on a ninth-grade level. She read and re-read and re-read just to make sure that she was able to understand things that were foreign.

She graduated from Hyde Park High School where she navigated the system well enough to achieve some level of success. She worked hard and became the Assistant Manager at Parade of Shoes in Jamaica Plain on Centre Street. She worked a lot and managed to be fairly confident enough to operate a cash register, balance the day's transactions, open, and close the store. She was a success!

Later in life, she met a young man and decided to start a family. Life was not without challenges, despite her best efforts. She was followed by her primary care, and she followed up frequently as this was her first child and the very first grandchild to our mother and father. The visits to the doctor were all the same. The doctor knew what was best and despite all the planning, Kamyla was born.

In May 2006, my niece Kamyla was born but only after being sent home several times with a diagnosis of false labor. The pain was tremendous and no matter what, Kamyla was ready for the world. Trapped in her birth canal, she lost

oxygen to her brain causing some damage. We managed to recover from her eventful pregnancy and shortly after Kamyla was born, I had been informed that my husband and I were expecting.

Of course, I consulted my sister because after all, she had successfully carried and had a beautiful, baby girl with a head full of curls. Kimberly went on and shortly after the birth of my son, she gave birth to another little princess named Kaley. Kaley was a handful...literally, as she was born premature. Again, she insisted to doctors that her baby was coming and again they gave her the date they chose for her to deliver. I am not sure if the premature birth delays were due to her being born too soon or because she was diagnosed with autism. We will never be certain!

Fast forward a few years and a painful lesson later. It's 2019 and the story is still the same. Doctors know what is best and gave Kimberly the date of August 5, 2019, for a cesarean birth. Unfortunately, that was the day that we laid my only sister and mother of three to rest. Kennedy survived and lives with me, her siblings and my son. We are all struggling to make sense of how her death has impacted our lives, but we live with the hope that change will come. Kimberly was 39 years young!

After Kimberly's death, I realized that she is among the many African American mothers who died due to negligence, bad healthcare, and a lack of understanding. What questions should mothers ask? Why don't healthcare providers listen? Who is ultimately responsible? What could have been done to prevent our loss and other families' losses?

At any rate, I am going to push for legislation that would support a new law called "Kimberly's Law." If providers can add COVID-19 screening language, why can't mothers be screened for healthcare questions that help them figure out the best care for themselves and their unborn child? After all, why does a mother have to die in order to make changes for the good no matter what race, socio-economic status, location of your care or anything else. Good healthcare is good healthcare!

II. Diversity and cultural competence among community health workers

Evidence shows that having a diverse and culturally competent workforce supports the progression of optimizing health of communities, especially those who have been historically marginalized. We propose a recommendation for reimbursements for the following professions: doulas, certified nurse midwives and community health workers.

Doulas: A doula is a trained professional who provides continuous emotional and physical support to families before, during, and after birth based on evidence-based practices and with cultural humility. Doulas improve maternal and infant health outcomes, including a 39% reduction in Cesarean sections, reduced use of pain medications, higher Apgar scores for newborns, increased breastfeeding rates, and better postpartum connections to resources (The Commonwealth Fund, 2021). Community-based doulas may help mitigate some of the maternal health inequities women of color, especially Black women and Black birthing persons, face.

Certified Nurse-Midwives: Certified Nurse-Midwives (CNM) provide primary health care services to women and birthing persons throughout the lifespan including gynecologic care, family planning services, preconception care, prenatal and postpartum care, childbirth, care of the newborn and treatment of the partner of their clients for sexually transmitted disease and reproductive health. A CNM practices within a healthcare system and develops clinical relationships with obstetrician-gynecologists to provide care in diverse settings, including, but not limited to, home, hospital, birth center, and a variety of ambulatory care settings such as private offices, community, and public health clinics. Certified Nurse-Midwives are educated in graduate-level midwifery programs accredited by the Accreditation Commission for Midwifery Education (ACME). In Massachusetts, CNMs have been licensed, independent providers since 2014 and the licensure is issued by the MA Board of Nursing. There is a large body of evidence to support the effective, safe, and holistic care provided by nurse-midwives. Research demonstrates that pregnant women and persons who receive care with CNMs experience lower rates of medical intervention, including Cesarean delivery, inductions of labor, episiotomy, and epidural use than when provided by physicians. Despite quality outcomes, CNM deliveries reflect only 11.3% of vaginal deliveries and 7.6% of all births nationwide. The Baystate Midwifery Education Program graduates are 25% BIPOC, and primarily from the cities of Holyoke, Chicopee, and Springfield which are predominantly communities of color. The same could be achieved in Boston.

Community Health Workers: To support a more diverse workforce, it is important to bring educational opportunities where prospective CHW students are trained as public health workers who apply their unique understanding of the experience, language, and/or culture of the populations they serve in order to carry out one or more of the following roles:

KEY FINDINGS

- » Currently, doulas are not licensed or certified in Massachusetts and there is no single accrediting body for doulas
- » CNMs attend approximately 17% of births in MA
- » An October 2021 report by the MA Health Policy Commission titled *Certified Nurse Midwives and Maternity Care in Massachusetts*, estimates that a 10% increase in CNM attended births is associated with a \$530 reduction in maternity spending per maternity episode.

RECOMMENDATIONS

- » Create a voluntary certification pathway to:
 - Create professional standards for doulas
 - Help ensure quality of care
 - Allow consumers to select doulas who have been vetted by a trusted state agency
 - Support broader insurance coverage of doula care
 - Set up a system for insurers to reimburse doulas
- » Support Funding for a Nurse-Midwifery Educational Program in Boston
- » Require reimbursement parity for Certified Nurse-Midwives at 100% equivalent rate to that of physicians reimbursed by private insurers and MassHealth

✓ RECOMMENDATIONS

- » Enforce standards for community health worker reimbursement by MassHealth
- » Provide culturally competent care by:
 - Requiring CBHCs to provide services in clients' preferred language (including ASL).
 - Requiring CBHCs to provide tailored services for populations such as pregnant people and postpartum people, individuals who are involved with justice, individuals with ASD/IDD, and youth in the care and custody of the Commonwealth.
 - Requiring training for behavioral health providers in evidence-based practices including trauma-informed therapies, racial implicit and explicit bias, stigma, and medical racism that better meet the needs of Massachusetts' diverse population.
 - Implementing effective universal screening and assessment of perinatal behavioral health with improved reporting system and capacity for analysis; and
 - Requiring training for all Behavioral Health providers around the needs of *perinatal individuals*.

1. Providing culturally appropriate health education, information, and outreach in community-based settings, such as homes, schools, clinics, shelters, local businesses, and community centers
2. Bridging and culturally mediating between individuals, communities, and health and human services, including actively building individual and community capacity
3. Assuring that people access the services they need
4. Providing direct services, such as informal counseling, social support, care coordination, and health screenings
5. Advocating for individual and community needs. (Office of Community Health Workers, 2022).

CHWs are distinguished from other health professionals because they are hired primarily for their understanding of the populations and communities they serve, conduct outreach a significant portion of the time in one or more of the categories above, and have experience providing services in community settings. CHWs are distinguished from other health care and public health workers by the activities they perform and by their identity, typically, as members of the communities they serve. CHWs spend significant portions of their time working in community-based settings and in clients' homes. This community-based work allows CHWs to reach deep into their communities and to connect people who are isolated and hard to reach with needed health and human services.

“Massachusetts is the only state in New England that does not reimburse its nurse midwives at the 100% guaranteed rate. This is a structural disparity. A lot of consumers don't even know that when they access our care through MassHealth, midwives are paid at a lesser rate for equivalent services. Nurse-midwives provide deliveries, pap smears, family planning, and other services. There are about 500 nurse midwives in the state, we deliver about 16% of the people in the state and have full practice authority. Nurse midwives are committed to the community, practicing in community health centers. They have been on the frontlines for years in Massachusetts doing the work with vulnerable populations. Midwives are paid at a lesser rate for the same services provided by other professionals.”

-COMMISSIONER AND CERTIFIED NURSE MIDWIFE, SUSAN HERNANDEZ, AN ADVOCATE FOR HOUSE BILL 3881, AN ACT TO INCREASE ACCESS TO NURSE-MIDWIFERY SERVICES

III. Community assets and resources that support population health

Home Visiting Programs: Home visiting programs are effective in promoting the health and development of pregnant people and new parents and their infants, particularly for families experiencing systemic oppression, such as racism and poverty. Universal home visiting programs are offered to all families regardless of income, age, or other criteria and provide support tailored to the unique identities and needs of a given family (e.g., Black, Indigenous, and People of Color, people experiencing homelessness). Universal home visiting can reach a broader range of families and reduce the stigma associated with participation in eligibility-based programs, thereby identifying needs that might otherwise go undetected.

MDPH has been implementing Welcome Family, a voluntary universal home visiting program for families with newborns, since 2013 with federal grant funding. Welcome Family offers a one-time home visit and follow-up phone call by an experienced maternal and child health nurse. The nurse identifies and responds to family needs by screening for physical and emotional health and well-being (e.g., maternal blood pressure, depression, substance use, domestic violence), providing counseling, education, and support, facilitating connections to clinical services (e.g., postpartum visits), and making referrals to community resources (e.g., WIC/ SNAP, Early Intervention). Welcome Family is currently available to families with newborns in Boston, Lowell, Fall River, Holyoke, and Springfield.

In the past two years, Oregon and New Jersey have passed legislation to fund statewide universal home visiting. Similar legislation in Massachusetts would allow Welcome Family to be available to any family giving birth in Massachusetts as a strategy to reduce racial inequities in maternal health and address barriers to accessing care. Legislation would require MassHealth and commercial insurers to reimburse for a Welcome Family home visit and provide state funding to manage and implement the program and provide a match for federal Medicaid dollar.

Housing Stability: Housing insecurity is a social determinant of health variable defined by high housing costs relative to income, poor housing quality, overcrowding and homelessness. Recent studies reveal Black tenants are twice as likely as white tenants to face eviction, despite making up only 11% of Massachusetts' population and Black women are 2.5 times more likely than white women to face eviction. In addition, Black women are far more likely to have their name attached to an eviction record. Between the start of the pandemic and the implementation of the eviction moratorium, 78% of evictions filed in Boston area were in neighborhoods of color. The impact of housing insecurity and inconsistent access to nutritious food are well documented. Several tools have been developed to screen for housing insecurity including the Housing Stability Vital Sign from Children's Health Watch and the Centers for Medicare & Medicaid Services (CMS) Accountable Health Communities Model, which has two questions on housing insecurity.

KEY FINDINGS

- » Black tenants are twice as likely as white tenants to face eviction, despite making up only 11% of Massachusetts' population, and Black women are 2.5 times more likely than white women to face eviction.
- » Between the start of the pandemic and the implementation of the eviction moratorium, 78% of evictions filed in Boston area were in neighborhoods of color.
- » Massachusetts PRAMS data found that about 40% of MA employed women with a recent live birth took unpaid leave only, 36.2% took paid leave only, 20.2% took both paid and unpaid leave, and 3.7% did not take any leave.
- » During 2017–2018, the two most common factors affecting Massachusetts mothers' decisions about taking maternity leave from work included "no paid leave offered" and "could not financially afford to take leave."
- » Laws applicable to PFAS in the state of Massachusetts include 310 CMR 40.16 (soil and groundwater) and 310 CMR 22.08 (drinking water), and they state it is a requirement that town/ cities test for PFAS quarterly. State required PFAS levels: 20 ppt for sum of 6 PFAS compounds (*Commonwealth of Massachusetts, 2022*).
- » The vending stations allow for residents to pick water up, but in most cases, they do not deliver water to the homes of individuals in need of water who may not have the means or ability to transport.

✓ RECOMMENDATIONS

- » Provide funding to support statewide expansion of the Welcome Family Program to additional communities.
Based on the Welcome Family statewide program, the estimated cost of a statewide program is about \$19.6 million, which would be achieved gradually over 6 years.
- » Expand the Boston Medical Center model to other hospitals, community health centers, urgent care centers, and community behavioral health centers throughout the state.
- » Recommend the Department of Paid Family Medical to collect disaggregated data of race/ethnicity, veteran status, disability status to monitor implementation of the PFML legislation
- » Add a clinician(s) to PFML Medical Advisory Committee Meetings
- » Enact H.221, An Act to Support Families (Rep. Garballey)
- » Provide funding for vending units with water stations to offer transportation services of water could be useful (this could also benefit the elderly as well)

At Boston Medical Center, screening for housing instability and for other social determinants of health has proven a critical first step in assessing the unmet resource needs that can contribute to poor health outcomes. The Thrive™ hospital-wide screening tool, which was implemented in the pediatric outpatient clinic in 2017, provides patients and families with the opportunity to report needs and request resources that might be of assistance in addressing these needs. The Thrive tool is available in the six languages most spoken in the hospital and assesses needs in eight areas: housing, food, utilities, medications, transportation, caregiving, employment, and education.

Earned Income Tax Credit (EITC): EITC is a benefit for working people with low incomes that reduces taxes owed and potentially provides a refund. EITC improves the health of families and is linked to improvements in pregnancy outcomes such as low birth weight. Recipients purchase healthy foods items, such as fruits and vegetables, and decrease food insecurity during the months most refunds are paid. EITC improves educational outcomes for young children in low-income households. Eligible families will receive their full refund. Undocumented immigrants with US born children are eligible to claim the child tax credit for their children as that credit is tied to the child, not the parent. Volunteers who run tax sites will not take an upfront percentage or charge for services so families will receive their full refund checks. It is completely free, and families should be encouraged to wait for refund checks instead of paying for services. Boston Medical Center offers these services to patients during regular medical appointments.

Paid Family Medical Leave: Maternity leave refers to the period that a mother or birthing person takes off from work following the delivery. It provides an important time for a mother or birthing person to recover after delivery as well as to bond with their newborn. Paid maternity leave has been linked to increased rates of breastfeeding and decreased risks of adverse birth outcomes such as low birth weight and premature birth. It is also important to recognize social and racial inequities that exist in accessing paid maternity leave. Research has shown that low-wage and part-time workers, minority workers, and less-educated workers often lack access to paid leave. Additionally, international studies have shown that paid maternal leave was associated with a reduction in infant mortality rates (Hajizadeh, Harper, Koski, et al. 2016).

Department of Children and Families: Under current Massachusetts law, the birth of a substance-exposed newborn triggers an automatic obligation on healthcare providers to report the birth parent to the Department of Children and Families (DCF) for suspected abuse or neglect. This report, referred to as a 51A report, initiates an invasive screening process into the birth parent's life. Massachusetts is the only state in New England in which a report of child abuse/neglect is mandated regardless of whether the substance was prescribed to the pregnant individual for addiction treatment or whether the healthcare provider believes an infant is at risk for abuse or neglect.

H.221 would update the law to center the best interests of the child and bring Massachusetts policy in line with the rest of New England while meeting federal CAPTA and CARA requirements. Providers would no longer be required to file a

51A report automatically by the singular fact of prenatal substance exposure, reducing unnecessary reports to DCF and costs to the state. Instead, an anonymous notification of a substance-exposed newborn, separate from the 51A filing system would be made to the Department of Public Health. This is an important first step toward rectifying inequities and discrimination in our child welfare reporting and health care systems. Without the threat of a mandatory report of abuse for taking medically prescribed medication, more pregnant people with a substance use disorder (SUD) will be comfortable seeking necessary prenatal care and maintaining their evidence-based treatment, leading to overall improvements in maternal and infant health outcomes

Per-and Polyfluoroalkyl Substances (PFAS): PFAS are man-made chemicals used in non-stick products, food packaging, outdoor clothing, carpets, leather goods, ski waxes, firefighting foams, oil, gasoline, etc. PFAS exist in the environment, groundwater from spills or landfills. These components (PFAS6) do not breakdown. PFAS are linked to health risks with negative effects on immune compromised people, pregnancies, nursing, and infants (*Blake, Fenton, 2020*). Individuals/families purchasing water filtration systems in towns impacted by PFAS6 should be able to receive reimbursements for their purchases of water filtration systems and water. These expenses can add up for families. It is imperative to note that some towns will be living with water that has high PFAS levels for an extended period.

Water transportation support: People that are far along in the pregnancy, without the help (and who reside in towns where the vending units are located) may need help in picking up water from the vending units and bringing it back to their homes. Some birthing people may not own cars or have others means of transportation to pick up the vending units, or may be assigned to bed rest as a result of the pregnancy.

IV. Barriers to medical and community care

MassHealth Coverage for Infertility Treatment: The right to have children is at the core of reproductive justice. Infertility affects an estimated 12-15 percent of women and birthing people of reproductive age (Chandra et al, 2005). The use of fertility-enhancing therapies, including assisted reproductive technologies (ART), has risen steadily in the United States due to several factors, including childbearing at older maternal ages and increasing insurance coverage. The availability of insurance in states with mandates has also led to an increased use of ART.

Certified Nurse-Midwives: In Massachusetts, CNMs receive 15-20% less in insurance reimbursement for vaginal deliveries, contraception visits and cancer screening (among other services) than when these same procedures are performed by a physician (OB/GYN or Family Practice MD). Massachusetts is now the only state in New England that does not reimburse Certified Nurse-Midwives at 100% parity to the physician rates. Nationally, 29 states and the District of Columbia all reimburse CNMs equitably.

KEY FINDINGS

- » One significant limitation to the expansion of certified midwifery services and access for patients is reimbursement inequity by private payers and MA Medicaid
- » While states with comprehensive insurance mandates, including Massachusetts (211 CMR 37.00) have been found to have higher ART utilization rates, this benefit is only available to women and birthing persons who are privately insured
- » MassHealth does not cover ART treatment, limiting the ability to have children among many people who are on Medicaid.
 - Currently, it's been observed in the state of Massachusetts that pregnancy-associated mortality is often the result of substance use disorder
 - Most mothers enter to healthcare system with elevated risk and the time they spend in the healthcare system is limited to pregnancy

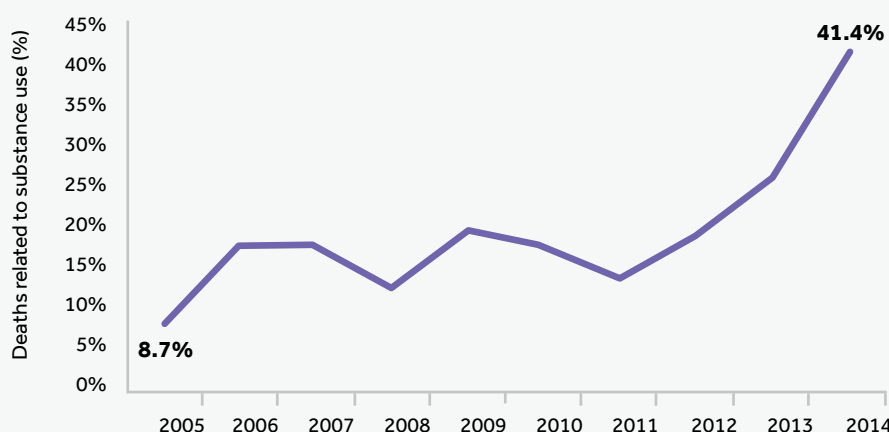
RECOMMENDATIONS

- » Enact H. 2341/ S.1519: The out of hospital birth access and safety act (Rep. Khan and Sen. Rausch). This impact of this bill would
 - require CPMs to become licensed and carry the nationally accredited CPM credentials, meeting the educational and practice requirements of the profession.

- permit CPMs to carry and administer life-saving medications
- include CPMs as Medicaid/Mass Health providers
- establish a Board of Midwifery under the Department of Public Health to oversee licensure.
- **See Appendix E**
- » Provide funding to support statewide expansion of the Welcome Family Program to additional communities
- Require MassHealth and commercial insurers to reimburse for a Welcome Family home visit and provide state funding to manage and implement the program and provide a match for federal Medicaid dollars
- Bring focus to behavioral health and substance use treatment
- Identify clinical care community linkages and descriptions of points of contact. This includes location of mothers' and birthing persons' pre-pregnancy, day care, lactation site, peer support groups etc.
- Find a woman or birthing person early, before they begin pregnancy and follow up with them throughout the pregnancy and prenatal care stages

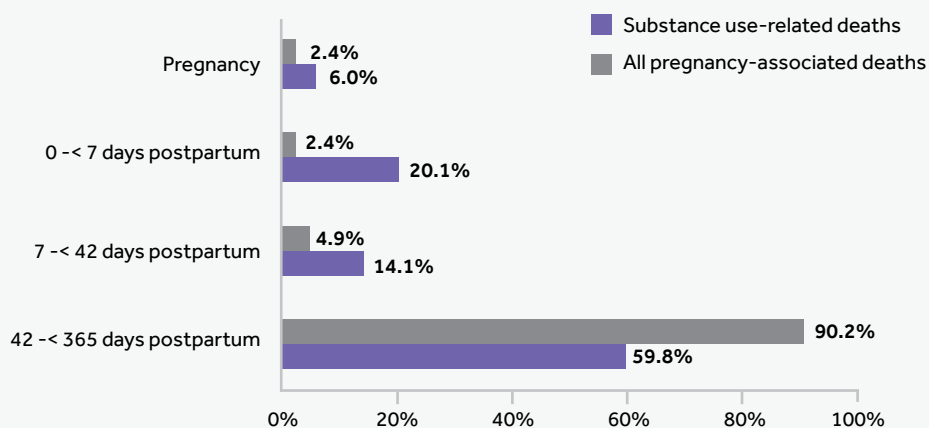
Fragmentation in Linkage to Care: The number of opioid overdose deaths in the Commonwealth has increased five-fold in the last 20 years with a particularly sharp increase between 2013 and 2014 (Massachusetts Department of Public Health, 2018). In 2016, the MMMRC became alarmed at an increase in the number or reviewed deaths that were directly or indirectly related to substance use. Current prenatal care records are an invaluable source of information for conditions such as opioid use disorder. Current Massachusetts law limits the MMMRC in obtaining complete sets of prenatal records for women whose care was at a facility other than the one in which they delivered.

FIGURE 5 Proportion of pregnancy associated deaths related to substance use by year of death — Massachusetts, 2005-2014



Source: <https://www.mass.gov/doc/substance-use-among-pregnancy-associated-deaths-massachusetts-2005-2014/download>

FIGURE 6 Timing of substance use-related vs. all pregnancy-associated deaths — Massachusetts, 2005-2014



Source: <https://www.mass.gov/doc/substance-use-among-pregnancy-associated-deaths-massachusetts-2005-2014/download>



V. Biased public health research, data, historical and current forms of racism

“I want to focus my comments today on public health infrastructure and more narrowly on the enhancement of the Massachusetts State knowledge base for action around maternal health. What we measure or don’t measure is what we understand about the problems that are and the potential solutions that we have. Limitations in our knowledge base can also inadvertently reinforce racial disparities, structural racism and sub-optimal public policy and clinical practice.”

- MILTON KOTELCHUCK, PHD, MPH,
PROFESSOR OF PEDIATRICS AT HARVARD MEDICAL SCHOOL/MASS GENERAL HOSPITAL FOR
CHILDREN, FORMER ASSISTANT COMMISSIONER FOR COMMUNITY HEALTH SERVICES, AND
FORMER DIRECTOR OF VITAL STATISTICS AND RESEARCH, MDPH

In addition to identifying key findings and highlighted recommendations, Commissioners have made a call for action to resolve systemic racial inequities by addressing identified gaps and areas of improvement in the current public health infrastructure. It is through these call for action strategies that the commission aims to be a national example in reducing racial disparities in the United States.

KEY FINDINGS

- » There is a lack of timely and complete data related to pregnancy-associated mortality, including an autopsy or toxicology report
- » Currently, the MMMRC often gets records only from hospitals and hospital-based practices. There is likely an element of structural racism that underlies who receives care in what setting, and this structural racism may likely influence whose records the MMMRC may have full access to overall.

✓ RECOMMENDATIONS

- » Request additional data from all state agencies and all organizations including the medical examiner’s office
- » Establish a policy to address needs for data
- » Expand the reach of the MMMRC to allow for easier and more regular access to all documentation from medical care provided

CALL FOR ACTION

Public Health Infrastructure

1. Expand the role of the MMMRC via the structured organization of a committee. The committee shall not exceed 25 members to be appointed by the Commissioner of MDPH. The MMMRC shall include:

- Representatives of the Department of Public Health
- A representative of the Massachusetts Perinatal Neonatal Quality Improvement Network
- The Chief Medical Examiner or a designee
- The Chair of the Massachusetts chapter of the American College of Obstetrics and Gynecology or a designee
- The Chair of the Massachusetts chapter of the American College of Nurse Midwives or a designee
- The Chair of the Massachusetts chapter of the Association of Women's Health, Obstetric and Neonatal Nurses or a designee
- A medical professional with obstetric and neonatal nursing training
- A medical professional with training in cardiology
- A medical professional with training in pathology
- A medical professional with expertise in substance use prevention and treatment
- A psychology, social work or other mental health professional
- A representative from academia
- A medical professional with formal anesthesiology training
- A medical professional with maternal fetal medicine or perinatology training
- A medical professional with psychiatric training
- A medical professional with family medicine training
- A director of a federally funded-Healthy Start program or a designee
- A minimum of two Doulas
- A minimum of two community or family members who have been directly affected by a maternal death and another person, selected by majority vote of the members of the committee, with relevant expertise or knowledge
- A member of a Community-Based Organization
- A representative from the Department of Family and Children
- A law enforcement officer.

Membership and Terms: The Commissioner of MDPH or the Commissioner's designee shall chair the MMMRC. Each member shall serve for a term of three years and until their successor is appointed. Nothing shall prohibit the Commissioner from appointing a committee member to serve additional terms. Committee members shall be compensated for their participation on the committee and be reimbursed for ordinary and necessary expenses for the performance of their duties (such as mileage and tolls). The department shall convene the committee on a regular basis as deemed necessary by the department.

The committee shall conduct a thorough and complete review of every pregnancy-associated death in Massachusetts and instances of severe maternal morbidity (SMM) in Massachusetts, determine whether the death was preventable, and make recommendations for changes in law, policy, and practice that will prevent maternal mortality and SMM, including specific recommendations to eliminate long standing race-based inequities.

2. Create a policy to address needs for data:

- The MMMRC may request information from any agency of the commonwealth or political subdivision, person or corporation deemed relevant by the committee.
- Notwithstanding any general or special law to the contrary, clinicians licensed by the department, health care facilities, providers

of social services, medical examiners, and law enforcement agencies shall provide records or information requested by the committee, including any information considered confidential under the law.

- The committee may receive and solicit voluntary information, including oral or written statements, relating to any pregnancy-associated death and case of SMM, from any family member or other interested party (including the patient in a case of SMM) relating to any case that may come before the committee.

3. Create funding to support MMMRC & PNQIN

- Funding is needed to support the MMMRC's operations, including 2FTEs for data abstraction and management, and 1FTE for program coordination and compensation for committee members
- Estimated funding amount is \$500,000 annually
- Resources are needed to support PNQIN. Should resources become available, the organization would work to:
 - » Implement hospital safety bundles
 - » Promote and establish trainings to resolve stigma, implicit, and explicit racial bias
 - » Develop equity data dashboards
 - » Build a culture of equity within health care systems

4. Create funding to support doula certification/credentialing pathway: \$500,000 annually

- Support staffing for the implementation of the doula certification/credentialing and renewal of certification, and funding options for continuing education modules
- Implement structures that would oversee the reimbursement, efficacy, evaluation, support and continued development of doula workforce. Doulas reimbursed on a model of up to 1 year after event (i.e., birth, loss), funding would make possible
- Support to agencies dedicated to workforce development, doula mentorship and supervision, and fiscal management
- Support one full-time program manager at MDPH
- Promote or expand community-based doula programs

- Facilitate Reimbursement: reimbursement for doula services for MassHealth recipients would require Doulas serving those populations to be certified via MDPH.

5. Enact HB. 3881: An act to increase access to nurse-midwifery care (Representative Kay Khan)

- The bill would ensure that insurance companies reimburse CNMs equally to physicians for performing the same medical services ([See Appendix F](#))

6. Provide funding to support statewide expansion of the Welcome Family Program to additional communities

- MDPH would expand the program gradually to additional cities and towns, beginning with those with the greatest inequities in maternal health outcomes, with the goal of scaling up to statewide in 6 years. Services would be provided through qualified agencies selected through a competitive procurement process. The annual projected cost of a statewide Welcome Family program is \$19.7 million:
- \$5 million in state funding would be allocated for Medicaid match and to support administration and management (e.g., MDPH staff to manage program operations, contracts, and data; expansion and maintenance of the data system infrastructure; marketing materials).
- \$14.7 million would be billed to insurers. The approximate cost per family for a single postpartum visit and follow up phone call is \$320, and the assumption is that Welcome Family would serve 46,000 births per year (about 65% of all births).

7. Advance health equity to meet the diverse needs of individuals and families, particularly from historically marginalized communities (align with the Roadmap for Behavioral Health Reform).

- Diversify the workforce to be more reflective of the Commonwealth by:
 - » Providing loan repayment incentives for clinicians with diverse cultural, racial,

- ethnic, and linguistic backgrounds and competence; and
- » Expanding coverage of peers for mental health and addiction
- Creating a multi-lingual “front door,” including ASL interpreters
- Providing treatment when and where people need it to reduce disparities in access to behavioral health services related to transportation, time off from work and childcare
 - » Maintain broad coverage of telehealth
 - » Expand the availability of integrated behavioral health services within primary care
 - » Extend hours to including weekends, at Community Behavioral Health Centers (CBHCs) and behavioral health urgent care

8. The Massachusetts Legislature and the Executive branch can and should mandate every state reproductive health benefit program, service program, and Health Surveillance Program to collect and report its participant data by race and ethnicity. Data that are needed to highlight inequities in maternal mortality and severe maternal morbidity (SMM) and point to action:

- Race/ethnicity, language, disability status, gender identity is not collected routinely
- Social determinants of health
- Prenatal records from private providers should be available to MMMRC
- Police records

9. Expand the definition of a severe maternal mortality to include social factors.

- Incorporate social determinants such as homelessness, alcohol and substance use in the proposed new definition

10. Create and maintain an annual state report on maternal health and maternal health care.

- It is possible to follow the Chapter 55 legislation to develop a statewide attention, allowing data to be gathered from all various data sources

11. Provide attention to fathers/partners of Black birthing persons

“... As a Black man and as a husband, the feeling of helplessness, the feeling of just wanting to be there fully, but at the same time balancing all the other sorts of priorities. Often coming through that process, just feeling like there’s something more that I should have been able to do is really an important feeling.”

—COMMISSIONER CHARLES ANDERSON, MD, MPH, MBA,
COMMENTING ON THE EXPERIENCE OF HE AND HIS WIFE, DR.
ONEEKA WILLIAMS DELIVERING THEIR TWINS

12. Doula Workforce Development

- Create funds to support doula certification/credentialing pathway
- Create funds to support on-going infrastructure and support for doulas including supervision, on-going technical assistance, and continuing education

13. Midwifery Workforce Expansion and Improve Integration

- **Enact HB: 3881: An act to increase access to nurse-midwifery care (Representative Kay Khan). The bill would ensure that insurance companies reimburse CNMs equally to physicians for performing the same medical services**
- Reimburse nurse-midwifery and equal pay for nurse midwives ([Bill H.3881 \(malegislature.gov\)](#))
- Enact and recognize CPM (Certified Professional Midwife) licensure: ([Bill H.1189 \(malegislature.gov\)](#))
- Create a Nurse-Midwifery education program in Boston

14. Enact H. 2341/ S.1519: The out of hospital birth access and safety act (Representative Kay Khan and Senator Becca Rausch)

- [Bill H.2341 \(malegislature.gov\)](#) and
- [Bill S.1519 \(malegislature.gov\)](#)
- Require CPMs to become licensed and carry the nationally accredited CPM credentials, meeting the educational and practice requirements of the profession
- Permit CPMs to carry and administer life-saving medications
- Include CPMs as Medicaid/MassHealth providers

- Establish a Board of Midwifery under the Department of Public Health to oversee licensure

15. Community Health Worker Medicaid Reimbursement

- Increase visibility and reimbursement of community health workers

16. Housing Insecurity

- Establish a city-level counseling program to promote housing stability and prevent evictions in neighborhood of color
- Pass An Act promoting housing stability and homelessness prevention in Massachusetts. <https://malegislature.gov/Bills/192/S874>
- Pass An Act promoting housing stability and homelessness prevention in Massachusetts. <https://malegislature.gov/Bills/192/H1436>

17. Expand gold standard models throughout the state for linking pregnant families with access to supportive resources such as the income tax credit—BMC model

- An Act of making appropriations for the fiscal year 2022 for the maintenance of the departments, boards, commissions, institutions, and certain activities of the commonwealth for the interest, sinking fund, and serial bond requirements and for certain permanent improvements. [Bill H.4000 \(malegislature.gov\)](#)

18. Equitable Paid Family Medical Leave

- Collect race/ethnicity data to support equitable implementation of paid leave legislation for BIPOC people

19. Department of Children and Families (DCF):

- **An Act to Support families** (Representative Sean Garballey) [Bill H.221 \(malegislature.gov\)](#)
- Mandate stigma, bias, trauma, and diversity training among DCF staff
- Develop equitable policies and processes for 51A reporting
- Increase education regarding trauma, mental health, and substance use disorder (SUD) and stigma/bias among DCF staff
- Create and support a dual notification system for Plan of Safe Care to combat bias in DCF

reporting for Substance Exposed/Affected Newborns

- Eliminate systems that encourage 51a reporting for families of individuals on stable treatment for medication for opioid use disorder (MOUD)
- Create system that fosters the spirit of the plan of safe care, communication between providers (not one that penalizes care of BH/SUD needs)

20. Perinatal Behavioral Health/SUD Workforce Development:

- Ensure the right treatment when and where people need it (*Commonwealth of Massachusetts, RoadMap for Behavioral Reform, 2022*).

21. MassHealth Coverage for Infertility Treatment

- Reimburse fertility treatment among members
- Cover ART treatment to resolve limitations on the ability to have children among many people who are on Medicaid

22. Per-and Polyfluoroalkyl Substances (PFAS)

- Reimburse birthing people
 - » Address laws applicable to PFAS in the state of Massachusetts including
 - » 310 CMR 40.16 (soil and groundwater) and
 - » 310 CMR 22.08 (drinking water)

23. Lead Exposure

- Recommend screening for lead exposure

24. Maternal Health Home [Build Back Better Plan](#) (Clark, Burak, 2021)

- **Sec. 1945B. Provide coordinated care through a Maternal Health Home for pregnant and postpartum individuals**
- Services: MHH should include comprehensive and timely high-quality services that are provided by a designated provider, a team of health professionals operating with such a provider, or a health team. MHH will include the following:
 - » A standardized risk assessment for all participants to determine needs
 - » Comprehensive care management
 - » Care coordination and health promotion
 - » Comprehensive transitional care, including arranging appropriate follow-up, for

- » individuals transitioning from inpatient care to other settings
 - » Individual and family support (including authorized representatives)
 - » Making referrals to other medical, community, and social support services, if relevant; and
 - » The use of health information technology to link services and coordinate care, to the extent practicable.
- Payment may be tiered or adjusted to reflect, with respect to each individual provided such services by a designated provider, a team of health care professionals operating with such a provider, or a health team, the acuity of each individual receiving care, or the specific capabilities of the provider, team of health care providers, or health team.

- » Collect data on the number of individuals served who selected a maternal health home, disaggregated by race and ethnicity, disability and veteran status, type of services, timeliness of referral and services.

25. Support equitable hospital access

- Hospital Closures
 - » Closures of health facilities are furthering inequitable access to healthcare across the spectrum of pregnancy
 - » <https://commonwealthmagazine.org/opinion/defying-dph-hospitals-keep-shuttering-necessary-facilities/>



Section 3

HEALTHCARE SYSTEMS IMPROVEMENT

This working group investigated and studied the factors that influence poorer maternal health care delivery for Black and Brown mothers, birthing persons, and their families, along with strategies to counteract those factors. Examples of these strategies involve evidence-based, best/promising clinical practices to eliminate racial inequities in maternal morbidity and mortality, healthcare improvement strategies to counteract obstetric racism and achieve racial equity and strategies that address behavioral and mental health. This working group investigated the following:

- Quality of healthcare delivered
- Diversity of and equity/cultural competence training for the healthcare workforce to counteract obstetric racism and bias
- Quality improvement in care delivery such as implementation of maternal safety bundles
- Innovative models of care such as maternity medical homes and group prenatal care
- Systems to ensure respectful care delivery
- Integration of culturally competent and affordable doula support
- Collaboration with accessible and affordable birthing centers
- Bias education in health professional curriculums, and historical and current forms of racism

KEY FINDINGS:

- » Black mothers and birthing persons report higher rates of experiencing stress related to race and racism in the state of Massachusetts compared to white individuals
- » Black non-Hispanic individuals with a college degree report experiencing stress at a much higher rate. The disparity is across all income levels.

RECOMMENDATIONS:

- » Apply the three strategies to reduce disparities by focusing on quality care as outlined by Dr. Elizabeth Howell and colleagues

“MMMRs are passive because they are after illness and death. We want to think about what we can do before illness and death, either before people become pregnant or during the pregnancy and clinical care encounter. Sixty percent of these deaths are preventable.”

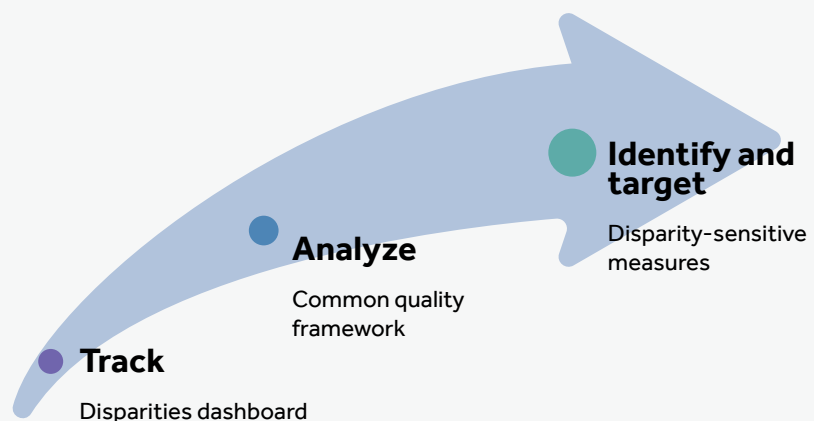
— COMMISSIONER AUDRA MEADOWS, MD, MPH

I. Quality of healthcare delivered

The Pregnancy Risk Assessment Monitoring System is completed annually in Massachusetts. Black respondents consistently report higher rates of experiencing stress related to race and racism in this state compared to white individuals. This disparity is persistent across all income and education levels, even Black, non-Hispanic individuals with at least a college degree are at a 60 percent greater risk for maternal death than a white or Hispanic woman with less than a high school education (*Declercq, Zephyrin, 2020*). The disparity is across all income levels and data indicate a need to focus on quality.

Specifically, there is a need to develop, track, and improve upon quality measures that are sensitive to disparities in obstetrics. There are three major steps Dr. Elizabeth Howell and colleagues suggest to move forward (*Howell, Zeitlin 2017*). The first step in this process is to ensure that hospitals and clinicians collect self-identified race and ethnicity data from their patients. Proper training of staff is required, and patient education is needed to explain why this information is important. Next, obstetric quality measures should be stratified by race and ethnicity and reviewed by leadership and staff. Quality gaps should be identified, and targeted interventions should be introduced to reduce disparities. Second, a great deal of research and progress can be made by using the common quality of care framework of overuse, underuse, and misuse in the setting of racial and ethnic disparities in obstetrics to better understand where we go from here. Third, an expanded set of quality measures are needed in the field.

FIGURE 7 Three strategies to reduce disparities by focusing on quality of care



Source: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5300700/>

The National Quality Forum in 2008 developed criteria for “disparities sensitive” measures. The guiding principles are:

1. How prevalent was the condition in the disparity population?
2. What is the impact of the condition for the health of the disparity population?
3. How strong is the evidence linking improvement in the measure to improved outcomes for any group, but particularly for members of disparity populations?
4. How large is the disparity gap in quality?
5. Is the measure actionable?

Deaths during and immediately after pregnancy are just the tip of this proverbial iceberg of maternal health concerns. It represents the key sentinel event of a population health indicator, but it also is an opportunity for us to reflect on what are other considerations of morbidity and mortality that create a stronger narrative. SMM is 50 to 100 times more common than a pregnancy death, and it gives us a more expansive opportunity to consider areas to intervene, and opportunities to improve maternal health for others.

Numbers of SMM, or life-threatening illness, over time in Massachusetts from 2009 to 2018, have increased. If you are Black in Massachusetts, you do fare worse, and there is a stark and prominent racial difference between Black mothers, birthing persons, and all others with the rates of maternal morbidity.

II. Diversity of and equity/cultural competence training for the healthcare workforce to counteract obstetric racism

Efforts to achieve health equity goals in the United States require the recruitment, retention, and graduation of an increasingly diverse student body of aspiring health professionals. Improving access to health care providers who are culturally congruent with the populations served is a related ethical priority that has the potential to improve the health inequities faced by communities of color in the United States. Midwifery education program administrators and faculty have responded to this need by acknowledging that creation of a more representative midwifery workforce starts with midwifery education. Currently, there is only one midwifery education program in the commonwealth. Thus, the Equity Agenda Guideline was created to support maternal health workers of various backgrounds on equity subject matters pertaining to critical consciousness and dynamics including power, privilege, implicit bias, micro-aggressions, social norms, and racism. (*Effland, Hays, et al. 2020*).

The Equity Agenda Guideline, related conceptual model, was developed for the purpose of supporting health professions educators and institutions who recognize a need for change and are seeking answers about how to train and graduate more health care providers from communities that are currently underrepresented.

KEY FINDINGS

- » Implicit/Explicit Bias and Obstetric Racism Training is necessary
- » The Equity Guideline Agenda may be used by the state of Massachusetts as a bias education health professional curriculum for maternal health professionals-especially midwives
- » (Limitation) The Equity Agenda Guideline has not yet been formally tested for effectiveness and outcome measures such as increased recruitment or retention; this level of evaluation will be valuable moving forward.
- » (Limitation) Additionally, the breadth and depth of work required for effectively dismantling bias and racism in the health professions is still not well understood, and thus, this guideline is acknowledged to be a work in progress.

RECOMMENDATIONS

- » Incentivize hospital systems connecting to community-based services. Some communities have perinatal collaboratives/coalitions that link families to services that are supportive and not necessarily “professionalized” like lactation support, diaper banks, childcare, peer support groups
- » Perinatal work force diversification
 - Support the establishment of Midwifery Education Programs across the state to allow a racially and economically diverse population to enter midwifery training
 - Explore limits to supply of midwifery workforce- lack of consistent, systemic support for midwifery education and educators, nothing exists that is parallel to Medicare’s support for medical residencies
- » Address midwife scope of practice restrictions in hospital bylaws; Address workforce development challenges for both midwives and doulas who identify as people of color

KEY FINDINGS

Improved maternal and newborn outcomes include:

- » Increased spontaneous vaginal birth
- » Shorter duration of labor
- » Decreased cesarean birth
- » Decreased instrumental vaginal birth
- » Decreased use of any analgesia
- » Decreased use of regional analgesia
- » Improved five-minute Apgar score
- » (JOGNN, 2018)

RECOMMENDATIONS

- » Quality improvement is necessary on all levels. Please view the CALL TO ACTION: Healthcare Improvement Section of this document which details strategies at all stages including Clinical Prenatal, Clinical Labor & Delivery, Clinical Postpartum Birth to 12 weeks, Clinical Postpartum (3 Months to 1 year)

KEY FINDINGS

- » Group prenatal care models have been associated with some improvements in pregnancy and birthing experience. For instance:
 - A two-site RCT of an enhanced model of Centering Pregnancy demonstrated a decreased risk of risk of preterm birth for enrolled Black women. Post hoc analyses were conducted to isolate the impact of the intervention for Black women, who comprised 80 percent of the overall sample. The authors found that GPC reduced the risk for preterm birth for Black women by 41 percent, compared to a reduction of 33 percent among the entire sample (Impact Center, 2021)

III. Quality improvement in care delivery such as implementation of maternal safety bundles

State Perinatal Quality Collaboratives, or PQC's as they are called, (in Massachusetts, PNQIN), are actively engaged in eliminating preventable maternal morbidity and mortality, and actively working to achieve birth equity. Providers approach this through a multidisciplinary collaboration. PNQIN is part of a national program to accomplish the goals of preventing or eliminating preventable maternal morbidity and mortality and achieving health equity. The Massachusetts AIM initiative or birth equity initiative works with hospital teams to implement evidence-based checklists of activities to improve care and outcomes. PNQIN is currently working with hospital teams and providers to deliver better care to those with substance use disorder, to counteract obstetric hemorrhage, to improve management of severe hypertension in pregnancy and to achieve birth equity.

Special considerations are focused on evidence-based, best, or promising practices to eliminate racial inequities in maternal mortality or SMM. As an example, an evidence-based bundle was implanted in 58% of labors in 60 days to reduce early labor admissions and increase adherence to evidence-based labor management guidelines shown to decrease cesarean birth. The bundle was observed to reduce early labor admissions from 41% to 25%. Team knowledge reflecting current guidelines in labor management increased 35% and 100% of cesareans for labor arrest met criteria. Patient satisfaction scores exceeded 98% (Telfer, Illuzi, Jolles, 2021).

IV. Innovative models of care such as maternity medical homes and/or group prenatal care

Group Prenatal Care (GPC) is an alternative model of care facilitated by a trained health care provider and delivered in a group setting that integrates health assessments, education, skill building, and peer support. GPC provides pregnant people (typically with low-risk pregnancies not requiring individual monitoring) with 15 to 20 hours of prenatal care over the course of their pregnancies, compared to approximately 2 to 4 hours in traditional individual care. Each GPC visit is scheduled for 90 to 120 minutes, compared to 10 to 15 minutes for each individual prenatal care visit (Group Prenatal Care, 2021). In one study, Dr. Amutah-Onukagha and colleagues assessed group prenatal care in a high-risk community where study findings showed that participation in the group prenatal program rendered optimal results as none of the participants delivered pre-term or low birthweight babies. Additionally, they reported high rates of breastfeeding (Amutah, Giuni, Navin, Gallus, 2017).

CenteringPregnancy, created by the Centering Healthcare Institute, is the most prominent and widely studied model of group prenatal care. Most often, alternative models of group prenatal care are adapted from CenteringPregnancy. Each CenteringPregnancy group includes approximately 8 to 10 individuals at similar gestational ages who participate in their own health care by taking their weight and blood pressure before their short visit with a credentialed medical provider. Afterward, the provider and group facilitators lead a discussion, along with educational activities, to address common health topics and concerns. Group prenatal care is designed to include opportunities for social support and to improve the quality of patient education, in addition to the usual physical examinations and risk assessments.

Funding: Historically, providers who offer CenteringPregnancy have been paid through submitting traditional reimbursement claims to Medicaid or private health insurance for each patient, as if the patients were receiving individual prenatal care. Given the start-up costs (e.g., training and supplies) associated with group prenatal care, providers can receive grant funding to help offset the costs. Grants have been awarded to implementation sites from a range of stakeholders, including states, philanthropic foundations, and health insurance payors.

States can offer an enhanced Medicaid reimbursement rate for group prenatal care that reimburses providers at a rate that is higher than traditional prenatal care, to incentivize providers to offer this model of care. Enhanced reimbursements can occur through grants awarded to health care providers or via billing structures determined by statute or agency rules. Rates are set per patient, per visit, and therefore reimbursements are not always enhanced at an individual level, but sometimes at the group level (for example, a \$7 per patient, per visit reimbursement rate multiplied by the group size).

States can also incentivize enhanced maternity care (which can include group prenatal care) through Alternative Payment Models (APMs). APMs reimburse providers outside of the traditional fee-for-service model, generally as a value-based payment that financially rewards better outcomes.

Similarly, medical homes are associated with improved pregnancy outcomes. In a pilot of pregnancy medical homes in Texas, enrollees experienced fewer ED visits, NICU admissions and cesarean delivery. Medical home members were also more like to attend both prenatal and postpartum visits. A similar pilot in Wisconsin also yielded increased postpartum visit uptake; and a pilot in North Carolina observed a decrease in low birth weight (*Zephyrin, Seervai, Lewis, Katon, 2021*). Several pregnancy medical home pilots have demonstrated significant cost savings by decreasing hospitalizations and ED visits (*Rakover, 2016; Texas Health & Human Services, 2017; Agrawal, 2017; Berrien, et al., 2015; Health Care Transformation Task Force, 2019; Hill et al. 2014; Cross-Barnet, 2018*).

- » GNPC decreased poor outcomes including PTB, LWB, NICU admission
- » Medical homes improve attendance at prenatal and postpartum visits, decrease hospitalization and ED visits and save healthcare dollars
 - Expect With Me group prenatal care for mothers enrolled in the program has been associated with a
 - » 58% lower risk of having a preterm birth
 - » 63% lower risk of having an infant with low birthweight
 - » 37% lower risk of having an infant admitted to the neonatal intensive care unit, compared to mothers who received traditional individual care.
 - » The findings build on previous research demonstrating that group models of prenatal care can be beneficial for moms and babies. (*Yale School of Public Health, 2021*)
- » More engagement in Expect With Me IT platform lowered risk of low birthweight. (*Lewis, Shabnova, 2021*)

✓ RECOMMENDATIONS

- » Support implementation of group prenatal models and pregnancy medical homes
- » Dissemination of evidence-based group prenatal care may require payor partnerships and attention to implementation issues
- » Support implementation of pregnancy medical homes

KEY FINDINGS

- » Home birth is utilized in several countries with lower rates of maternal mortality than the United States
- » In most of these countries, home birth is fully integrated into the hospital systems with collaboration between midwives and other maternity providers, and facile transfer from home to hospital in the event of pregnancy complications
- » Home birth data in the United States demonstrates low rates of maternal or neonatal/infant complications

RECOMMENDATIONS

- » Facilitate full licensure and regulation of midwives who attend home births with integration into the health care systems including guidelines for risk-stratification, appropriate hospital privileges for midwives who attend home births, systems for data-sharing and co-management of patients who plan home birth with pre-determined transfer facilities, and appropriate payer coverage for home birth services

V. Integration of home birth into the healthcare systems

Home birth for low-risk pregnancy is a commonly utilized option that is fully integrated into the healthcare systems of several countries with superior birth outcomes to the United States (Comeau, Hutton, Simioni, et al. 2018). In most of these systems, certified nurse midwives, licensed midwives, and certified professional midwives have full regulation and legislation, and home birth costs are fully covered by public health systems. Pregnant people are screened for low-risk birth in collaboration with other maternity providers such as obstetrician-gynecologists, nurse practitioners and other primary care providers. Midwives can easily transfer patient to a hospital when necessary and may maintain admitting/hospital privileges at the receiving institutions. Midwives in these systems are supplied with emergency equipment to bring to births. In the U.K., birthing people who are considered to have pregnancies too high-risk for home birth but decline hospital birth are still assigned a home-birth midwife.

In the United States, Washington state notably has a well-integrated home birth systems where certified nurse-midwives and licensed midwives are legislated and regulated, can easily transfer patients to a facility where they have admitting/hospital privileges and are provided with emergency supplies to take with them to births. A large cohort study of planned home births in the United States revealed low risk of cesarean delivery, maternal hemorrhage, and neonatal mortality (Cheyney, M. Bovbjerg, M. Everson, C. et al. 2014). There was a single maternal death in this sample of over 16,000 births.



VI. Expand postpartum monitoring and access to care

More than half (52%) of pregnancy-related deaths occur in the postpartum period. Of these, 36% occur in the first week postpartum, 40% occur between week one and week six postpartum, and 23% occur between six weeks and one year postpartum (*Tikkanen, Gunja, Fitzgerald, Zephyrin, 2020*). SMM can also increase the risk of developing chronic health conditions. For instance, birthing people who have preeclampsia have a 3-4-fold risk of developing hypertension and twice the risk of heart disease and stroke compared to someone who did not have a hypertensive disorder in pregnancy, as well as increased risk of kidney disease, thromboembolism (blood clots), and hypothyroidism (*Williams, 2011*). Lastly, even in the absence of SMM, pregnancy-related conditions can increase the risk of long-term health problems. Gestational diabetes is associated with an increased risk of heart disease, chronic kidney disease and cancer (*Shou, Wei, Wang, Yang, 2019*).



Even though pregnancy-related conditions can have long-term health impact, there is limited coverage and options for postpartum visits, and many health systems struggle to facilitate primary care follow up for pregnant and postpartum patients. People on Medicaid receive coverage only up to 6 weeks postpartum, even though nearly a quarter of late maternal deaths occur outside this 6-week period. Only recently, has Medicaid given states the option to extend postpartum coverage from 60 days to 12 months post-pregnancy. As of April 1, 2022, MassHealth has updated its eligibility policies to provide 12 months continuous postpartum coverage for those who qualify. Black birthing people and other people of color are more likely to be uninsured or underinsured, and thus more likely to lose access to essential health coverage. (*Artiga, Hill, Orgera, 2021*).

Regardless of insurance coverage, nearly half of birthing people do not attend a postpartum visit in the recommend 6-week time frame (ACOG, 2018). Of developed countries, the United States is the only country that does not guarantee access to home visits. Postpartum visits are traditionally conducted in person. However, trials of telemedicine in prenatal and postpartum care demonstrated high patient satisfaction with minimal disruptions to appropriate prenatal screening and surveillance (*Futterman, Rosenfeld, Toaff, et al. 2021*).

KEY FINDINGS

- » There is a need for comprehensive postpartum care for one full year following birth
- » Postpartum care models that rely on hospital-based care alone result in a failure to capture nearly half of birthing people. Telemedicine and home or community visits are alternatives that may improve access to postpartum care
- » Pregnancy-related complications increase the risk of chronic health conditions that require wrap-around multidisciplinary care
- » Black people and people of color are more likely to rely on Medicaid for pregnancy and postpartum care

RECOMMENDATIONS

- » Support and promote implementation of community-health worker and midwifery-based models of postpartum care that include options for home-visits to increase access to postpartum visits
- » Incentive hospital systems and payer plans to facilitate primary care follow-up for all postpartum patients, especially those with pregnancy-related hypertension, diabetes or cardiomyopathy
- » Extend monitoring for postpartum mental health care screening and linkage care to 12 months (beyond even the 4th trimester)
- » Support reimbursement parity for telemedicine visits.

KEY FINDINGS

- » Action is required at all levels of healthcare systems, community, and policy.
- » By joining efforts, we can achieve a change in the delivery of dignified obstetric care.

RECOMMENDATIONS

- » Push for the presence of respectful care and not just merely the absence of disrespectful care delivery
- » Promote practices of patient centered care
- » Joining efforts to achieve respectful care would be found in the shared actors of all involved from lay individuals and health providers to researchers and policymakers (*Belizah, Miller, Williams, Pingray, 2020*)

KEY FINDINGS

- » Twenty-six randomized trials have been tested to observe the effects of continuous labor support on more than 15,000 people giving birth.
- » People who receive continuous support are more likely to have a normal vaginal birth and less likely to have pain medication, negative feelings about childbirth and cesareans.
- » Their labors are shorter, and their babies are less likely to have complications at birth or be admitted to a NICU
- » Most positive birth experiences for fathers/partners are ones where they have continuous support from a doula or midwife
- » In one randomized trial, cesarean rate was 59% with a partner alone, and 13% when partners worked together with doulas

VII. Systems to ensure respectful care delivery

Collaboration among organizations and systems providing services to support maternal health outcomes is a key component to ensuring respectful care delivery. Although several systems exist, standards of collaboration are not clearly outlined.

The Centers for Disease Control operates the LOCATe program and the National AIM organization. MMMRCs conduct detailed reviews of what has happened and really look more backward. AIM is a bit static in the sense that it continues to develop guidelines and practices of an approach to improve safety and maternity care. The engine that drives and mobilizes all the work that happens includes our PQC's, our state Perinatal Quality Collaborative. At this point is where the checklist of activities is implemented to make births safer. This is done in partnership with the Massachusetts Department of Public Health. We do this also because the Public Health Commission has a mission and vision that centers on optimizing health and creating health equity and wellbeing for all people in Massachusetts.

Moving forward, it will be useful for the current programs at various organizational to identify a clear mission that supports partnership and working together to ensure safe and respectful care delivery for the birthing mother, partner and child.

VIII. Integration of culturally competent and affordable doula support

Birth doulas act as companions to mothers and birthing persons and provide continuous support for these mothers during labor and birth. *Physical support* from doulas may include the use of massage, pressure, and soothing touch. *Emotional support* from doulas helps mothers and birthing persons feel a sense of pride and empowerment after birth. Examples of this type of support may involve encouragement and praise, keeping the mother company, facilitating a calm environment, and helping the mother and birthing person debrief after birth. Doulas can support by providing *information* and acting as a guide to the mother and their partner through labor and suggest techniques like breathing, relaxation, movement, and changing positions. Doulas help the mother and birthing person find evidence-based information about their options, and they can help explain medical procedures. Doulas use *advocacy* techniques to encourage patients to ask questions and voice their preferences. Doulas can also enhance communication between parents and providers (*Dekker, 2018*).

Ideally, doulas and the birth partner (i.e., spouse, partner, family member) work together to improve the mother's birth. Studies have shown that the most positive birth experiences for fathers/partners are ones where they have continuous support from a doula or midwife. In one important randomized trial, adding a doula to a supportive partner reduced Cesarean rates from 25% down to 13%. These differences were even more apparent with a labor induction. When labor was induced, the Cesarean rate was 59% with a partner alone, and 13% when partners worked together with doulas (*Dekker, 2018*) Doula support is also associated with improvements in breast feeding. (*Mottl-Santiago, et al. 2008*).

IX. Collaboration with accessible and affordable birthing centers

A birth center is equipped to provide a personalized alternative to hospital care for people with low-risk pregnancies, so mothers can give birth in a home-like environment where you feel secure and supported. In the US, 98% of all births take place in a hospital, even though most births are low risk. Hospitals are key when medical intervention is needed, however most births can safely take place outside of the hospital. Giving birth in a birth center is associated with lower risk of cesarean delivery and perineal lacerations, and increased use of non-pharmaceutical pain relief, with few maternal complications and low rates of fetal or neonatal death (*Howell, 2014; Alliman & Phillippi, 2016; Rutledge 2013; Benetar, 2013*). Nonhospital affiliated birth centers experience policy and regulatory barriers, including lower commercial reimbursement rates for CNM care.

Neighborhood Birth Center is currently in development in Boston, Massachusetts and plans to offer essential services including education, psycho-social support, and referrals for non-medical services. They are planning a 5,000 square foot state-of-the-art, spa-like center, to be co-located with artists, activists, and healers in a multi-use building that helps to stabilize Boston neighborhoods against gentrification. Some features that the Center will offer include: doulas, yoga, meditation, reiki, massage, pelvic physical therapy, chiropractic and craniosacral therapy, acupuncture, mental health, childbirth ed, babywearing, postpartum care, lactation support, groups for new parents and parents who have experienced loss.

Limitations to opening birth centers include onerous building regulations, lack of insurance/Medicaid reimbursement for birth center services, and other difficulties with funding. Additionally, there are limitations on what can be offered for pain management/coping in labor, and a need for a Transfer Agreement with a full-service hospital within 1.9 miles of the birth center. Due to the history of redlining and urban development in Boston, this may limit the ability to locate a birth center in areas where it is most needed or in areas with more affordable real estate. Finally centers will typically charge a lower fee to its clients and may not be eligible to receive facilities fees as hospitals typically do.

X. Bias education in health professional curriculums, and historical and current forms of racism

Implicit, or unconscious, bias refers to the “attitudes or stereotypes that affect our understanding, actions and decisions in an unconscious manner.” Studies consistently recognize the role of implicit bias in worsening health outcomes, increasing health care costs, and exacerbating health disparities, not just in maternal health but also for a variety of other health outcomes and populations. These other health outcomes and populations includes

RECOMMENDATIONS

- » Integrate and advocate doula support for mothers and birthing persons in the healthcare system for improvement on multiple support levels
- » Provide coverage and reimbursement for childbirth education and doula services that improve birth outcomes and save health care dollars should be a priority. As covered benefits for all pregnant women and birthing persons, these services could enhance goals to reduce racial and ethnic disparities in birth outcomes (*Strauss, Giessler, McAllister, 2015*).

KEY FINDINGS

- » Of the 400 birth centers in the US, there is only 1 in Massachusetts
- » Right now, 99% of births in MA happen in the hospital, even though most could happen safely outside the hospital with midwives. (*Macdorman, Declerq, 2019*).
- » A shift of just 10% of births from hospitals to birth centers would save \$1.9 billion annually (*Anderson, 2021*).
- » Research shows that care provided in community birth settings can make a concrete difference in improving maternity care quality and producing better outcomes, including for people of color (*National Partnership for Women & Families*).

RECOMMENDATIONS

- » With only one other birth center in the state of MA, there is a need for community birth infrastructure.
- » Support insurance reimbursement for sustainability
- » Relax more onerous regulations that act as barriers with no clear effect on patient safety.

KEY FINDINGS

- » Extensive research has shown that, relative to white patients, Black patients are less likely to be given pain medications and, if given pain medications, they receive lower quantities (*Hoffman, Trawalter, 2016*).
- » Study findings show that it was assumed among a group of medical students and residents that the Black body is stronger and that the white body is weaker, and is therefore able to tolerate pain better. This results in Black patients receiving less pain medication than their white counterparts.
- » In a retrospective study, *Todd et al, 2000*, found that Black patients were significantly less likely than white patients to receive analgesics for extremity fractures in the emergency room (57% vs. 74%), despite having similar self-reports of pain
- » Via MOTHER Lab™, student researchers of the Community Engagement, Advocacy, & Policy Committee, organized and enacted social media campaign regarding MA Governor Charlie Baker signing and passing the Maternal Health Bill H. 4818—an act to reduce racial inequities in maternal health (*MOTHER Lab 2021™ Annual Report*).

RECOMMENDATIONS

- » Require hospital systems to include anti-racism education in their annual compliance training for providers
- » Promote the use of tools, including maternal health app tools that allow birthing people to report on experiences of racism during pregnancy, labor and postpartum care (i.e. Irth app, PREM-OB).
- » Require hospital systems to make their outcomes data publicly available, including a breakdown by maternal race and ethnicity.
 - Student development programs dedicated to achieving equity and anti-racist projects such as MOTHER Lab™ need sustainable funding thus, finding and receiving the source of financial stability is key for the continued growth of such programs.

substandard pain management for Black patients, unequal cardiovascular testing for women, inferior access to mental health services for patients with mental illness, and mistreatment and avoidance of obese patients (*Hoffman, 2016*). A recent study demonstrated that Black patients were nearly 3 times as likely to have negative descriptors documented in their electronic medical record (*Sun, Oliwa, Peek, Tung, 2022*)

There is a growing body of evidence to support the direct and indirect effects of racism and race-based discrimination of maternal and infant outcomes. Racist attitudes have been associated with delays in routine health screenings such as mammograms and pap smears (*Mounton, Carter-Nolan, Makambi, et al. 2010; Boarts, Bogart et al. 2008*). Furthermore, racial concordance between physicians and newborns has been linked to decreased infant mortality (*Greenwood, Hardeman, Huang, 2020*).

Although most current medical students are members of what is considered the most tolerant and diverse generation in US history, implicit biases also persist within this group. Studies reveal significant biases among medical students toward overweight or obese individuals, LGBTQ+ individuals, and false beliefs regarding biological differences between blacks and whites as it relates to pain tolerance. These biases have resulted in inferior and inappropriate treatment recommendations, worse outcomes, and reduced trust and communication with patients. If students are not encouraged to acknowledge, examine, and learn how to mitigate their implicit biases, these false assumptions become integrated in their understanding and actions as they prepare to practice medicine.

For this reason, programs such as the Maternal Outcomes for Translational Health Equity Research, better known as MOTHER Lab™ are essential and critical to the educational development of upcoming medical and health professionals. MOTHER Lab™, currently housed at Tufts University, emphasizes the necessity for resolving maternal inequities by tackling issues of bias, racism, and achieving equity at the research, community engagement, advocacy, and policy levels (<https://motherlab.org/funding/>). One of the primary challenges that MOTHER Lab™ and many organizations dedicated to anti-racist initiatives face is the need for sustainable funding and resources. Consistent resources and financial sustainability aid in the continuity of development and growth for students to support the field of exploring the influence of racial inequities of some of the nation's most vulnerable birthing persons.

Via stakeholder interviews, researchers have identified that one tangible way of addressing racism and inequities is through investing in the Black women and Black birthing persons mental health workforce. Maternal mental health issues among Black women are largely underreported, and symptoms often go unaddressed. These symptoms may include substance use/misuse and experiences of intimate partner violence. The proposed pathways to equitable and antiracist maternal mental health care were developed by centering Black birthing people in alignment with the guiding frameworks of reproductive justice and birth equity (*Matthews, Morgan, Davis, et. al 2021*).

CALL FOR ACTION

Healthcare Systems Improvement

1. Clinical - Prenatal

- f. Support perinatal quality improvement efforts to have all birth facilities participate in implementation of maternal safety bundles or similar projects as per CMS requirements
- g. Link reimbursement to quality of care metrics to encourage hospital systems, clinics and health centers to prioritize quality of care rather than visit volume
- h. Promote group prenatal care models through enhanced reimbursement for group prenatal care or other incentives.
- i. Support access to multidisciplinary maternity care provider teams and practice.
 - Promote 100% reimbursement parity for CNMs. Proposed legislation HB: 3881-Proposed mandates equitable payment for midwifery services [Supported by the 2021 Health Policy Commission on CNMs in MA Report]
 - Address other reimbursement barriers:
 - » Use payment models that are neutral to the payer mix
 - » Encourage hospitals and payers to amend their policies to align with state laws that do not require CNMs to practice or bill under MDs
- j. Increase access to midwifery model of care and birthing site options (H.2314/S.1519- Proposed Legislation)
 - Implement appropriate, evidence-based regulations for certified professional midwives in Massachusetts.
 - Implement appropriate, evidence-based, and equitable protocols to evaluate prenatal patients for home birth, including integrated data-sharing with hospital systems in the event of pregnancy or birth complications.
 - Once regulated: mandate reimbursement of midwives with nationally recognized credentials at 100% of physician payment levels for the same services

2. Clinical - Labor and Delivery

- a. Support perinatal quality improvement efforts to have all birth facilities participate in implementation of maternal safety bundles or similar projects as per CMS requirements
- b. Require trauma-informed care training including racial trauma in the definition of trauma, and education about emotional complications in discharge materials including more than just postpartum depression, but broad and culturally humble definitions of emotional wellness
- c. Increase access and effort to better integrate and expand midwifery model of care on labor and delivery as well as integration of home birth for uncomplicated pregnancies.,
- d. Increase access to labor doula services including appropriate payer reimbursement for doula services.
- e. Expand access to care settings that promote patient choice and individualized care including home birth and community or free-standing birth centers
 - Modernize MA State Birth Center Regulations to acknowledge CNM independent practice
 - Decrease the financial and structural barriers to the development of a birth center, including lower commercial reimbursement rates for CNM care, requirement to meet structural standards similar to hospital facilities although they are not eligible for facility fees
- f. Support H. 2314/S.1519 Out of Hospital Birth Access and Safety Act (**See Appendix E**)

3. Clinical - Postpartum (Birth to 12 weeks)

- a. Support perinatal quality improvement efforts to have all birth facilities participate in implementation of maternal safety bundles or similar projects as per CMS requirements
- b. Increase access to full spectrum peripartum doula services

- c. Expand access to home and community postpartum visits utilizing midwives, doulas, and community health workers
4. Clinical - Postpartum (3 months to 1 year)
- a. Expand Medicaid coverage through one year postpartum
 - b. Incentivize hospital and payer systems to facilitate comprehensive postpartum reproductive, mental health and primary care.
 - c. Link reimbursement for postpartum services to quality-of-care metrics to incentivize hospital and payer systems to optimize increased visit length and provider continuity
5. Clinical - Other
- a. Require health systems to engage in assessment of bias and racism in the quality and safety processes. Mandate that all providers have antiracism trainings and then require application of the training to the QI process of examining adverse events
 - b. Allocate funding for further research and data collection on racial inequities in maternal health outcomes in Massachusetts
 - c. Maintain reimbursement parity for telehealth services to improve access to prenatal and postpartum care
6. Education - Anti-Racism Education for Providers
- a. Support perinatal quality improvement efforts to have all birth facilities participate in implementation of maternal safety bundles or similar projects as per CMS requirements (PNQIN Equity Bundle)
 - b. Examine provider-based trainings for: implicit bias trainings, explore methods for decreasing obstetrical violence
 - c. Establish requirements for specialized credits in antiracism in the health care systems through the Continuing Medical Education Program
 - d. Offer obstetric Racism Education for Mothers
7. Special Populations (i.e.: substance abuse, inter-partner violence, etc.)
- a. Work with Department of Children and Families to address racism embedded in decisions regarding custody and parenting, bias in assessments of families that are steeped in racial bias. Example: Mandated 51A for substance exposed/affected infant, single stream of report for plan of safe care (need a dual reporting system)
 - b. Expand support for co-located interdisciplinary models of care/medical homes for families with perinatal SUD (psychiatry, addiction medicine, MFM/CNM OB care, Social Work and Peer Support) all in one program (HOPE Program at MGH, Project RESPECT at BMC)
 - c. Provide support for incarcerated populations
 - d. Extend monitoring for postpartum mental health care screening and linkage care to 12 months (beyond even the 4th trimester) because this is what the data show as the time frame for increased maternal mortality related to mental health and substance use.
8. Provider support: Doula, lactation specialist, perinatal workforce
- a. Incentivize hospital systems connecting to community-based services - communities may have perinatal collaboratives/coalitions that link families to services that are supportive and not necessarily "professionalized" (e.g. lactation support, diaper banks, childcare, peer support groups)
 - b. Support initiatives to improve diversity of the perinatal care workforce
 - c. Support the establishment of a Midwifery Education Program in Boston to improve access to midwifery education across the state
 - d. Explore limits to supply of midwifery workforce including financial support for midwifery training programs
 - e. Address workforce development challenges for maternity providers and doulas who identify as people of color
 - f. Integrate and advocate doula support for mothers in the healthcare system for improvement on multiple support levels
 - g. Provide coverage and reimbursement for childbirth education and doula services that improve birth outcomes and save health care dollars. As covered benefits for all pregnant women, these services could enhance goals to reduce racial and ethnic disparities in birth outcomes (Association on Women's Health, 2018)
 - h. Support perinatal quality improvement efforts to have all birth facilities participate in implementation of maternal safety bundles or similar projects as per CMS requirements (PNQIN Equity Bundle)

CONCLUSION

Findings and recommendations of this report conclude that enforcements towards racial equity may significantly improve overall maternal health outcomes for Massachusetts residents. Racial inequities in relation to maternal health exist at various systems levels (i.e., communities, public health, and in healthcare settings) and at various stages of pregnancy (prenatal, pregnancy, and postpartum). The achievement in reducing SMM and maternal mortality will be dependent upon the redesigning of health delivery infrastructures and standardized collaboration within and across community settings. These settings include, but are not limited to realms of academia, health literacy and education for community members, mental health assistance, housing, support of doulas and certified nurse-midwives, competency and equity training for future medical students and residents, improved Medicaid coverage for birthing moms and future birthing moms, and enactment of laws pertaining to maternal health care and delivery.

We recognize that this document is not a cure-all solution for addressing racial inequities in maternal health. At the same time, this report is an attempt to begin the actions necessary for change in a more optimal direction for the Massachusetts birthing persons and their partners who may be most vulnerable to maternal health inequities. It is our hope that through the details displayed in our Call to Action and stories told throughout the document, quality improvement of current health care and public health infrastructures may be implemented in a way that lays the blueprint for optimizing maternal health for Massachusetts and the rest of the nation.

SOURCES

1. ACOG Committee Opinion. (2018). Optimizing Postpartum care. American College of Obstetricians and Gynecologists. Number 736. <https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/05/optimizing-postpartum-care>
2. Alliman, J. Phillippi, J. (2016). Maternal outcomes in birth centers: An integrative review of the literature. *Journal of Midwifery & Women's Health*. Vol 61 (1). Pg. 21-51. <https://onlinelibrary.wiley.com/doi/10.1111/jmwh.12356>
3. Alsan, M. Garrick, O. Graziani, G. (2018). Does diversity matter for health? Experimental evidence from Oakland. National Bureau of Economic Research. <https://www.nber.org/papers/w24787>
4. American Association of Birth Centers. <https://www.birthcenters.org/>
5. Amutah, N. Gifuni, J. Navin, L. Gallus, P. (2017). Group Prenatal Care to Improve Birth Outcomes in a High Risk Community: Results of an Evaluation Study. American Public Health Association 2017 Annual Meeting & Expo (Nov 4-Nov 8).
6. Anisha Agrawal, Case Study: Wisconsin's Obstetric Medical Home Program Promotes Improved Birth Outcomes (National Academy for State Health Policy, Sept. 2017).
7. Artiga, S. Hill, L. Orgera, K. (2021). Health coverage by race 7 ethnicity, 2010-2019). Kaiser Family Foundation <https://www.kff.org/racial-equity-and-health-policy/issue-brief/health-coverage-by-race-and-ethnicity/>
8. Association of American Medical Colleges. Percentage of all active physicians by race/ethnicity, 2018. <https://www.aamc.org/data-reports/workforce/interactive-data/figure-18-percentage-all-active-physicians-race/ethnicity-2018>
9. Belizan, J. Miller, S. Williams, C. Pingray, V. (2020). Every woman in the world must have respectful care during childbirth: a reflection. *Reproductive Health*. Vol 17 (7). <https://dx.doi.org/10.1186%2Fs12978-020-0855-x>
10. Benatar S. et al., "Midwifery Care at a Freestanding Birth Center: A Safe and Effective Alternative to Conventional Maternity," *Health Services Research* 48, no. 5 (Oct. 2013): 1750-68.
11. Berrien, K. et al., "Pregnancy Medical Home Care Pathways Improve Quality of Perinatal Care and Birth Outcomes," *North Carolina Medical Journal* 76, no. 4 (Sept. 2015): 263-66.
12. Blake, B. Fenton, S. (2020). Early life exposure to per- and polyfluoroalkyl substances (PFAS) and latent health outcomes: A review including the placenta as a target tissue and possible driver of peri- and postnatal effects. *Toxicology*. Vol 443.
13. Boarts JM, Bogart LM, Tabak MA, Armelie AP, Delahanty DL. Relationship of race-, sexual orientation-, and HIV-related discrimination with adherence to HIV treatment: A pilot study. *J Behav Med*. 2008;31:445-451. [PubMed] [Google Scholar]
14. Byrd, WM, Clayton, LA. *An American Health Dilemma. Race, Medicine, and Health Care in the United States. 1900-2000*. New York: Routledge, 2002.
15. Byrd WM, Clayton, LA. *Racial and Ethnic health and health care disparities. Historical and contemporary issues. A Two-Part Seminar. Commonwealth Fund Lecture Series. Harvard Medical School/Harvard School of Public Health*. 2014.
16. Caitlin Cross-Barnet, *Strong Start for Mothers and Newborns Evaluation: Year 5 Project Synthesis* (Urban Institute, Oct. 2018).
17. Centers for Disease Control and Prevention (2022). Health equity: working together to reduce black maternal mortality. <https://www.cdc.gov/healthequity/features/maternal-mortality/index.html>
18. Centers for Disease Control (2020). Maternal mortality rates, by race and Hispanic origin: United States, 2018-2020. <https://www.cdc.gov/nchs/data/hestat/maternal-mortality/2020/maternal-mortality-rates-2020.htm#fig1>
19. Centers for Disease Control and Prevention (2020). Maternal mortality rates in the United States, 2020. <https://www.cdc.gov/nchs/data/hestat/maternal-mortality/2020/maternal-mortality-rates-2020.htm#Table>
20. Center for Reproductive Rights. (2018). Black mamas matter: Advancing the human right to safe and respectful maternal health care. http://blackmamasmatter.org/wp-content/uploads/2018/05/USPA_BMMA_Toolkit_Booklet-Final-Update_Web-Pages-1.pdf
21. Chambers, B. D., Arega, H. A., Arabia, S. E., Taylor, B., Barron, R. G., Gates, B., ... & McLemore, M. R. (2021). Black women's perspectives on structural racism across the reproductive lifespan: A conceptual framework for measurement development. *Maternal and Child Health Journal*, 25(3), 402-413
22. Chambers, Brittany D et al. "Exposures to structural racism and racial discrimination among pregnant and early post-partum Black women living in Oakland, California." *Stress and health: Journal of the International Society for the Investigation of Stress* vol. 36,2 (2020): 213-219. doi:10.1002/smi.2922
23. Cheyney, M. Bovbjerg, M. Everson, C. et al. (2014). Outcomes of Care for 16,924 Planned Home Births in the United States: The Midwives Alliance of North America Statistics Project, 2004 to 2009. *J Midwifery Womens Health*. Vol 59(1) pg. 17-27. doi: 10.1111/jmwh.12172

24. Clark, M. Burak, E. Maternal Health Home Option in Build Back Better Plan Lays Groundwork for Two-Generation Success. (2021). Georgetown University Health Policy Institute: Center for Children and Families. <https://ccf.georgetown.edu/2021/11/12/maternal-health-home-option-in-build-back-better-plan-lays-groundwork-for-two-generation-success/>
25. Comeau, A. Hutton, E. Simioni, J. Anvari, E. Bowen, M. Kruegar, S. Darling, E. (2018). Home birth integration into the health care systems of eleven international jurisdictions. *Birth*. Vol 45 (3).pg 311–321. doi: 10.1111/birt.12339
26. Commonwealth of Massachusetts. Bill H.1436. <https://malegislature.gov/Bills/192/H1436>
27. Commonwealth of Massachusetts Bill H. 221. An Act to Support Families. <https://malegislature.gov/Bills/192/H221>
28. Commonwealth of Massachusetts. Bill H. 4000. An Act of making appropriations for the fiscal year 2022 for the maintenance of the departments, boards, commissions, institutions, and certain activities of the commonwealth for the interest, sinking fund, and serial bond requirements and for certain permanent improvements <https://malegislature.gov/Bills/192/H4000/Amendments/House?pageNumber=1&direction=asc&sortColumn=AmendmentNumber&keyword=348>
29. Commonwealth of Massachusetts. Bill S. 874. An Act promoting housing stability and homelessness prevention in Massachusetts. <https://malegislature.gov/Bills/192/S874>
30. Commonwealth of Massachusetts (2022). Roadmap for Behavioral Health Reform. <https://www.mass.gov/service-details/roadmap-for-behavioral-health-reform>
31. Commonwealth of Massachusetts (2022). Per-and Polyfluoroalkyl Substances (PFAS). <https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas>
32. Congress.gov. (2022). H.R.959 - Black Maternal Health Momnibus Act of 2021
33. Continuous Labor Support for Every Woman. (2018). Vol 47. *JOGNN*. pg. 73–74. <https://www.jognn.org/action/showPdf?pii=S0884-2175%2817%2930482-3>
34. Crear-Perry, Joia, et al. "Social and structural determinants of health inequities in maternal health." *Journal of Women's Health* 30.2 (2021): 230–235.
35. Declerq, E. Zephyrin, L. (2020). Maternal Mortality in the United States: A Primer. The Commonwealth Fund. <https://www.commonwealthfund.org/publications/issue-brief-report/2020/dec/maternal-mortality-united-states-primer>
36. Dekker, R. (2018). Evidence on: Doulas. Evidence Based Birth. <https://evidencebasedbirth.com/wp-content/uploads/2018/01/Doula-Handout.pdf>
37. Effland, K., Hays, K. et al. (2020). Incorporating an Equity Agenda into Health Professions Education and Training to Build a More Representative Workforce. *Journal of Midwifery and Women's Health*. <https://onlinelibrary.wiley.com/doi/full/10.1111/jmwh.13070>
38. Embry Howell et al., "Potential Medicaid Cost Savings from Maternity Care Based at a Freestanding Birth Center," *Medicare & Medicaid Research Review* 4, no. 3 (Sept. 2014): mmrr.004.03.a06.
39. Futterman, J.I. Rosenfeld, E. Toaff, M. et al. (2021). Addressing Disparities in Prenatal Care via Telehealth During COVID-19: Prenatal Satisfaction Survey in East Harlem. *Am J. Perinatal*. Vol 38(1) pg.88–92. doi: 10.1055/s-0040-1718695.
40. Greenwood, B. Hardeman, R. Huang, L. Sojourner A. (2020). Physician–patient racial concordance and disparities in birthing mortality for newborns. *PNAS*. Vol 117(23) pg. 21194–21200. <https://www.pnas.org/doi/10.1073/pnas.1913405117>
41. Gruber, K. Cupito, S. Dobson, C. 2013. Impact of Doulas on Healthy Birth Outcomes. *Journal of Perinatal Education*. Vol 22 (1). Pg. 49–58. doi: 10.1891/1058-1243.22.1.49
42. Group Prenatal Care. 2021. Prenatal-to-3 policy. <https://pn3policy.org/policy-clearinghouse/2021-group-prenatal-care/>
43. Hajizadeh, M., Harper, S., Koski, A. et al. (2016). Increased Duration of Paid Maternity Leave Lowers Infant Mortality in Low- and Middle-Income Countries: A Quasi-Experimental Study. *PLoS Med* 13(3): e1001985. <https://doi.org/10.1371/journal.pmed.1001985>
44. Health Care Transformation Task Force. July 2019. Expanding Access to Outcomes-Driven Maternity Care Through Value-Based Payment <https://hctf.org/outcomes-driven-maternity-care-vbp/>
45. Healthy Start Program. (2022). <https://www.bmc.org/pediatrics-special-kids-special-help/pay-your-childs-healthcare/healthy-start-program>
46. Hill, I. et al., Strong Start for Mothers and Newborns Evaluation: Year 1 Annual Report (Urban Institute, Oct. 2014)
47. Hoffman, K., Trawalter, S. Axt, J., Oliver, M. (2016). Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites Vol 113(16). Pg. 429–4301. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4843483/>
48. Howell, E., Palmer, A. Benatar, S. (2014) Potential medicaid cost savings from maternity care based at a freestanding birth center. *Medicare & Medicaid Research Review*. Vol 4(3). https://www.cms.gov/mmrr/downloads/mmrr2014_004_03_a06.pdf
49. Howell, E. A., & Zeitlin, J. (2017). Quality of Care and Disparities in Obstetrics. *Obstetrics and gynecology clinics of North America*, 44(1), 13–25. <https://doi.org/10.1016/j.ogc.2016.10.002>
50. Hoyert, D. L. (2020). Maternal mortality rates in the United States, 2020. National Center for Health Statistics Health E-Stats. 2022. <https://dx.doi.org/10.15620/cdc:113967>
51. Kozhimannil, K. Attanasio, L., et al. (2014). Potential benefits of increased access to doula support during childbirth. *American Journal of Managed Care*. Vol 20(8). Pg. 340–352. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5538578/>

52. Khabele, D., Holcomb, K., Connors, N., Bradley, L. (2021). A Perspective on James Marion Sims, MD, and Antiracist Racism in Obstetrics and Gynecology. Vol 28(2) p. 153-155. [https://www.jmig.org/article/S1553-4650\(20\)31116-X/fulltext](https://www.jmig.org/article/S1553-4650(20)31116-X/fulltext)
53. Kozhimannil KB, Hardeman RR. Coverage for Doula Services: How State Medicaid Programs Can Address Concerns about Maternity Care Costs and Quality. *Birth*. 2016;43(2):97-99. doi:10.1111/birt.12213
54. MacDorman MF, Declercq E. Trends and state variations in out-of-hospital births in the United States, 2004-2017. *Birth*. 2019;46(2):279-288. doi:10.1111/birt.12411
55. Marill, M. (2022). Raising The Stakes To Advance Equity In Black Maternal Health. *Health Affairs*. Vol 41(3). <https://www.healthaffairs.org/doi/10.1377/hlthaff.2022.00036>
56. Massachusetts Department of Public Health (2018). Maternal Mortality and Morbidity Review in Massachusetts A Bulletin for Health Care Professionals: Substance Use among Pregnancy-Associated Deaths — Massachusetts, 2005–2014. <https://www.mass.gov/doc/substance-use-among-pregnancy-associated-deaths-massachusetts-2005-2014/download>
57. Mather, C. (2021). How community-based doulas can help address the black maternal mortality crisis. Institute for Healthcare Improvement. <http://www.ihl.org/communities/blogs/how-community-based-doulas-can-help-address-the-black-maternal-mortality-crisis>
58. Matthews, K. Morgan, I. Davis, K. Estriple, T. Perez, S. Crear-Perry. J. 2021.
59. Megibow, E., Gwam, P., Godbolt, D., Powell, A., & Joia Crear-Perry, M. D. (2021). Evidence-Informed and Community-Based Recommendations for Improving Black Maternal Health. *Pathways To Equitable And Antiracist Maternal Mental Health Care: Insights From Black Women Stakeholders*. *Health Affairs: Perinatal Maternal Health and More*. Vol 40. (10). <https://doi.org/10.1377/hlthaff.2021.00808>
60. MOTHER Lab. <https://motherlab.org/funding/>
61. MOTHER Lab 2021 Annual Report. <https://motherlab.org/files.wordpress.com/2022/02/mother-lab-2021-annual-report-1.pdf>
62. Mouton CP, Carter-Nolan PL, Makambi KH, Taylor TR, Palmer JR, Adams-Campbell LL. Impact of perceived racial discrimination on health screening in Black Women. *J Health Care Poor Underserved*. 2010;21:287–300. [PMC free article] [PubMed] [Google Scholar]
63. Mottl-Santiago J, Walker C, Ewan J, Vragovic O, Winder S, Stubblefield P. A hospital-based doula program and childbirth outcomes in an urban, multicultural setting. *Matern Child Health J*. 2008 May;12(3):372–7. doi: 10.1007/s10995-007-0245-9. Epub 2007 Jul 3. PMID: 17610053.
64. National Partnership for Women and Families. (2018) Black Women's Maternal Health: A Multifaceted Approach to Addressing Persistent and Dire Health Disparities. Black Maternal Health. <https://www.nationalpartnership.org/our-work/resources/health-care/maternity/black-womens-maternal-health-issue-brief.pdf>
65. National Partnership for Women and Families (2018). Paid Family and Medical Leave: A racial justice issue- and opportunity. <https://www.nationalpartnership.org/our-work/resources/economic-justice/paid-leave/paid-family-and-medical-leave-racial-justice-issue-and-opportunity.pdf>
66. National Partnership for Women and Families. Improving our maternity care now through community birth settings. <https://www.nationalpartnership.org/our-work/health/maternity/community-birth-settings.html>
67. Ohio Commission on Fatherhood. <https://fatherhood.ohio.gov/About-Us/Purpose>
68. Ohio State Policy. <https://opnff.net/Files/Admin/OCF-%20State%20Statute%205101.34.pdf>
69. Office of Community Health Workers (2022): What is a community health worker? <https://www.mass.gov/service-details/what-is-a-community-health-worker>
70. Prenatal-to-3-policy: Impact Center. Group prenatal care. <https://pn3policy.org/policy-clearinghouse/2021-group-prenatal-care/>
71. Rakover, J. "The Maternity Medical Home: The Chassis for a More Holistic Model of Pregnancy Care," Institute for Healthcare Improvement (blog), March 22, 2016.
72. Shou, Chong; Wei, Yu-Mei; Wang, Chen; Yang, Hui-Xia, Updates in Long-term Maternal and Fetal Adverse Effects of Gestational Diabetes Mellitus, *Maternal-Fetal Medicine: October 2019 - Volume 1 - Issue 2 - p 91-94* doi: 10.1097/FM9.0000000000000019
73. Smedley, BD, Stith, AY, Nelson, AR (2003). Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.
74. Stapleton, R. Osbourne, C. J. (2013). Illuzzi, "Outcomes of Care in Birth Centers: Demonstration of a Durable Model," *Journal of Midwifery & Women's Health* 58, no. 1: 3–14.
75. Strauss, N. Giessler, K. McAllister, E. (2015). How Doula Care Can Advance the Goals of the Affordable Care Act: A Snapshot From New York City. *Journal of Perinatal Education*. Vol 24 (1): 8-15. doi: 10.1891/1058-1243.24.1.8
76. Sun, M. Oliwa, T. Peek, M. Tung, E. (2022). Negative Patient Descriptors: Documenting racial bias in the electronic health record. *Health Affairs*. Vol 41(2). <https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2021.01423>
77. The Commonwealth fund. (2021). Community-Based Models to Improve Maternal Health Outcomes and Promote Health Equity. <https://www.commonwealthfund.org/publications/issue-briefs/2021/mar/community-models-improve-maternal-outcomes-equity>
78. Telfer, M. Illuzi, J., Jolles, D. (2021). Implementing an Evidence-Based Bundle to Reduce Early Labor

Admissions and Increase Adherence to Labor Arrest Guidelines: A Quality Improvement Initiative. *Journal of Doctoral Nursing Practice* Vol 14 (2). <https://pubmed.ncbi.nlm.nih.gov/34006599/#:~:text=Results%3A%20The%20bundle%20was%20implemented,Patient%20satisfaction%20scores%20exceeded%2098%25>

79. Texas Health and Human Services, Pregnancy Medical Home Pilot Program Final Evaluation Report (THHS, Sept. 2017)
80. Tikkanen, R. Gunja, M. Fitzgerald, M. Zephyrin, L. (2020). Maternal mortality and maternity care in the United States compared to 10 other developed countries. The Commonwealth Fund. <https://www.commonwealthfund.org/publications/issue-briefs/2020/nov/maternal-mortality-maternity-care-us-compared-10-countries>
81. Todd, K. Deaton, C. D'Adamo, A. Goe, L. Ethnicity and analgesic practice. *Ann Emerg Med* 35, 11–16 (2000)
82. Wells, L., Gowda, A. (2020). A legacy of mistrust: African-americans and the US healthcare system. *Clinical Commentary, Proceedings of UCLA Health* Vol 24. <https://proceedings.med.ucla.edu/wp-content/uploads/2020/06/Wells-A200421LW-rko-Wells-Lindsay-M.D.-BLM-formatted.pdf>
83. Williams D. Long-term complications of preeclampsia. *Semin Nephrol.* 2011 Jan;31(1):111-22. doi: 10.1016/j.semnephrol.2010.10.010. PMID: 21266269.
84. Wint, K. Elias, T. Mendez, G. et al. (2019). Experiences of community doulas working with low income, african-american mothers. *Health Equity.* Vol 3 (1) pg.09-116. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6608698/>
85. Yale School of Public Health. (2021). Birth Outcomes Improved Through Expect With Me Group Prenatal Care. <https://ysph.yale.edu/news-article/birth-outcomes-improved-through-expect-with-me-group-prenatal-care/>
86. Zephyrin, L. Seervai, S. Lewis, C. Katon, J.(2021). Community-based models to improve maternal health outcomes and promote health equity. The Commonwealth Fund. <https://www.commonwealthfund.org/publications/issue-briefs/2021/mar/community-models-improve-maternal-outcomes-equity>

APPENDICES

- A. Chapter 348 of Acts of 2020
- B. Participants in Stakeholder Listening Sessions
- C. Glossary of Terms
- D. Directory of Organizations
- E. H2341/S1519 Fact Sheet
- F. H3881 Fact Sheet

APPENDIX A

Chapter 348 of Acts of 2020

Establishing the Special Commission on Racial Inequities in Maternal Health

Chapter 348 of Acts of 2020

AN ACT TO REDUCE RACIAL INEQUITIES IN MATERNAL HEALTH

Resolved, that there shall be established a special legislative commission, hereinafter the commission, to investigate and study methods to reduce racial inequities in maternal health. The commission shall consist of the house and senate chairs of the joint committee on public health, or their designees, who shall serve as co-chairs; the chair of the Massachusetts black and Latino legislative caucus, or a designee; the commissioner of the department of public health, or a designee; the executive director of the health policy commission, or a designee; 20 members appointed by the co-chairs of the commission, 1 of whom shall be a member of the Massachusetts maternal mortality and morbidity review committee, 1 of whom shall be a member of the Massachusetts Medical Society who shall specialize in childbirth or maternal health, including, but not limited to, obstetrics and gynecology, maternal-fetal medicine or family medicine, 1 of whom shall be member of the Massachusetts chapter of the American College of Obstetricians and Gynecologists who shall specialize in childbirth or maternal health, including, but not limited to, obstetrics and gynecology, maternal-fetal medicine or family medicine, 1 of whom shall be a member of the Massachusetts affiliate of American College of Nurse-Midwives, 1 of whom shall be a member of the Perinatal-Neonatal Quality Improvement Network of Massachusetts, 1 of whom shall be a member of the Ellen Story Commission on Postpartum Depression established pursuant to chapter 313 of the acts of 2010, 1 of whom shall be a member of the Massachusetts COVID-19 Maternal Equity Coalition who is a public health professional specializing in racial inequities in maternal health, 1 of whom shall be a medical professional who practices in a birthing center working with women who experience high or

disparate rates of maternal mortality or severe maternal morbidity, 1 of whom shall be a doula from the Birth Sisters Program at Boston Medical Center, 1 of whom shall be a certified professional midwife from Sister Soul Midwifery, LLC, 1 of whom shall be a representative of the Bridges to Moms Program at Healthcare Without Walls, Inc., 1 of whom shall be a representative of the Resilient Sisterhood Project, Inc., 1 of whom shall be a representative of Quietly United in Loss Together Corporation, 1 of whom shall be a representative of the Commonwealth Mental Health & Wellness Center, Inc., 1 of whom shall be a person who identifies as a father who belongs to a community that experiences high or disparate rates of maternal mortality or severe maternal morbidity, 1 of whom shall be a parent whose partner has experienced maternal mortality or severe maternal morbidity and belongs to a community that experiences high or disparate rates of maternal mortality or severe maternal morbidity, 1 of whom shall be a member of the Massachusetts COVID-19 Maternal Equity Coalition who is a maternal peer recovery coach working with women who experience high or disparate rates of maternal mortality or severe maternal morbidity, 3 of whom shall be members from communities that experience high or disparate rates of maternal mortality or severe maternal morbidity; and 2 members to be appointed by the Governor, 1 of whom shall be a person who has lost an immediate family member because of maternal mortality and belongs to a community that experiences high or disparate rates of maternal mortality or severe maternal morbidity, and 1 of whom shall be a person who has experienced severe maternal morbidity and belongs to a community that experiences high or disparate rates of maternal mortality or severe maternal morbidity. All appointments to the commission shall prioritize individuals from communities that experience high or disparate rates of maternal mortality or severe maternal morbidity. Members of the special commission shall have evidence-based or lay knowledge, expertise or experience related to maternal mortality and severe

maternal morbidity and shall reflect broad racial and geographic diversity in the commonwealth. Most members of the commission shall represent the diversity of the communities that are most impacted by inequities in maternal health outcomes in the commonwealth and shall be reflective of the constituency the commission is intended to serve. All appointments shall be made not later than 60 days after the effective date of this act. The commission shall convene its first meeting not more than 90 days from the effective date of this act.

The commission shall investigate and study ways to reduce or eliminate racial inequities in maternal mortality and severe maternal morbidity in the commonwealth including, without limitation: (1) evidence-based, best or promising practices, including approaches taken by other states or grass-roots organizations to reduce or eliminate racial inequities in maternal mortality or severe maternal morbidity, including, but not limited to, community driven strategies, approaches and policies including, but not limited to, access to racially and ethnically diverse, culturally competent and affordable doula services, accessibility and affordability of birthing centers and maternal medical homes and the diversity and cultural competency of maternal health care providers; (2) barriers to accessing prenatal and postpartum care; (3) how prenatal and postpartum care is delivered and the quality of care; (4) how historical and current structural, institutional and individual forms of racism, including implicit bias or discrimination affect the incidence and prevalence of maternal mortality and severe maternal morbidity in communities of color and potential community level and state level solutions, which may include information related to mandatory implicit bias training for hospital facilities and birthing centers; (5) the availability of data collected by the commonwealth and the Massachusetts Maternal Mortality and Morbidity Review Committee, including outpatient data and what additional data may be needed, including data related to family interviews, resources and staffing; (6) the definition of, and associated limitations in defining, severe maternal morbidity, including without limitation: (i) what conditions or outcomes constitute severe maternal morbidity, (ii) whether the timeframe within which severe maternal morbidity is measured should be extended to 1 year and (iii) data and screening criteria necessary to track and measure severe maternal morbidity; (7) the availability, affordability and adequacy of insurance coverage, public or private, relative to prenatal and postpartum care, including, insurance

coverage for doula services; (8) any relevant findings of the health policy commission pursuant to section 88 of chapter 41 of the acts of 2019; and (9) any other factors that the commission considers relevant to reducing and eliminating racial inequities in maternal mortality and severe maternal morbidity in the commonwealth. The commission shall consult with the maternal mortality and morbidity review committee and the commissioner of public health to review any studies or research available on the reduction of maternal mortality or severe maternal morbidity, pursuant to section 24A of chapter 111 of the General Laws, to inform the work of the special commission.

The commission shall meet no less than 4 times in locations across the commonwealth and in communities that experience high or disparate rates of maternal mortality or severe maternal morbidity to gather information and to raise awareness of maternal mortality and severe maternal morbidity. The commission shall provide updates on the progress of the commission's investigation and study, including an update on its report of its findings and recommendations at each meeting.

For the purposes of this act, "maternal mortality" shall mean the death of a woman during pregnancy or within 1 year of the end of the pregnancy.

The Commission shall, no later than March 31, 2022, report to the general court on the results of its investigation and study together with its finding, recommendations drafts of legislation necessary to carry out those recommendations, by filing the same with the clerks of the house of representatives and senate who shall forward the same to the secretary of the executive office of health and human services, the house and senate committees on ways and means, the joint committee on health care financing and the joint committee on public health.

APPENDIX B

Participants In Listening Sessions, 2021

Western Massachusetts Listening Session (June 22, 2021)

Persons Providing Comments

- Tonja Santos, CNM, Baystate Medical Center
- Liza Winston, CNM, Baystate Medical Center
- Rochelly Maldonado, CNM
- Elizabeth Morgan, MD, Assistant Professor of Obstetrics and Gynecology, UMass Chan Medical School – Baystate
- Milta Franco
- Donna Jackson-Kohlin, CNM, Baystate Medical Center
- Megan Miller, MD, OB/GYN, Baystate Medical Center
- Sophie Howard, Project Manager, Planned Parenthood League of Massachusetts
- Jenise Katalina
- Dayna Campbell
- Vanessa Martinez
- Gloria Agosto, Student Midwife/Doula
- Lauren Mills
- Keyedrya Jacobs, Community Engagement Coordinator, Franklin Regional Council of Government
- Eric J. Wilson, People with disabilities advocate, C.W.V
- Ilana Steinhauer, NP, Volunteers in Medicine Berkshires
- Inricka Liburd, Nurse Practitioner Student, MOTHER Lab
- Commissioner Ndidiamaka Amutah-Onukagha, MD, MOTHER Lab
- Commissioner Charles Daniels, MD, Father's Uplift
- Marv Neal, Father's Uplift
- Javon Tooley, Father's Uplift
- Larry J. Pirone, Father's Uplift
- Benjamin Diaz, Father's Uplift
- Marlon Castro, Father's Uplift
- Melody Cunningham Lopez, Vital Village/Boston Breastfeeding Coalition
- Stephanie Crawford, Doula
- Dominique Bellegrade, Doula and student midwife, Vital Village
- Carmyn Polk, YWCA Cambridge
- Rose Molina, MD, MPH, Assistant Professor of Obstetrics, Gynecology & Reproductive Biology Harvard Medical School, Beth Israel Deaconess Medical Center, The Dimock Center and Ariadne Labs
- Amanda DiMeo, Research Manager, Ariadne Labs
- Bisola Ojikutu, MD, Executive Director, Boston Public Health Commission
- Lisa White, Family Advocate, Boston Public Health Commission
- Mary Morgan, Public Health Nurse, Boston Public Health Commission

Greater Boston Area Listening Session (September 20, 2021)

Persons Providing Comments

- Brandy Fluker Oakley, State Representative (12th Suffolk District)
- Juan Cofield, President, NAACP New England Area Conference
- Dananai Morgan, Neighborhood Birth Center
- Nashira Baril, Director, Neighborhood Birth Center
- Chynah Tyler, State Representative, Chairwoman of Black and Latino Caucus
- Ayesha Wilson, Committee Member, Cambridge School
- Simone Alexander, Zero to Nine
- Pam Alexander, Doula, Zero to Nine
- Mehreen Butt, Associate Director of Policy and Government Affairs, Planned Parenthood
- Susan Wright Thomas RN, Massachusetts Nurses Association
- Diana Namumbejja Abwoye NP, Our Bodies, Ourselves
- Commissioner Susan Hernandez, CNM

Central Massachusetts Listening Session (October 25, 2021)

Persons Providing Comments

- Brittney Butler, MD, FXB Center for Health and Human Rights at Harvard University
- Angela Ferrari, CNM, Boston Medical Center
- Natalie Higgins, State Representative
- Sara Shields, MD, Chair, Worcester Healthy Baby Collaborative
- Barbara LaBuff, RN, Massachusetts Nurses Association
- Kate DesBois, RN, Massachusetts Nurses Association
- Edwin C. Huang, MD, Interim Mount Auburn Hospital President; Chair, Dept. of Obstetrics and Gynecology; Assistant Professor, Harvard Medical School

South Coast, South Shore, Cape, and Islands Listening Session (November 15, 2021)

Persons Providing Comments

- Representative Antonio Cabral, 13th Bristol district
- Representative Michel DuBois
- Holbrook Selectman William Watkins, Executive Director of workforce development, Urban League
- Charles Muhiu
- Rhonda Fazio
- Ron Waddell, Executive Director, Legendary Legacies, Inc.
- Milton Kotelchuck, PhD MPH, Professor of Pediatrics at Harvard Medical School and at Mass General Hospital for Children; former Assistant Commissioner for Community Health Services at MDPH and former Director of its Division of Vital Statistics and Research
- Damon O. Chaplin, Health Director, City of New Bedford
- Iva Brito, Commissioner for Bristol County and also founder of IBC
- Nnkesia Brock
- Raelyn Monteiro, Director of Mission Impact, YWCA Southeastern MA
- Valentina Martinez, Community Health Worker, YWCA Southeastern MA
- Dr. Aminah Fernandes Pilgrim
- Commissioner Leena Mittal, perinatal psychiatrist at Brigham and Women's Hospital and the Associate Medical Director for MCPAP for Moms at Brigham; also Chief of Women's Mental Health and Associate Vice Chair in Psychiatry for Diversity, Equity and Inclusion.

- Commissioner Glorimar Irizarry, Women's Health Program Lead, Holyoke Community Health Center
- Commissioner Soraya DosSantos

People submitting written comments

- Advancing Birth Equity for Black Women Research Team:
 - Dr. Laurie Nsiah-Jefferson, Principal Investigator
 - Dr. Heelan-Fancher, Principal Investigator
 - Dr. Colette Dieujuste
 - Dr. Tiffany Moore Simas
 - Violet Acumo
 - Damiana Andonova
 - Ciyana Smith, UMass Boston
- Angela Ferrari, Nurse-Midwife, Boston Medical Center, Cambridge Health Alliance and Wilson Middle School, Natick
- Angela Isaac
- Aver Yakubu, MOTHER Lab™
- Benjamin Diaz, Fathers Uplift Ambassador
- Dananai Morgan, Board Member, Neighborhood Birth Center, Boston
- Barbara Fain, JD, MPP, Executive Director, Betsy Lehman Center for Patient Safety
- Tiffany Vassell, RN, Registered Nurse, community hospital in Cambridge
- Glorimar Irizarry, Women's Health Program Lead, Holyoke Health Center, Holyoke
- Congresswoman Ayanna Pressley US Representative, 7th District, Massachusetts
- Dominique Bellegarde, Doula and student midwife in training, Women of the Community Vital Village
- Yaminah Romulus, Policy Manager, Health Care For All
- Katherine Rushfirth, CNM, Associate Chief of Midwifery, Massachusetts General Hospital; and Legislative Co-Chair for the MA Affiliate of American College of Nurse Midwives
- Khali Maddox-Abdegeo, Baystate Community Faculty
- Milton Kotelchuck, PhD MPH, Professor of Pediatrics at Harvard Medical School and at Mass General Hospital for Children; former Assistant Commissioner for Community Health Services at Massachusetts Department of Public Health and former Director of its Division of Vital Statistics and Research
- Keyedrya Monique Jacobs
- Dr. Yvonne M. Spicer, Mayor, City of Framingham

- Brittney Butler PhD, MPH, *Social Epidemiologist and Research Fellow, FXB Center for Health and Human Rights at Harvard University*
- Jarlinne Brooks
- Marie S. Eusebe, RN, *Director of Health & Nutrition, T.R.U.E. Diversity*
- Waetie-Sanaa Cooper Burnette
- Stephanie Crawford, *Doula*
- A Certified Nurse Midwife working for Baystate Midwifery and Women's Health in Springfield, who provides gynecological and obstetrical care to women in the Hampden County House of Corrections, and the Western MA Regional Women's Correctional Center since 2005
- Rhonda M. Fazio
- Santita Castellano
- Sarah Goff, *Associate Professor, Baystate Medical Center and University of Massachusetts, Amherst*
- Shannan Clarke, *BACE-NMC, Vital Village*
- Shauntel, *Career center manager, Worcester Healthy Baby Collaborative*
- Susan Wright Thomas, RN, MSN, *Massachusetts Nurses Association, UMass Boston Birth Equity Research Team Member*
- Stephanie Crawford, *Doula*
- Stephanie Campbell
- **Members of the Maternal Outcomes for Translational HealthEquity Research (M.O.T.H.E.R. Lab),** Dr. Amutah-Onukhaga, *the Julia A. Okoro Professor of Black Maternal Health and Assistant Dean of Diversity, Equity, and Inclusion at Tufts University School of Medicine.*
- Amber B. Vayo, *Ph.D. student, University of Massachusetts Amherst*
- Lois McCloskey, *DrPH, Chair and Interim of the Department of Community Health Sciences at Boston University School of Public Health and Director of the B.U. Center of Excellence in Maternal and Child Health Education, Science and Practice.*
- JudyAnn Bigby, *M.D., Former Secretary, Executive Office of Health and Human Services, Commonwealth of Massachusetts*
- Emily Anesta, *Bay State Birth Coalition*
- Susan Krause, *CNM, MSN, FACNM, Director, Midwifery Education Program, Interim Chief, Division of Midwifery, Baystate Medical Center*
- Raelyn Monteiro, *Director of Mission Impact, YWCA of Southeastern Massachusetts*

APPENDIX C

Glossary of Terms

Certified Nurse Midwife

"Certified Nurse-Midwives (CNMs) and Certified Midwives (CMs) are educated in graduate-level midwifery programs accredited by the Accreditation Commission for Midwifery Education (ACME). CNMs and CMs pass national certification examination administered by the American Midwifery Certification Board (AMCB) to receive the professional designation of CNM (if they have an active RN at the time of the certification exam) or CM... CNMs and CMs are regulated on the state level, thus professional practice and interaction with other health care professionals, such as physicians, can vary from state to state. CNMs are legally recognized to practice in every state in the US and in the District of Columbia."

Source: The Credential CNM and CM, American College of Nurse-Midwives. <https://www.midwife.org/the-credential-cnm-and-cm>

Certified Professional Midwife

"The Certified Professional Midwife credential, issued by NARM, is accredited by the National Commission for Certifying Agencies (NCCA), the accrediting body of the Institute for Credentialing Excellence (ICE, formerly NOCA) ... The CPM is the only NCCA-accredited midwifery credential that includes a requirement for out-of-hospital experience... A Certified Professional Midwife's (CPM) competency is established through training, education and supervised clinical experience, followed by successful completion of a written examination."

Source: NARM Certification and Recertification, North American Registry of Midwives, 2022. <http://narm.org/certification-recertification/>

Doula

"Today, a doula is defined as follows: a trained professional who provides continuous physical, emotional and informational support to a mother before, during and shortly after childbirth to help her achieve the healthiest, most satisfying experience possible."

Source: What is a doula?, DONA International, 2022. <https://www.dona.org/what-is-a-doula/>

Severe Maternal Morbidity

"Severe Maternal Morbidity. "Severe maternal morbidity can be thought of as unintended outcomes of the process of labor and delivery that result in significant short-term or long-term consequences to a woman's health."

Source: Severe maternal morbidity: screening and review, Sarah K. Kilpatrick, MD, PhD, Jeffrey L. Ecker, MD, American College of Obstetricians and Gynecologists and the Society for Maternal-Fetal Medicine, August 22, 2016, [https://www.ajog.org/article/S0002-9378\(16\)30523-3/fulltext#%20](https://www.ajog.org/article/S0002-9378(16)30523-3/fulltext#%20)

APPENDIX D

Directory of Key Organizations

Centers for Disease Control and Prevention (CDC)

"CDC works 24/7 to protect America from health, safety and security threats, both foreign and in the U.S. Whether diseases start at home or abroad, are chronic or acute, curable or preventable, human error or deliberate attack, CDC fights disease and supports communities and citizens to do the same. CDC increases the health security of our nation. As the nation's health protection agency, CDC saves lives and protects people from health threats. To accomplish our mission, CDC conducts critical science and provides health information that protects our nation against expensive and dangerous health threats, and responds when these arise."

Source : <https://www.cdc.gov/about/organization/mission.htm>

Massachusetts Department of Public Health (MDPH)

"The mission of the Massachusetts Department of Public Health is to prevent illness, injury, and premature death, to assure access to high quality public health and health care services, and to promote wellness and health equity for all people in the Commonwealth."

Source: <https://www.mass.gov/service-details/about-the-department-of-public-health>

Massachusetts Maternal Mortality and Morbidity Review Committee

"Massachusetts Maternal Mortality and Morbidity Review Committee. "Maternal Mortality and Morbidity Review Committee reviews maternal deaths, studies the incidence of pregnancy complications, and makes recommendations to improve maternal outcomes and prevent mortality."

Source: <https://www.mass.gov/service-details/maternal-mortality-and-morbidity-initiative>

Massachusetts Perinatal Quality Collaborative

"A cooperative voluntary program involving Massachusetts maternity facilities and key perinatal stakeholders, designed to promote the sharing of best practices of care."

Source: <https://www.mpqcma.org/>

Perinatal Neonatal Quality Improvement Network

"Perinatal Neonatal Quality Improvement Network. "Our joint quality improvement collaboration was founded on the idea of helping mothers and babies through the development of quality improvement and best practices. Ever since our organization was established, we have endeavored to provide help where the need is greatest. Our team is made up entirely of volunteers. We advocate for mothers and babies who need our help through our network of collaboration... Through open sharing of data and promotion of best practices, we aim to achieve measurable improvements in perinatal health outcomes while eliminating health disparities and improving health equity among Massachusetts mothers, newborns, and their families."

Source: <https://www.pnqnma.org/about-us>

Neonatal Quality Improvement Collaborative

"Neonatal Quality Improvement Collaborative. "The Neonatal Quality Improvement Collaborative of Massachusetts (NeoQIC) is dedicated to improving the health outcomes of newborns throughout the state. It is a voluntary organization of health care providers and institutions that support quality improvement in the health care of newborns through the open sharing of information and practices. It seeks to foster a culture of continuous quality improvement among its members through the development of joint quality improvement projects and initiatives, promotion of evidence-based best practices, and support of education and training."

Source: <https://www.neoqicma.org/mission-statement>

APPENDIX E

H.2341 / S.1519

The Out-of-Hospital Birth Access and Safety Act sponsored by Representative Kay Khan and Senator Becca Rausch

Overdue for Midwives!

Massachusetts is OVERDUE.

Families need a safe, integrated maternity care system with access to licensed midwives in every birth setting.

Midwives deliver high value health care.

- Proven results using less costly interventions
- Fewer newborn deaths, fewer premature births, and fewer C-sections¹



Massachusetts lags the nation.

- Massachusetts ranks in the bottom 1/3 of states for maternity care integration¹
- 37 states license Certified Professional Midwives (CPMs) including Maine, New Hampshire, Vermont, Rhode Island
- 17 states include CPMs as Medicaid providers



DEMAND FOR MIDWIFERY CARE HAS SURGED IN THE PANDEMIC.

Massachusetts home birth rate jumped 47% from 2019 to 2020.

Nationally, home births rose 22% overall and 36% for Black birthing people.

(CDC Vital Statistics, 12/9/2021)



Families need Out-of-Hospital Birth Access & Safety now.

- ✓ Improves maternal & infant health outcomes
- ✓ Reduces health disparities
- ✓ Increases access to care
- ✓ Closes critical safety gaps
- ✓ Lowers health care costs

Supported by organizations for women's rights, civil rights, midwifery, and reproductive health:



3-7-2022 For more information, contact Bay State Birth Coalition contact@baystatebirth.org

The Out-of-Hospital Birth Access and Safety Act

sponsored by Representative Kay Khan and Senator Becca Rausch

PUBLIC HEALTH <i>Address our maternal health crisis through greater use of midwives</i> The Crisis: U.S. maternal mortality is the worst in the developed world. In MA, Black mothers are 2X more likely to die than their white counterparts. • Midwifery is proven to improve maternal and neonatal birth outcomes¹ • Midwives can provide 87% of essential maternity and newborn care²	ACCESS <i>Remove financial and geographic barriers to prenatal, birth, and postpartum care</i> • Increase access for low-income families ◦ 40% of births in MA are paid for with Medicaid/MassHealth • Eliminate maternity care deserts ◦ Recent hospital maternity ward closures in Holyoke, Wareham, Ware, North Adams, Southbridge, Taunton, and elsewhere.
SAFETY <i>Promote patient safety & integration of care</i> • Transparency and accountability • Educated to national & international standards • Legal access to life-saving medications • Care that is part of an integrated system	SAVINGS <i>Save money for the Commonwealth</i> • Proven results using less costly interventions • \$1.6M savings per year to Medicaid with licensed midwives in Washington State³

CURRENT MIDWIFERY LANDSCAPE IN MASSACHUSETTS

More than 500 Massachusetts families each year (and rising) choose home birth for reasons such as culture, tradition, religion, health, and personal preference. This maternity care is currently:

- Provided by unlicensed midwives (CPMs)
- Disconnected from the healthcare system
- Ineligible for Medicaid and private insurance

Certified nurse-midwives are the only nationally-credentialed midwives who can be licensed in Massachusetts today. Most nurse-midwives only attend in-hospital births.

WHAT THE BILL WILL DO

- ☐ Create a Board of Midwifery under the Department of Public Health to oversee licensure
- ☐ Require midwives to become licensed and carry the nationally-accredited CPM credential, meeting the educational and practice requirements of the profession
- ☐ Permit licensed midwives to carry and administer life-saving medications
- ☐ Include licensed midwives as Medicaid/MassHealth providers

LEGISLATIVE BACKGROUND

- **191st session: Passed the Senate unanimously** (S.2865); favorable report from Joint Committee on Public Health (H.1948/S.1332).
- In previous sessions, was passed favorably by Joint Committees on Public Health and Health Care Financing. (Prior to 190th, as "An Act Relative to Certified Professional Midwives").
- *Similar legislation has now been passed in 37 states + Washington D.C.*

¹ Vedam S, et al, "Mapping midwifery integration across the United States: impact on access, equity, and outcomes." *PLOS ONE*. Feb 21, 2018

² UNFPA, ICM, WHO: "The state of the world's midwifery 2014: A universal pathway. A women's right to health". 2014

³ Midwifery Licensure and Discipline Program in Washington State: Economic Costs & Benefits, WA DOH, October, 2007

For more information, contact Bay State Birth Coalition contact@baystatebirth.org

APPENDIX F



H.3881: An Act to increase access to nurse-midwifery services

Lead Sponsor: Representative Kay Khan

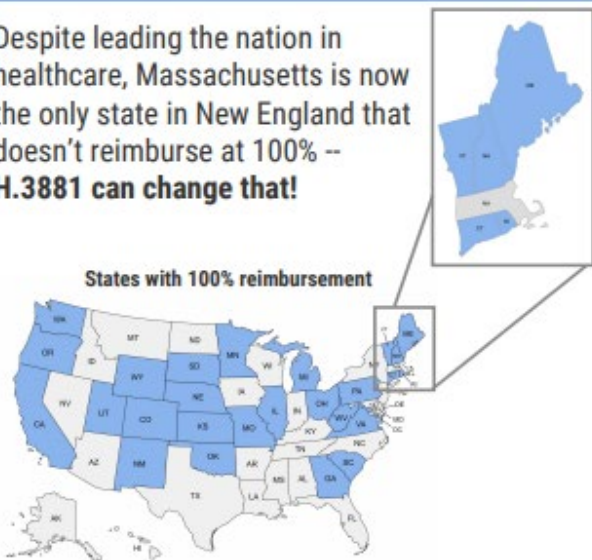
Bill Overview: Currently there is no requirement for Massachusetts insurance companies to equitably reimburse Certified Nurse Midwives (CNMs) for their services. This bill would ensure that insurance companies reimburse CNMs equally to physicians for performing the same medical services. Passing H.3881 will expand access to critical medical care, reduce invasive medical interventions, and lower health care costs.

CNMs in Massachusetts

Throughout the Commonwealth, there are over **560** licensed CNMs practicing in over **30** hospitals and attending **16%** of all normal vaginal deliveries. CNMs are licensed healthcare providers, who have obtained a Master's or Doctoral degree, and provide reproductive and sexual healthcare. They have **full practice authority**, meaning they are fully credentialed to provide independent, autonomous care.

States that reimburse CNMs at 100% relative to physicians under Medicaid

Despite leading the nation in healthcare, Massachusetts is now the only state in New England that doesn't reimburse at 100% -- **H.3881 can change that!**



H.3881 expands access to CNM care

Improves Health Outcomes: Numerous studies have concluded that CNM care is associated with lower rates of medical interventions, shorter hospital stays, and higher breastfeeding rates--all crucial to maternal and fetal health outcomes.

Addresses Maternal Health Disparities Among Vulnerable Populations: CNMs are core providers in the community health network for higher maternal mortality risk populations. Through equitable reimbursement, practices can expand CNM services and tackle the maternal mortality crisis.

Establishes Pay Equity Between CNMs and Physicians for Performing Comparable Work: Pay equity is a Core Value in Massachusetts. The Act to Establish Pay Equity states employers cannot pay workers less than what they pay employees of a different gender for comparable work. The CNM workforce is 99% female, performs comparable work, yet are not reimbursed at 100% like historically male physicians.

* Certified Nurse-Midwife and Certified Midwife Medicaid Reimbursement Rates.* American College of Nurse-Midwives, September 2013. <https://www.midwife.org/ACNM/files/cclibraryFiles/FileName/000000003374/Medicaid%20Reimbursement%20Rates.%20September%202013.pdf>.
Vedam, S., Stoll, K., MacDorman, M., Declercq, E., Cramer, R., Cheyney, M., Fisher, T., Butt, E., Yang, Y. T., & Kennedy, H. P. (n.d.). Mapping integration of midwives across the United States: Impact on access, equity, and outcomes. PLOS ONE. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0192523>.

Passage of H.3881 will Reduce Medical Interventions & Lower Healthcare Costs:

For insurers who utilize the incident-to-billing model:

H.3881 would keep costs the same while **improving care coordination & patient outcomes**. Many hospitals and birthing facilities currently bill CNM's services under a physician or group number, meaning the patient and thus insurance carrier are already paying for CNM services at the same level as a physician.

For other insurers:

Any increased cost would be offset by **savings due to decreased rate of interventions**. In Boston alone, CNM assisted births could have saved over \$2 million under Medicaid and over \$4.5 million under private insurance in 2017. The American College of Nurse Midwives (ACNM) estimates that for every 1,000 low-risk women who utilized CNM care versus exclusive OB care, the State would see:

- * A **6.4%** reduction in cesarean sections
- * **\$297,437 in savings** for Medicaid covered births and **\$636,164** for commercial covered births.

The national average for CNM medical malpractice insurance is **\$11,131 annually**, in comparison the average premium rates for **OB's are \$150,000**. This presents an enormous cost saving opportunity for hospitals that cover malpractice insurance.

What about the difference in MD and CNM education and training?

Many different specialties with different levels of training already receive the same reimbursement rate for rendering the same services. This includes reimbursing Maternal Fetal Medicine (MFM) physician and Family Medicine Physician the same and Optometrist and Ophthalmologist.

The shorter length of education and difference in malpractice rates for CNMs (vs. an MD) is not an indication of the quality of service a CNM is able to provide. It is only due to CNMs not needing to undergo surgical training or providing high-risk obstetrical or gynecological care.

Please support H.3881, An Act to increase nurse-midwifery services! With your help we can expand access to critical medical care, reduce invasive medical interventions, and lower health care costs today!

For further information contact:

Susan Hernandez, C.N.M. at sjhernandez@partners.org

Kate Worrall at ksaville@charlesgroupconsulting.com

Organizations who Support Equal Reimbursement for CNMs:

The American College of Obstetricians and Gynecologists - American Nurses Association
National Perinatal Association - National Rural Health Association - Medicare Payment Advisory Committee

"Malpractice Liability Burden in Midwifery," 2008. Medscape.
https://www.medscape.com/viewarticle/568836_4#:~:text=Most%20CNMs%20were%20covered%20through,interval%2C%20%244%2C114%20%2418%2C149. (June 15, 2021).
How Much Does Medical Malpractice Insurance Cost in 2021? LeverageRx. (n.d.). <https://www.leveragerx.com/blog/medical-malpractice-insurance-cost/>.

Report of the Special
Commission on

RACIAL INEQUITIES IN MATERNAL HEALTH

COMMONWEALTH OF MASSACHUSETTS