

MAXIMIZING MIDWIFERY

to Achieve
High-Value
Maternity Care
in New York

CHOICES IN CHILDBIRTH + EVERY MOTHER COUNTS

Nan Strauss
January 2018

Choices in Childbirth is a non-profit organization that works to ensure access to maternity care that is safe, healthy, equitable, and empowering. Our mission is to promote evidence-based, mother-friendly childbirth options through public education, advocacy, and innovative policy reform.

COPYRIGHT

Copyright © 2018 by Choices in Childbirth

All rights reserved. Individuals may photocopy all or parts of this paper for educational, not-for-profit uses. This report may not be reproduced for commercial, for-profit use in any form, by any means (electronic, mechanical, xerographic, or other), or held in any information storage or retrieval system without the written permission of Choices in Childbirth.

Choices in Childbirth
601 W. 26th St, #325-246
New York, NY 10001
www.choicesinchildbirth.org
info@choicesinchildbirth.org



DEDICATION

In memory of Dorothea Lang, New York State's Midwife # 001.

An inspiration to all who knew her, she cut her own path and led the way for many to follow.

“Go where opportunities are already great! But also go to places where conditions are terrible! That is where you will show what you as a midwife can truly bring to health care and the community.”

— DOROTHEA LANG

ACKNOWLEDGEMENTS

We extend our thanks and gratitude to all of the childbearing individuals, families, professionals, and advocates who have generously shared their experience, perspectives, and expertise. We wish to recognize here just a few of the invaluable contributions of a small subset of participants. A number of midwives shared their time graciously and generously, none more than Patricia Burkhart, Kate Finn, Karen Jefferson, Maura Larkin, Patricia Loftman, Sharon McDowall, and Mimi Niles, who were always willing to guide the project forward and let us know when we were drifting off-course.

Thanks to the many physicians whose appreciation for the collaborative spirit of this endeavor greatly enriched the project, including Dr. Cathy Berry, Dr. David Keefe, Dr. Katharine Morrison, Dr. George Mussalli, Dr. Neel Shah, Dr. Georges Sylvestre, Dr. Lois van Tol, Dr. Richard Waldman, and Dr. Jacqueline Worth, as well as many others.

In our travels, we were hosted with generosity and warmth by Mary Badame, Kate Finn, Aimee Gomlak, Tisha Graham, Amy Haas, Carolyn Keefe, Khristeena Kingsley, Linda Lovig, Adriana Lozada, Jeanette McCulloch, Sharon Nisengard, Bethany Spier, Julia Sittig, and Helene Thompson-Scott to name just a few of those who introduced us to families and providers through much of the state and made our visits fruitful and informative.

Data from the Giving Voice to Mothers Survey (GVTM) data has been included thanks to heroic efforts by Kathrin Stoll and Elizabeth Nethery, Saraswathi Vedam's leadership and Barbara Karlen's support, all from the University of British Columbia's Birth Place Lab. We are also grateful to Eugene Declercq for his expertise and guidance and all of the collaborating partners, including Jennie Joseph, Shafia Monroe, Marinah Farrell, Claudia Booker, International Center for Traditional Childbearing, Oregon Inter-Tribal Breastfeeding Coalition, Mamas of Color Rising, and Phoenix Midwife.

Thanks to Choices in Childbirth's Board of Directors for its unwavering commitment. Dana Huber and Elizabeth Jones contributed throughout the research, review, and editing, helping to refine the paper at every turn. Special thanks to Jeanne Faulkner for helping wrangle the wide-ranging material into its current form; Clare Friedrich for her patience and creative problem solving; Sydney Sasanow for her multi-faceted assistance, and Elan McAllister for her vision for this project. Ihotu Ali, Arielle Cheifetz, and Frauke Luca Gajdus planned, implemented, and followed up on much of the research, and Maris Gelman provided valuable research assistance. Susan Williams gave tireless editorial support. Rebecca Smeltzer joined the team in the eleventh hour to help shape the visual representation of data. Finally, Aimee Brill's contributions cannot be overstated. She was involved in nearly every facet of the project, from the conceptual to the pragmatic, coordinating our research trip to Syracuse, drawing various stakeholders into the process, and collaborating on the final editing. She was the doula to this report.

We are indebted to Every Mother Counts for helping to bring this report to fruition and creating the space to advance this work.

We particularly appreciate the support of the members of NYSALM, the New York City Chapter of Midwives, and New York City's home birth midwives. We are deeply grateful to all of you who have enriched the report with your vision and wisdom.

This report was made possible by the generous support of the Transforming Birth Fund, the Robert Sterling Clark Foundation, and the Health Foundation of Western and Central New York.

METHODOLOGY

This report is based on research carried out between 2015 and 2017 by Choices in Childbirth. Choices in Childbirth conducted interviews with a wide range of key stakeholders, including individuals working in public hospital midwifery departments and academic midwifery programs; private practice midwives working in all settings and serving clients paying with Medicaid as well as private insurance; health service providers; public health professionals; obstetricians and family physicians; hospital administrators; and childbearing women who have given birth in all settings.

Research was conducted in and around Albany, Buffalo, Ithaca, New York City (Brooklyn, Bronx, Manhattan, and Queens), Rochester, Saratoga, Syracuse, and Westchester. The report includes qualitative data from more than 265 individuals state-wide, gathered from 53 individual interviews, 19 client focus groups, 11 midwives' focus groups, and 9 other mixed-participant focus groups including health care providers, clinicians, administrators, maternal health advocates and birth workers, and community-based doulas.

The report also includes qualitative responses and data from the Giving Voice to Mothers Survey (GVTM), which included 759 respondents who had given birth in New York State in the last five years. The Giving Voice to Mothers Survey is a participatory action research project to assess how factors such as planned place of birth, race and ethnicity interact with maternity care experience and preferences, experiences with discrimination and/or disrespect, and access to options for maternity care and providers. The GVTM survey was led by the University of British Columbia Birth Place Lab, with Saraswathi Vedam serving as the principal investigator and Eugene Declercq from Boston University as co-investigator. In addition to Choices in Childbirth, collaborating partners include Common Sense Childbirth, International Center for Traditional Childbearing, Oregon Inter-Tribal Breastfeeding Coalition, Mamas of Color Rising, and Phoenix Midwife.

NOTE ON TERMINOLOGY

We recognize that a person's gender identity may differ from the sex they were assigned at birth. The terms woman or women, when used, are intended to be inclusive of all individuals who were assigned female at birth. However, this document also uses gender-neutral terms when possible, including childbearing persons, to reflect the fact that not all childbearing individuals identify as women.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	iv
METHODOLOGY	v
FOREWORD	viii
EXECUTIVE SUMMARY	2
WHAT IS MIDWIFERY?	9
INTRODUCTION	10
FRAMEWORK FOR CHANGE	11
TOP PRIORITY: MATERNITY CARE SYSTEM REFORM	12
STRATEGIC EXPANSION OF MIDWIFERY CARE	13
ADVANCING MIDWIFERY IN NEW YORK STATE	14
THE MIDWIFERY MODEL IS HIGH-VALUE CARE	15
AIM 1: IMPROVING OUTCOMES	15
Midwifery Model Health Outcomes.....	15
Reducing Cesareans to Reduce Severe Maternal Morbidity.....	16
Reducing Other Interventions.....	18
AIM 2: IMPROVING THE EXPERIENCE OF CARE – ENGAGEMENT, RESPECT, AND SATISFACTION	18
Active Engagement in Maternity Care & Decision-making.....	19
Disrespectful Care & Coercive Practices.....	20
A Relationship-Based Model: Trust, Care, and Support.....	24
Care Satisfaction.....	25
AIM 3: REDUCING COSTS	25
IMPROVING HEALTH EQUITY WITH MIDWIFERY	27
HISTORICAL CONTEXT AND CURRENT CLIMATE OF DISCRIMINATION AND DISRESPECT	27
IMPACT OF DISRESPECT AND SYSTEMIC DISCRIMINATION ON HEALTH OUTCOMES	28
MIDWIFERY CAN IMPROVE HEALTH EQUITY	29
MAXIMIZING THE IMPACT OF MIDWIFERY	32
AVAILABILITY OF MIDWIVES AND THE MIDWIFERY MODEL OF CARE	33
Provider shortages.....	34
Availability of Midwives in Hospitals.....	35
Administrative Support – Necessary but Not Sufficient.....	36
Hospital Policies Related to the Licensed Midwife Credential.....	38
Licensure Barriers.....	38
WORKFORCE CHALLENGES	39
Education - Increasing the Provider Pipeline.....	39
Collaborative Education.....	39
Diversifying the Workforce.....	40

INSURANCE AND MEDICAID BARRIERS	42
Insurance In-Network Provider Barriers.....	42
Fair Pay: Reimbursement Levels.....	43
Plummeting Rates for Maternity Care Services.....	43
Equitable Reimbursement between Midwives and Physicians.....	44
Insurance Barriers to Planned Out of Hospital Births.....	45
BARRIERS TO PRACTICING THE MIDWIFERY MODEL OF CARE	45
Limitations to Providing Independent, Full Scope Care.....	45
Hospital Culture Restricts Midwifery Model Practices.....	46
Collaborative Practice Models.....	47
COMMUNITY-BASED BIRTHS: BIRTH CENTERS AND HOME BIRTHS	48
Midwifery Birth Centers.....	48
Planned Home Birth Options and Safety.....	49
Safe Transfer from Out-of-Hospital Settings to Hospitals.....	51
CONCLUSION	52
RECOMMENDATIONS	52
ENDNOTES	56

FOREWORD

Working as a doula more than a decade ago, I experienced many beautiful, empowering, and inspiring births that gave me glimpses into something that was sacred and profound. Unfortunately, I also frequently witnessed births that were traumatic and disempowering. I knew that something had to be done to fundamentally improve the experiences that women, babies and families were having in this broken system. I knew we had to rewrite American women's birth stories.

Choices in Childbirth was founded to educate the public, change the system of maternity care, and help expecting families embrace birth as an important moment in their life. By taking ownership and responsibility for their experiences, women can bring to life the old maxim that, information is power.

In health systems that serve women well, maternal health care revolves around woman-centered, individualized care that addresses the holistic experience of birth. That's what the midwifery model of care is all about, and we have decades of evidence demonstrating its positive results.

This is not new information. We've talked for years about the need to expand women's access to the midwifery model of care in order to improve maternal health outcomes.

But talking is clearly not enough. Maternal mortality rates in New York State and the US are far higher than in other wealthy countries, and more women are feeling disenfranchised and disempowered in a consolidating health care delivery system.

That's why we need to take advantage of this moment to motivate real changes in how childbirth care is practiced. More women have access to health insurance than ever before, but the tenuous future of the Affordable Care Act places that success in jeopardy. But one thing remains certain – health care systems and hospitals will continue to search for more cost-effective ways to provide care.

Health care systems are shifting to better meet the Triple Aim of improving outcomes, increasing patient satisfaction, and reducing health care costs. Midwifery care meets all three goals by providing women with healthy pregnancies with a personal experience that guides them through pregnancy and childbirth. If we facilitate the expansion and integration of the midwifery model of care throughout the health care delivery system and allow midwives to practice the way this model is designed, we'll absolutely achieve the Triple Aim's goals.

As we focus on improving outcomes for mothers and babies, let's not lose sight of the midwife's experience and needs. The midwifery model of care is a major cost-saver that dramatically reduces the use of unnecessary interventions. The practitioners who bring this cost-effective model of care into the system must be reimbursed at levels that recognize their contributions. That's what makes this model of care sustainable – it's based on giving women what they need to thrive during this important life transition.

Elan McAllister, Founder, Choices in Childbirth

EXECUTIVE SUMMARY

In the parts of Europe that have the very best maternal health outcomes, they have a very high utilization of midwives and very low-tech obstetric care. The system is safest when low-tech care is combined with access to higher-tech obstetric care, when needed. In fact, midwives reduce risks for their patients because they utilize fewer risky interventions.

– DAVID KEEFE, MD, STANLEY H. KAPLAN PROFESSOR AND CHAIRMAN OF OBSTETRICS AND GYNECOLOGY, NYU LANGONE MEDICAL CENTER

“To a woman, giving birth is the most amazing experience she will ever have. It is so important to feel supported while you are doing this amazing thing, and I think midwives get that.”

– JESS, ITHACA, NY

Widespread integration of midwives is a key strategy to realize high-value maternity care. Yet national and state maternity care policies have largely overlooked the midwifery model as a potential strategy to achieve significant improvement in the quality, experience, and cost of maternity care. Most high-income countries with better maternal health outcomes and lower costs than the United States (US), including Britain, France, and the Netherlands, utilize midwives as the usual providers of maternity care.

THE NEED FOR CHANGE

Maternal deaths, considered an indicator of the health of the maternity care system overall, have been consistently higher in the US than in all other comparably wealthy countries and have risen over the last 25 years. Intractable disparities in pregnancy-related deaths between African American women and white women are widening.

African American women in NYC now face a risk of maternal death that is 12 times as high as non-Hispanic white women. Life threatening complications of pregnancy and birth have been rising steadily and now affect nearly 3,000 women a year in NYC alone. Severe maternal morbidity is estimated to result in additional costs exceeding \$17 million each year for NYC alone.

Childbirth is the most common reason for hospitalization in the US and Medicaid and private insurance spend more on maternal and newborn hospital care than for any other type of hospital stay. Yet maternity care has not been prioritized in health system reform efforts despite the potential for widespread impact and the existence of effective, evidence-based strategies that can be brought to scale.

HIGH-VALUE MATERNITY CARE

High-value care can be achieved by supporting patient-centered, evidence-based practices, while avoiding wasteful or unnecessary spending. This approach reflects the principles of the “Triple Aim” of health care improvement:

- 1) improving health outcomes for all members of our communities,
- 2) enhancing experience of and engagement in care
- 3) reducing the cost of care.

Health care delivery system reform efforts are leading to the implementation of value-based payment systems – payment structures that reward value rather than volume, including in NY State.

MIDWIFERY IS A HIGH-VALUE MODEL

NYS Licensed midwives are independent health care professionals who provide high quality care related to pregnancy and birth, as well as offering primary preventive reproductive care. Licensed midwives practice in hospitals, birth centers, homes, clinics and private practices.

“The rapid increase in the rate of cesarean births without evidence of concomitant decreases in maternal or neonatal morbidity or mortality raises significant concern that cesarean delivery is overused.”

– SAFE PREVENTION OF THE PRIMARY CESAREAN DELIVERY. CONSENSUS STATEMENT OF THE AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS AND THE SOCIETY FOR MATERNAL-FETAL MEDICINE, MARCH 2014.

“It seems like so many decisions are attempts to avoid immediate risks, but which create other risks down the road. More evidence-based information needs to be in the hands of women.”

– ROCHESTER, NY

Hallmarks of the midwifery model include approaching pregnancy and birth as healthy, normal life events and seeking to support the physiologic processes of labor, childbirth, and breast-feeding. Midwifery emphasizes person-centered, comprehensive care, evidence-based practices, and shared decision-making and respectful treatment, generally reserving interventions for circumstances where they have been demonstrated to provide a benefit. By using medical procedures only when their benefits outweigh their harms, midwifery care may reduce avoidable complications and chronic conditions.

AIM 1: Improving Health Outcomes

Midwifery achieves outcomes that are as good as, or better than, the outcomes achieved by physicians, and research has identified no areas where outcomes are worse for either women or infants. **Key benefits include fewer unneeded medical interventions such as cesareans, episiotomies, serious lacerations, and epidurals, a higher likelihood of breastfeeding, and greater patient satisfaction.**

Cesarean Surgery

Cesarean rates are widely recognized as being too high, and quality improvement initiatives are prioritizing efforts to bring rates down. Rates are more than 50 percent higher than in 1995, 32.9 percent for NYC and 33.8 percent for NYS, just above the national rate of 32.0 percent. The sharp rise has affected all groups of women, without improving maternal or infant health.

Unnecessary cesareans increase health problems and extra costs, without improving outcomes for women or infants. Cesareans have been associated with an increased risk of serious short- and long-term complications for women and newborns. The risk of severe maternal complications is three times greater following a cesarean.

Integrating midwifery into the US health system could help reduce cesarean rates and the complications that result. Cesarean rates vary widely by hospital to a degree not fully explained by different patient populations – ranging from 17.8 percent to 54.4 percent for all cesareans in NYS, and from 6.7 percent to 43.0 percent for uncomplicated cesareans. Much of the difference may be attributed to the culture and model of care at individual practices and facilities, which suggests that efforts to lower rates can be effective.

AIM 2: Experience of Care

Women with midwifery care report increased agency and autonomy in decision making, compared with women cared for by a physician, and research documents that midwife-led care is more likely to result in a positive childbirth experience and a greater sense of satisfaction, control, and confidence than traditional care.

Women cared for by midwives in all settings are also less likely to report disrespectful or coercive care compared with those cared for by physicians and are more likely to report effective communication and engagement in decision-making.

Strong communication can ensure families are informed and prepared for birth which in turn builds confidence in their ability to make decisions about care options. Factors associated with these positive experiences of care include the midwifery model’s emphasis on client engagement in care decision-making, implementing a “relationship-based” model of care that fosters trust, respect, and emotional support.

AIM 3: Reducing Costs

Expanding midwifery care has the potential to significantly reduce Medicaid and private insurance spending on maternity care, and can enhance the value of care that hospitals provide. Payments for maternal and newborn care in NYS alone totaled nearly \$4 billion in

“I didn’t want to be a patient – I wanted to have a baby.”

– BUFFALO, NY

2014 for approximately 238,000 births. Half of the state's births are covered by Medicaid, accounting for approximately \$1.25 billion in spending.

Midwifery care lowers costs by avoiding the overuse of interventions, which eliminates:

- Unnecessary and non-beneficial interventions (including primary cesareans)
- Avoidable short- and long-term complications and chronic conditions for women and newborns that sometimes result
- Repeat cesareans in subsequent pregnancies

Additional cost savings are achieved by increased breastfeeding and by a reduction in the number of people who decide to use epidural pain relief.

The sharp rise in cesarean rates has been a key driver of escalating maternity care costs. Cesarean births are reimbursed at higher rates than vaginal births, and because they require additional staff and medical treatment and longer hospital stays for recovery.

The cost of a cesarean is approximately one and a half times that of a vaginal birth, for both public and private payers. Average payments by private insurance in 2010 were approximately \$27,866 for a cesarean and \$18,329 for a vaginal birth – a difference of \$9,537 per birth. Medicaid payments averaged \$13,590 for a cesarean and \$9,131 for a vaginal birth – a difference of \$4,459. Because medical costs have risen steadily in the intervening period, these figures are conservative, and current numbers are substantially higher.

If in 2015, the cesarean rates were the same as in 1995, 25,900 cesareans could have been avoided in NYS, 13,300 of which would be in NYC. With 53 percent of births in NYS covered by Medicaid savings could reach an estimated \$61 million per year for NYS Medicaid and \$106 million per year for private insurance. Savings for births in NYC alone would be expected to reach \$36 million for Medicaid and \$47 million for private insurance. This potential annual savings would reflect only the savings on the current cesarean surgery, not future savings from repeat cesareans or later complications.

In addition to reducing cesareans, expanding the midwifery model of care has the potential to contribute to long term cost savings by:

- **Reducing repeat cesareans:** Nine out of 10 births following a cesarean are repeat cesareans, so avoiding the primary cesarean prevents future surgeries.
- **Reducing the use of epidural analgesia**
- **Increasing breastfeeding rates** which improves the health of women and infants and results in health care savings for women and infants
- **Reducing preventable complications and chronic conditions:** Cesareans increase the risk of severe, life-threatening complications and chronic conditions that may result in a lifetime of increased medical costs. By reducing use of cesareans, midwives can reduce spending on these long-term adverse effects.

MIDWIFERY IMPROVES HEALTH EQUITY

The positive outcomes of the midwifery model have been documented in a wide range of communities and settings, including with underserved populations. Midwives are more likely than physicians to engage women in decision-making and less likely to engage in disrespectful behaviors overall. Moreover, midwives are also less likely to treat women differently based on race, ethnicity, and income. However, physicians were reported to have exhibited more disrespectful behavior to women of color and low-income women.



The midwifery model can play a role in reducing disparities in health outcomes. African American women have the highest cesarean rates of any group and lower than average breastfeeding rates. Because of the midwifery model’s success achieving good results with both of these outcome measures, it may be an effective strategy to reduce disparities. Midwives have lower rates of poor outcomes, such as low birthweight and infant mortality, even though midwifery clients are disproportionately young, less educated, low-income, and from communities of color.

MAXIMIZING MIDWIFE-LED CARE

We have a huge workforce shortage in maternal health. Having systems of care that appropriately take care of the majority of low-risk women is definitely the way to go. When you look at it that way, midwives become the obvious solution.”

– NEEL SHAH, MD, MPP, ASSOCIATE PROFESSOR OF OBSTETRICS, GYNECOLOGY AND REPRODUCTIVE BIOLOGY, HARVARD MEDICAL SCHOOL

Realizing the potential benefits of expanded access to midwifery care requires identifying barriers and implementing changes at all levels of the health care system. Policy and regulatory efforts can either expand access to midwives’ services or further hamper it. In states where regulations support the practice of midwifery, midwifery workforces are larger and midwives attend a greater proportion of births. Midwives need to be more widely available in hospitals, reimbursed at appropriate rates, supported in providing the full range of services that they are qualified and licensed to perform, and educated in sufficient numbers to meet communities’ needs.

The American College of Obstetricians and Gynecologists (ACOG) and the American College of Nurse-Midwives (ACNM) agree that, “To provide highest quality and seamless care, Ob/Gyns and CNMs/CMs should have access to a system of care that fosters collaboration among licensed, independent providers.” Both professional associations have jointly stated their support for a practice environment where both Ob/Gyns and CNMs/CMs have access to hospital privileges and equivalent reimbursement from private payers and government programs. These are just two of the areas where policy changes can support high-value care.

Currently, midwives are not being utilized as widely as would be advantageous, because many facilities lack midwives, midwives are often restricted from providing care to the extent of their qualifications, and low reimbursement rates hamper the financial viability of private midwifery practices.

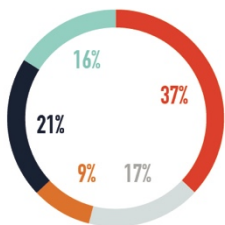
Availability of Midwives in Hospitals

Nearly half of NYC hospitals with maternity units have no midwives attending births (18 of 39) as well as more than one-third of hospitals in NYS (46 of 125). Midwives attended 10.1 percent of all births in NYS in 2015, but access to midwives varies widely depending on the individual’s insurance coverage and location.

The greatest concentration of midwives in NYS attend births at NYC’s Health and Hospitals (H+H) facilities, which mostly serve people who are enrolled in Medicaid or are uninsured. Most H+H hospitals, 8 of 11 (73%), had midwives regularly attending births – all at rates above the state average (15% to 67% of births). In contrast, most NYC private hospitals, 15 of 28 (54%) had no midwives attending births, and of the 13 private hospitals with midwives, nearly half of those had low rates of midwife attended birth (2% to 7%).

PERCENTAGE OF NY STATE HOSPITALS

by rate of midwife-attended births, 2015



- None (less than 1%)
- Below Average (1%–7%)
- Average (7%–14%)
- Above Average (14%–34%)
- High (34%–73%)

Provider Shortages

Substantial parts of NY State and City are designated as Health Provider Shortage Areas by the federal government. Currently, however, maternity care shortages go unrecognized, because obstetricians are counted in the same category as primary care providers. Many rural and urban areas would benefit from identifying maternity-care specific shortage areas and allowing midwives to fill these gaps.

Workforce Growth and Diversification

Workforce development, expansion, and diversification require resource allocation, initiative, and planning in order for maternal and newborn care systems to meet the growing need for a diverse midwifery workforce. Educational programs need the resources to be able to accept more – and more diverse – students into their programs, which in turn requires improving the availability of clinical education sites, as well as developing and strengthening interdisciplinary training between physicians and midwives.

Coordinating inter-disciplinary didactic and clinical learning opportunities would promote and enhance professional collaboration and increase the availability of interdisciplinary education. In addition, the US healthcare education system is designed to reimburse facilities for Graduate Medical Education (GME), or the education and training of physicians. The US does not currently provide similar equitable support for the education and training of midwives.

Low Reimbursement Rates

A review of state Medicaid fee schedules conducted by ACNM indicates that the amount that LMs are reimbursed for their fee-for-service Medicaid clients is lower than in several neighboring states. In 2015, the average **Medicaid reimbursement for a normal vaginal delivery (CPT 59400) in New York was \$1,463 compared with \$2,610 in Connecticut (78% higher), \$2,025 in Pennsylvania (38% higher), \$1,738 (19% higher) for Massachusetts, and \$1663 in Vermont (14% higher).**

Reimbursement rates have dropped precipitously over the last five years, and some midwives in private practice report no longer being able to accept Medicaid payment. The \$1,400 reimbursed for approximately 13 prenatal visits, labor and birth, and a postpartum visit provided over 10 or 11 months is not enough to cover the cost of overhead, even without accounting for the midwife's income.

Inequitable Reimbursement between Midwives and Physicians

In NYS, outdated policies allow midwives to be reimbursed at 85 percent of what a physician would receive for the provision of identical services. The Patient Protection and Affordable Care Act established equal pay (100% of physician rates) for LMs under Medicare, which is generally used as the benchmark for other payers. Most states' Medicaid programs now reimburse LMs at 100 percent of physician rates, and ACOG supports full reimbursement equity for midwives.

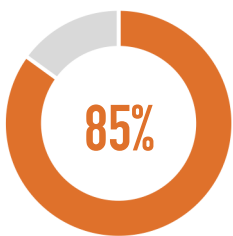
Higher reimbursement rates would likely result in a higher proportion of births being attended by LMs. The savings that result from midwives' lower intervention rates would be expected to surpass the increased costs from higher reimbursement rates.

Limitations to Providing Independent, Full Scope Care

NYS licensure laws recognize midwives as independent maternity care practitioners, yet in practice, midwives' autonomy is restricted by the facility or practice where they work. Restricting the scope of care and constraining midwives to work below their licensure is not sustainable at a time when economic efficiency and high-value practices have

MIDWIVES ARE REIMBURSED

by NYS Medicaid at



of PHYSICIAN RATES

for identical services

become top priorities. As the shift towards value-based payment strategies advances, high-value care will require that all health care professionals are working at the top of their scope and training.

Community-Based Childbirth

Increasingly, women in NYS have sought alternatives to hospital-based care during labor and childbirth, with all out-of-hospital births (in birth centers, homes, or other settings) increasing 54 percent between 2004 (0.74%) and 2012 (1.14%). Yet many women who want this option have difficulty finding available providers in their area or finding a birth center nearby. Greater integration of home and birth center births into the health care and health care insurance systems will achieve optimal care and safety for people who are seeking an out of hospital birth.

Midwife-Led Birth Centers

Birth centers are a safe, cost-effective option for healthy low-risk pregnancies and low-intervention births. Midwife-led birth centers are supported by ACOG as an appropriate and safe birth setting. While California has 24 birth centers, Texas has 62, and Florida, 29, NYS accounts for the third largest number of births but has just three freestanding birth centers - two in Brooklyn and one in Buffalo.

The Centers for Medicare and Medicaid Services (CMS) estimates an average savings of \$1,163 per birth in a birth center compared with the cost at a hospital, savings that are consistent with the value-based payment goals articulated in NYS's plans for Medicaid Payment Reform.

Planned Home Birth Options and Safety

Research confirms that for healthy women with low risk pregnancies, planned home birth with a licensed midwife is a safe option. Planned home births have much lower rates of routine interventions that lack scientific evidence and result in high rates of satisfaction and positive health outcomes. Well-designed studies have demonstrated that planned home births achieve excellent perinatal outcomes.

CONCLUSION

Considering the substantial public funding at stake, the pressing need for improvement, and the well-established evidence that supports the midwifery model of care, this is a critical moment to integrate midwives in innovative and value-focused efforts to bring care systems in line with best practices. **By recognizing and advancing midwifery as a value-based care strategy, New York State can demonstrate its leadership by increasing the availability of midwives and the midwifery model of care in all birth settings while achieving the “triple aim” of improving health outcomes, enhancing care experiences, and increasing the value of pregnancy-related care.**

KEY RECOMMENDATIONS

The United States Congress should pass the Improving Access to Maternity Care Act, S.783, introduced by Sen. Tammy Baldwin (D-WI) and Sen. Lisa Murkowski (R-AK), which directs the Health Resources and Services Administration (HRSA) to identify areas of the country with shortages of maternity care providers (including midwives) in order to fill those gaps.

Federal funding by the Health Resources and Services Administration for provider education should be expanded to include midwifery:

- Provide financial support for the education of midwives, comparable to that provided for medical education, to facilitate the expansion of the educational pipeline.
- Establish a distinct education grant for midwifery from the Health Resources and Services Administration, which currently supports graduate medical education and nursing.
- Allow CNMs/CMs to be reimbursed for supervising and teaching medical residents, medical students, and student midwives.

The Centers for Medicare and Medicaid Services (CMS) should support the establishment of a Consumer Assessment of Healthcare Provider and Systems (CAHPS) survey that is specific to maternity care, in order to more accurately and valuably assess patient satisfaction with their childbirth care.

NYS Medicaid should adopt the Medicare policy of compensating midwives at 100 percent of the physician rate for the same services and reimburse birth center facility fees.

Medicaid managed care plans and private insurers should

- **Reimburse midwives at 100 percent of the rate physicians receive for identical services.**
- Reimburse birth centers for their facility fees.
- Empanel midwives without added requirements of written practice agreements or other restrictions beyond those required by state law.
- Increase awareness of midwifery services by including them in their provider networks and ensuring they can be identified.

The NYS Department of Health and the NYC Department of Health and Mental Hygiene should

- Adopt strategies to increase the utilization of midwives as a strategy to achieve high-value care and to reduce health disparities.
- Develop and implement appropriate and targeted regulations for midwifery birth centers based on national standards developed by the American Association of Birth Centers and the Commission for the Accreditation of Birth Centers.

Hospital administrations should ensure that all maternity units have both physicians and midwives providing the full spectrum of care, with full admitting privileges and presence on medical advisory boards and membership in medical staff decision-making bodies.

Physicians should commit to:

- **Providing optimal care to all women by adopting practice standards that are closely aligned with the midwifery model of care**
- Developing full and respectful collaboration with midwives in their role as independent licensed providers.

Medical education and midwifery education programs should develop interdisciplinary education and clinical training opportunities for both midwives and physicians, to support more collaborative care that will foster respect for the value of each discipline's contributions towards excellent maternal health outcomes.

WHAT IS MIDWIFERY?

THE MIDWIFERY MODEL OF CARE

NYS Licensed midwives are trained health care professionals who provide high quality care related to pregnancy and birth, as well as offering primary preventive reproductive care, allowing them to serve clients throughout and beyond their reproductive lifespan. Licensed midwives practice in hospitals, birth centers, homes, clinics and private practices.

Hallmarks of the midwifery model include approaching pregnancy and birth as healthy, normal life events and seeking to support the physiologic processes of labor, childbirth, and breast-feeding.

The approach emphasizes:¹

- Woman- and family-centered, individualized care
- Evidence-based practices
- Shared decision-making and respectful treatment
- A preventative and comprehensive view of health and wellbeing that includes health promotion, counseling, services, and support
- Relationship-based care
- Meeting the needs of vulnerable populations
- A collaborative health care team model.

Midwifery generally reserves medical interventions for circumstances where they have been demonstrated to provide a benefit. Because all medical interventions carry a risk of harm, their overuse may result in avoidable complications or chronic conditions. By using medical procedures to circumstances only when particular indications support their use, midwifery care may reduce preventable complications.

“Ob/Gyns and CNMs/CMs are experts in their respective fields of practice and are educated, trained, and licensed independent providers who may collaborate with each other based on the needs of their patients.”

WHO ARE MIDWIVES?

New York LMs can have two types of educational backgrounds – Certified Nurse-Midwives (CNMs) and Certified Midwives (CMs) are both licensed as LMs. CNMs/CMs are educated at the graduate level in accredited programs and are nationally certified by the American Midwifery Certification Board, and both practice in hospitals, birth centers, homes, clinics and private practices.

Certified Nurse Midwives (CNMs) are registered nurses who have graduated from accredited nurse-midwifery education programs. They pass a national certification exam and can be licensed in all 50 states.

Certified Midwives (CMs) enter midwifery with a science background. They graduate from accredited midwifery education programs and take the same national certification exams as CNMs.

New York is an independent practice state, which means that midwives are licensed to practice without requiring a written agreement with a physician.

Obstetricians & midwives have complementary skills.

Their respective professional associations, the American College of Obstetricians and Gynecologists (ACOG) and the American College of Nurse Midwives (ACNM) issued a joint statement² recognizing that:



SARAH
Syracuse, NY

“I can’t begin to explain how beautiful the whole experience was with my midwife. I wanted to find the right option because with my first birth I felt totally ploughed over by the system.

The first time, I was pressured into an induction that I still feel was unnecessary, because there weren’t any complications or signs of a problem. That led to an emergency cesarean. The whole experience, the pressure and the fear, was very traumatizing for me.

In preparation for another child, I interviewed several OBs, a family medicine doctor, and a few midwives. Finally, I found a midwife who aligned with my values and had the knowledge and experience I was looking for.

My midwife made me feel like I was at the center of my own experience and decision-making process. She helped me navigate through decisions based on evidence-based care and saw me as a whole person. I never felt fear-based pressure to make any particular decision, because I was healthy and my baby was healthy.

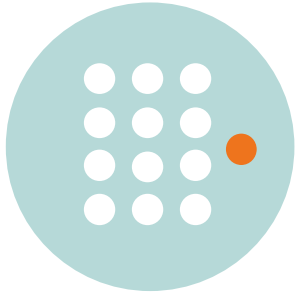
I was really given the choices, and I wasn’t coerced or forced into making decisions. I truly had the support that I needed even though the birth unfolded in a different way than I anticipated. It was my first vaginal birth, and I was so exhausted. It was so helpful to have her by my side helping me to push. She stayed for several hours after the baby was born, checked on me the day after and during that week. By the end, it felt like she was part of our family.

Even though the experience went quite differently than I had planned, it was really empowering to feel like I had the information and support through my midwife — a care provider who actually trusted me. That was very different from my first birth experience.”

INTRODUCTION

Midwives are simultaneously among the most highly valued and undervalued assets in the United States (US) health care system. Women who receive their care from midwives speak passionately about their personalized care and excellent health outcomes. Yet national and state maternity care policies have largely overlooked the midwifery model as a potential strategy to achieve significant improvement in the quality, experience, and cost of maternity care.

Choices in Childbirth gathered groups of health care providers and families across the state to share their experiences with midwifery care. The responses reflected skilled, personalized care that was delivered with compassion, respect, and attention to empowering women to make informed decisions. People spoke about midwives answering their most personal questions and helping them develop the confidence that they could do the hard work ahead – giving birth to and raising healthy children. They talked about how their midwives’ compassion helped them recognize that a mother’s health and wellbeing are just as important as her baby’s. Many expressed gratitude for midwives having supported their decisions, values, and active participation in their own care.



“You’re treated differently in midwifery care. I was a pregnant woman being cared for and informed about decisions. Before I switched to a midwife, I was a patient with a condition that needed to be taken care of.”

– BUFFALO, NY

“I felt comfortable, like my questions were important and valued and answered.”

– GVTM

The need for change is beyond doubt. Women in the US, including New York State (NYS), experience significantly worse outcomes than their counterparts in other wealthy countries on a number of maternal and newborn health measures. Women of color face even greater risks regardless of their level of income. New York City (NYC) has seen rising rates of severe maternal complications,³ and disparities in pregnancy-related deaths between African American women and white women are widening. African American women in NYC were **12 times more likely than white women to die** from pregnancy-related causes between 2006 and 2010, a wider gap than the preceding five years.⁴

Maternity care accounts for substantial portions of both the costs and number of hospital stays, making it a top priority for reform and improvement initiatives. Maternity care should be placed front and center of any reform efforts because of the percentage of the population affected, as well as the existence of effective, evidence-based strategies to achieve high-value care.

At this time of evolution towards a more effective and efficient system of care, there is no single strategy that offers a magic bullet. Evidence-based maternity care practices have long been documented but remain underutilized. Midwifery care is one of those evidence-based solutions that should be scaled up to become a core element of the maternity care system.

FRAMEWORK FOR CHANGE

Widespread integration of midwives into maternity care systems is a key strategy for moving towards a high-value care model. Quality improvement efforts have identified high-value practices, and value-based payment systems are proliferating in response to the imperative of reducing unnecessary spending. This trend is reflected in NYS Medicaid’s requirement that Medicaid managed care organizations adopt value-based payment models that incentivize and reward care that reflects of nationally identified quality measures.⁵

Value-based care strategies provide patient-centered, evidence-based practices, while avoiding wasteful or unnecessary spending.⁶ Identifying high-value care models operationalizes the “Triple Aim” for healthcare improvement, which seeks to:

- 1) improve health outcomes for all members of our communities,**
- 2) improve quality and experience of care**
- 3) reduce the cost of care.⁷**

No area of health care is better suited to applying the principles of the Triple Aim than maternity care. Research demonstrates that midwifery care effectively meets this trio of goals and is associated with high-value care practices that achieve excellent health outcomes and patient satisfaction with their care experience, while avoiding wasteful or unnecessary spending.



TOP PRIORITY MATERNITY CARE SYSTEM REFORM

Improving the way maternity care is provided would have widespread impact according to nearly any measure. The current underutilization of evidence-based practices shows that change can be achieved.

OUTCOMES

US ranks last among developed countries

Maternal deaths are considered a bellwether indicator of how well maternity care systems function overall. The US maternal mortality ratio is 26.4 deaths per 100,000 live births -

- nearly 3 times the rate in the United Kingdom (9.2)
- 3 ½ times that of Canada (7.3)
- 4 ½ times that of Spain (4.7)⁸

Complications and deaths are on the rise

- Life-threatening complications of pregnancy and birth in NYC rose 28% between 2008 and 2012, affecting 250 of every 10,000 births in 2012.⁹
- The US is the only developed country where the maternal mortality ratio **increased** between 1990 and 2015.¹⁰

Disparities persist

Black women are more likely to experience preterm birth and neonatal and maternal mortality.¹¹

- **Disparities affect women of color at all income levels.**¹²
- Puerto Ricans and non-Hispanic blacks in NYC experience infant mortality rates two and three times the rate for non-Hispanic whites.¹³
- For over 60 years, **black women in the US have been 3 to 4 times as likely to experience a maternal death** as white women.

LIVES AFFECTED

Largest percentage of hospital stays

- Childbirth is the most common type of hospital stay
- Nearly half of all hospital stays among 18–44 year olds (45.1%) and those covered by Medicaid (48.5%) were for maternal conditions.¹⁴

100% of population affected

- 84% of women will give birth in their lifetime at least once
- 100% of the population is affected by the quality of maternity care at birth.¹⁵

FINANCIAL IMPACT

Largest share of payments to hospitals

US Medicaid and private insurance spend more on maternal and newborn hospital care than care for any other category hospitalization.¹⁶

Poor value of care

Maternity care costs more in the US than in any other country,¹⁷ but the US fares worse than other high-income nations in terms of maternal mortality, infant mortality, and other basic health indicators.¹⁸

- NYS Medicaid spends more than twice the national average per capita - the second highest in the US.¹⁹
- NYS ranks 21st out of all states for overall health system quality.²⁰

Public dollars at stake

In 2015, Medicaid covered

- more than half of births (52%) in NYS²¹
- approximately 6 in 10 births in NYC.²²

Skyrocketing costs

Between 1996 and 2013 in the US, hospital charges for childbirth care tripled.²³

LIKELIHOOD OF SUCCESS

We know what works!

Access to midwife-led care is an underutilized evidence-based strategy to reduce spending, improve outcomes, and result in greater engagement in care and care satisfaction.

STRATEGIC EXPANSION OF MIDWIFERY CARE

“In a time of spiraling medical costs and increasing demand for health care, midwives can offer a cost-effective way of providing good maternity care. They could also provide greater geographical reach: Nearly half the counties in the United States have no maternity care professional, either midwife or obstetrician.”

– NEW YORK TIMES EDITORIAL, “ARE MIDWIVES SAFER THAN DOCTORS?” DECEMBER 2014.²⁴

“It’s so important to feel supported while you’re doing this amazing thing, giving birth, and I think midwives understand that.”

– ITHACA, NY

Midwives are the health care system’s specialists in healthy, uncomplicated pregnancy and physiologic birth. They are experts at providing women the comprehensive support they need to be healthy throughout their lives and at recognizing when to transfer care to a physician. In New York, midwives are licensed to serve as primary preventive reproductive care providers, offer maternity care from prenatal to postpartum visits and newborn care, attend births, and see women for annual reproductive health care well-woman visits.

Obstetricians are specifically educated and trained in surgery and medical procedures. Obstetricians must be available to all women, as needed, to address medical complications that sometimes arise during pregnancy, birth, and the post-partum period, and to manage pre-existing health conditions that make a pregnancy complicated or risky.

Research shows that midwife-led care for women with uneventful, healthy pregnancies, is comparable or preferable to physician-led care in terms of health outcomes, care satisfaction, and cost.²⁵ The midwifery model of care has demonstrated positive outcomes in varied contexts including among at-risk populations in under-resourced urban and rural settings.²⁶ A recent study found that states with more expansive midwife access have births with fewer medical procedures and better outcomes, which can lead to lower costs, particularly those related to cesarean deliveries.²⁷

These positive outcomes reflect the widespread global recognition that midwives are key contributors in maternity care systems. **The WHO recommends midwives as the first line of maternity care providers for the 87 percent of women who have healthy, low-risk pregnancies.**²⁸ The Lancet devoted an entire issue in 2014 to the need to better integrate midwives into global maternity care systems, strategies to achieve that goal, and the benefits that would result.²⁹

In the high-income countries with the lowest intervention rates, best outcomes, and lowest costs, midwife-led care is an integral component of the maternity care system and is available in a range of settings, including hospitals, separate units or facilities for low-risk births (such as freestanding or facility-based birth centers), and home-based midwifery.³⁰ Most high-income countries with better maternal health outcomes than the US, including Britain, France, the Netherlands, and New Zealand³¹ utilize midwives as the usual providers of maternity care; obstetricians are asked to step in only for high-risk cases. Britain’s National Institute for Health and Care Excellence (NICE) recommended in 2014 that midwives, rather than physicians, manage maternity care for healthy women with uncomplicated pregnancies. The recommendation was based on findings that care by obstetricians was not only more costly, but resulted in more interventions (i.e. labor induction, epidurals, cesareans) that may carry additional health risks for both mothers and infants when performed without a clear medical indication.³²

The midwifery model holds the potential to reduce racial disparities in health outcomes, both by bringing down the disproportionately high intervention rates experienced by women of color and by prioritizing compassionate, comprehensive, respectful care. The midwifery model supports the development of open, trusting relationships, promotes shared decision-making, and respects the culture, values, and dignity of families.

MIDWIFERY IN NEW YORK

10.6% of all births in NYS were attended by midwives in 2015.³³

993 CNMs and CMs were licensed in New York state in 2017 – more than 8% of the 11,927 CNMs/CMs certified in the US.³⁴

2,331 births – 1% of all births in New York – took place at home in 2015, including planned and unplanned home births.³⁵

4 midwifery programs educate new midwives in New York at Columbia University, New York University, Stony Brook University, and SUNY Downstate Medical Center.

3 freestanding birth centers operate in New York State, 2 in Brooklyn and 1 in Buffalo.

73% of births are attended by midwives at Auburn Memorial Hospital in Auburn, NY.³⁶

7 hospitals in New York State have midwives attending more than 50% of births, 4 of these are in NYC.³⁷

0% of births are attended by midwives at half of the hospitals in New York City.³⁸

46 of 126 hospitals in New York State do not have midwives regularly attending births.³⁹

ADVANCING MIDWIFERY IN NEW YORK STATE

Policies aimed at strengthening and expanding the midwifery workforce are a vital quality improvement strategy. In recent years, committed leadership of the American College of Obstetricians and Gynecologists (ACOG) and the American College of Nurse-Midwives (ACNM) have developed an unprecedented level of collaboration, with both associations affirming their shared goal of “safe women’s health care in the US through the promotion of evidence-based models,” and recognizing that “Ob/Gyns and CNMs/CMs are experts in their respective fields of practice and are educated, trained, and licensed, independent providers who may collaborate with each other based on the needs of their patients.”⁴⁰

Recognition of the benefits of midwifery care as part of this equation for improvement has been on the rise in the US, and rates of midwife-attended births have been steadily increasing.⁴¹ Nationally in 2015, the proportion of births attended by CNM/CMs increased to 8.5 percent (338,663), more than two and a half times the 1989 rate of 3.3 percent.⁴² The proportion of vaginal births attended by CNM/CMs reached 12.5 percent nationwide, the highest rate in the last twenty-five years.⁴³

Midwives in NYC and NYS are already providing high quality, population-based, cost effective care, but many women cannot access midwives in their area or through their insurance. In NYS, in 2015, midwives attended 10.6 percent of all births and 16.1 percent of vaginal births – a greater proportion than nationwide, but still a small portion of the state’s births.⁴⁴

Many hospitals throughout the state have no midwives with admitting privileges or working on staff, or have midwives working in a limited capacity. Women have reported to Choices in Childbirth that even when they devote significant effort to finding a midwife, they are unable to obtain midwifery care. Barriers include finding no midwives that contract with their insurance plan or have admitting privileges at local hospitals, or no midwives practicing in their area at all. Women face added hurdles and acutely limited options if they are seeking a midwife who shares their own cultural, linguistic, racial, ethnic, sexual, gender, or religious identity or indigenous status.

Midwives are poised to play an essential role in innovative strategies to strengthen maternity care systems, and consumers are seeking midwife-led care. The NYS Maternity Information Act makes information available to the public about childbirth-related practices, including the rates of cesarean births, births attended by midwives, episiotomies, and epidurals among others. Families are taking into consideration this information on performance measures and patient satisfaction with care, when deciding on a provider and a facility in which they want to give birth. This report illustrates why midwifery is key to changing outcomes and achieving high-value care throughout NYS and reviews the barriers that currently hamper access to that care.

By making more midwives available to childbearing families and fostering a midwifery model of care, facilities and payers can advance their own institutional and financial objectives, while better serving the community. Hospitals that foster and encourage practices consistent with midwifery care stand to fare better on perinatal care quality measures and may increase their market share by attracting patients with the resources, flexibility, and inclination to make data-driven decisions. Now is the time to take action and to maximize the value of midwives in NYC and NYS.

THE MIDWIFERY MODEL IS HIGH-VALUE CARE

“This isn’t just an issue of midwifery versus obstetrics. **It’s about a model of care that we know to be better for most patients.** The midwifery model of care can be done by an enlightened obstetrician as well as by a midwife.”

– DAVID KEEFE, MD, STANLEY H. KAPLAN PROFESSOR AND CHAIRMAN OF OBSTETRICS AND GYNECOLOGY, NYU LANGONE MEDICAL CENTER

“I wanted the least amount of intervention possible, and I knew that meant having a midwife.”

– KATIE, ALBANY, NY

The midwifery model of care has been demonstrated to advance each strand of the Triple Aim with research finding that midwifery care: results in health outcomes that are as good as or better than physician care; enhances the experience of care and engagement in care decisions; and reduces spending by utilizing fewer non-beneficial medical procedures and avoiding complications.

AIM 1: IMPROVING OUTCOMES

“The chair of Ob/Gyn here at Mercy is behind the midwives, because he’s a huge supporter of evidence-based care.”

– AIMEE GOMLAK, VICE PRESIDENT, WOMEN’S SERVICE LINE, CATHOLIC HEALTH SYSTEM, BUFFALO

Care provided by midwives has demonstrated numerous positive short- and long-term outcomes⁴⁵ in varied contexts including among at-risk populations in urban and rural settings.⁴⁶ By approaching pregnancy and birth as normal, healthy life events, midwifery care avoids unnecessary interventions while promoting and protecting the innate physiologic process of birth.⁴⁷ Physiologic birth is more likely to be safe and healthy because there are fewer disruptions of the biological and psychological processes that developed to promote effective labor and birth.⁴⁸

Substantial evidence demonstrates that when the physiologic process of birth is allowed to progress undisturbed, it fosters a safer and more effective labor and birth, maternal behaviors, maternal-newborn attachment, and breastfeeding.⁴⁹ In contrast, medical procedures that are used routinely during childbirth, (e.g. unnecessary restrictions of movement, use of synthetic oxytocin to begin or speed labor, continuous electronic fetal monitoring, and episiotomies) interfere with these processes and diminish their benefits, and some introduce the possibility of additional complications.⁵⁰

Because all medical interventions carry a risk of harm, their overuse may result in avoidable complications or chronic conditions. By seeking to limit medical procedures to circumstances where particular indications support their use, midwifery care can reduce preventable complications.

Midwifery Model Health Outcomes

Systematic reviews, the most reliable type of study, have consistently found that midwifery care achieves outcomes that are as good as, or better than, the outcomes achieved by physicians.⁵¹ There are no measures for which midwives’ care was found to result in worse outcomes than traditional physician-led care.⁵² A systematic review of maternity care in the United States comparing care managed by CNM/CMs with care managed by physicians identified the following findings:⁵³

“Midwives are the vigilant protectors of what’s normal.”

– MAURA LARKIN, CNM, LM, MSN
DIRECTOR OF MIDWIFERY, BELLEVUE
HOSPITAL CENTER

Some of the outcomes where midwifery care offers benefits - cesarean rates, breastfeeding, and episiotomies - are now included in US patient quality and safety measures that were designed to hold hospitals accountable for providing consistent, evidence-based care.⁵⁴ Cesarean births and breastfeeding rates are now among the mandatory core reporting measures required by the Joint Commission, the main hospital accreditation organization in the US.⁵⁵ These measures must be reported by all hospitals with more than 300 births per year.⁵⁶ Those two measures, plus episiotomy rates, are also included in the set of perinatal measures endorsed by the National Quality Forum.⁵⁷

Increased focus on these outcomes generates an opportunity to explore how midwives may help hospitals achieve benchmarks and goals related to these quality measures.

Reducing Cesareans to Reduce Severe Maternal Morbidity

“Although cesarean delivery can be life-saving for the fetus, the mother, or both in certain cases, the rapid increase in the rate of cesarean births without evidence of concomitant decreases in maternal or neonatal morbidity or mortality raises significant concern that cesarean delivery is overused.”

“SAFE PREVENTION OF THE PRIMARY CESAREAN DELIVERY.” CONSENSUS STATEMENT, AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS AND THE SOCIETY FOR MATERNAL-FETAL MEDICINE, MARCH 2014.

Studies from the US have repeatedly found that being cared for by a midwife significantly reduces the odds of having a cesarean birth compared with similarly healthy, low-risk clients of physicians.⁵⁸

A recent study of New York State data went beyond examining the outcomes by provider type to examine the data at the hospital level. That study determined that hospitals with higher percentages of midwife-attended births had lower overall rates of cesareans and episiotomies.⁵⁹

There is widespread recognition that US cesarean rates are too high and need to be reduced. In February 2014, ACOG and the Society for Maternal-Fetal Medicine released a joint statement, “Safe Prevention of the Primary Cesarean Delivery,” which addressed the need to reduce cesareans and recommended strategies to do so.⁶⁰

One in three births is now by cesarean, roughly twice what the WHO considers beneficial.⁶¹ **Cesarean rates have risen over 50 percent between 1995 and 2015**, reaching 32.9 percent for NYC⁶² and 33.8 percent for NYS,⁶³ just above the national rate of 32.0 percent.⁶⁴ By comparison, in 1995, cesarean rates were just 21.4 percent for the city, 22.5 percent for the state and 20.8 percent for the US.⁶⁵

BENEFITS OF THE MIDWIFERY MODEL

COMPARED WITH PHYSICIAN-LED CARE, MIDWIFERY CARE IS ⁶⁶ ...

↓ LESS LIKELY

- Cesarean section
- Episiotomy
- Epidural and spinal analgesia
- Use of pain medication in labor
- Serious perineal lacerations
- Continuous electronic fetal monitoring⁶⁷

↘ LESS OR SIMILARLY LIKELY

- Use of vacuum extraction or forceps
- Induction of labor
- Labor augmentation
- Newborn admission to a neonatal intensive care unit (NICU)

↗ MORE LIKELY

- Breastfeeding initiation
- More positive experience of care⁶⁸
- Greater patient satisfaction⁶⁹
- Greater sense of control and confidence⁷⁰
- Lower cost of care⁷¹

↗ MORE OR SIMILARLY LIKELY

- Vaginal birth after cesarean (VBAC)

= COMPARABLE

- Apgar scores
- Rates of low birthweight



HOW MIDWIVES SUPPORT PHYSIOLOGIC BIRTH

- Making time for shared decision-making to prevent coercion, conflict, and confusion
- Inducing or augmenting labor only when it is medically indicated
- Encouraging practices that facilitate effective labor, including:
 - eating and drinking as desired,
 - freedom of movement
 - choice of birth positions, and
 - establishing a calm and safe environment
- Providing relationship-based and individualized care
- Intermittent listening to fetal heartbeat, unless continuous electronic fetal monitoring is indicated
- Supporting non-medical pain coping techniques to be used with or without pain medication, including:
 - freedom of movement,
 - hydrotherapy, and
 - birth balls
- Respecting women’s culture, values, dignity, and privacy

Source: Supporting Healthy and Normal Physiologic Childbirth: A Consensus Statement by ACNM, MANA, and NACPM.

The alarming rise has not resulted in better maternal or infant health,⁷² and cesarean rates have increased for all groups of women, including those at very low risk for the procedure.⁷³

Cesareans have been associated with an increased risk of serious short- and long-term complications for women and infants.⁷⁴ The risk of severe maternal complications alone is three times greater following a cesarean.⁷⁵

Maternal complications may include: maternal death, cardiac arrest, hysterectomy, blood clots and major infections, longer hospital stays, and a greater chance of hospital readmission.⁷⁶

Risk of harm to infants includes: breathing problems,⁷⁷ asthma,⁷⁸ Crohn’s disease,⁷⁹ Type 1 diabetes,⁸⁰ allergies,⁸¹ autism spectrum disorder,⁸² and obesity.⁸³

Risks are magnified in later pregnancies: cesarean scars can affect placental attachment in the uterus and cause several serious types of placental complications. The risk of harm rises exponentially with each repeat cesarean.⁸⁴

One severe complication of cesareans – placenta accreta, when the placenta adheres to other tissue in the body – has increased dramatically and is of particular concern.⁸⁵ Placenta accreta can lead to massive hemorrhage which in turn can result in organ failure, acute respiratory distress syndrome, disseminated intravascular coagulation, and death.⁸⁶ Maternal mortality with placenta accreta may be as high as 7 percent, even when there has been optimal planning and appropriate medical care.⁸⁷ Placenta accreta has also been identified as the most common cause of cesarean hysterectomy during childbirth, accounting for 38% of the total.⁸⁸

The occurrence of placenta accreta has risen steeply in parallel with the skyrocketing cesarean rates and now affects 1 in 533 pregnancies. By comparison, the complication was extremely rare as recently as the 1970s, affecting just 1 in 4,000 pregnancies, increasing to 1 in 2,500 in the 1980s.⁸⁹

Cesarean rates vary dramatically by facility, geographic region, and race, with US hospitals reporting rates from 7.1 percent to a staggering 69.9 percent.⁹⁰ At large hospitals in the US (1,000 + births per year), cesarean rates show a four-fold difference from 15.4 percent to 63.5 percent.⁹¹

Most troubling is the variation in rates among lower-risk pregnancies. Because low-risk pregnancies reflect a narrower range of factors that could affect outcomes, less variation would be expected. Yet research documents the opposite – finding that cesarean rates in lower-risk births varied by a factor of 15 – ranging from 2.4 percent to 36.5 percent.⁹²

Variation cannot be fully explained by different patient populations or health risk factors and range so wildly as to “suggest a pattern of almost random decision making,”⁹³ and chiefly reflect the culture and model of care at individual practices and facilities.⁹⁴ The range in NYS hospitals is slightly narrower, with cesarean rates ranging from 17.8 percent to 54.4 percent for hospitals of any size,⁹⁵ and uncomplicated cesarean rates ranging by a factor of 6, from 6.7 percent to 43.0 percent.⁹⁶

The numerous examples of hospitals of all sizes and patient mixes with lower than average cesarean rates establish that reducing cesarean rates is possible; the rising rates of severe maternal morbidity signal the need to prioritize this goal.

Reducing Other Interventions

Midwifery care also reduces the routine use of other interventions. Induction of labor, use of regional pain relief medication such as epidurals, and episiotomy are all practices that are beneficial when used as needed, but potentially harmful when used universally or routinely.

A recent unpublished analysis by the ACNM reviewed individual studies and found that on average, physicians' induction rates (34.5%) were nearly twice as high as those of midwives (18.4%).⁹⁷ Inducing labor without a medical reason can inadvertently lead to infants born before they are fully developed, which can result in breathing problems, infection, and admission to a neonatal intensive care unit (NICU).⁹⁸ Episiotomies⁹⁹ and the use of epidurals are also reduced in clients of midwives,¹⁰⁰ resulting in the reduction of attendant complications and subsequent interventions, for women and infants.

AIM 2: IMPROVING THE EXPERIENCE OF CARE – ENGAGEMENT, RESPECT, AND SATISFACTION

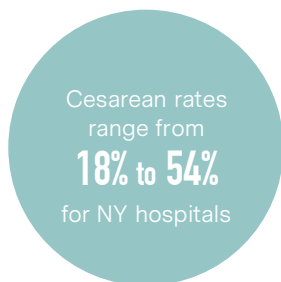
“People are human beings with feelings and emotions. It’s vital that providers and patients connect on a human level. Once connected, patients feel more confidence and satisfaction with their provider, and they’re more likely to adhere to scheduled visits and treatment plans. **You can be the best provider in the world, but if your patient doesn’t connect with you, all your knowledge and skill is wasted.**”

— PATRICIA O. LOFTMAN, CNM, LM, FORMER DIRECTOR OF MIDWIFERY AT HARLEM HOSPITAL CENTER, NEW YORK CITY

Midwife-led care is more likely to result in a positive childbirth experience and a greater sense of satisfaction, control, and confidence.¹⁰¹ Research shows that people cared for by midwives have reported increased agency and autonomy in decision making, compared with those cared for by a physician.¹⁰² Childbirth rarely progresses as planned, and when circumstances change or significant care decisions must be made during labor, communication with the provider influences the decisions that are made, confidence in the decision-making process, and how the family perceives their childbirth experience.¹⁰³

Overall, many people report feeling dissatisfied with their childbirth care experiences; having insufficient information to make informed and healthy choices; and feeling that their concerns, values, and preferences are disregarded.¹⁰⁴ In group and individual interviews conducted for this report, women throughout NYS who have received maternity care from both obstetricians and midwives reported that midwifery care resulted in more respectful care, greater information about care options, and a more trusting relationship. While there is a wide range of experiences with any provider type, this pattern is consistent with other research¹⁰⁵ and suggests the need to examine how care is provided in traditional settings.

Effective, open, and honest communication improve health outcomes as well. A breakdown of communication between a provider and the pregnant individual can result in missed opportunities to prevent a problem from occurring or becoming more severe. Communication failures can in some cases result in serious health consequences, when a person declines to seek needed care because of fear of being mistreated, or when a provider fails to notice or heed serious warning signs.¹⁰⁶



“It seems like so many decisions are attempts to avoid immediate risks, but which create other risks down the road. More evidence-based information needs to be in the hands of women.”

— ROCHESTER, NY

“My midwife is an amazing, powerful, inspirational woman. And it's awesome to be around other women who make you feel like you can do anything.”

— GVTM

“At the OB practice, they made me feel like I didn’t know what I was doing.”

– BUFFALO, NY

“My midwife and I talked about the options, and she was willing to have an individual plan for me.”

– ROCHESTER, NY

“My midwives and I talked about everything! Nothing was off the table, and I never felt embarrassed to talk about even the most basic or personal issues.”

– ALBANY, NY



ERIN
Albany, NY

“With my first pregnancy, every time I went in for a prenatal visit I met someone new. I felt like whoever was going to deliver me wasn’t going to be somebody who knew me. With the midwifery practice in my second pregnancy, they knew who I was, and I saw each midwife multiple times. I got a lot more attention from the midwives. They knew more about my personal life and my home life. I wasn’t just someone they had to get through in the day.

I still ended up with an unplanned C-section, but having a midwife made a big difference. Even though a doctor came for the delivery, my midwife was in the operating room with me and stayed with me throughout the whole birth. She was the one who pulled my hospital gown down so my son and I could have skin-to-skin contact. Although my birth experience with my son didn’t work out the way I wanted, I knew I had choices.”

Active Engagement in Maternity Care & Decision-making

“Having the freedom to make choices in health care – that’s why I went to the midwives. I’m a nurse too and my big thing is patient empowerment. **If patients are not able to make their own decisions, it really affects their quality of life.**”

– GVTM

People cared for by midwives have reported better communication and more active engagement in decision-making than those who see other provider types.¹⁰⁷ Having a sense of control and involvement in maternity care decision-making are key factors in women’s satisfaction with their childbirth experience.¹⁰⁸ Optimally, women have the opportunity to lead decision-making about their care.¹⁰⁹

Traditional models of maternity care have left many women feeling belittled, intimidated, and patronized.¹¹⁰ Women report having little control over their decision-making based on multiple factors: procedures are sometimes performed without consent or without having informed the person (e.g. episiotomy, rupture of membranes); a lack of information about risks, benefits, alternatives, and rationale for performing a procedure; insufficient time to consider options when there is no medical emergency; providers’ failure to listen to the pregnant person’s questions or requests; and disrespectful and demeaning treatment by providers which erodes the pregnant person’s confidence and capacity to engage in the decision-making process.

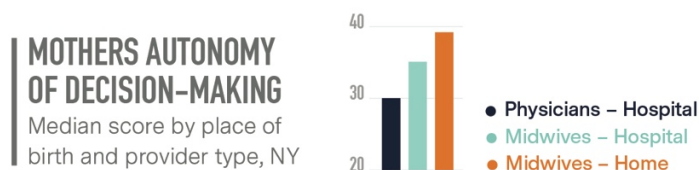
The national Listening to Mothers survey found that many women do not have sufficient information about the maternity care choices they face and the risks and benefits of various options.¹¹¹ Women also report feeling that they do not know what questions to ask, or avoiding asking questions because they are worried that they will be viewed as confrontational or uninformed.¹¹²

Research shows that with midwifery care, women were less likely to report withholding questions out of concern that they will be viewed as difficult or when their preferences are at odds with their providers’ recommendations.¹¹³ Women were less likely to report that their midwives used words that they did not understand and more likely to feel encouraged to discuss all of their concerns, compared to a similar group who received care from physicians.¹¹⁴

“The midwifery care was extraordinary. I felt completely supported by them despite my birth being a cesarean.”

– GVTM

Data on NY families from the Giving Voice to Mothers Survey (GVTM) confirms what other research has found – that midwives are more likely than physicians to engage clients in making decisions about their care. Respondents were asked a series of questions to assess the extent to which they were engaged in decision-making about their care, and answers were scored on a scale of 0 to 42.¹¹⁵ **Results showed that people giving birth at home with midwives reported the highest scores for being involved in care decisions** with a median score of 39 out of a possible 42, followed by hospital births with midwives (35). Those with physician-attended hospital births reported the lowest scores on involvement in decision-making (30).



“My midwife would put you in charge of doing some of your vitals, like checking the protein in your urine, checking your blood pressure and all that stuff. Most of the visits, I had my two-year-old with me and she would include him, like he would help find the heart-beat.”

– KATE, ITHACA, NY

“My midwife and I talked about the options, and she was willing to have an individual plan for me.”

– ROCHESTER, NY

Active engagement in care decisions requires more than just having the information to form an opinion, but also the opportunity to put the information to use. In some situations, women’s capacity to engage in decisions about their care are compromised when their input or concerns are dismissed, ignored or not heard.¹¹⁶ Constructive communication in maternity care has been defined to include an empathetic communication style, willingness to respond to questions, and allowing enough time to discuss the woman’s concerns.¹¹⁷

Midwifery care has been associated with greater decision-making autonomy even during shorter than average prenatal appointments.¹¹⁸ Strong communication can ensure that families are more informed and prepared for birth which in turn builds confidence in their ability to make decisions about care options.

Disrespectful Care & Coercive Practices

“I would have given birth at home by myself before going back to the hospital.”

– KERI, BUFFALO, NY

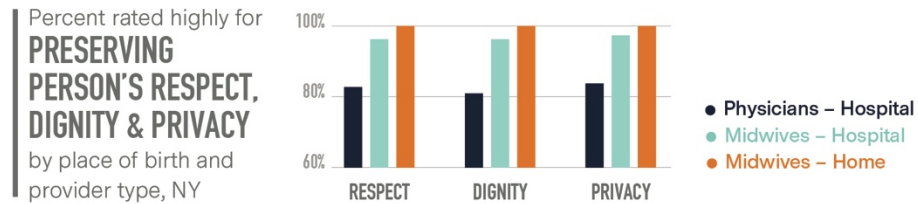
“My first birth with my doctor and hospital was abusive, disrespectful, humiliating, violating in every way.”

– GVTM

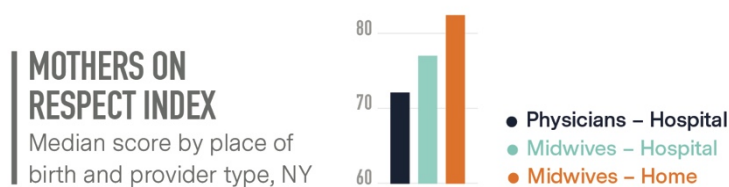
Women cared for by midwives in all settings are less likely to report disrespectful care than those cared for by physicians.¹¹⁹ In a study of 1672 people who had recently given birth in Canada, those with midwives reported experiencing disrespectful treatment in just 3.1 percent of planned home births and 4.4 percent of planned hospital births. By contrast, 22 percent of women cared for by an obstetrician in a hospital reported disrespectful encounters.¹²⁰

“I was rushed and harassed at every appointment and ridiculed and made fun of for any question. The doctor didn’t have any respect and was verbally abusive.”
 – GVTM

New York data gathered in the Giving Voice to Mothers Survey (GVTM) reflects the same trends. Respondents were significantly more likely to report that their care was respectful, preserved their dignity, and preserved their privacy if their provider was a midwife in any setting compared with hospital-based physicians.



Midwives also received higher overall ratings on a series of questions designed to assess respectful treatment – the Mothers on Respect Index – when compared with physician ratings.¹²¹ Out of a possible total of 84, hospital physicians had median scores of 72, hospital midwives, 77, and home birth midwives, 83.



“At the hospital, they left me alone all night even when I said I need to push! They neglected me.”
 – GVTM

Globally, disrespect and abuse in childbirth care has been defined as including physical abuse, non-consented care, non-confidential care, non-dignified care (including verbal abuse), discrimination based on specific attributes, abandonment or denial of care, and detention in facilities.¹²² With the exception of detaining women in facilities, each of these categories of abusive or disrespectful care have been reported with varying frequency in the US.¹²³

Despite clear legal and ethical standards enshrining the right of an individual to refuse medical treatment, reports of coercion and forced treatment during birth are not unusual. The ethics code adopted by ACOG recognizes that “Efforts to use the legal system specifically to protect the fetus by constraining women’s decision making or punishing them for their behavior erode a woman’s basic rights to privacy and bodily integrity and are neither legally nor morally justified.”¹²⁴ However, maternity care does not always meet these standards.

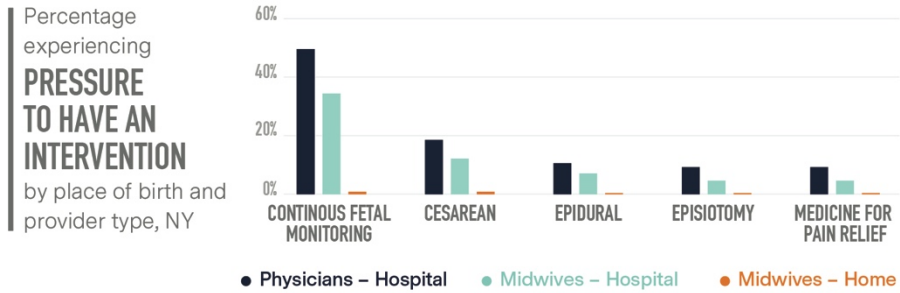
Unconsented interventions fall along a continuum including failing to provide information adequate to achieve informed consent, failing to ask for consent, performing interventions despite a person stating or indicating she does not consent, and using physical force to restrain or overpower a woman.¹²⁵

In New York, GVTM respondents cared for by midwives were more likely to report that their provider had sought consent by asking them before performing each of 8 different procedures, compared with those seeing physicians, such as rupturing the amniotic sac, giving an injection before delivering the placenta, and putting antibiotic ointment in the infant’s eyes.¹²⁶

“At my OB’s office, I felt, not quite bullied, but definitely not cared for. I changed practices, and at my first visit with my midwife, I was kind of defensive. But after meeting with her, I felt super empowered to have the birth I wanted. I felt supported, and I quit being so defensive after that.”

– LIZZIE, BUFFALO, NY

NY hospital midwives were also less likely than physicians to have been perceived as imposing pressure to have various interventions, such as continuous electronic fetal monitoring (35% vs. 53%) and cesarean surgery (13% vs. 19%). Home birth midwives were almost never reported to have pressured a person to undergo an intervention.



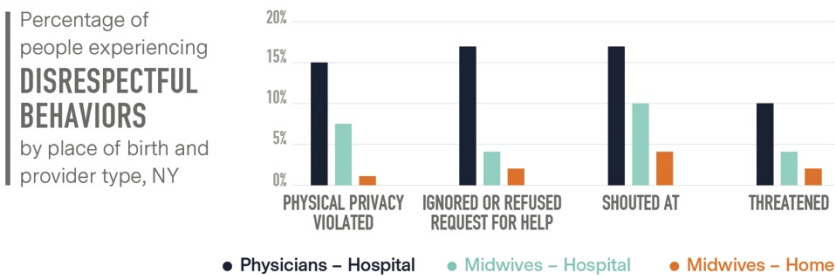
Provider coercion influences the procedures that women actually receive, not just their experience of care. Listening to Mothers III, a national, representative survey found that women reporting pressure to have an induction were 3.5 times as likely to have been induced, and women who felt pressured to have a cesarean were five times more likely to have had the surgery and six times as likely to have had a cesarean with no medical basis.¹²⁷

“I felt like a number with the doctor. During the most joyful, beautiful time in your life, you’re just another patient on a checklist that the doctor has to get through today.”

– MARINAH, BUFFALO, NY

When a person does not acquiesce to provider pressure, they may be subject to mistreatment as a result. Listening to Mothers III found that 30 percent of black and Hispanic first time mothers and 21 percent of white women giving birth in a hospital reported that they were sometimes, usually, or always treated poorly because of a difference of opinion with [their] caregivers about the right care for [herself or her] baby.¹²⁸

GVTM data from New York documented a range of disrespectful, coercive, or abusive behaviors and found significant differences based on the type of provider. Women were less likely to report being ignored, being shouted at, being threatened (either with coerced or withheld treatment, calling child protective services, or other threats), having their physical privacy violated, or experiencing physical abuse when their provider was a midwife compared with a physician.



“They thought I was crazy for not wanting medications or any interventions at all. I was able to have an unmedicated birth in the hospital, but they forced an episiotomy on me right at the last second. Also, they gave me pitocin without asking or telling me first.”

– GVTM

Hospital staff attitudes influenced the experience of childbirth care in ways that were deeply troubling to women and their families. In the GVTM survey, women reported the following:

- “Both me and my husband felt both bullied and ignored at different times in the week I was in the hospital giving birth and after. I still have sad flash backs and think “how could I have done better?”
- “The worst thing about my first pregnancy was being forced to be in a hospital because of having Medicaid which led to many interventions and being bullied/talked down to until I agreed. This pregnancy we saved up for a midwife so I can have a home birth.”
- “I wish the hospital staff had not completely disregarded my wishes regarding the birth experience. I wish they had not threatened me if I insisted on certain things.”
- “During labor, I felt constantly rushed. Both the midwife and nurse threatened me with removal from birthing center if my labor did not progress or if I didn’t do x, y, or z. It was a very stressful experience. My first son was born at home and I found that experience a lot more relaxing and loving.”

A study in the *Journal of Health Politics, Policy, and Law* documented a number of cases in which women were subjected to forced medical interventions including vaginal exams, cesarean surgery, and episiotomy, or where women were arrested or incarcerated specifically because of their pregnancy.¹²⁹ Low-income women and women of color, especially African American women, face disproportionate risks of arrest and unconsented treatment.¹³⁰ Among 413 cases identified in the study, in two-thirds of the cases (64%), the infant suffered no reported complication, putting in question whether the unconsented procedure had been medically necessary.

Women in labor who find themselves in conflict with the views of their clinicians or the facility’s policies are in a uniquely vulnerable position, psychologically and also physically because they may be unable to move quickly or at all if they have had epidural pain relief.



RINAT New York, NY

In NYC in 2011, Rinat Dray was pregnant with her third child and she and her physician agreed to have a trial of labor following two prior cesareans. When Rinat went into labor, her physician was not

at the hospital, and the doctor on duty pressured her to have another caesarean almost immediately, reportedly telling her “I don’t have all day for you.”¹³¹ He told her that refusing surgery would endanger the baby because of the risk of uterine rupture and threatened that the baby would be taken away from her by children’s protective services.¹³²

Rinat refused to sign a consent form because there were no indications of fetal distress or that labor was not going well. The physician proceeded despite her clear objections.

Shortly before the operation, the head of obstetrics noted in her chart: “I have decided to override her refusal to have a C-section.” As a result of the surgery, Rinat suffered permanent damage to her bladder.

Rinat has brought a lawsuit against the physicians and the hospital for “improperly substituting their judgment” for her own.¹³³ Rinat recalled, “I cried as I was wheeled into the operating room. ... The experience was frightening and degrading,” she recalled in the court papers.¹³⁴

These extreme cases of abusive treatment do not represent the experience of most women, or the behavior of most providers. Yet they reflect the furthest end of a spectrum of mistreatment, disrespect, belittling, and coercion that are dismayingly common.¹³⁵

“They thought I was crazy for not wanting medications or any interventions at all. I was able to have an unmediated birth in the hospital, but they forced an episiotomy on me right at the last second. Also, they gave me pitocin without asking or telling me first.”

– GVTM

Because many women have experienced or perceive the traditional model of care as hostile and threatening, the caring and trusting relationships that women develop with their midwives are of great significance to them.

A Relationship-Based Model: Trust, Care, and Support

“Having a midwife who knew me and knew what was important to me – whatever they said would have been ok, because I knew I could trust them.”

– ROCHESTER, NY

Women and families frequently describe their close, trusting relationship with their midwife as being what mattered most to them about their care. Childbirth is a major life event, with few parallels in terms of its impact on a family, which makes the relationship between the family and provider unlike other types of health care relationships. The midwifery model’s emphasis on continuity of care fosters the caring relationships that women report as being so important to them, as well as the trust that strengthens women’s confidence in their provider and their own ability to have a positive birth experience.

In interviews and focus groups with Choices in Childbirth, many women expressed deep gratitude for the trust they developed in their midwives, the support their midwives offered, and the caring attitude that they projected.

Midwives typically spend more time with pregnant individuals than physicians at each visit and strive for continuity of care when possible, allowing more visits with the same provider.¹³⁶ Increased time in prenatal appointments has been associated with a greater feeling of engagement in decision-making.¹³⁷ This time spent together allows more information to flow in both directions – with the provider gaining the time to learn more about the family’s circumstances, needs, and values and offering the provider the opportunity to share more information with the expecting family. Spending more time with women prenatally enables midwives to educate clients about their different options in advance of birth preparing them to make informed decisions later.

“At the main Ob/Gyn practice, I got a 10-15 minute appointment with a different person each time. I never felt like I was really heard, and there would be gaps in what was discussed.”

– ITHACA, NY



A NURSE and two births

“With the birth of my first daughter, once I walked into the hospital, I felt like I didn’t have any rights anymore. Too many things happened that were beyond my control. I didn’t complain

because I ended up healthy with a healthy child, but when I look back, I’m appalled. I felt powerless and like my opinions didn’t matter, even though I am a nurse, and that’s what patient care is like for a lot of women.

As a nurse, I’ve definitely been on the other side. Doctors are over-scheduled and need to be in so many places at once. I’ve told so many patients, ‘You’re ten centimeters. Let’s start pushing,’ and they ask, ‘Where’s the doctor?’ I tell them, we call the doctor when you’re almost ready to deliver.’ Some patients don’t like that, but that’s just the way that it is with most obstetricians. With midwives though, it’s different. They’re committed to your care throughout the entire journey. When you come to the hospital in active labor, they come in with you and stay with you the whole time. They don’t just come in at the last minute to catch your baby. It makes a huge difference.”

Care Satisfaction

“To a woman, giving birth is the most amazing experience she will ever have. I feel like a lot of doctors today just don’t appreciate how important the experience of birth is, like they forget, because this is their everyday job. I don’t think it’s their fault –it’s the way they were trained and the way the hospital structures are set up. But you can see that it causes grief and sadness. It is so important to feel supported while you are doing this amazing thing, and I think midwives get that.”

– JESS, ITHACA, NY

A systematic review of research studies identified four factors that most influence women’s satisfaction with their childbirth experience,¹³⁸ all of which are associated with the midwifery model of care:

- Strong support from their care providers
- A high-quality relationship with care providers
- Active involvement in decision-making about care
- Better-than-expected experiences or high expectations

Health care improvement initiatives recognize that experience of and satisfaction with care are essential components of high quality care. Innovations in payment models have developed financial incentives to achieve these goals. In 2012, the Centers for Medicare and Medicaid Services (CMS) instituted a new system for hospital reimbursement, with experience of care survey scores affecting the level of incentive payments to hospitals. Increasingly, patient satisfaction is also being tracked in quality measurement surveys conducted by private insurers.¹³⁹ Currently, patient satisfaction surveys for childbirth care are the same as those used for other types of care. Advocates and providers have noted the need for a childbirth-specific survey that reflects the ways that childbirth care differs from other types of care.

As incentives to improve care satisfaction grow, facilities and providers will increasingly need to explore ways to enhance the experience of care for the families they serve. Based on the research documented above, expanding access to midwifery care is a vital strategy to achieve positive birth experiences.¹⁴⁰

AIM 3: REDUCING COSTS

Midwifery care can reduce Medicaid and private insurance spending on maternity care and increase the value of the care that hospitals provide. Payments for maternal and newborn care in NYS alone totaled approximately \$4 billion in 2014 for 238,000 births.¹⁴¹ With more than half of the state’s births covered by Medicaid, it is in the public interest to ensure that those funds are targeted to achieve the best outcomes possible.

The midwifery model has been found to lower the cost of care by reducing the use of unwanted and unwarranted medical procedures¹⁴² – such as non-beneficial cesareans, unneeded epidurals, and induction of labor – without adverse consequences. While these interventions are beneficial when needed to address a specific condition or set of circumstances, current practice often leads to their widespread use, beyond situations where they are proven to offer benefits.

Avoiding the overuse of interventions triply impacts the cost of childbirth, by eliminating the cost of:

- Unnecessary and non-beneficial interventions

“What I liked best was the level of comfort I had with the care provider. A real relationship is the most important thing to me. That’s why I chose a midwife.”

– BUFFALO, NY



- The need to treat and pay for avoidable short- and long-term complications and chronic conditions that sometimes result for women and newborns
- Repeat cesareans in subsequent pregnancies

The sharp rise in cesarean rates – now one in every three births¹⁴³ – has been a key driver of escalating maternity care costs. Cesarean births are more costly not only because they have long been reimbursed at higher rates than vaginal births, but also because, as surgical procedures, they require additional staff and medical treatment, as well as longer hospital stays after birth.¹⁴⁴

Cesareans cost approximately 50 percent more than vaginal births, for both public and private payers. In 2010, private insurance payments for maternal and newborn care averaged \$27,866 for a cesarean and \$18,329 for a vaginal birth – a difference of \$9,537 per birth. Medicaid payments averaged \$13,590 and \$9,131 for cesareans and vaginal births – a \$4,459 difference.¹⁴⁵ Because medical costs have risen steadily in the intervening period, these figures are conservative. Current costs are substantially higher.



Source: "The Cost of Having a Baby in the United States," Truven Health Analytics Marketscan® Study, January 2013.

REDUCING CESAREANS

in New York State to 1995 rates could result in

26,000
FEWER CESAREANS
each year

for an expected savings of

\$61 MILLION
for **MEDICAID**

+

\$106 MILLION for
PRIVATE INSURANCE
each year

In 1995, cesarean rates were 21.4% for NYC and 22.5% for NYS.¹⁴⁶ If the 2015 cesarean rates were reduced to 1995 rates, there would have been 25,900 fewer cesareans in NYS, and 13,300 fewer in NYC.¹⁴⁷ With 53 percent of births in NYS covered by Medicaid,¹⁴⁸ using the national cost data noted above, savings would be expected to reach an estimated \$61 million per year for Medicaid and \$106 million per year for private insurance. In New York City alone, where 61% of births are covered by Medicaid¹⁴⁹ reducing cesareans by 13,300 would be expected to save \$36 million of Medicaid spending and \$47 million in private insurance each year.

This potential annual savings would reflect only the savings on the current cesarean, not future savings. Expanding the midwifery model of care would also be expected to result in cost savings from:

- **Reducing repeat cesareans:** In New York, 87 percent of births following a cesarean are repeat cesareans, but few women with an initial vaginal birth have cesareans in subsequent pregnancies.¹⁵⁰ For every first cesarean avoided, future procedures will also be avoided.
- **Reducing the use of epidural analgesia:** The cost of epidural pain relief includes fees for medication and anesthesia services, and the increased likelihood of additional interventions, including the use of medication to speed labor, bladder catheters, cesarean section for concern about the wellbeing of the fetus, and evaluation and treatment of subsequent fevers, which are often a consequence of epidurals.¹⁵¹
- **Increasing breastfeeding rates:** Breastfeeding improves the health of women and infants and research suggests that nationwide \$31 billion could be saved each year (\$13 billion in pediatric and \$18 billion in maternal costs) if breastfeeding targets were reached.¹⁵²
- **Reducing preventable complications and chronic conditions:** Cesareans increase the risk of complications and chronic conditions. By reducing use of these interventions, midwives can reduce spending on these long-term adverse effects.¹⁵³

IMPROVING HEALTH EQUITY WITH MIDWIFERY

Health equity means that everyone has the opportunity to have the highest attainable level of health and is recognized as an essential human right by the Universal Declaration of Human Rights.¹⁵⁴ The midwifery model of care is consistent with that goal and seeks to ensure that all people have full and equal access to opportunities that enable them to lead healthy lives. The midwifery model shares a number of tenets with strategies deployed to improve health equity, such as its emphasis on a woman- and family-centered approach, shared decision making, a comprehensive view of health, and developing trusting relationships.

While the midwifery model of care has demonstrated excellent health outcomes and positive experiences of care in all populations, it holds particular promise in meeting the needs of underserved and at-risk communities and in contributing to the elimination of health disparities, by filling some of the gaps in the traditional medical model.

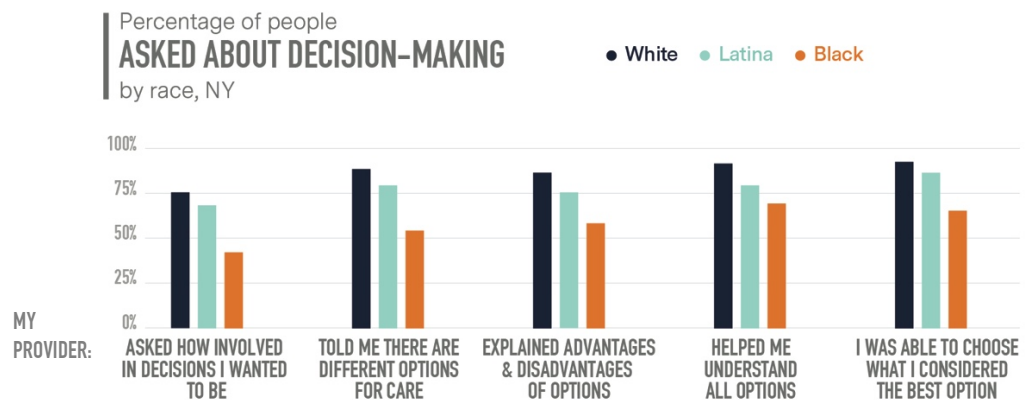
HISTORICAL CONTEXT AND CURRENT CLIMATE OF DISCRIMINATION AND DISRESPECT

Memories of the human rights violations in the last century still influence trust, decision-making, and attitudes of many women of color. Powerful examples of past human rights violations include the Tuskegee “study,” in which diagnosis and treatment for syphilis was intentionally withheld from African American men and their families for decades; coercive and forced sterilization of African American, Latina, Native American, Asian, and other women in historically marginalized communities; and J. Marion Sims’ (the “father of modern gynecology”) surgical experimentation on black women slaves, performed without anesthesia.

The historical basis of mistrust is reinforced by a system where women of color are still less likely to feel they have control over making decisions about their own care. The GVTM survey documented that white women are significantly more likely than Black or Latina women to be asked about involvement in decision-making, informed of different options, and able to decide what the best option is for them.

“Everyone wants a healthy baby, that’s not the issue. It’s ‘What can I possibly do to get the care I need and to keep my life going, to keep my kids fed, to keep my kids in school.’”

– JENNIFER DOHRN, DNP, CNM, LM, ASSISTANT PROFESSOR OF NURSING, COLUMBIA UNIVERSITY SCHOOL OF NURSING



*Questions above are also part of the Mothers’ Autonomy of Decisionmaking Scale (MADM).

Women of color frequently report experiencing discrimination or mistreatment while pregnant, including from within the health care system.¹⁵⁵ In the national Listening to Mothers III survey, among non-Hispanic black mothers, 21 percent reported being

“sometimes,” “usually,” or “always” subjected to poor treatment because of their race, ethnicity, cultural background or language, compared with 19 percent of Hispanic women and 8% of white women.¹⁵⁶

New York’s GVTM data reflects differential experiences based on race and income, with women of color and people with lower incomes being disproportionately likely to experience disrespectful and unconsented treatment.

A combined count of incidents of being ignored, being shouted at, being threatened (either with coerced or withheld treatment, calling child protective services, or other threats), having their physical privacy violated, or experiencing physical abuse shows that black women experienced more disrespectful behaviors per 100 births than any other group.



IMPACT OF DISRESPECT AND SYSTEMIC DISCRIMINATION ON HEALTH OUTCOMES

Discrimination has been well-documented to increase stress that can elevate risks for preterm birth and low birthweight infants for women of color, particularly non-Hispanic black women.¹⁵⁷ Disparities persist at all income levels, even among women of color with high economic and educational statuses.¹⁵⁸

Efforts to improve health outcomes for all members of the population require the dedication of vigilant attention and substantial resources to meeting the needs of communities most at risk of poor outcomes. In NYC and NYS, as in the rest of the US, non-Hispanic black women face worse pregnancy and birth outcomes overall than do non-Hispanic white or Hispanic women. Outcome gaps include elevated rates of pregnancy-related deaths¹⁵⁹ and severe complications of childbirth¹⁶⁰ low birthweight babies,¹⁶¹ intervention use,¹⁶² infant mortality,¹⁶³ and preterm birth,¹⁶⁴ and lower breastfeeding rates.¹⁶⁵ NYC in particular, reports intractable maternal health disparities that are substantially greater than in other areas of the country.¹⁶⁶

In NYS, African American women have the highest cesarean rates (38.5% for black women vs. 31.7% for white women) and particularly low rates of exclusive breastfeeding (32.1% for black women vs. 54.7% for white women).¹⁶⁷ Targeted and culturally appropriate efforts to improve breastfeeding and cesarean rates, areas where the midwifery model achieves good outcomes, could also reduce the current disparities in these areas.

While many social, cultural, economic, physical, and health-related factors contribute to the daunting statistics noted above, the quality of health care is a significant contributor to disparities.¹⁶⁸ A 2016 study conducted in NYC showed that black women were more likely than their white counterparts to give birth at hospitals with high rates of maternal complications. This finding persisted even when adjusting for other health characteristics and risk factors. The study concluded that the differences in care among childbirth facilities may contribute to as much as 47.7 percent of the racial disparities in severe maternal morbidity rates in NYC.¹⁶⁹

“You get talking to women, and then you find out all this other information. Sometimes you ask MDs, ‘You’re dealing with a woman that’s diabetic, but do you realize that she lives in a shelter with no cooking facilities? So, she’s eating takeout all the time. Are you surprised that her sugars are not under control?’ But nobody’s addressed this with her.”

— SHARON MCDOWALL, CNM, LM,
DIRECTOR OF MIDWIFERY,
METROPOLITAN HOSPITAL CENTER,
NEW YORK CITY, NY

“After the nurses checked me, there was a doctor and two students, and I said, ‘Three’s my limit. That’s as many people as I’ll allow in my vagina in one day. Do not bring another student in here.’ And the doctor said, ‘Well, this is a teaching hospital,’ but I was like, ‘I’m not going to sit here and be your test dummy.’ It was horrible.”

– HOLLY, BUFFALO, NY

MIDWIFERY CAN IMPROVE HEALTH EQUITY

Given that the quality and experience of care are drivers of disparities, midwifery care can be part of the solution. Increasing access to the midwifery model’s evidence-based practices can help reduce disparities.¹⁷⁰ For women of color and low-income women – populations facing the worst maternal and infant outcomes – the midwifery model of care has the potential to diminish the gap in health outcomes by improving the health of those with the greatest needs.

As a profession, midwifery has long prioritized meeting the needs of underserved and vulnerable populations and has achieved excellent outcomes.¹⁷¹ US midwives have worked in a range of communities with high infant and maternal mortality, including Indian reservations, remote rural areas, and under-resourced urban areas.¹⁷² Midwives often care for clients who, although they may not have medical complications, have social risk factors that make them more likely to have poor health outcomes.

Midwives are disproportionately likely to work in Health Provider Shortage Areas and to serve clients covered by Medicaid.¹⁷³ Midwives are more than twice as likely as doctors to care for clients of color.¹⁷⁴ Midwives serve a higher proportion of women who are less educated, low-income, immigrant, and from communities of color, characteristics that put them at increased risk of poor outcomes. Yet as a group, people cared for by midwives report lower than average rates of poor outcomes such as low birthweight and infant mortality.¹⁷⁵

Tenets of the midwifery model that have particular relevance to those in communities of color and other marginalized populations, include:¹⁷⁶

- Establishing a trusting relationship
- Respecting families’ culture, values, dignity, and privacy
- Emphasizing shared decision-making to prevent coercion, conflict, or confusion
- Reducing unnecessary interventions to avoid potential harms

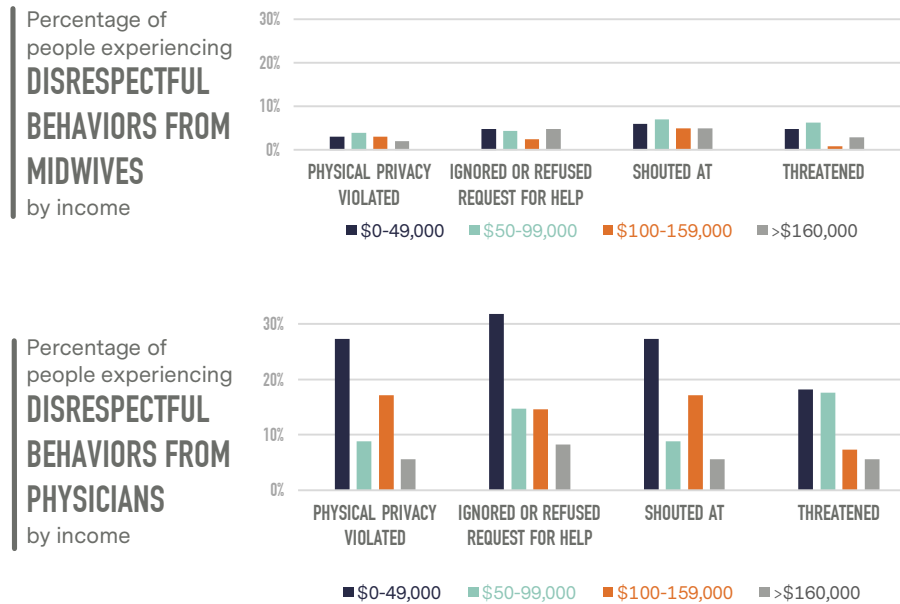
The GVTM survey responses suggest that midwifery can counter some of the disrespectful treatment entrenched in the medical system. As noted above, black women were more likely to report experiencing a disrespectful incident than white women. However, a closer look at the differences reveal distinctly different patterns for different provider types.

Among those cared for by midwives, black women were no more likely to experience disrespectful treatment than white or Latina women. While data suggest that there were fewer disrespectful incidents for black and Latina women than white women, the numbers were so low that the differences are not statistically significant.

In comparison, disparities among white and black women cared for by a physician are significant. All groups are more likely to experience disrespectful incidents with physician care, but **black women are 50 percent more likely to report experiencing a disrespectful incident than white women when their provider is a physician.**



The same patterns can be identified based on income level. Incidents of disrespectful treatment are overall significantly lower with midwives, but in addition, lower income people are not treated significantly worse than people with higher incomes. However for those seeing physicians, the lowest income group – incomes under \$49,000 a year – faced a significantly greater likelihood of having their physical privacy violated, being ignored or refused help, being shouted at, and being threatened compared with higher income groups.



Health care decisions are made in a social and cultural context, and are influenced by vulnerability, prior trauma, and marginalization.¹⁷⁷ In situations when a provider needs to respectfully solicit additional information in order to provide appropriate care, midwives emphasis on open and trusting communications may offer specific benefits.

Efforts to build trust are supported by the midwifery model’s principle of respecting the culture, values, dignity, and privacy of families.

This may include facilitating the families’ adherence to cultural and religious traditions, taking a non-judgmental approach, and even finding creative, respectful solutions when families’ preferences, needs, and decisions are at odds with hospital or practice policies or requirements.

Creating a trusting bond with a provider is particularly important with women and families who have had previous negative experiences with medical providers, who mistrust the medical establishment, or who feel disempowered from being able to question or challenge health care providers’ opinions.¹⁷⁸ Communities that historically have suffered, and in some cases continue to suffer, human rights and ethical violations and mistreatment when seeking care, may be wary of the health care establishment.

Earning families' trust during prenatal care may allow a midwife to learn about the social needs a pregnant woman might have that affect her health and wellbeing. For example, establishing a trusting relationship with a midwife can facilitate open communication and the client's willingness to raise sensitive issues such as intimate partner violence or depression, which can lead to a referral for needed support services. Building trusting relationships and addressing women's social and health needs comprehensively also have the potential to reduce women's stress during pregnancy, counterbalancing the higher stress levels documented among black women.

Improving maternal and infant health equity would positively affect health and lives of families, while also lowering the financial cost to families and to society. Health care costs would be reduced reflecting fewer complications and shorter and fewer hospital stays, and the indirect costs of parenting time lost, challenges with breastfeeding, time spent away from work would also be reduced.¹⁷⁹

MAXIMIZING THE IMPACT OF MIDWIFERY

“Right now, midwifery is at the periphery of how we deliver maternal health care in the United States, and it should be in the center of things.

We have a huge workforce shortage in maternal health. Across the country, 50 percent of counties don’t have a qualified OB, family medicine doctor, or midwife to deliver babies. We have tremendous access issues in the US that don’t exist in other first world countries.

Having systems of care that appropriately take care of the majority of low-risk women is definitely the way to go. When you look at it that way, midwives become the obvious solution.”

– NEEL SHAH, MD, MPP, ASSOCIATE PROFESSOR OF OBSTETRICS, GYNECOLOGY AND REPRODUCTIVE BIOLOGY, HARVARD MEDICAL SCHOOL

“The involvement of Ob/Gyns in my prenatal care, as well as a hospital midwife during delivery, actually made me comfortable, as I never felt like I was questioning or challenging a singular authority figure at any time. It was more like a collective of informed professional opinions.”

– GVTM

Hospitals, payers, and policy-makers seeking to improve the value of maternity care can do so by expanding access to the midwifery model: making midwives available at more hospitals in greater numbers, and ensuring that they can perform all of the responsibilities for which they are trained and licensed. Because the presence of midwives in a hospital is associated with lower procedure rates overall, increasing the proportion of births attended by midwives may lead to benefits for people seeking pregnancy and childbirth care from other types of providers at those same facilities.¹⁸⁰

Realizing the potential benefits of expanded access to midwifery care requires identifying and removing barriers at all levels of the health care system. Policy and regulatory efforts can either expand access to midwives’ services or further hamper it.¹⁸¹ In states where regulations support the practice of midwifery, midwifery workforces are larger and midwives attend a greater proportion of births.¹⁸²

At the national level, ACOG and ACNM agree that, “To provide highest quality and seamless care, Ob/Gyns and CNMs/CMs should have access to a system of care that fosters collaboration among licensed, independent providers.”¹⁸³ Both professional associations have jointly stated their support for a practice environment where both Ob/Gyns and CNMs/CMs have access to hospital privileges and equivalent reimbursement from private and government payers.¹⁸⁴ These are just two of the areas where policy changes can support high-value care.

New York already has several regulations in place to support midwifery practice. New York is among 23 states where licensed midwives are legally recognized as independent care providers. This means midwives practice autonomously and are not required to have physician “supervision” or a “written practice agreement.”¹⁸⁵ Autonomous practice laws are important to allow midwives to practice to the full scope of their education and capacity and have been associated with a greater percentage of midwife-attended births. Autonomous practice laws are also associated with lower rates of cesareans, preterm births, and low birthweight infants compared with states without this legal support.¹⁸⁶

Substantial hurdles curtail the ability of midwives to practice and for any provider type to provide care according to the midwifery model. The following section describes the challenges to obtaining and providing midwifery care identified by families, professionals, and advocates throughout the state. Identifying the elements hindering access to care is the first step towards eliminating those barriers.



MERCY HOSPITAL Buffalo, NY

In Buffalo, in 2012, a resourceful hospital administrator at Mercy Hospital of Buffalo worked with obstetrics leadership to develop a collaborative team where midwives are

thoroughly and effectively integrated into the fabric of the Ob/Gyn department. The team structure provides high quality care and meets the demand for clinical services at Mercy Hospital, and it results in a supportive work environment for clinicians.

The midwives at Mercy, with support of nursing leadership and administration have built strong relationships among clinicians – Ob/Gyn physicians, neonatal providers, as well as nurses – with each group of professionals benefitting from working together. The team is structured to maximize the complementary nature of physicians’ and midwives’ skill sets.

The department works together to promote a patient-centered culture that prioritizes respectful care and open communication. Since adopting these collaborative practices, families’ satisfaction with their birth experience has increased.

Adoption of the collaborative practice model has coincided with significantly reduced rates of cesarean delivery and episiotomy and the increased use of intermittent auscultation instead of continuous electronic fetal monitoring. These changes helped the hospital meet evidence-based quality improvement targets.

Mercy Hospital is a local leader in achieving these quality improvement goals, and their collaborative practice can serve as a model for other facilities. As reimbursement rates are increasingly tied to low-risk cesarean rates as a quality measure, more hospitals may seek to adapt a similar model to reduce non-beneficial cesareans.

Patient volume and satisfaction have grown since the expansion of midwifery care, and the hospital is now known for its “motherly, home-like environment.” Local doulas educate their clients about the hospital’s practices, and late transfers to Mercy hospital providers have increased, when families who are concerned about their initial providers change to Mercy Hospital providers in their last trimester.

Based on Choices and Childbirth interview with Mercy Hospital Laborists and Licensed Midwives, September 28, 2015 and follow up communications through 10/14/17.

AVAILABILITY OF MIDWIVES AND THE MIDWIFERY MODEL OF CARE

"Very few women know that they can choose a midwife, and even if they did, there aren't enough midwives to go around."

– LAURA ZEIDENSTEIN, DNP, CNM, DIRECTOR, NURSE MIDWIFERY PROGRAM, COLUMBIA UNIVERSITY SCHOOL OF NURSING

Women in New York who want a midwife to provide their care, whether at a hospital, home, or birth center, often have limited options. In much of the state, there are no midwives available to provide maternity care, reflecting provider shortages, hospital policies and priorities, payer practices, insurance coverage, and workforce limitations.

When midwives are available, they may be unable to practice to the full scope of their licensure and education, and may be in an environment where they cannot provide care consistent with the midwifery model due to hospital restrictions, physician “oversight,” or payer limitations.

The current shift towards a value-based payment system may provide the incentive needed to overcome the obstacles hampering midwifery practice.

Provider shortages

“Ob/Gyns working collaboratively with midwives are a way to address the gap between the supply of Ob/Gyns and the demand for women’s health care services.”

— RICHARD N. WALDMAN, MD, FORMER PRESIDENT, AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS, SYRACUSE, NY¹⁸⁷

The need to increase the number of practicing midwives has taken on new urgency, as maternity care provider shortages appear to be on the rise. ACOG has reported that in 2011, 49 percent of US counties do not have obstetric care providers, and by 2030, ACOG predicts a 25 percent shortage of Ob/Gyns in the US.¹⁸⁸ The number of primary care physicians is also expected to fall short of the demand, with shortages estimated to reach 20,400 physicians by 2020.¹⁸⁹ In a systematic review of midwifery care in the US, investigators found that care by CNMs/CMs is safe and effective, and concluded that midwives “should be better utilized to address the projected health care workforce shortages.”¹⁹⁰

Substantial portions of NYS and NYC – underserved urban and rural areas – have been designated by the federal government as Health Provider Shortage Areas. In the northernmost and southwestern regions of the state accessing maternity care often necessitates traveling long distances for prenatal care and birth. However, some maternity provider shortage areas go unrecognized, because obstetricians are counted in the same category as primary care providers. This means that, if an area has a general practice physician who does not provide maternity care, that area may not be identified as a provider shortage area, despite the lack of available prenatal and maternity care.

On January 5, 2017, Rep. Michael Burgess (R-TX) re-introduced into Congress the Improving Access to Maternity Care Act, which would direct the Health Resources and Services Administration to collect data on and report on maternity care shortage areas in order to help fill those gaps. The legislation passed the House of Representatives on January 9, 2017. In March 2017, Sen. Tammy Baldwin (D-WI) and Sen. Lisa Murkowski (R-AK) introduced the same legislation in the Senate as S.783. The Improving Access to Maternity Care Act would identify maternity care shortage areas and help fill those gaps by ensuring that funding is targeted to reduce shortages, and midwives would be eligible for some of those positions.

The lack of availability is also a challenge in urban settings. In NYC, there is a high demand for midwifery services from commercially insured clients. In fact, private practice midwives are sometimes booked so quickly that clients seeking a midwife, even as early as six weeks of pregnancy, may be told that private practices are filled to capacity for the month of their due date.

THE IMPROVING ACCESS TO MATERNITY CARE ACT, S. 783

would identify maternity care provider shortage areas and help fill those gaps



DAVID KEEFE, MD
New York, NY

“Hospitals know there’s a huge demand for midwifery services that’s not being met, and all hospital systems are discussing the logistics of where exactly to put patients and midwives who

want a more normal birth experience. Space is already at a premium and we’d have to budget for more space to accommodate a new model of care. And, we need that space to be private and intimate and quiet. It’s hard to find anything at all like that in Manhattan.

Under normal circumstances, childbirth is a normal process that usually takes place in a setting of privacy, intimacy and familiarity. **Most obstetricians who do low-intervention births are convinced that birth goes better in that sort of setting.** But where do we find that setting within the hospital system, especially when midwives bring in less revenue.

There’s a persistent bias that adding technology and more interventions will somehow result in less risk. We’ve learned that’s not necessarily the case, nor is that high-intervention approach borne out in the literature and scientific evidence.

Most of the hospitals actually want patients with higher risk pregnancies. It’s part of their mission to focus on complicated pregnancies. Midwifery care is not their business model. They want the sicker patients to feed their intensive care units and keep their training programs going and to support research on complicated pregnancies. **That leaves the woman with a normal, uncomplicated pregnancy high and dry.”**

– DAVID KEEFE, MD, STANLEY H. KAPLAN PROFESSOR AND CHAIRMAN OF OBSTETRICS AND GYNECOLOGY, NYU LANGONE MEDICAL CENTER

Availability of Midwives in Hospitals

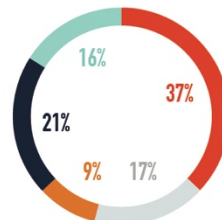
“If a new OB director comes in, it can be overnight: ‘Midwives out. We’d rather have Physician Assistants. Done.’ That’s happened both ways - it’s how midwifery services open and how they close.”

– LAURA ZEIDENSTEIN, DNP, CNM, DIRECTOR, NURSE MIDWIFERY PROGRAM, COLUMBIA UNIVERSITY SCHOOL OF NURSING

Midwives are not available as maternity care providers at nearly half of the hospitals with maternity units in NYC (18 of 39) and more than one-third of those in NYS (46 of 125).¹⁹¹ Overall, midwives attended 10.1 percent of all births in NYS in 2015,¹⁹² but access to midwives varies widely depending on the individual’s insurance coverage and location. Across the state, seven hospitals have 50 percent or more of their births attended by midwives, four hospitals in NYC, and three in other parts of the state,¹⁹³ suggesting that high percentages of midwife attended births is a viable option when it is prioritized.

PERCENTAGE OF NY STATE HOSPITALS

by rate of midwife-attended births, 2015



- None (less than 1%)
- Below Average (1%–7%)
- Average (7%–14%)
- Above Average (14%–34%)
- High (34%–73%)

The greatest concentration of midwives in NYS attend births at NYC’s Health and Hospitals (H+H) facilities. Most H+H hospitals, 8 of 11 (73%), had midwives regularly attending births – all at rates above the state average (15% to 67% of births). In contrast, most NYC private hospitals, 15 of 28 (54%), had no midwives attending births, and of the 13 private hospitals with midwives, nearly half of those had low rates of midwife attended birth (2% to 7%).

H+H hospitals are leaders in utilizing midwives to provide high-value care. H+H is the largest municipal health care organization in the country and serves 1.4 million New Yorkers every year, 80 percent of whom are either covered by Medicaid or are uninsured.¹⁹⁴ All four of the hospitals in NYC where more than half of all births are attended by midwives are H+H facilities: North Central Bronx Hospital, Woodhull Medical Center, Jacobi Medical Center, and Coney Island Hospital. Two H+H facilities have midwives attending over 20 percent of their births (Bellevue Hospital Center, 26% and Metropolitan Hospital Center, 22%), and Elmhurst Hospital Center and Kings County Hospital have 18 and 15 percent of midwife attended births respectively. The remaining three H+H hospitals report 0 percent of births attended by midwives (Harlem Hospital Center, Queens Hospital Center, and Lincoln Medical and Mental Health Center).¹⁹⁵

Paradoxically, in NYC, midwifery care is more difficult to access for women who have private insurance coverage. Because the H+H system is structured to accept Medicaid and the uninsured, in many cases H+H hospital clinics do not accept commercial insurance, making it difficult to serve privately insured individuals except in emergencies.

Additionally, in one of the few private hospitals with a considerable number of midwife-attended births (Mount Sinai Hospital in NYC) midwives are only available to families enrolled in Medicaid. The director of midwifery at Mount Sinai Hospital reports receiving calls and emails from privately insured families every day requesting to be seen by midwives there. However, because the Mount Sinai midwives are employed by a clinic practice, she has been advised on more than one occasion that it is not possible for the clinic to accept individuals with non-Medicaid insurance. She refers those families to Mount Sinai West (formerly Roosevelt Hospital) to find a private practice midwife who attends births there. Despite being just 3 miles apart, the trip from Mount Sinai to Mount Sinai West takes approximately half an hour by public transportation or in a car with heavy traffic. For many families, an added half hour in travel time creates a barrier to choosing this provider option.

Administrative Support – Necessary but Not Sufficient

“The culture at an individual location – that can make or break a midwifery practice...The midwives have backup and around the clock coverage. The recipe for why it works is having a supportive Ob/Gyn chair and having midwives on deck 24-7.”

– AIMEE GOMLAK, VICE PRESIDENT, WOMEN’S SERVICE LINE, CATHOLIC HEALTH SYSTEM, BUFFALO

Administrative support is essential for the midwifery model of care to flourish or even survive in the hospital environment. For example, both Columbia University Medical Center and Harlem Hospital Center used to have strong, well-established midwifery practices, but they were eliminated at both facilities.

Increasing the availability of midwives in hospitals requires more than just an openness to or interest in having midwives apply for admitting privileges. In at least two NYC private hospitals, obstetric directors have expressed an interest in having private practice

“All hospitals should have midwives as part of the medical board. Medical staff boards have representatives from every department and they come together regularly to talk about hospital policy, procedures and outcomes - things that are going well. But you can’t be on the medical board unless you’re staff. Since so few midwives are on staff in NYC, midwives are on nothing. **We need to educate people about midwives and the benefits they provide, and the only way to do that is to be at the table.**”

– PATRICIA O. LOFTMAN, CNM, LM,
FORMER DIRECTOR OF MIDWIFERY AT
HARLEM HOSPITAL CENTER, NYC

midwives apply for privileges, yet they have not succeeded in attracting midwives to their facilities.¹⁹⁶ Midwives have reported that the cost of opening and operating a private midwifery practice is no longer economically feasible in NYC given the financial burden of obtaining and maintaining admitting privileges, office space, administrative staff, and other business operation costs. Even midwifery practices in high demand and operating at capacity report substantial difficulty continuing to keep a private practice financially viable in NYC, where overhead is high and insurance reimbursement does not keep up with the expenses of running a practice.

Examples of successful models include those where midwives are well integrated in faculty practices at teaching hospitals, where enough midwives are brought on to maintain around-the-clock coverage of the labor and delivery floor, and where the relationship between the midwives and physicians is well-planned to be mutually supportive.

Saratoga Hospital recently added a midwifery service with the impassioned support of the hospital's Chief Nursing Officer. The hospital developed and strategically implemented a long-term plan that has helped to ensure its success. Elements of their strategy included hiring midwives as salaried staff rather than expecting them to maintain independent private practices and hiring a full staff of six midwives from the outset. Although it would take some time for the midwives to build a full caseload that would fill the time of six providers, this decision was made in recognition that a smaller group of midwives would result in an unreasonable amount of time spent "on-call."



SARATOGA HOSPITAL Saratoga, NY

"With Ob/Gyns increasingly getting training in specialties like gynecologic oncology, we need another model to oversee the care of patients 24/7. We

are using a laborist model. Midwives have the competence to do that in an extraordinarily positive way.

The first thing we did was to hire six midwives. I wouldn't ask physicians to be on call every other night. Midwives deserve the same quality of life as physicians. I don't ask people to do something that's not respectful. And I don't want a tired midwife or doctor. I want to create high staff satisfaction and good quality of life.

The hospital has to make an investment in what's right. In the long run, midwifery care is cost efficient, but we have made a financial investment to establish the volume and patient base that you will eventually see over time.

If you can demonstrate good quality outcomes, you become a destination hospital. We set the bar high. We believe in a family-centered approach to care – we know midwives provide that – and we strive to keep families involved in decision-making. For many women, this is their first relationship with care. We want to make it a lifelong relationship. Women make the majority of health care decisions for the family, for previous generations too.

Longitudinally, we think midwives will help us."

– MARY JO LAPOSTA, SENIOR VICE PRESIDENT OF PATIENT CARE AND ORGANIZATIONAL EXCELLENCE AND CHIEF NURSING OFFICER, SARATOGA HOSPITAL, SARATOGA, NY

Hospital Policies Related to the Licensed Midwife Credential

The NYS regulatory framework recognizes two types of credentials for licensed midwives – CNMs and CMs – as equivalent in terms of training, scope of practice, regulation, and path to licensure. Despite this framework, some facilities’ hiring policies and bylaws refer to “CNMs” exclusively, rather than LMs or CNMs/CMs. This may be due to a lack of familiarity with the CM credential, which is newer than the CNM credential, or it may result from using old documents predating the CM credential that have not been updated.

Unnecessarily restrictive bylaws and hiring policies limit the employment options for midwives and may preclude the hiring of qualified licensed professionals. Eliminating outdated distinctions and referring to CNMs and CMs as “licensed midwives” would be consistent with the federal provider registry designation of both CNMs/CMs as Advanced Practice Midwives¹⁹⁷ and would better reflect their identical scopes of practice.

Licensure Barriers

To become licensed to practice in New York requires having earned at least a master’s degree from an accredited college, receiving extensive clinical training, becoming certified from a national midwifery board, and passing other state licensing requirements. In NYS, licensed midwives (LMs) can be educated as either certified nurse-midwives (CNM) or certified midwives (CM). While the CNM credential is offered to those who have training and licensure as a registered nurse, the CM credential can be earned with a prior bachelor’s degree and health-science background.

The newer CM credential fosters greater economic diversity in the workforce by creating a training pathway that takes less time and is less costly, which offers the potential to develop a more diverse workforce.¹⁹⁸

New York State does not allow the licensure of Certified Professional Midwives (CPMs). CPMs enter the profession through programs that include apprenticeship and educational programs that are accredited by the Midwifery Education Accreditation Council. CPMs are authorized to practice in 31 states, and can attend births at homes or birth centers, but not in hospitals (except in California). CPM licensure in NYS would expand the pool of midwives available to serve New York families, particularly in provider shortage areas.

Because current New York law requires a master’s degree and graduation from a specific type of program, experienced midwives from other countries have no way to become licensed in New York unless they repeat the entire two years of midwifery training before being eligible to take the certifying exam. This barrier to licensure for mid-career professionals could be removed by allowing midwives from other countries to become certified and licensed through an appropriate combination of completing a “bridge course” to fill any gaps between their experience and the information and skills needed to practice in the US system, combined with passing the certification exam and meeting other licensing requirements. Establishing a mid-career licensure pathway would be consistent with practices that are well established for physicians and nurses, and would both increase and diversify the midwifery workforce in NYS.

WORKFORCE CHALLENGES

Education - Increasing the Provider Pipeline

“Our biggest education barrier is a lack of clinical sites. Medical education has national funding from a pot of federal money set aside to train physicians. Clinical sites get paid a lot for precepting medical students and residents. Even if they’d like to take on midwifery students, they can only afford to take a few because there’s no comparable funding to compensate the time spent training midwives.”

– RONNIE LICHTMAN, CNM, LM, PHD, PROFESSOR & PROGRAM CHAIR, MIDWIFERY EDUCATION PROGRAM, SUNY DOWNSTATE MEDICAL CENTER, BROOKLYN, NY

Increasing midwife attended births will require expansion of the midwifery education system. Midwives are educated either through graduate nursing programs (CNMs) or other programs outside of medical schools, such as at the State University of New York, Downstate Medical Center, where midwives are educated through their College of Health-Related Professions.

The directors of NYS’s four midwifery programs – Columbia University, New York University, State University of New York, Downstate College, and Stony Brook University – would all like to admit more students. As part of their education, student midwives must complete clinical rotations in several different settings to learn from practicing midwives. All three NYC-based programs have reported that the lack of available clinical rotation sites is what stands in the way of their accepting more students into their programs.

The shortage of clinical sites for student midwives stems in part because many NYS hospitals have no midwives attending births, which limits the number of midwives available to teach. In addition, hospitals have a financial incentive to prioritize training medical residents over student midwives. The US healthcare education system is designed to reimburse facilities for Graduate Medical Education (GME), or the education and training of physicians. The US does not currently provide similar equitable support for the education and training of midwives. The federal government subsidizes medical resident training both directly – by paying residents’ salaries, and indirectly – by subsidizing the hospitals where those residents train. The systemic impact is that hospital management must choose who can cover the finite number of births at the hospital. They have to decide between training a midwife without covering the facility’s training expenses versus training a resident with the federal subsidy.

“It’s crazy to me that there’s a lot of interest in becoming a midwife, but we don’t have a pipeline to support midwifery training and practice.”

– NEEL SHAH, MD, MPP, ASSOCIATE PROFESSOR OF OBSTETRICS, GYNECOLOGY & REPRODUCTIVE BIOLOGY, HARVARD MEDICAL SCHOOL

Collaborative Education

“When midwives are the clinical educators for residents, the residents develop into totally different attending physicians because they’ve been educated by midwives. They are totally different from attending physicians who trained only with other physicians.”

– LAURA ZEIDENSTEIN, DNP, CNM, DIRECTOR, NURSE MIDWIFERY PROGRAM, COLUMBIA UNIVERSITY SCHOOL OF NURSING

The kind of collaborative relationships that best serve women and health professionals are best fostered when physicians and midwives begin to work together during their professional education. Often, midwives and physicians are educated in separate silos, a structure that inhibits collaborative learning and working environments. In NYS, there are few opportunities for residents and student midwives to train along-side each other, and limited options for medical students and residents to learn from LMs.

Despite Columbia University and New York University having both midwifery programs and medical schools, neither Columbia University Medical Center nor New York University Langone Medical Center have midwives who currently hold admitting privileges or attend births. Physicians can be trained through those medical schools without ever working with a midwife. In other obstetric resident programs, such as at SUNY Stonybrook, and in other states, obstetric residents are trained by attending physicians and midwives who oversee part of their training and familiarize residents with the midwifery model of care.

The lack of collaboration in clinical training results in a lack of understanding of midwives' training, scope of practice, approach to care, and skills. Coordinating inter-disciplinary didactic and clinical learning opportunities would promote and enhance professional collaboration and increase the availability of interdisciplinary education. Because experiences as a student can have a lifelong influence on professional attitudes, interdisciplinary training could have a considerable impact on increasing and enhancing collaborative styles of practice.

Diversifying the Workforce

“What we have here is a system in which people of color suffer the consequences of a culturally incompetent workforce and lack of access to care. It also is costing our country a great deal of money to maintain this poorly functioning system.”

— MARINAH FARRELL, LM, CPM, PAST PRESIDENT, MIDWIVES ALLIANCE OF NORTH AMERICA¹⁹⁹

The midwifery workforce in the US does not reflect the diverse communities that it has historically served, despite the fact that families and midwives recognize the particular benefits of midwives of color providing care in communities of color.²⁰⁰ Although midwives serve large numbers of individuals from communities of color, the profession remains more than 90 percent white.²⁰¹ Among newly certified CMs/CNMs, 14.5 percent are people of color.

Student midwives of color remain under-represented, but their numbers and proportion are increasing. In 2013, 19.3 percent of midwifery students self-identified as students of color including Black/African American (non-Hispanic) (9.2%), Hispanic/Latino (5.7%), Asian (1.7%), American Indian/Alaska Native (.4%), Native Hawaiian/Other Pacific Islander (.1%), or two or more races (2.0%). In 2014, each of those groups, except those identifying as two or more races, increased by between 16 and 250 percent. In 2014, 21.9 percent of midwives self-identified within those categories – nearly a 20% increase from the prior year.²⁰²

Midwives, as with other care providers, can better meet the needs of the public when they reflect the population they serve.²⁰³ Women in historically marginalized communities report that having health care providers available who reflect their identity is of great importance to them, and research has documented that patients who view their provider as similar to themselves report higher ratings of trust, satisfaction, and uptake of provider recommendations.²⁰⁴

The cultural competency required for effective communication, understanding, and trust can be more readily developed by clinicians from (or with deep familiarity with) a given community.²⁰⁵ Health professionals of color and those from vulnerable and underserved communities are more likely to work in underserved communities facing health disparities and stay in those communities for longer periods of time.²⁰⁶

“Most people in Harlem believe that health care rendered in public hospitals is second-class and of poor quality. My goal was to render high quality, personalized care and dispel that myth.”

— PATRICIA O. LOFTMAN, CNM, LM,
FORMER DIRECTOR OF MIDWIFERY AT
HARLEM HOSPITAL CENTER, NYC

Researchers from a marginalized population may have additional insights into factors that contribute to health disparities that may be invisible to those less familiar with a given culture or community.²⁰⁷ As with clinical care, providers and researchers from a particular culture may be considered more culturally congruent to the populations they hope to serve. Changes to the workforce will most readily be achieved when health care management, leadership, and educators themselves have become a more diverse group.²⁰⁸

Achieving health equity for a diverse population will require a sustained and concerted effort to increase diversity in the health care workforce along many axes, including race, ethnicity, language, sexual and gender identity, religion, indigenous status, and physical ability. New York’s workforce development, expansion, and diversification need significant resource allocation, creative initiative, and careful planning in order for workforce diversification and expansion efforts to be successful.

Ethnically diverse students face higher attrition rates from educational programs as a result of financial barriers, a lack of role models, and challenges navigating through culturally unfamiliar waters. Consistent with national research,²⁰⁹ midwives of color in NYC report experiencing and witnessing discrimination, pressure to “prove” their worth, feelings of isolation and invisibility. Midwives of color also report the value that racial and ethnic diversity contributes to their workplaces and particularly to their clients.²¹⁰

Midwifery leadership has improved its commitment to better meeting the needs of midwives and student midwives of color. In recent years, the ACNM has taken important steps diversifying its workforce and becoming more responsive to the experiences of midwives of color, including the establishment of a Mentoring Program through the Midwives of Color Committee. The mentoring program seeks to promote academic success, retention and the successful graduation of ethnically diverse student midwives to increase the numbers of new midwives of color.²¹¹ Strengthening support for the CM credential and expanding CM training programs will also contribute to increasing workforce diversity.



PATRICIA LOFTMAN, CNM, LM
New York, NY

Pat Loftman worked for almost 30 years as a midwife at Harlem Hospital Center in NYC, primarily with low-

income women and women of color. She had been one of only two students of color in her midwifery class of nearly 20 students at Columbia University Graduate School of Nursing. As a single mother of a four-year-old toddler, Loftman struggled with the pressure of two full-time responsibilities – parenting and school.

Loftman studied alone at the library every night until it closed at midnight. She only later learned that the other students had formed study groups to share work and support each other. Neither Loftman nor the other student of color was asked to join. Loftman recounts feeling that instructors assumed that she would be unprepared for clinical work: “One day, when I answered a clinical question correctly, the faculty member responded, ‘So, you did do the reading.’ I’ll always remember that moment.”

“I was a National Health Service Corps scholarship recipient, and Harlem was one of the hospitals listed as a scholarship repayment site. It was the only hospital where I wanted to

“The biggest issue I struggle with as a private practice midwife is cobbling together reimbursement. It’s really hard to accept a Medicaid patient these days, because I know I won’t be paid what I need to cover the services I provide. I don’t want to exclude myself from providing care to people I feel would really benefit from it, but if I’m lucky, Medicaid reimbursement is maybe \$1,800 for eight months of prenatal visits, plus labor and birth and a postpartum visit.

If the insurance companies would go back to reimbursing us at a decent rate -- \$6,500 or \$7,000 which was the going rate a few years ago -- then maybe I would go in-network, but if you’re only going to get \$1,800 then it’s just not worth it. You can’t even pay your expenses.”

– CHRISTIANE McCLOSKEY CM, LM,
BROOKLYN, NY

work. I knew there would be no competition among other students to work at this location. Once I walked in those doors, it was the only place I worked for thirty years.”

Loftman was a trailblazer, developing an expertise in providing care to clients with chemical dependency and those with HIV/AIDS at The Harlem Hospital Center’s Special Prenatal Clinic beginning in 1985. Initially considered too high risk for midwifery care, the success of the clinic became a model for midwives nationally. She precepted midwifery students, mentored new graduates, served as director of the midwifery service for fifteen years, and established standards for midwifery practice. Loftman believes the success she achieved as a midwife was partly because individuals of color often prefer providers who share their racial or ethnic background.

“The journey midwifery students of color travel is still just as mine-filled. The midwifery profession has been slow to reflect diversity. In 1981, when I started my career, midwives of color represented approximately 3-4 percent of the midwifery community. In 2016, we represented only 5-6 percent. We haven’t made much progress even though research tells us that patients feel more connected and comfortable, more respect and trust and more confident with providers who look like them. Racism is internalized and the lack of diversity among health care providers transmits as negative thoughts and actions towards women seeking maternal health care.”

INSURANCE AND MEDICAID BARRIERS

Insurance In-Network Provider Barriers

“I thought about switching to a midwife, but none of the midwives were listed as practitioners in the network. After months of confusion with my insurance, I found a midwifery practice in network. The care was awesome.”

– LIZZY, BUFFALO, NEW YORK

Challenges to engaging a midwife begin with finding one. ACNM conducted a survey of insurers offering coverage through the national health insurance marketplace to determine the inclusion of CNMs/CMs in health insurance plan networks.²¹² Their findings identify several areas where access could be increased simply by insurers clearly identifying midwives in their network and covering the full range of services that CNMs/CMs are licensed to provide.

The ACNM survey found that nationally:

- 1 of every 5 insurance plans did not contract with CNM/CMs at all
- 10% of health insurance plans that contracted with midwives did not list midwives in provider directories – making it impossible to find them in a search of provider network lists
- 40% of plans listing CNM/CMs in provider directories listed them under the Ob/Gyn categories, making it difficult for women searching for “midwives” to find and identify them²¹³

Particular types of midwifery services were often excluded from insurance coverage:

- Primary care services by midwives were not covered in 17% of health insurance plans
- 14% imposed restrictions on CNM/CM practice that were more stringent than their legal scope of practice

- Health insurance plans often refused coverage for CNM/CM services provided in a birth center (24% of plans) or in a home (56% of plans)

“Whatever obstetrician does the c-section bills for it, and the birth accounts for most of the insurance payment. So we can see someone through her whole pregnancy, a 36 hour labor, and continue to do her post-partum care, but if we can’t bill for the birth, we get a few hundred dollars for all of that care.”

– LAURA ZEIDENSTEIN, DNP, CNM, DIRECTOR, NURSE MIDWIFERY PROGRAM, COLUMBIA UNIVERSITY SCHOOL OF NURSING

Simple administrative changes by payers to include midwives as a separate, named provider category would enhance midwives’ visibility to consumers. If more families knew that working with a midwife was an option covered by their insurance plan, it is likely that more families would seek care with midwives. Likewise, reimbursement for the full scope of services that midwives are trained, qualified, and licensed to provide, would offer families additional choices regarding their providers, and would allow individuals to maintain greater continuity of care with their known provider.

Fair Pay: Reimbursement Levels

Lower Reimbursement Rates than Nearby States

Low reimbursement rates affect the financial feasibility of independent midwifery practices, mixed group practices with physicians and midwives, and hospital midwifery services. A review of state Medicaid fee schedules conducted by ACNM indicates that the amount that LMs are reimbursed for their fee-for-service Medicaid clients is lower in NYS than in several neighboring states. In 2015, the average Medicaid reimbursement for a normal vaginal delivery (CPT 59400) in New York was \$1,463 compared with \$2,610 in Connecticut, \$2,025 in Pennsylvania, \$1,738 for Massachusetts, and \$1,663 in Vermont.²¹⁴ While Medicaid in New York has largely shifted to Medicaid managed care plans which can establish their own fees, payment amounts often mirror the rates established by NY State Medicaid fee-for-service. Practice expenses – malpractice insurance,²¹⁵ real estate expenses, support staff salaries, and other overhead expenses – are substantially higher in areas around New York City compared with other states, which magnifies the discrepancy in reimbursement rates.



Plummeting Rates for Maternity Care Services

Since 2013, Medicaid reimbursement rates have plunged so low that midwives report not being able to practice in the way that best meets the needs of their clients. Midwives have reported reimbursement rates for vaginal births dropping from \$7,000 or more to as low as \$1,700 or even \$1,400 for approximately 13 prenatal visits, labor and birth, and a postpartum visit provided over 10 or 11 months. For some providers, falling reimbursement rates have reduced the time they are able to spend with patients, for others it may put them out of work.

In interviews conducted by Choices in Childbirth, midwives have repeatedly expressed concern that the falling reimbursement rates for both Medicaid and privately insured clients may force them to close their practices, particularly in NYC where overhead costs are highest. These same financial pressures make it impossible for newer midwives to begin private practices. Midwives cite difficulties raising capital and meeting the substantial financial demands associated with opening and maintaining an office, and obtaining and maintaining admitting privileges in a hospital. In areas where independent midwives care for women in low-income communities, particularly in rural areas, this could contribute to an increase in provider shortages.

MIDWIVES ARE REIMBURSED

by Medicaid at



of PHYSICIAN RATES

for identical services

As reimbursement rates fall, midwives are becoming increasingly unaffordable for many women. Financial strains limit midwives' ability to serve a diverse client mix, as the overhead of seeing a patient paying with Medicaid may exceed the reimbursement they receive. Other independent midwives who historically have accepted private insurance are increasingly asking their clients to cover a larger percentage of their care beyond that covered by their insurance or shifting to working solely as out-of-network providers.

Equitable Reimbursement between Midwives and Physicians

In NYS, outdated policies allow midwives to be reimbursed at 85 percent of what a physician would receive for the provision of identical services. The Patient Protection and Affordable Care Act established equal pay (100 percent of physician rates) for LMs under Medicare,²¹⁶ which is generally used as the benchmark for other payers. The majority of state Medicaid programs now reimburse LMs at 100 percent of physician rates,²¹⁷ with ACOG supporting 100 percent reimbursement equity for midwives.²¹⁸

Midwives have reported to Choices in Childbirth that commercial insurance also often pays midwives less than physicians and sometimes requires a “supervising” physician for a midwife to be reimbursed at the physician rate, despite the fact that this requirement is contrary to the legal scope of practice of midwives in New York.

The fee discrepancy may create perverse incentives for hospitals to avoid reporting births as being attended by a midwife. Reportedly, in some facilities, midwife attended births are “signed-off” or approved by an attending physician, to obtain the higher reimbursement rate. In other facilities, the fee differential may be contributing to hospital policies establishing that midwifery staff are not granted admitting privileges, ensuring that there always needs to be a physician reported as the attending provider.

The practice of requiring a physician to “supervise” midwives' care restricts midwives from providing the full range of services they are capable of, and may prevent them from exercising their own best clinical judgement. This requirement may also hamper midwives' ability to provide services according to the midwifery model of care. Because not all births attended by midwives are being properly reported, data comparing physician and midwife outcomes is likely inaccurate, making it difficult to study the impact of different models of care.

The financial impact of the partial payment standard is magnified by the fact that midwifery care generally reserves the use of tests and interventions to situations where evidence supports their benefits. This results in lower billing patterns on average compared with physicians, which may influence hiring decisions in private practices or in hospitals. These financial factors result in fewer midwives being available to the community and exacerbate maternity care provider shortages in underserved areas.

Higher reimbursement rates likely would result in a higher proportion of births being attended by LMs. The savings generated from midwives' lower intervention rates would be expected to surpass the increased costs from higher reimbursement rates. A model developed by the ACNM conservatively estimates that savings generated from a reduction in cesarean births alone would achieve a net cost savings when midwives attend 21.5 percent of births, (which is the portion of midwife-attended births reported in three states, AK, NM, and VT, in 2014). Because reduced rates of other costly interventions were not included, cost savings could be achieved at even lower rates of market-share.²¹⁹

Insurance Barriers to Planned Out of Hospital Births

“Homebirth care costs a small fraction of hospital care, yet insurance companies in the us will not cover it or make you fight to have it covered. The care is better, the outcomes are better, and it costs less. It's reprehensible.”

– GVTM

“The worst thing was that I had to fight my insurance company to pay for my out of hospital birth.”

– GVTM

New York is one of only a few states that require insurers to cover maternity care and birth in home or birth center settings. Still, many insurance plans lack in-network out of hospital providers. Birth centers have problems recovering facility fees, and many women report difficulties getting home births covered by their insurer. When women give birth in a hospital, their insurance plan typically reimburses fully for multiple medical interventions, medications, and surgery if necessary. When they give birth at home or in a birth center, they avoid incurring costs for additional interventions and expenses, yet they find they must battle with insurance providers who balk at home birth or birth center reimbursement.

Giving birth at a freestanding birth center or at home greatly reduces the likelihood of costly interventions and reduces the cost of the birth overall, yet frequently, insurance companies at best reimburse a subset of the costs for birth center or home birth care.

Better policies and more equitable processes must be put in place to guarantee that licensed midwives are reimbursed fully for their services regardless of whether those services are provided in a patient's home, a freestanding birth center, or a hospital setting.

“Insurance was a huge hassle. I switched companies because the first one would not issue an out of network exemption for home birth, even though the law mandates it. The second company ended up only covering about \$300 toward my home birth, and the rest I had to pay out of pocket.”

– GVTM

BARRIERS TO PRACTICING THE MIDWIFERY MODEL OF CARE

Even when midwives are available and affordable, the midwifery model of care remains out of reach for many families. In some hospitals, the culture of care or stringent risk management policies and rules prevent midwives or physicians from providing a patient-centered approach that supports physiologic birth in accordance with the midwifery model.

Limitations to Providing Independent, Full Scope Care

Although NYS licensure laws recognize midwives as independent maternity care practitioners, in practice many constraints restrict midwives' autonomy. In some settings physicians supervise midwifery care rather than sharing responsibilities with midwives as collaborating partners. Elsewhere, midwives are engaged to take on only specific tasks, such as managing intake and triage, but not to care for women during labor and birth. Another practice structure utilizes midwives to offer prenatal care, but not to manage labor and births. In some cases, these arrangements may suit the preferences of the individual midwives involved, but overall, these policies restrict their performing their full range of services.

Restricting the scope of care and constraining midwives to work below their licensure is not sustainable at a time when economic efficiency and high-value practices have become top priorities. As the shift towards value-based payment strategies advances, high-value care will require that all health care professionals are working at the top of their scope and training.

“At the hospital, they treated me like a unicorn. People kept coming in the delivery room like, “The natural lady’s pushing. How’s she doing?” And it’s like, “I’m not unconscious. I can hear you.” They treated me like I was crazy.”

– LEAH, BUFFALO, NY

Hospital Culture Restricts Midwifery Model Practices

“My doctor was supportive of natural birth, but he had no control over hospital policy. As much as he wanted to support me in what I wanted, he would throw up his hands and say, that’s the hospital.”

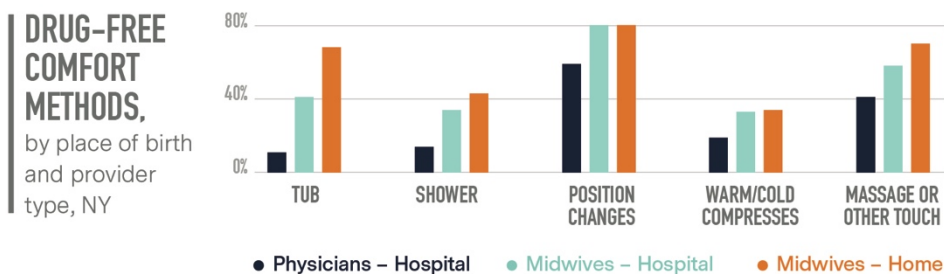
– BUFFALO, NY

The low-tech, high-touch approach of the midwifery model of care can be at odds with hospital culture and physician training. Families, midwives, physicians, and others have all reported to Choices in Childbirth numerous instances where hospitals did not support or interfered with evidence-based practices that facilitate physiologic birth – mainstays of midwifery care. Hospital practices can be driven by a number of variables, including financial incentives, fear of litigation, over-crowding, under-staffing, and many other factors that are not always consonant with evidence-based care.

In 2017, ACOG released “Approaches to Limit Intervention During Labor and Birth,” a Committee Opinion that updated practice recommendations to OB/GYNs, recommending strategies and practices that are in line with the midwifery model. For instance, the paper recommends that frequent changes of position during labor can be utilized to help reduce discomfort, intermittent rather than continuous fetal monitoring should be available, and that rupturing the membranes need not be done routinely, all care practices that are embedded in midwifery care.²²⁰

The new practice recommendations, as well as other shifts in hospital culture, are encouraging change. However, the implementation and uptake of these evidence-based recommendations has been uneven, with little change reported in many facilities.

In the NY Giving Voice to Mothers survey, respondents reported significantly greater utilization of non-medication pain relief techniques by midwives in all settings. Some of these measures, such as tubs or showers may be dependent on their availability at the facility, but others, such as position changes, and warm or cold compresses could be provided in any setting.



“I think that midwives should absolutely be part of any MFM team, because the maternal-fetal-medicine doctors don’t have time to do that part of prenatal care. They don’t remember that, “Oh, yeah. We’re supposed to refer her to childbirth classes.” She is still having her first baby, even though she’s a brittle diabetic, and she’s obese, and she has hypertension.”

— MAURA LARKIN, CNM, LM, MSN
DIRECTOR OF MIDWIFERY, BELLEVUE
HOSPITAL CENTER

“Just because I have an MD behind my name doesn’t mean I’m your boss. I’m your partner.”

— JOHN JENNINGS, MD, PAST PRESIDENT,
AMERICAN COLLEGE OF OBSTETRICIANS
AND GYNECOLOGISTS, THERESE DONDERO
MEMORIAL LECTURE, AMERICAN COLLEGE
OF NURSE MIDWIVES, 60TH ANNUAL
MEETING, JULY 1, 2015

New Yorkers report that non-evidence-based hospital restrictions are of serious concern to them. When asked what they would most like to have changed about their birth, responses included:

- “**No monitoring, more walking around**, different birth position. No IV.”
- “Knowing more about hospital rules and what I can and cannot request.”
- “I wish they found a way to **put a baby on my chest even with c-section**”
- “I hated that the nurses made me feel bad for not letting them take my baby to the nursery. I hated that they threatened me with CPS [child protective services] if I didn’t do vitamin K and erythromycin eye ointment.”
- “To not be catheterized or threatened with an episiotomy or bullied.”

Collaborative Practice Models

“We have built a high degree of trust between the midwives and the physicians, and that makes all the difference.”

— AIMEE GOMLAK, VICE PRESIDENT, WOMEN’S SERVICE LINE, CATHOLIC HEALTH SYSTEM, BUFFALO

Since 2009, collaboration between ACOG and ACNM has increased and grown significantly stronger. Several recent past presidents of ACOG, including Dr. Richard Waldman from New York, have worked closely with leadership at ACNM to reduce barriers to collaboration and improve and share strategies for partnerships.²²¹ ACOG and ACNM have joined forces to develop collaborative quality improvement task forces and initiatives, to increase scholarship on effective collaboration, and to highlight successful strategies and models of collaborative practice.²²²

ACOG and ACNM developed a “Joint Statement of Practice Relations Between Obstetrician-Gynecologists and Certified Nurse-Midwives/Certified Midwives”²²³ to formally affirm their shared goal of promoting evidence-based models of care provided by both professions. That statement clarifies that, “health care is most effective when it occurs in a system that facilitates communication across care settings and among providers,” and when collaboration is driven by the needs of the individual patient.

Perhaps most importantly, the ACOG/ACNM Joint Statement highlights that the quality of care “is enhanced by collegial relationships characterized by mutual respect and trust as well as professional responsibility and accountability.” Focus group participants and interviewees have reported numerous instances where midwives and the families they care for, have been treated with hostility or disrespect.

Physicians practicing a midwifery model of care and consulting and collaborating with midwives in their community have also been subjected to pressure to stop collaborating with the area’s midwives. In one community with only two obstetric practices, the smaller, two-physician practice eventually relocated to a different state as a result of the hostile professional environment they encountered, which several independent sources attributed to their support for and collaboration with reputable, local midwives. In addition to ongoing professional friction and opposition, the larger physician practice refused to serve as a substitute provider for clients of the smaller practice -- refusing to cover the small practice’s patients when the physicians were unavailable or out of town (a common arrangement among individual and small practice physicians). The smaller practice eventually closed its doors, and the providers relocated out of state as a result of the constant exposure to the antagonistic treatment by hospital colleagues and the lack of available coverage for the clients in their practice.

While that example is more extreme than most, midwives commonly reported dramatic variation in the attitudes towards midwives from one physician to the next. One factor in developing an understanding of how midwives work and the benefits of collaboration is familiarity, particularly when physicians have undergone training with midwives during medical school and residency.

COMMUNITY-BASED BIRTHS: BIRTH CENTERS AND HOME BIRTHS

“We’re beginning to see grassroots changes in our maternal health system. Patients are learning how to be better advocates. They ask more questions and want to understand more about the delivery process. They want the room to say, ‘what if I want to do this instead of what you’re suggesting?’ Individual practices are being forced to listen. It’s a consumer driven market.”

BETHANY SPIER, RN NURSE MANAGER,
CATHY J BERRY MD & ASSOCIATES,
PHYSICIAN AND MIDWIFERY CARE,
SYRACUSE, NY

“With my first birth, I was numb from the epidural from the neck down for hours after birth. I didn’t get to hold my son for 6 hours. I couldn’t nurse him. I was very angry about that. That’s something I’m never going to be able to get back. So I was not giving birth in a hospital ever again. At the birth center, I was able to hold my daughter the entire time. I nursed her from the second she was born, until I decided that my husband could hold her. That was huge for me.”

– KERI, BUFFALO, NY

One way to maximize the likelihood of receiving a midwifery model of care is to plan to give birth outside of the hospital environment, at a freestanding birth center or at home – also referred to as community-based births. Because of the constraints on the midwifery model in a hospital setting, birth with a licensed provider in a birth center or at home may be the best option for some families.

Increasingly, women in NYS have sought alternatives to hospital-based care during labor and delivery, with all out-of-hospital births (in birth centers, homes, or other settings) increasing 67 percent from 0.74 percent to 1.14 percent between 2004 and 2012.²²⁴ This upward trend reflects the national trend of rising rates, with 38,524 US births outside the hospital in 2015 the greatest percentage since data has been collected.²²⁵

Despite the increasing interest in out-of-hospital births, they can be difficult to plan and pay for. Focus group participants and survey respondents recounted numerous problems getting their insurance companies to cover home birth with a licensed midwife.

Midwifery Birth Centers

“Having a natural birth in a birthing center was important to me. I had a peaceful, supported, positive birthing experience in a low-lit, quiet bedroom in birthing center, but knew that if there was a crisis, we were within the hospital. I was allowed to move freely in labor. My baby was on my chest within seconds, and we were never separated.”

– GVTM

Birth centers are recognized to be a safe, cost-effective option for healthy low-risk pregnancies and low-intervention births, which makes them a high-value option.²²⁶ Midwife-led birth centers are supported by ACOG as an appropriate and safe birth setting for the 85 percent of women with a low medical risk pregnancy.²²⁷ Typically staffed by midwives, birth centers offer woman- and family-centered care in home-like environments. The birth center model promotes physiologic birth, evidence-based care practices, and use of interventions only when beneficial.

BIRTH CENTERS

62 in TEXAS

24 in CALIFORNIA

29 in FLORIDA

3 in NEW YORK

Research has found that care in birth centers results in lower rates of cesarean birth and higher rates of breastfeeding.²²⁸ In 2012, the Center for Medicare and Medicaid Innovation began the Strong Start for Mothers and Newborns initiative to collect data on innovative models for improving outcomes for families enrolled in Medicaid. In 2017, data was reported for the first two years of operation and the outcomes for women at Strong Start birth centers surpassed national benchmarks established to lower rates of induction, episiotomy, and cesarean birth, and to increase breastfeeding.²²⁹

Throughout the US, the number of births in free-standing birth centers doubled between 2004 and 2012. In response, the number of birthing centers nationwide has increased by 66 percent in the last 5 years alone, hitting a recent high of 295 in 2015. CMS estimates that Medicaid could save an average of \$1,163 per birth if 18.5% of women gave birth in a birth center.²³⁰ These savings would be consistent with the value-based payment goals articulated in NYS's plans for Medicaid Payment Reform.²³¹

Despite research demonstrating their benefits and interest by families, availability of birth centers in New York lags behind other large states. While California has 24 birth centers, Texas has 62, and Florida, 29, NYS accounts for the third largest number of births but has just three freestanding birth centers - two in Brooklyn and one in Buffalo.

Previously, NYS law has made it difficult to open, operate, and sustain freestanding birth centers because birth centers have been regulated under a different category of facilities – diagnostic and treatment centers. Communities across the state have tried to open birth centers but have been unable to clear the hurdles presented by state law.

In November of 2016, new legislation – the Midwifery Birth Center bill (A446/S4325) – was signed into law. This law adds a new category of health care facility – a midwifery birth center – that can operate under the medical direction of a physician or a midwife. It also opens the door for the NYS Department of Health to develop regulations tailored specifically to the needs and functions of birth centers. By removing existing barriers to opening and operating birth centers, the law has the potential to promote greater access to midwifery birth centers. This is especially important for women in medically underserved rural and urban areas.

National standards for birth centers have already been established by the American Association of Birth Centers (AABC) and the Commission for the Accreditation of Birth Centers (CABC). Research has demonstrated the safety of birth centers that adhere to these standards. New regulations based on these national standards would promote both quality and accessibility for maternity care in birth centers.

Planned Home Birth Options and Safety

“Having everyone support me in my decisions built my confidence to really know that I could research and make the best decisions for my family. Trusting these instincts has helped me over many parenting hurdles, and these instincts were created and supported by choosing a home birth.”

– GVTM

Research has confirmed that for healthy women with low risk pregnancies, planned home birth with a licensed midwife can be a safe option.²³² In NYS, midwives attending planned home births must meet the same licensing, professional, and accountability standards as midwives practicing in a hospital setting.

“My first out of hospital birth was an amazing experience that I wouldn't trade for anything. I was given respect and access to my child, something the hospital denied me of with my first two births.”

– GVTM

“I had two hospital births before my most recent pregnancy and they were events I needed to emotionally recover from. They weren't pleasant. This pregnancy and labor/birth was a breath of fresh air! I felt supported but TRUSTED with my own body and baby! I came into myself as a mother. My midwife knew when to make her presence known and when to let me be. A wonderful relationship and bond was formed. I never knew birth could be so beautiful.”

– GVTM

LMs provide the complete set of maternity care services for women with uncomplicated pregnancies and births. Midwives maintain collaborative relationships for accessing higher level care when needed. In 2015, the New York State Association of Licensed Midwives (NYSALM) published Planned Home Birth in New York: Guidelines for Best Practice, providing an outline for routine home birth maternity care, clinical indications for initiating collaborative care, and quality assurance practices.

Planned home births have much lower rates of routine interventions that lack scientific evidence, and result in high rates of satisfaction and positive health outcomes.²³³ Well-designed studies have demonstrated that planned home births achieve excellent perinatal outcomes.²³⁴ The best outcomes are achieved when home births are attended by a qualified maternity care provider, when an individualized assessment is conducted of the client's health and psychosocial needs, and in the presence of an integrated, collaborative system to support a safe, smooth, respectful transport to hospital or transfer of care as needed. As with birth center births, planned home births are associated with lower utilization of medical procedures and interventions that sometimes result in complications.²³⁵

“It was important to me to feel safe, both emotionally and physically, and know that my family was included and cared for throughout my labor and birth. I'm a nurse and have worked in hospitals for years, and I am so thankful to have been home rather than in that environment.”

– GVTM

A national study of nearly 17,000 home births in the US found:²³⁶

- low rates of cesarean birth - 5.2% at home versus a national average of 31% for term infants
- low rates of episiotomy - 1.4% at home versus a national average of about 25%
- less need for oxytocin to speed labor - 4.5% at home versus national average of 24% for labor induction and 16% augmentation in term pregnancies
- less use of epidural analgesia – 4% at home versus a 67% national epidural rate

Infants born at a planned a home birth with a midwife were at very low risk for:

- having a low 5-minute Apgar score (1.5%)
- requiring a transfer to a hospital after being born at home (1%)
- not being breastfed (0.4%)

Of families that planned a home birth with a midwife, 10.9 percent transferred to the hospital, most for stalled labor and rarely for an emergency.²³⁷

Women's motivations to give birth at home vary, but common themes include a desire to avoid unneeded medical interventions and the risk of complications that arise from those interventions, prior negative hospital experiences particularly when women had been traumatized in an earlier birth, wanting to have other family members present, and wanting a calm, peaceful environment that may not be possible to achieve in a hospital.

Safe Transfer from Out-of-Hospital Settings to Hospitals

“We believe that collaboration within an integrated maternity care system is essential for optimal mother-baby outcomes. All women and families planning a home or birth center birth have a right to respectful, safe, and seamless consultation, referral, transport and transfer of care when necessary. When ongoing inter-professional dialogue and cooperation occur, everyone benefits.”

– HOME BIRTH SUMMIT COMMON GROUND STATEMENT, 2011.

“I was appalled at the lack of cooperation between the hospitals and the midwives.”

– GVTM

Safe transfer and collaboration between out-of-hospital providers and hospitals is essential, because complications can develop even in the lowest risk labor and birth. In Canada and the United Kingdom, the out-of-hospital providers are well integrated into a collaborative maternity care system, and research has found births at home and birth centers to be extremely safe. In those countries, out-of-hospital-birth is routinely covered as part of their national health systems. When the need arises to transfer to a hospital from a home or birth center setting, the health and safety of the mother and her infant depend on safe transfer coordination that:

- Facilitates the patient’s smooth transfer to a nearby hospital,
- Includes seamless integration of the out-of-hospital midwives with the maternity unit
- Promotes communication and collaboration between patient, midwives, nurses and obstetricians.

Without strong transfer coordination, critical patient care can be impeded and information can be lost, increasing the potential for avoidable adverse outcomes. Patients and midwives may hesitate to transfer to a hospital if prior experience indicates that they may receive judgmental, hostile, or punitive reception or care, when appropriately seeking medical assistance after planning a birth at home or a birth center.

Many hospitals and health systems recognize that more women are opting for birth at home or birth centers and that their safety depends on well-established transfer policies that respect the rights of the patient and outline best practices for the midwife and hospital staff. A coalition of maternal and infant care providers formed a Collaboration Task Force at the Home Birth Consensus Summit in 2011 to create smoother transfer procedures.²³⁸ They consulted several professional organizations and reviewed previously established guidelines including NYSALM documents. They developed a set of Best Practice Transfer Guidelines²³⁹ that fulfilled a two-fold purpose to:

1. Highlight core elements to be included when developing documents and policies related to transfer from home to hospital.
2. Promote the highest quality of care for women and families across birth settings via respectful inter-professional collaboration, ongoing communication, and the provision of compassionate, family-centered care.

“My midwife was great and wonderful, but I had a complication right after the birth and had to be taken to the nearby hospital. At the hospital, doctors were disrespectful.”

– GVTM

As the professional organization for LMs in New York, NYSALM has initiated a quality project for outreach to perinatal centers aimed at implementation of the Home Birth Summit Best Practice Transfer Guidelines in 2016. Beginning in late 2016 and continuing into 2017, perinatal centers likely to receive transfers from planned home births are invited to establish a quality team to develop guidelines for coordinating and receiving transfers from out-of-hospital providers. The team includes relevant hospital staff and a representative midwife from the home birth community. NYSALM provides the team with resources including a bibliography, priorities list, exemplar models, and implementation strategies. Some hospitals, such as Strong Memorial Hospital in Rochester, have already implemented such guidelines or are in the process of developing them, including Maimonides Medical Center and Stony Brook University Hospital.

CONCLUSION

Midwives' impact on health systems can be revolutionary. Despite the body of evidence that documents the effectiveness of midwifery care in poor and vulnerable populations,²⁴⁰ gaps remain between this evidence and supportive health care policies.²⁴¹ Midwives must be recognized as essential options for providing quality care for uncomplicated pregnancies and births. It is essential that we achieve greater recognition of the midwifery model's benefits – reducing non-beneficial interventions, promoting practices that support physiologic birth and shared decision-making, and providing care that is individualized, woman-centered, and empowering.

Delivering high-value care requires that we place women and families at the center of the experience, while seeking out innovative and evidence-based strategies such as midwife-led models of care, which confer important benefits to women, families, stakeholders, communities, and insurers. While the tide is turning in favor of recognizing midwifery's potential, active steps must be taken to attain their promised benefits. Meaningful progress towards realizing the "Triple Aim" will require facilities, providers, consumers, policy-makers, and payers to work in concert to incorporate the contributions of each stakeholder group. By recognizing and elevating the unique and complimentary roles of different stakeholders, we can generate a system with long-term sustainability: a value-based system that delivers high-quality care, excellent maternal and infant health outcomes and high-level patient engagement and satisfaction.

New York State stands to benefit by making the midwifery model of care more readily available for prenatal, intrapartum, postpartum care, and well-woman/primary care throughout the state. To accomplish that goal, a wide range of stakeholders must engage and contribute to establishing change: policy-makers can improve laws and regulations; hospital leadership has a responsibility to support full-scope midwifery practice at their facilities; medical and midwifery education programs need to develop innovative collaborative education strategies; providers should explore collaborative practice relationships; and families must take their experiences into their communities to ensure that people are making educated decisions about where and from whom they wish to obtain care.

Many more midwives need to be educated, hired to work in hospitals, and be able to obtain reasonable reimbursement rates to achieve sufficient numbers of midwives to serve New York families. Reimbursement rates need to ensure that midwifery practice remains financially viable. The midwifery workforce needs to be expanded and diversified. Overall, the midwifery model of care must become better integrated into the childbirth care system, whether care is provided by a midwife or another provider type, where it offers evidence-based care practices.

This is an opportunity we cannot afford to ignore. Women are demanding and deserve better care, and the midwifery model offers guideposts to achieve it.



CHRISTIANE McCLOSKEY, CM, LM
New York, NY

“Midwives face so many obstacles that prevent us from working to our full capacities and doing the

important work we know we can do. At some point in our careers, every midwife deals with credentialing and licensure issues, roadblocks that impact our ability to obtain hospital privileges, lack of respect for our skills and authority, staffing issues, hospital policies, and insurance restrictions that block us from providing the services women want and deserve... We need the larger community, maternal health care consumers and patients, public health advocates and stakeholders at every level to help us look at things differently so we can better integrate midwives into the greater maternal health system. If we just reframe our goals and look at our beliefs and policies more creatively, then maybe we'll find solutions that will benefit our patients, our professions, our colleagues and the birth world at large.”

RECOMMENDATIONS

The following recommendations reflect strategies to remove barriers to midwifery care, with the goal of better integrating midwives into the maternity care system.

1. The United States Congress should pass the Improving Access to Maternity Care Act, S.783, introduced by Sen. Tammy Baldwin (D-WI) and Sen. Lisa Murkowski (R-AK), which directs the Health Resources and Services Administration (HRSA) to identify areas of the country with shortages of maternity care providers, including certified nurse-midwives and Ob/Gyns. CNMs/CMs and Ob/Gyns who currently participate in the National Health Service Corps would be eligible for placement in those areas in order to fill the coverage gap and ensure women's access to maternity care.
2. Federal funding by the Health Resources and Services Administration for provider education should be expanded to include midwifery:
 - Provide financial support for the education of midwives, comparable to that provided for medical education, to facilitate the expansion of the educational pipeline.
 - Establish a distinct education grant for midwifery from the Health Resources and Services Administration, which currently supports graduate medical education and nursing.
 - Allow CNMs/CMs to be reimbursed for supervising and teaching medical residents, medical students, and student midwives.
3. The Centers for Medicare and Medicaid Services (CMS) should support the establishment of a Consumer Assessment of Healthcare Provider and Systems (CAHPS) survey that is specific to maternity care, in order to more accurately and valuably assess patient satisfaction with their childbirth care.

4. NYS Medicaid should:
 - Adopt the Medicare policy of compensating midwives at 100 percent of the physician rate for the same services.
 - Support Medicaid managed care plans and public hospitals in their efforts to expand midwifery services.
 - Reimburse birth center facility fees.

5. Medicaid managed care plans and private insurers should ensure adequate, fair, and equitable reimbursement for midwifery services by:
 - Reimbursing midwives at 100 percent of the rate that physicians receive when they provide the same services.
 - Recognizing and fairly compensating midwives for providing high-value care by reimbursing at rates high enough to sustain midwives' practices with lower utilization of interventions.
 - Reimbursing birth centers for their facility fees.
 - Empaneling midwives without added requirements of written practice agreements or other restrictions beyond those required by state law.
 - Increasing awareness of midwifery services by including them in their provider networks, implementing a search mechanism that includes midwives, and ensuring that they are easily found in participating provider listings.

6. The NYS Department of Health and the NYC Department of Health and Mental Hygiene should:
 - Adopt strategies to increase the utilization of midwives as a strategy to achieve high-value care.
 - Expand access to midwifery care explicitly as strategy to reduce outcome disparities experienced by women of color and low-income women.
 - Develop and implement appropriate and targeted regulations for midwifery birth centers based on national standards developed by the American Association of Birth Centers and the Commission for the Accreditation of Birth Centers.
 - Ensure the participation of midwives in policy development and decision-making processes related to maternal, infant, and reproductive health.

7. Hospital administrations should ensure that all maternity units have both physicians and midwives attending births by:
 - Recruiting and hiring more midwives on board as staff and include midwives on medical advisory boards.
 - Updating policies or by-laws that exclude CMs from employment.
 - Ensuring that CNMs/CMs are afforded admitting privileges and full voting membership on the medical staff at hospitals.
 - Ensuring that midwives can work at the top of their licensure, rather than being restricted to a limited set of tasks or being subject to physician supervision.
 - Support mutually respectful and beneficial collaborative practices.
 - Implementing hospital policies that facilitate, rather than hamper, practicing in a manner consistent with the midwifery model of care.

8. NYC Health + Hospitals should ensure that all of its hospitals adopt the best practices already in place in some facilities, including:
 - Establishing, re-establishing, and maintaining full-time midwifery services at all facilities.
 - Granting admitting privileges to midwives at all H+H hospitals.
 - Ensuring the continuous, 24 hour a day, coverage of the labor floor by midwives.
 - Eliminating restrictions on the types of tasks that midwives can perform so that they can practice to the full scope of their licensure.
 - Ensuring proper reporting of the birth attendant to facilitate more accurate data collection regarding the impact of provider type on outcomes.
 - Supporting clinical placements for midwifery students to develop a workforce with experience providing high quality care in vulnerable communities.

9. Physicians should commit to:
 - Providing optimal care to all women by adopting evidence based practice standards consistent with ACOG statements that support women’s access to respectful, evidence-based care with an appropriate provider of her choice. Such statements include the Committee on Obstetric Practice, Committee Opinion 687, Approaches to Limit Intervention During Labor and Birth, the College Statement of Policy, “Joint Statement of Practice Relations between Obstetrician Gynecologists and Certified Nurse-Midwives/Certified Midwives, 2014, and the Ethics Committee’s Opinion Number 321, Maternal Decision Making, Ethics, and the Law.
 - Developing full and respectful collaboration with midwives in their role as independent licensed providers.

10. Medical education and midwifery education programs should develop interdisciplinary education and clinical training opportunities for both midwives and physicians, to support more collaborative care that will foster respect for the value of each discipline’s contributions towards excellent maternal health outcomes.

11. Midwifery education programs should take active steps to expand the numbers of midwives of color and midwives from a diverse range of backgrounds that are able to enroll and graduate. More programs should adopt CM programs, in addition to CNM programs, with the specific goal of increasing the economic, racial, and ethnic diversity of the midwifery workforce.

12. Midwifery professional associations should continue their efforts to ensure that midwives of color are engaged in the state and city professional associations and supported in taking on leadership roles, in order to:
 - address inequities within the profession and professional associations.
 - better support the diverse communities being served.
 - benefit from the diverse voices of its constituents.

ENDNOTES

- ¹ American College of Nurse-Midwives. Our philosophy of care. <http://www.midwife.org/Our-Philosophy-of-Care>. Accessed March 6, 2017. Midwives Alliance of North America. The Midwives Model of Care. Accessed at <https://mana.org/about-midwives/midwifery-model> on Oct. 27, 2017.
- ² American College of Obstetricians and Gynecologists and American College of Nurse Midwives. Joint statement of practice relations between obstetrician-gynecologists and certified nurse-midwives/certified midwives. Washington, DC. 2011. Accessed at <https://www.acog.org/-/media/Statements-of-Policy/Public/sop1102.pdf?dmc=1&ts=20170618T0008096933> on Oct. 30, 2017.
- ³ New York City Department of Health and Mental Hygiene. Severe Maternal Morbidity in New York City, 2008–2012. New York, NY. 2016. Accessed at <https://www1.nyc.gov/assets/doh/downloads/pdf/data/maternal-morbidity-report-08-12.pdf> on Oct. 27, 2017.
- ⁴ New York City Department of Health and Mental Hygiene. Pregnancy-Associated Mortality: New York City, 2006–2010. New York, NY. 2015. Accessed at <https://www1.nyc.gov/assets/doh/downloads/pdf/ms/pregnancy-associated-mortality-report.pdf> on Oct. 27, 2017.
- ⁵ New York State Department of Health. Value Based Payment Reform in New York State: A Proposal to align Medicare’s and NYS Medicaid’s Reforms. 2015. Accessed at https://www.health.ny.gov/health_care/medicaid/redesign/dsrip/vbp_alignment_paper_final.htm on Oct. 14, 2017.
- ⁶ Institute of Medicine (US); Olsen LA, Saunders RS, McGinnis JM, editors. Patients Charting the Course: Citizen Engagement and the Learning Health System: Workshop Summary. Washington (DC): National Academies Press (US); 2011. 9, Incentives Aligned with Value and Learning. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK92059/>. Accessed Oct. 14, 2017.
- ⁷ Agency for Health care research and Quality. National Quality Strategy. Accessed at <http://www.ahrq.gov/workingforquality/about.htm#aims> on Oct. 27, 2017.
- ⁸ Kassebaum NJ, Barber RM, Bhutta ZA. GBD 2015 Maternal Mortality Collaborators. Global, regional, and national levels of maternal mortality, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. *Lancet*. 2016;388(10053):1775–812. Accessed at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5224694/> on Oct. 27, 2017.
- ⁹ NYC DOHMH. Severe Maternal Morbidity in New York City, 2008–2012.
- ¹⁰ Trends in maternal mortality: 1990 to 2015: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. Geneva: World Health Organization; 2015. Accessed at http://apps.who.int/iris/bitstream/10665/194254/1/9789241565141_eng.pdf?ua=1 on Oct. 27, 2017.
- ¹¹ Bryant AS, Worjohol A, Caughey AB, Washington AE. Racial/ethnic disparities in obstetric outcomes and care: prevalence and determinants. *American journal of obstetrics and gynecology*. 2010 Apr 30;202(4):335–43.
- ¹² Singh GK. Maternal Mortality in the United States, 1935–2007: Substantial Racial/Ethnic, Socioeconomic, and Geographic Disparities Persist. A 75th Anniversary Publication. Health Resources and Svcs. Admin., Maternal and Child Health Bureau. Rockville, Maryland: U.S. Dept. of Health and Human Svcs; 2010. Accessed at <https://www.hrsa.gov/sites/default/files/ourstories/mchb75th/mchb75maternalmortality.pdf> on Oct. 16, 2017.
- ¹³ Li W, Sebek K, Huynh M, et al. Summary of Vital Statistics, 2015. New York, NY: New York City Department of Health and Mental Hygiene, Office of Vital Statistics, 2017. Accessed at <http://www1.nyc.gov/assets/doh/downloads/pdf/vs/2015sum.pdf> on Oct. 27, 2017.
- ¹⁴ Weiss AJ (Truven Health Analytics), Elixhauser A (AHRQ). Overview of Hospital Stays in the United States, 2012. HCUP Statistical Brief #180. Agency for Healthcare Research and Quality, Rockville, MD. October 2014. Accessed at <https://www.hcup-us.ahrq.gov/reports/statbriefs/sb180-Hospitalizations-United-States-2012.pdf> on Oct. 27, 2017.
- ¹⁵ United States Census Bureau, Fertility of Women in the United States: 2016. Children Ever Born and Percent Childless by Age and Marital Status. Table 3. Accessed at <https://www.census.gov/data/tables/2016/demo/fertility/women-fertility.html> on Oct. 27, 2017.
- ¹⁶ Wier LM, Andrews RM. The National Hospital Bill: The Most Expensive Conditions by Payer, 2008. HCUP statistical brief #107. Rockville, MD; Agency for Healthcare Research and Quality. 2011. Accessed at <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb107.pdf> on Oct. 27, 2017.
- ¹⁷ International Federation of Health Plans. 2015 Comparative Price Report: Variation in Medical and Hospital Prices by Country. Washington, DC: Author. Accessed at <http://static1.squarespace.com/static/518a3cfee4b0a77d03a62c98/t/57d3ca9529687f1a257e9e26/1473497751062/2015+Comparative+Price+Report+09.09.16.pdf> on Oct. 27, 2017.
- ¹⁸ World Health Organization. World Health Statistics 2015. Geneva, Switzerland: WHO, 2015. Retrieved 13 May 2016, from http://www.who.int/gho/publications/world_health_statistics/2015/en/
- ¹⁹ Executive Order No. 5: Establishing the Medicaid Redesign Team, Jan. 5, 2011. Accessed at <http://www.governor.ny.gov/news/no-5-establishing-medicare-redesign-team> on Oct. 27, 2017.
- ²⁰ Executive Order No. 5: Establishing the Medicaid Redesign Team.
- ²¹ NYS DOH. Vital Statistics of New York State 2015. Table 13: Live Births by Financial Coverage and Resident County New York State – 2015. Accessed at https://www.health.ny.gov/statistics/vital_statistics/2015/table13.htm on Oct. 16, 2017.
- ²² Li W, Sebek K, Huynh M, et al. Summary of Vital Statistics, 2015. New York, NY: New York City Department of Health and Mental Hygiene, Bureau of Vital Statistics, 2017. Accessed at <http://www1.nyc.gov/assets/doh/downloads/pdf/vs/2015sum.pdf> on Oct. 16, 2017.
- ²³ Rosenthal E. American Way of Birth, Costliest in the World. *New York Times*. June 30, 2013. Accessed at http://www.nytimes.com/2013/07/01/health/american-way-of-birth-costliest-in-the-world.html?hp&_r=0 on Oct. 29, 2017.
- ²⁴ Are midwives safer than doctors? *New York Times*. December 14, 2014. Accessed at www.nytimes.com/2014/12/15/opinion/are-midwives-safer-than-doctors.html on Oct. 27, 2017.
- ²⁵ Sandall J, Soltani H, Gates S, Shennan A, Devane D. Midwife-led continuity models versus other models of care for childbearing women. *The Cochrane Library*. 2016. Sutcliffe K, Caird J, Kavanagh J, Rees R, Oliver K, Dickson K, Woodman J, Barnett-Paige E, Thomas J. Comparing midwife-led and doctor-led maternity care: a systematic review of reviews. *Journal of advanced nursing*. 2012 Nov 1;68(11):2376–86.
- ²⁶ Raisler J, Kennedy H. Midwifery care of poor and vulnerable women, 1925–2003. *Journal of Midwifery & Women’s Health*. 2005 Mar 4;50(2):113–21. Available at <http://dx.doi.org/10.1016/j.jmwh.2004.12.010>.
- ²⁷ Yang YT, Attanasio LB, Kozhimannil KB. State scope of practice laws, nurse-midwifery workforce, and childbirth procedures and outcomes. *Women’s Health Issues*. 2016 Mar 7.
- ²⁸ UNFPA I. WHO: The state of the world’s midwifery 2014: A universal pathway. A women’s right to health. United Nations Population Fund, New York. 2014. Accessed at <http://www.unfpa.org/sowmy> on Oct. 27, 2017.
- ²⁹ The Lancet. Midwifery Series. 2014. Accessed at www.thelancet.com/series/midwifery on Oct. 27, 2017.

- ³⁰ Shaw D, Guise JM, Shah N, et al. Drivers of maternity care in high-income countries: can health systems support woman-centred care? *The Lancet*. 2016 Nov 11;388(10057):2282-95.
- ³¹ Malott AM, Davis BM, McDonald H, Hutton E. Midwifery care in eight industrialized countries: how does Canadian midwifery compare? *Journal of Obstetrics and Gynaecology Canada*. 2009;31(10):974-979.
- ³² National Institute for Health and Care Excellence (NICE). Intrapartum care: Care of healthy women and their babies during childbirth. 2014. Accessed at www.nice.org.uk/guidance/CG190 on Oct. 27, 2017.
- ³³ United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics, Natality public-use data 2007-2015, on CDC WONDER Online Database. Accessed at <http://wonder.cdc.gov/natality-current.html> on Oct. 15, 2017.
- ³⁴ American Midwifery Certification Board. Certified Nurse-Midwives/Certified Midwives by State. August 2017. Accessed at <http://www.amcbmidwife.org/docs/default-document-library/number-of-cnm-cm-by-state---august-2017.pdf?sfvrsn=2> on Oct. 27, 2017.
- ³⁵ Martin JA, Hamilton BE, Osterman MJK, et al. Births: Final data for 2015. National vital statistics report; vol 66, no 1. Hyattsville, MD: National Center for Health Statistics. 2017. Supplemental Tables, Table I-12. Births occurring at home, by state: United States and each state, 2015. Accessed at https://www.cdc.gov/nchs/data/nvsr/nvsr66/nvsr66_01_tables.pdf#tab12 on Oct. 27, 2017.
- ³⁶ Health Data New York. New York State Department of Health. Accessed at <https://health.data.ny.gov/Health/Hospital-Maternity-Information-Beginning-2008/net3-iygw> on Oct. 27, 2017.
- ³⁷ Health Data New York. New York State Department of Health.
- ³⁸ Health Data New York. New York State Department of Health. Accessed at <https://health.data.ny.gov/Health/Hospital-Maternity-Information-Beginning-2008/net3-iygw> on Oct. 27, 2017.
- ³⁹ Health Data New York. New York State Department of Health.
- ⁴⁰ American College of Obstetricians and Gynecologists and the American College of Nurse Midwives. Joint Statement of Practice Relations between Obstetrician-Gynecologists and Certified Nurse Midwives/Certified Midwives. 2011.
- ⁴¹ Declercq E. Midwife-Attended Births in the United States, 1990-2012: Results from Revised Birth Certificate Data. *Journal of Midwifery & Women's Health*. 2015 Jan 1;60(1):10-5.
- ⁴² Martin JA, Hamilton BE, Osterman MJK, et al. Births: Final data for 2015. National vital statistics report; vol 66, no 1. Hyattsville, MD: National Center for Health Statistics. 2017.
- ⁴³ Martin JA, et al. Births: Final data for 2015.
- ⁴⁴ United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics, Natality public-use data 2007-2015, on CDC WONDER Online Database, February 2016. Accessed at <http://wonder.cdc.gov/natality-current.html> on Oct. 14, 2017.
- ⁴⁵ Renfrew MJ, McFadden A, Bastos MH, et al. Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care. *The Lancet*. 2014 Sep 26;384(9948):1129-45.
- ⁴⁶ Raisler J, Kennedy H. Midwifery care of poor and vulnerable women, 1925-2003. *Journal of Midwifery & Women's Health*. 2005 Mar 4;50(2):113-21. doi:10.1016/j.jmwh.2004.12.010. Available at <http://dx.doi.org/10.1016/j.jmwh.2004.12.010>.
- ⁴⁷ Supporting Healthy and Normal Physiologic Childbirth: A Consensus Statement by ACNM, MANA, and NACPM. *The Journal of Perinatal Education*. 2013;22(1):14-18. doi:10.1891/1058-1243.22.1.14. Available on-line at: <http://www.midwife.org/ACNM/files/ccLibraryFiles/Filename/000000002179/Physiological%20Birth%20Consensus%20Statement-%20FINAL%20May%2018%202012%20FINAL.pdf>
- ⁴⁸ Buckley SJ. Hormonal physiology of childbearing: Evidence and implications for women, babies and maternity care. *Childbirth Connection*, New York. 2015 Jan.
- ⁴⁹ Buckley SJ. Hormonal physiology of childbearing.
- ⁵⁰ Miller S, Abalos E, Chamillard M, et al. Beyond too little, too late and too much, too soon: a pathway towards evidence-based, respectful maternity care worldwide. *The Lancet*. 2016 Nov 4;388(10056):2176-92. Buckley SJ. Hormonal physiology of childbearing.
- ⁵¹ Sandall J, et al. Midwife-led continuity models versus other models of care. Sutcliffe K, et al. Comparing midwife-led and doctor-led maternity care.
- ⁵² Sandall J, et al. Midwife-led continuity models versus other models of care. Sutcliffe K, et al. Comparing midwife-led and doctor-led maternity care.
- ⁵³ This table is based on the findings of the one systematic review that limited its analysis to studies in the United States. The other two systematic reviews are based primarily on data from studies from English speaking countries other than the United States -- Australia, Canada, Ireland, New Zealand and the United Kingdom. Because their findings were similar, but reflect different systems of care integration and provider relationships, the systematic review limiting data to the U.S. has been identified as having the greatest relevance in the present context.
- ⁵⁴ National Quality Forum. Patient safety collaboration. http://www.qualityforum.org/Setting_Priorities/NPP/NPP_Action_Teams.aspx Accessed May 15, 2016. The Joint Commission: Performance Measures.
- ⁵⁵ The Joint Commission. Perinatal care. 2012. Accessed at <https://manual.jointcommission.org/releases/TJC2013A/PerinatalCare.html> on Oct. 27, 2017.
- ⁵⁶ The Joint Commission Expanded Requirement for Perinatal Care Measure Set Reporting. *Joint Commission Perspectives*®, July 2015, Volume 35, Issue 7 Accessed at https://www.jointcommission.org/assets/1/6/CAH_HAP_Perinatal_Meas.pdf on Oct. 27, 2017.
- ⁵⁷ National Quality Forum. Endorsement summary: perinatal and reproductive health measures. http://www.qualityforum.org/Publications/2012/06/Perinatal_and_Reproductive_Health_Endorsement_Maintenance.aspx.
- ⁵⁸ Newhouse RP, Stanik-Hutt J, White KM, et al. Advanced practice nurse outcomes 1990-2008: a systematic review. *Nursing Economics*. 2011 Sep 1;29(5):230.
- ⁵⁹ Attanasio, L. and Kozhimannil, K. B. (2017), Relationship Between Hospital-Level Percentage of Midwife-Attended Births and Obstetric Procedure Utilization. *Journal of Midwifery & Women's Health*. doi:10.1111/jmwh.12702
- ⁶⁰ Caughey AB, Cahill AG, Guise JM, Rouse DJ, American College of Obstetricians and Gynecologists. Safe prevention of the primary cesarean delivery. *American journal of obstetrics and gynecology*. 2014 Mar 31;210(3):179-93. Available at http://www.acog.org/Resources_And_Publications/Obstetric_Care_Consensus_Series/Safe_Prevention_of_the_Primary_Cesarean_Delivery
- ⁶¹ World Health Organization. WHO Statement on Caesarean Section Rates. WHO 2015. Available at http://apps.who.int/iris/bitstream/10665/161442/1/WHO_RHR_15.02_eng.pdf. Accessed Oct. 14, 2017.
- ⁶² New York State Department of Health. Vital Statistics of New York State 2015. Table 14: Live Births by Method of Delivery and Resident County New York State - 2015. Available at: https://www.health.ny.gov/statistics/vital_statistics/2015/table14.htm. Accessed Oct. 14, 2017.
- ⁶³ NYS DOH. Vital Statistics 2015. Table 14: Live Births by Method of Delivery and Resident County
- ⁶⁴ Martin JA, Hamilton BE, Osterman MJK, et al. Births: Final data for 2015. National vital statistics report; vol 66, no 1. Hyattsville, MD: National Center for Health Statistics. 2017. Available at https://stacks.cdc.gov/view/cdc/43595/cdc_DS1_43595.pdf. Accessed Oct. 14, 2017.
- ⁶⁵ United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics, Natality public-use data, on CDC WONDER Online Database. Accessed at <http://wonder.cdc.gov/natality>

current.html on Oct. 15, 2017. Martin JA, Hamilton BE, Osterman MJK, et al. Births: Final data for 2012. National vital statistics reports; vol 62 no 9. Hyattsville, MD: National Center for Health Statistics. 2013. Accessed at http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_09.pdf on Oct. 27, 2017.

⁶⁶ Newhouse RP, Stanik-Hutt J, White KM, et al. Advanced practice nurse outcomes 1990-2008: a systematic review. *Nursing Economics*. 2011 Sep 1;29(5):230. Sandall J, Soltani H, Gates S, et al. Midwife-led continuity models versus other models of care for childbearing women. *The Cochrane Library*. 2016. Sutcliffe K, Caird J, Kavanagh J, et al. Comparing midwife-led and doctor-led maternity care: a systematic review of reviews. *Journal of advanced nursing*. 2012 Nov 1;68(11):2376-86.

⁶⁷ Sutcliffe K, et al., Comparing midwife-led and doctor-led maternity care.

⁶⁸ Sandall J, et al., Midwife-led continuity models; Sutcliffe K, et al., Comparing midwife-led and doctor-led maternity care.

⁶⁹ Sandall J, et al., Midwife-led continuity models; Sutcliffe K, et al., Comparing midwife-led and doctor-led maternity care.

⁷⁰ Sandall J, et al., Midwife-led continuity models; Sutcliffe K, et al., Comparing midwife-led and doctor-led maternity care.

⁷¹ Sandall J, et al. Midwife-led continuity models.

⁷² Caughey AB, Cahill AG, Guise JM, Rouse DJ, American College of Obstetricians and Gynecologists. Safe prevention of the primary cesarean delivery. *American journal of obstetrics and gynecology*. 2014 Mar 31;210(3):179-93.

⁷³ Gregory KD, Jackson S, Korst L, Fridman M. Cesarean versus vaginal delivery: whose risks? Whose benefits?. *American journal of perinatology*. 2012 Jan;29(1):7-18.

⁷⁴ Childbirth Connection. Vaginal or cesarean birth: What is at stake for women and babies? A best evidence review. New York, NY. 2012. Accessed at <http://transform.childbirthconnection.org/wp-content/uploads/2013/02/Cesarean-Report.pdf> on Oct. 27, 2017; Gregory KD, et al. Cesarean versus vaginal delivery: whose risks? Whose benefits?

⁷⁵ Liu S, Liston RM, Joseph KS, et al. Maternal mortality and severe morbidity associated with low-risk planned cesarean delivery versus planned vaginal delivery at term. *Maternal Health Study Group of the Canadian Perinatal Surveillance System. CMAJ* 2007;176:455-60.

⁷⁶ Childbirth Connection. Vaginal or cesarean birth: What is at stake for women and babies? A best evidence review. New York, NY. 2012. Accessed at <http://transform.childbirthconnection.org/wp-content/uploads/2013/02/Cesarean-Report.pdf> on Oct. 27, 2017.

⁷⁷ Kirkeby Hansen A, Wisborg K, Ulbjerg N, Brink Henriksen T. Elective caesarean section and respiratory morbidity in the term and near-term neonate. *Acta obstetrica et gynecologica Scandinavica*. 2007 Jan 1;86(4):389-94.

⁷⁸ Thavagnanam S, Fleming J, Bromley A, et al. A meta-analysis of the association between Caesarean section and childhood asthma. *Clinical & Experimental Allergy*. 2008 Apr 1;38(4):629-33.

⁷⁹ Li Y, Tian Y, Zhu W, et al. Cesarean delivery and risk of inflammatory bowel disease: a systematic review and meta-analysis. *Scandinavian journal of gastroenterology*. 2014 Jul 1;49(7):834-44.

⁸⁰ Cardwell CR, Stene LC, Joner G, et al. Caesarean section is associated with an increased risk of childhood-onset type 1 diabetes mellitus: a meta-analysis of observational studies. *Diabetologia*. 2008 May 1;51(5):726-35.

⁸¹ Bager P, Wohlfahrt J, Westergaard T. Caesarean delivery and risk of atopy and allergic disease: meta-analyses. *Clinical & Experimental Allergy*. 2008 Apr 1;38(4):634-42.

⁸² Curran EA, O'Neill SM, Cryan JF, et al. Research Review: Birth by caesarean section and development of autism spectrum disorder and attention-deficit/hyperactivity disorder: a systematic review and meta-analysis. *Journal of Child Psychology and Psychiatry*. 2015 May 1;56(5):500-8.

⁸³ Darmasseelane K, Hyde MJ, Santhakumaran S, et al. Mode of delivery and offspring body mass index, overweight and obesity in adult life: a systematic review and meta-analysis. *PLoS one*. 2014 Feb 26;9(2):e87896.

⁸⁴ Silver RM, Landon MB, Rouse DJ, et al. Maternal morbidity associated with multiple repeat cesarean deliveries. *Obstetrics & Gynecology*. 2006 Jun 1;107(6):1226-32; Getahun D, Oyelese Y, Salihu HM, Ananth CV. Previous cesarean delivery and risks of placenta previa and placental abruption. *Obstetrics & Gynecology*. 2006 Apr 1;107(4):771-8; Sakala C, Corry MP. Evidence-based maternity care: What it is and what it can achieve. 2008.

⁸⁵ American College of Obstetricians and Gynecologists Committee on Obstetric Practice. ACOG committee opinion no. 529, Placenta Accreta. 2012 Apr;121(4):904. Accessed at <https://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Placenta-Accreta#3> on Oct. 27, 2017.

⁸⁶ Silver RM, Fox KA, Barton JR, et al. Center of excellence for placenta accreta. *American journal of obstetrics and gynecology*. 2015 May 31;212(5):561-8. Accessed at [http://www.ajog.org/article/S0002-9378\(14\)02248-0/pdf](http://www.ajog.org/article/S0002-9378(14)02248-0/pdf) on Oct. 27, 2017.

⁸⁷ O'Brien JM, Barton JR, Donaldson ES. The management of placenta percreta: conservative and operative strategies. *Am J Obstet Gynecol* 1996;175:1632-8.

⁸⁸ Shellhaas CS, Gilbert S, Landon MB, et al. The frequency and complication rates of hysterectomy accompanying cesarean delivery. Eunice Kennedy Shriver National Institutes of Health and Human Development Maternal-Fetal Medicine Units Network. *Obstet Gynecol* 2009;114:224-9.

⁸⁹ American College of Obstetricians and Gynecologists Committee on Obstetric Practice. ACOG committee opinion no. 529, Placenta Accreta. 2012 Apr;121(4):904. Accessed at <https://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Placenta-Accreta#3> on Oct. 27, 2017.

⁹⁰ Kozhimannil KB, Law MR, Virnig BA: Cesarean delivery rates vary tenfold among US hospitals; reducing variation may address quality and cost issues. *Health Affairs (Milwood)*. 2013;32(3):527-35.

⁹¹ Mistry K (AHRQ), Fingar KR (Truven), Elixhauser A (AHRQ). Variation in the Rate of Cesarean Section Across U.S. Hospitals, 2013. HCUP Statistical Brief #211. September 2016. Agency for Health care Research and Quality, Rockville, MD. <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb211-Hospital-Variation-C-sections-2013.pdf>

⁹² Kozhimannil KB, Law MR, Virnig BA: Cesarean delivery rates vary tenfold among US hospitals; reducing variation may address quality and cost issues. *Health Affairs (Milwood)*. 2013;32(3):527-35.

⁹³ Clark SL, Belfort MA, Hankins GD, et al. Variation in the rates of operative delivery in the United States. *American Journal of Obstetrics and Gynecology*. 2007 Jun 30;196(6):526-e1.

⁹⁴ Haelle T. Your Biggest C-Section Risk May Be Your Hospital. *Consumer Reports*, April. 2016;13. Accessed at <https://www.consumerreports.org/c-section/your-biggest-c-section-risk-may-be-your-hospital/> on Oct. 27, 2017; Nijagal MA, Kuppermann M, Nakagawa S, Cheng Y. Two practice models in one labor and delivery unit: association with cesarean delivery rates. *American journal of obstetrics and gynecology*. 2015 Apr 30;212(4):491-e1.

⁹⁵ Health Data New York. New York State Department of Health. Accessed at <https://health.data.ny.gov/Health/Hospital-Maternity-Information-Beginning-2008/net3-iygw> on Oct. 27, 2017.

⁹⁶ New York State Department of Health Data: Uncomplicated C-Sections by Hospital, NY statewide, 2014. Accessed at <https://health.data.ny.gov/Health/Uncomplicated-C-Sections-by-Hospital-NY-statewide-t5bw-ja3q> on Oct. 27, 2017.

⁹⁷ ACNM Unpublished presentation, Available on request from Choices in Childbirth.

⁹⁸ King, V., Pilliod, R., & Little, A. (2010). Rapid review: Elective induction of labor. Portland: Center for Evidence-based Policy.

⁹⁹ Sandall J, et al. Midwife-led continuity models versus other models of care. Newhouse RP, et al. Advanced practice nursing outcomes 1990- 2008: a systematic review.

¹⁰⁰ Sandall J, et al. Midwife-led continuity models versus other models of care.

- ¹⁰¹ Sandall J, et al., Midwife-led continuity models versus other models of care; Sutcliffe K, et al., Comparing midwife-led and doctor-led maternity care.
- ¹⁰² Vedam S, Stoll K, Martin K, et al. The Mother's Autonomy in Decision Making (MADM) scale: Patient-led development and psychometric testing of a new instrument to evaluate experience of maternity care. *PLoS one*. 2017 Feb 23;12(2):e0171804.
- ¹⁰³ Attanasio LB, McPherson ME, Kozhimannil KB. Positive childbirth experiences in U.S. hospitals: a mixed methods analysis. *Maternal and Child Health Journal*. 2014;18(5):1280–1290.
- ¹⁰⁴ Deadly Delivery, Focus Groups Conducted by Choices in Childbirth throughout New York State, 2015.
- ¹⁰⁵ Vedam S, Stoll K, Rubashkin N, et al. The Mothers on Respect (MOR) index: measuring quality, safety, and human rights in childbirth. *SSM-Population Health*. 2017 Dec 31;3:201–10. Accessed at <http://www.sciencedirect.com/science/article/pii/S2352827317300174> on Oct. 27, 2017.
- ¹⁰⁶ Amnesty International. Deadly Delivery. Focus Groups Conducted by Choices in Childbirth throughout New York State, 2015.
- ¹⁰⁷ Kozhimannil KB, Attanasio LB, Yang YT, et al. Midwifery Care and Patient–Provider Communication in Maternity Decisions in the United States. *Maternal and child health journal*. 2015 Jul 1;19(7):1608–15.
- ¹⁰⁸ Hodnett, E. D. (2002). Pain and women's satisfaction with the experience of childbirth: a systematic review. *American Journal of Obstetrics & Gynecology*, 186(5), S160–S172. Cook, K., & Loomis, C. (2012). The impact of choice and control on women's childbirth experiences. *Journal of Perinatal Education*, 21(3), 158. Hardin AM, Buckner EB. Characteristics of a positive experience for women who have unmedicated childbirth. *The Journal of Perinatal Education*, 13(4). 2004. 10–16 10.1624/105812404X6180
- ¹⁰⁹ Vedam S, et al. The Mother's Autonomy in Decision Making (MADM) scale.
- ¹¹⁰ Baker SR, Choi PY, Henshaw CA, Tree J. 'I Felt as though I'd been in Jail': Women's Experiences of Maternity Care during Labour, Delivery and the Immediate Postpartum. *Feminism & Psychology*. 2005 Aug;15(3):315–42.
- ¹¹¹ Declercq ER, Sakala C, Corry MP, et al. Listening to Mothers III: Pregnancy and Birth; Report of the Third National US Survey of Women's Childbearing Experiences. New York, NY: Childbirth Connection. 2013.
- ¹¹² Rance S, McCourt C, Rayment J, et al. Women's safety alerts in maternity care: is speaking up enough?. *BMJ quality & safety*. 2013 Feb 15;bmjqs-2012.
- ¹¹³ Kozhimannil KB, Attanasio LB, Yang YT. Midwifery Care and Patient–Provider Communication in Maternity Decisions in the United States. *Maternal and child health journal*. 2015 Jul 1;19(7):1608–15. Accessed at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4476913/> on Oct. 16, 2017..
- ¹¹⁴ Kozhimannil KB, Attanasio LB, Yang YT, et al. Midwifery Care and Patient–Provider Communication in Maternity Decisions in the United States. *Maternal and child health journal*. 2015 Jul 1;19(7):1608–15.
- ¹¹⁵ Vedam S, et al. The Mother's Autonomy in Decision Making (MADM) scale.
- ¹¹⁶ Amnesty International. Deadly Delivery: The Maternal Health Care Crisis In the USA. Amnesty International Publications. 2010. Rance S, et al. Women's safety alerts in maternity care: is speaking up enough?
- ¹¹⁷ Raine R, Cartwright M, Richens Y, et al. A qualitative study of women's experiences of communication in antenatal care: identifying areas for action. *Maternal and Child Health Journal*. 2010;14(4):590–599.
- ¹¹⁸ Vedam S, et al. The Mother's Autonomy in Decision Making (MADM) scale.
- ¹¹⁹ Vedam S, et al. The Mothers on Respect (MOR) index.
- ¹²⁰ Vedam S, et al. The Mothers on Respect (MOR) index.
- ¹²¹ Vedam S, et al. The Mothers on Respect (MOR) index.
- ¹²² Bowser D, Hill K. Exploring evidence for disrespect and abuse in facility-based childbirth. Boston: USAID-TRAction Project, Harvard School of Public Health. 2010 Sep 20. http://www.tractionproject.org/sites/default/files/Respectful_Care_at_Birth_9-20-101_Final.pdf
- ¹²³ Amnesty International. Deadly Delivery; Paltrow LM, Flavin J. Arrests of and forced interventions on pregnant women in the United States, 1973–2005: Implications for women's legal status and public health. *Journal of Health Politics, Policy and Law*. 2013 Jan 15:1966324; Vedam S, Stoll K, Declercq E, et al. Giving voice to mothers of colour. International Normal Labour and Birth Research Conference, 11th session. University of Western Sydney, Australia. 2016.
- ¹²⁴ ACOG Committee on Ethics. Committee Opinion Number 321, November 2005. Maternal Decision Making, Ethics, and the Law. Accessed at http://r4ecadvisory.wikispaces.com/file/view/ACOG_Maternal+Decision_FASD_2005.pdf on Oct. 27, 2017. ("Efforts to use the legal system specifically to protect the fetus by constraining women's decision making or punishing them for their behavior erode a woman's basic rights to privacy and bodily integrity and are neither legally nor morally justified.")
- ¹²⁵ Amnesty International. Deadly Delivery; Bowser D, Hill K. Exploring evidence for disrespect and abuse in facility-based childbirth. Boston: USAID-TRAction Project, Harvard School of Public Health. 2010 Sep 20. http://www.tractionproject.org/sites/default/files/Respectful_Care_at_Birth_9-20-101_Final.pdf. ; Paltrow LM, Flavin J. Arrests of and forced interventions on pregnant women in the United States, 1973–2005: Implications for women's legal status and public health. *Journal of Health Politics, Policy and Law*. 2013 Jan 15:1966324.
- ¹²⁶ The eight procedures asked about in GVMT include injection following birth of the baby to facilitate delivery of the placenta, continuous electronic fetal monitoring, timing of cord clamping, episiotomy, application of erythromycin ointment to newborn's eyes, rupture of membranes, skin to skin contact, and Vitamin K administration.
- ¹²⁷ Jou J, Kozhimannil KB, Johnson PJ, Sakala C. Patient-Perceived Pressure from Clinicians for Labor Induction and Cesarean Delivery: A Population-Based Survey of US Women. *Health services research*. 2015 Aug 1;50(4):961–81.
- ¹²⁸ Vedam S, et al. The Mothers on Respect (MOR) index.
- ¹²⁹ Paltrow LM, Flavin J. Arrests of and forced interventions on pregnant women in the United States, 1973–2005: Implications for women's legal status and public health. *Journal of Health Politics, Policy and Law*. 2013 Jan 15:1966324.
- ¹³⁰ Paltrow LM, Flavin J. Arrests of and forced interventions on pregnant women.
- ¹³¹ Redden M. New York hospital's secret policy led to woman being given C-section against her will. *The Guardian*. October 5, 2017. <https://www.theguardian.com/us-news/2017/oct/05/new-york-staten-island-university-hospital-c-section-ethics-medicine> on Oct. 17, 2017.
- ¹³² Hartocollis A. Mother Accuses Doctors of Forcing a C-Section and Files Suit. *New York Times*. May 16, 2014. Accessed at https://www.nytimes.com/2014/05/17/nyregion/mother-accuses-doctors-of-forcing-a-c-section-and-files-suit.html?_r=1 on Oct. 17, 2017.
- ¹³³ Hartocollis A. Mother Accuses Doctors of Forcing a C-Section. *New York Times*.
- ¹³⁴ Redden M. New York hospital's secret policy led to woman being given C-section against her will. *The Guardian*.
- ¹³⁵ Declercq ER, Sakala C, Corry MP, et al. Listening to mothers III: Pregnancy and birth. New York: Childbirth Connection. 2013 May:53. Amnesty International. Deadly Delivery: The Maternal Health Care Crisis In the USA. Amnesty International Publications; 2010. Choices in Childbirth Focus Groups.
- ¹³⁶ Vedam S, et al. The Mother's Autonomy in Decision Making (MADM) scale.
- ¹³⁷ Vedam S, Stoll K, Martin K, et al. The Mother's Autonomy in Decision Making (MADM) scale: Patient-led development and psychometric testing of a new instrument to evaluate experience of maternity care. *PLoS one*. 2017 Feb 23;12(2):e0171804.
- ¹³⁸ Hodnett, E.D. (2002). Pain and women's satisfaction with the experience of childbirth: a systematic review. *American Journal of Obstetrics and Gynecology*, 186(5), S160–72.

- ¹³⁹ Japsen B. Ouch! Patient satisfaction hits physician pay. *Pharma & Healthcare*, Forbes. July 2, 2013. Accessed at <https://webcache.googleusercontent.com/search?q=cache:RuN5QU9KLWMJ:https://www.forbes.com/sites/brucejapsen/2013/07/02/patient-satisfaction-hits-physician-pay/+&cd=4&hl=en&ct=clnk&gl=us> on Oct. 27, 2017.
- Rau, J. (2013, Nov. 14). Nearly 1,500 Hospitals Penalized under Medicare Program Rating Quality. *Kaiser Health News*. Available at www.kaiserhealthnews.org/stories/2013/november/14/value-based-purchasing-medicare.aspx
- ¹⁴⁰ Cook, K., & Loomis, C. (2012). The impact of choice and control on women's childbirth experiences. *Journal of Perinatal Education*, 21(3), 158.
- ¹⁴¹ ACNM, New York Medicaid Equity, Unpublished Presentation. Available on request. Average payment for vaginal and cesarean deliveries for Medicaid and Commercial are drawn from Truven's "Cost of Having a Baby in the United States." "Uninsured and "Other," are set equal to Truven commercial amounts. "Medicare is set at 128% of Medicaid, per the Kaiser Family Foundation's study at: <http://kff.org/medicaid/state-indicator/medicaid-to-medicare-fee-index/>. Truven amounts were increased by 0.4% for 2011, 0.6% for 2012, 0.8% for 2013, and 1.1% for 2014 per the Medicare Economic Index.
- ¹⁴² Sandall J, et al. Midwife-led continuity models, *Cochrane Systematic Review* 2016.
- ¹⁴³ New York State Department of Health, Health Data New York. <https://health.data.ny.gov/Health/Hospital-Maternity-Information-Beginning-2008/net3-iygw>
- ¹⁴⁴ Geller EJ, Wu JM, Jannelli ML, et al. Neonatal outcomes associated with planned vaginal versus planned primary cesarean delivery. *Journal of Perinatology*. 2010 Apr 1;30(4):258.
- ¹⁴⁵ Truven Health Analytics. The Cost of Having a Baby in the United States. Ann Arbor: Truven. 2013. Accessed at www.nationalpartnership.org/research-library/maternal-health/the-cost-of-having-a-baby-in-the-us.pdf on Oct. 29, 2017.
- ¹⁴⁶ United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics, Natality public-use data, on CDC WONDER Online Database. Accessed at <http://wonder.cdc.gov/natality-current.html> on Oct. 15, 2017.
- ¹⁴⁷ New York State Department of Health. Vital Statistics of New York State 2015. Table 13: Live Births by Financial Coverage and Resident County New York State – 2015. Accessed at https://www.health.ny.gov/statistics/vital_statistics/2015/table13.htm on Oct. 14, 2017.
- ¹⁴⁸ New York State Department of Health. Vital Statistics of New York State 2015. Table 13: Live Births by Financial Coverage and Resident County New York State – 2015. Accessed at https://www.health.ny.gov/statistics/vital_statistics/2015/table13.htm on Oct. 14, 2017.
- ¹⁴⁹ New York State Department of Health. Vital Statistics of New York State 2015. Table 14: Live Births by Method of Delivery and Resident County New York State – 2015. Accessed at https://www.health.ny.gov/statistics/vital_statistics/2015/table14.htm on Oct. 14, 2017.
- ¹⁵⁰ New York State Department of Health, Health Data New York. <https://health.data.ny.gov/Health/Hospital-Maternity-Information-Beginning-2008/net3-iygw>
- ¹⁵¹ Anim –Somuah M, Epidural versus non-epidural or no analgesia during labor. *Cochrane Database of Systematic Reviews*, (12), doi:10.1002/14651858.CD000331.pub3
- ¹⁵² Bartick M, Reinhold A. The burden of suboptimal breastfeeding in the United States: a pediatric cost analysis. *Pediatrics*. 2010 May 1;125(5):e1048-56.
- Bartick MC, Stuebe AM, Schwarz EB, et al. Cost analysis of maternal disease associated with suboptimal breastfeeding. *Obstetrics & Gynecology*. 2013 Jul 1;122(1):111-9.
- ¹⁵³ HCUP National inpatient sample (Nis). (2013). Health care Cost and Utilization Project (HCUP). Agency for Health care research and Quality, rockville, MD.
- ¹⁵⁴ UN General Assembly. Universal declaration of human rights. Article 25. UN General Assembly. 1948 Dec. 10.
- ¹⁵⁵ Amnesty International. Deadly Delivery.
- ¹⁵⁶ Declercq ER, Sakala C, Corry MP, et al. Listening to mothers III: Pregnancy and birth. New York: Childbirth Connection. 2013 May:53.
- ¹⁵⁷ Lu MC, Halfon N. Racial and ethnic disparities in birth outcomes: a life-course perspective. *Maternal Child Health Journal*. 2003 Mar; 7(1):13-30. Lu MC, Kotelchuck M, Hogan V, et al. Closing the Black-White Gap in Birth Outcomes: A Life-course Approach. *Ethnicity & disease*. 2010;20(1 0 2):S2-62-76.
- ¹⁵⁸ Colen CG, Geronimus AT, Bound J, James SA. Maternal upward socioeconomic mobility and Black-White disparities in infant birthweight. *American Journal of Public Health*. 2006 Nov;96(11):2032-9.; Singh GK. Maternal mortality in the United States, 1935-2007: Substantial racial/ethnic, socioeconomic, and geographic disparities persist. US Department of Health and Human Services, Health Resources and Services Administration; 2010.
- ¹⁵⁹ New York City Department of Health and Mental Hygiene. Bureau of Maternal and Child Health. Pregnancy-associated mortality, New York City, 2006–2010. New York City Department of Health and Mental Hygiene, New York, NY. 2015. Available at <https://www1.nyc.gov/assets/doh/downloads/pdf/ms/pregnancy-associated-mortality-report.pdf>. Accessed Oct. 10, 2017. NY State Public Health and Planning Council. Prevention of Maternal Mortality in New York State: Proceedings of the New York State Public Health and Health Planning Council's Public Health Committee Meeting Series and Recommendations for Action, 2016. Available at https://www.health.ny.gov/facilities/public_health_and_health_planning_council/docs/prevention_of_maternal_mortality.pdf Accessed Oct. 10, 2017
- ¹⁶⁰ NYC DOHMH. Severe Maternal Morbidity in New York City, 2008–2012.
- ¹⁶¹ NYS DOH, Vital Statistics of New York State, 2015, Table 4: Live Birth Summary by Mother's Race/Ethnicity, New York State 2015. Accessed at https://www.health.ny.gov/statistics/vital_statistics/2015/table04.htm on 10/16/17.
- ¹⁶² NYS DOH, Vital Statistics of New York State, 2015, Table 4.
- ¹⁶³ Howell EA, Hebert P, Chatterjee S, et al. Black/white differences in very low birth weight neonatal mortality rates among New York City hospitals. *Pediatrics*. 2008 Mar 1;121(3):e407-15.
- ¹⁶⁴ NYS DOH, Annual Report of Vital Statistics: New York State 2014, Table 16. Percent Preterm Live Births by Mother's Age Group and Race/Ethnicity: New York State 2008-2014.
- ¹⁶⁵ NYS DOH, Vital Statistics of New York State, 2015, Table 4: Live Birth Summary by Mother's Race/Ethnicity, New York State 2015.
- ¹⁶⁶ New York City Department of Health and Mental Hygiene. Bureau of Maternal and Child Health. Pregnancy-associated mortality, New York City, 2006–2010. New York City Department of Health and Mental Hygiene, New York (NY); 2015. Available at <https://www1.nyc.gov/assets/doh/downloads/pdf/ms/pregnancy-associated-mortality-report.pdf>. Accessed Oct. 10, 2017.
- ¹⁶⁷ NYS DOH, Vital Statistics of New York State, 2015, Table 4: Live Birth Summary by Mother's Race/Ethnicity, New York State 2015.
- ¹⁶⁸ Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. Washington, DC: The National Academies Press. 2003. Available at http://books.nap.edu/openbook.php?record_id=10260&page=R4 . Accessed Oct. 10, 2017.
- ¹⁶⁹ Howell EA, Egorova N, Balbierz A, et al. Black-white differences in severe maternal morbidity and site of care. *American journal of obstetrics and gynecology*. 2016 Jan 31;214(1):122-e1.
- ¹⁷⁰ Frontier Nursing Service. Summary of the first 10,000 confinement records of the Frontier Nursing Service. *Q Bull Frontier Nurs Service* 1958;33:45-55. Browne H, Isaacs G. The Frontier Nursing Service: the primary care nurse in the community hospital. *Am J Obstet Gynecol* 1976;124 (1):14-17. vy BS, Wilkinson FS, Marine WM. Reducing neonatal rates with nurse-midwives. *Am J Obstet Gynecol* 1971; 109:50-58. Family Health and Birth Center. Briefing Statement to the Committee on Health of the Council of the District of Columbia. 2/22/07.
- ¹⁷¹ Raisler J, Kennedy H. Midwifery care of poor and vulnerable women, 1925–2003. *Journal of Midwifery & Women's Health*. 2005 Mar 4;50(2):113-21.
- ¹⁷² Raisler J, Kennedy H. Midwifery care of poor and vulnerable women, 1925–2003.

- ¹⁷³ Paine LL, Lang JM, Strobino DM, et al. Characteristics of nurse- midwife patients and visits, 1991. *Am J Public Health* 1999;89:906-9. Declercq ER, Williams DR, Koontz AM, et al. Serving women in need: Nurse-midwifery practice in the United States. *J Midwifery Womens Health* 2001;46:11-16.
- ¹⁷⁴ Declercq ER, Williams DR, Koontz AM, et al. Serving women in need: Nurse-midwifery practice in the United States. *J Midwifery Womens Health* 2001;46:11-16.
- ¹⁷⁵ Declercq ER. Midwifery care and medical complications: The role of risk screening. *Birth* 1995;22:68-73 Clarke SC, Martin JA, Taffel SM. Trends and characteristics of births attended by midwives. *Statistical bulletin* (Metropolitan Life Insurance Company: 1984). 1997;78(1):9-18. Scupholme A, DeJoseph J, Strobino DM, Paine LL. Nurse- midwifery care to vulnerable populations. Phase I. Demographic characteristics of the national CNM sample. *J Nurse Midwifery* 1992;31:341- 8.
- ¹⁷⁶ Supporting Healthy and Normal Physiologic Childbirth: A Consensus Statement by ACNM, MANA, and NACPM.
- ¹⁷⁷ Noseworthy DA, Phibbs SR, Benn CA. Towards a relational model of decision-making in midwifery care. *Midwifery*. 2013;29(7):e42-e48.
- ¹⁷⁸ Noseworthy DA, et al. Towards a relational model of decision-making in midwifery care.
- ¹⁷⁹ LaVeist TA, Gaskin D, Richard P. Estimating the economic burden of racial health inequalities in the United States. *International Journal of Health Services*. 2011 Apr;41(2):231-8.
- ¹⁸⁰ Attanasio, L. and Kozhimannil, K. B. (2017), Relationship Between Hospital-Level Percentage of Midwife-Attended Births and Obstetric Procedure Utilization. *Journal of Midwifery & Women's Health*. doi:10.1111/jmwh.12702
- ¹⁸¹ Yang YT, Attanasio LB, Kozhimannil KB. State scope of practice laws, nurse-midwifery workforce, and childbirth procedures and outcomes. *Women's Health Issues*. 2016 Jun 30;26(3):262-7.
- ¹⁸² Yang YT, et al. State scope of practice laws, nurse-midwifery workforce, and childbirth procedures and outcomes.
- ¹⁸³ ACOG/ACNM. Joint Statement of Practice Relations. 2011.
- ¹⁸⁴ ACOG/ACNM. Joint Statement of Practice Relations. 2011.
- ¹⁸⁵ Yang YT, et al. State scope of practice laws, nurse-midwifery workforce, and childbirth procedures and outcomes.
- ¹⁸⁶ Yang YT, et al. State scope of practice laws, nurse-midwifery workforce, and childbirth procedures and outcomes.
- ¹⁸⁷ American College of Nurse Midwives. *Midwifery: Evidence-Based Practice: A Summary of Research on Midwifery Practice in the United States*. April 2012.
- ¹⁸⁸ Rayburn WF. *The Obstetrician-Gynecologist Workforce in the United States, Facts, Figures and Implications*. Washington, DC: American Congress of Obstetricians and Gynecologists; 2011.
- ¹⁸⁹ Health Resources and Services Administration. Projecting the supply and demand for primary care practitioners through 2020. <https://bhwh.hrsa.gov/health-workforce-analysis/primary-care-2020> . Published November 2013.
- ¹⁹⁰ Johantgen M, Fountain L, Zangaro G, et al. Comparison of labor and delivery care provided by certified nurse-midwives and physicians: A systematic review, 1990 to 2008. *Women's Health Issues*. 2012 Feb 29;22(1):e73-81.
- ¹⁹¹ Health Data New York. New York State Department of Health. <https://health.data.ny.gov/Health/Hospital-Maternity-Information-Beginning-2008/net3-iygw>. This number reflects the hospitals in New York State where in 2015 less than 1 percent of births were attended by a midwife. In some hospitals, midwives work in limited capacities and would attend a birth in unusual circumstances, such as when no physician is available. Data available at: <https://health.data.ny.gov/Health/Hospital-Maternity-Information-Beginning-2008/net3-iygw>.
- ¹⁹² Health Data New York. NYS DOH. Accessed at <https://health.data.ny.gov/Health/Hospital-Maternity-Information-Beginning-2008/net3-iygw> on Oct. 27, 2017. Note that the 2015 rate of midwife attended births according to the DHHS Natality public-use data 2007-2015, on CDC WONDER Online Database, is 10.63%.
- ¹⁹³ Health Data New York. NYS DOH. <https://health.data.ny.gov/Health/Hospital-Maternity-Information-Beginning-2008/net3-iygw>. This number reflects the hospitals in New York State where in 2014 less than .5 percent of births were attended by a midwife. In some hospitals, midwives work in limited capacities and would attend a birth in unusual circumstances, such as when no physician is available. Data available at: <https://health.data.ny.gov/Health/Hospital-Maternity-Information-Beginning-2008/net3-iygw>.
- ¹⁹⁴ Council of the City of New York. Report on the Fiscal 2017 Preliminary Budget and the Fiscal 2016 Preliminary Mayor's Management Report: New York City Health + Hospitals. Mar. 21, 2016. Accessed at <https://council.nyc.gov/budget/wp-content/uploads/sites/54/2016/05/819-New-York-City-Health-Hospitals.pdf> on Oct. 14, 2017.
- ¹⁹⁵ New York State Department of Health. NYS Health Profiles. Attended by Midwife. Retrieved 13 May 2016. http://profiles.health.ny.gov/measures/all_state/16523
- ¹⁹⁶ Discussions between Choices in Childbirth and obstetric directors at 2 different hospitals. Jul. 23, 2015 and
- ¹⁹⁷ Health care Provider Taxonomy Codes: Advanced Practice Midwife, July 2015. Available at <https://npidb.org/taxonomy/?parent=367A00000X>
- ¹⁹⁸ Lichtman R, Farley C, Perlman D, et al. The Certified Midwife Credential and the Case for National Implementation. *Journal of Midwifery & Women's Health*. 2015 Dec 1;60(6):665-9.
- ¹⁹⁹ Farrell M. Building Bridges: Health Disparities, Midwives and Culturally Competent Care—and Education available at: www.mothing.com/articles/building-bridges-health-disparities-midwives-and-culturally-competent-care-and-education/
- ²⁰⁰ Wren Serbin J, Donnelly E. The impact of racism and midwifery's lack of racial diversity: a literature review. *Journal of Midwifery & Women's Health*. 2016 Nov 1;61(6):694-706. Accessed at <http://onlinelibrary.wiley.com/store/10.1111/jmwh.12572/asset/jmwh12572.pdf?v=1&t=j9bhgf9o&s=3ddd860f8389a8bf9a70d3c5abdee649f282ef09> on Oct. 27, 2017.
- ²⁰¹ Schuiling KD, Sipe TA, Fullerton J. Findings from the analysis of the American College of Nurse-Midwives' membership surveys: 2009 to 2011. *J Midwifery Womens Health*. 2013;58(4):404-415. doi:10.1111/jmwh.12064; Fullerton J, Sipe TA, Hastings-Tolsma M, et al. The midwifery work- force: ACNM 2012 and AMCB 2013 core data. *J Midwifery Womens Health*. 2015;60(6):751-761. doi:10.1111/jmwh.12405.
- ²⁰² American College of Nurse-Midwives. *Midwifery Education Trends Report 2015*. Accessed at <http://www.midwife.org/acnm/files/ccLibraryFiles/Filename/000000005752/ACNMMidwiferyEdTrend2015-10.28.15.pdf> on Oct. 16, 2017.
- ²⁰³ Cohen JJ, Gabriel BA, Terrell C. The case for diversity in the health care workforce. *Health Affairs*. 2002 Sep 1;21(5):90-102.
- ²⁰⁴ Street RL, O'Malley KJ, Cooper LA, Haidet P. Understanding concordance in patient-physician relationships: personal and ethnic dimensions of shared identity. *The Annals of Family Medicine*. 2008 May 1;6(3):198-205.
- ²⁰⁵ Cohen JJ, Gabriel BA, Terrell C. The case for diversity in the health care workforce. *Health Affairs*. 2002 Sep 1;21(5):90-102.
- ²⁰⁶ Smedley BD, Butler AS, Bristow LR. In the nation's compelling interest: Ensuring diversity in the health care workforce. The National Academies Press; 2004;
- Sullivan LW. Missing persons: minorities in the health professions, a report of the Sullivan Commission on Diversity in the Healthcare Workforce. Retrieved from <http://www.aacn.nche.edu/media-relations/SullivanReport.pdf>
- ²⁰⁷ Wren Serbin J, Donnelly E. The impact of racism and midwifery's lack of racial diversity: a literature review. *Journal of Midwifery & Women's Health*. 2016 Nov 1;61(6):694-706. Accessed at <http://onlinelibrary.wiley.com/store/10.1111/jmwh.12572/asset/jmwh12572.pdf?v=1&t=j9bhgf9o&s=3ddd860f8389a8bf9a70d3c5abdee649f282ef09> on Oct. 27, 2017.

- ²⁰⁸ Cohen JJ, Gabriel BA, Terrell C. The case for diversity in the health care workforce. *Health Affairs*. 2002 Sep 1;21(5):90-102.
- ²⁰⁹ Kennedy HP, Erickson-Owens D, Davis JA. Voices of diversity in midwifery: a qualitative research study. *Journal of Midwifery & Women's Health*. 2006 Mar 4;51(2):85-90.
- ²¹⁰ Choices in Childbirth Focus Groups with midwives of color. New York, NY.
- ²¹¹ Valentin-Welch M, Ortiz F, Loftman P. "Changing the Face of Midwifery: Increasing Ethnic Diversity of Midwives by Mentoring Student Midwives of Color through an Innovative National Mentoring Program," Presented at American College of Nurse-Midwives 60th Annual Meeting & Exhibition Washington, DC, July 01, 2015.
- ²¹² ACNM, Ensuring Access to High Value Providers: ACNM Survey of Marketplace Insurers Regarding Coverage of Midwifery Services. September 2014.
- ²¹³ ACNM, Ensuring Access to High Value Providers.
- ²¹⁴ Kinzelman C, Bushman J. ACNM. Presentation. Understanding Your Practice Environment: Making an Informed Decision About Where to Work 2015.
- ²¹⁵ Levine A. The best and worst states for ob/gyn practice: a professional liability perspective. *Contemporary OB/GYN*. Apr. 6, 2015. Available at: <http://contemporaryobgyn.modernmedicine.com/contemporary-obgyn/news/best-and-worst-states-obgyn-practice-professional-liability-perspective-0?page=0.1>. Accessed 10/14/17.
- ²¹⁶ Section 1833(a)(1)(K) of the Social Security Act requires that CNMs be paid by the Medicare program at 100% of the physician rates.
- ²¹⁷ American College of Nurse-Midwives. State Fact Sheets. Accessed at <http://www.midwife.org/acnm/files/ccLibraryFiles/Filename/000000005600/ACNMStateFactSheets8-21-15.pdf> on Oct. 27, 2017.
- ²¹⁸ ACOG/ACNM. Joint Statement of Practice Relations. 2011.
- ²¹⁹ American College of Nurse Midwives. Unpublished presentation, How the midwifery model of care can save money for New York Medicaid plans." Available from author on request.
- ²²⁰ American College of Obstetricians and Gynecologists. Committee on Obstetric Practice. Approaches to limit intervention during labor and birth. Committee Opinion No. 687. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2017;129:e20–8. Accessed at <http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Approaches-to-Limit-Intervention-During-Labor-and-Birth> on Oct. 30, 2017.
- ²²¹ Breedlove G, Jennings J, Modeling Collaborative Leadership: ACNM and ACOG in Action, Presentation, ACNM 60th Annual Meeting, June 28, 2015. Slides on file with author.
- ²²² Obstetrics & Gynecology Clinics, Waldman and Kennedy Ed., 11 articles on Effective Collaboration (Vol 39, 3.) Breedlove G, Jennings J, Modeling Collaborative Leadership: ACNM and ACOG in Action, Presentation.
- ²²³ ACOG/ACNM. Joint Statement of Practice Relations. 2011.
- ²²⁴ MacDorman MF, Matthews TJ, Declercq E. Trends in out-of-hospital births in the United States, 1990-2012. *NCHS data brief*. 2014 Mar(144):1-8.
- ²²⁵ Martin JA, Hamilton BE, Osterman MJ, et al. Births: Final Data for 2015. *National vital statistics reports: from the Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System*. 2017 Jan;66(1):1.
- ²²⁶ Woo VG, Milstein A, Platchek T. Hospital-affiliated outpatient birth centers: a possible model for helping to achieve the triple aim in obstetrics. *JAMA*. 2016;316:1441-1442.
- ²²⁷ American College of Obstetrician Gynecologists and the Society of Maternal Fetal Medicine Specialists Consensus Statement, Levels of Maternal Care, Obstetric Care Consensus #2, *Obstetrics & Gynecology*, 2015;125:502-15. Available at <http://www.acog.org/Resources-And-Publications/Obstetric-Care-Consensus-Series/Levels-of-Maternal-Care>. Broussard DL, Sappenfield WB, Fussman C, et al. Core state preconception health indicators: a voluntary, multi-state selection process. *Matern Child Health J*. 2011;15:158-168.
- ²²⁸ Stapleton SR, Osborne C, Illuzzi J. Outcomes of care in birth centers: Demonstration of a durable model. *Journal of Midwifery Women's Health*. 2013 Jan-Feb 58(1):3-14. Thornton P, McFarlin BL, Park C, et al. Cesarean outcomes in US birth centers and collaborating hospitals: a cohort comparison. *J Midwifery Womens Health*. 2017;62:40-48.
- ²²⁹ Jolles DR, Langford R, Stapleton S, et al. Outcomes of childbearing Medicaid beneficiaries engaged in care at Strong Start birth center sites between 2012 and 2014. *Birth*. 2017;00:1-8. <https://doi.org/10.1111/birt.12302>. Accessed at <http://onlinelibrary.wiley.com/doi/10.1111/birt.12302/full> on Oct. 27, 2017.
- ²³⁰ Howell E, Palmer A, Benatar S., & Garrett B. "Potential Medicaid Cost Savings from Maternity Care Based at a Freestanding Birth Center." *Medicare & Medicaid Research Review* 4.3 (2014): mmrr2014-004-03-a06. PMC. Web. 19 May 2016. Available at https://www.cms.gov/mmr/Downloads/MMRR2014_004_03_a06.pdf. Accessed Oct. 14, 2017.
- ²³¹ New York State Department of Health Medicaid Redesign Team, A Path toward Value Based Payment: New York State Roadmap For Medicaid Payment Reform, June 2015.
- ²³² Cheyney M, Bovbjerg M, Everson C, et al. Outcomes of care for 16,924 planned home births in the United States: The Midwives Alliance of North America Statistics Project, 2004 to 2009. *Journal of Midwifery & Women's Health*. 2014 Jan 1;59(1):17-27.
- ²³³ Cheyney M, et al. Outcomes of care for 16,924 planned home births in the United States.
- ²³⁴ De Jonge A, van der Goes BY, Ravelli ACJ, et al. Perinatal mortality and morbidity in a nationwide cohort of 529,688 low-risk planned home and hospital births. *BJOG*. 2009;116(9):1177-1184. Schroeder E, Petrou S, Patel N, et al. Cost effectiveness of alternative planned places of birth in woman at low risk of complications: Evidence from the Birthplace in England national prospective cohort study. *BMJ*. 2012;344:e2292. Hutton EK, Cappelletti A, Reitsma AH, et al. Outcomes associated with planned place of birth among women with low-risk pregnancies. *Canadian Medical Association Journal*. 2015 Dec 22;cmaj-150564.
- ²³⁵ Cheyney M, et al. Outcomes of care for 16,924 planned home births in the United States.
- ²³⁶ Cheyney M, et al. Outcomes of care for 16,924 planned home births in the United States.
- ²³⁷ Cheyney M, et al. Outcomes of care for 16,924 planned home births in the United States.
- ²³⁸ Home Birth Summit Website. Accessed at <http://www.homebirthsummit.org/resources/collaboration/> on Oct. 27, 2017.
- ²³⁹ Home Birth Summit. Best Practice Guidelines: Transfer from Planned Home Birth to Hospital. Accessed at http://www.homebirthsummit.org/wp-content/uploads/2014/03/HomeBirthSummit_BestPracticeTransferGuidelines.pdf on Oct. 27, 2017.
- ²⁴⁰ Raisler J, Kennedy HP. Midwifery care of poor and vulnerable women, 1925–2003. *J Midwifery Womens Health* 2005;50:113–21.
- ²⁴¹ Cox KJ. Midwifery and health disparities: theories and intersections. *Journal of Midwifery & Women's Health*. 2009 Jan 2;54(1):57-64.