#### How Birth Providers in the United States are Responding to the COVID-19 Pandemic

Robbie Davis-Floyd, Kim Gutschow, and David A. Schwartz

Abstract: How quickly and in what ways are United States maternity care practices changing due to the COVID-19 pandemic? Our survey data indicate that partners and doulas are being excluded from birthing rooms while many mothers are isolated, unsupported, and laboring alone. Providers face changing hospital protocols, lack of personal protective equipment (PPE), and unclear guidelines for practice. In this rapid-response article, we investigate the quickly shifting protocols for in-hospital and out-of-hospital births, and examine the decision making behind these changes. We ask whether COVID-19 will cause women, families, and providers to look at birthing in a different light, and whether this offers a testing ground for future policy changes to generate effective maternity care in the face of pandemics and other types of disasters.

Keywords: COVID-19, pregnancy, birth, maternity care, obstetricians, midwives, doulas, homebirth, freebirth, SARS-CoV-2, maternal health

Robbie Davis-Floyd is Senior Research Fellow in the Department of Anthropology, University of Texas, Austin. She specializes in the study of transformational models of childbirth, midwifery, obstetrics, and reproduction, and is editor of the Routledge book series Social Science Perspectives on Childbirth and Reproduction. ORCID ID: 0000-0003-1963-6423. Contact her at: Department of Anthropology, University of Texas, WCP 4.102, Speedway Stop C3200, Austin, TX 78712, States. Email: davis-United floyd@austin.utexas.edu. **Kim Gutschow** is a Lecturer in the Departments of Anthropology and Religion at Williams College. She has researched and published on maternal and newborn health, maternal mortality, reproduction in India and the US for 20 years, and on the local dynamics of Buddhism, and community-based practices around land use, water use, and Tibetan medicine in the Indian Himalayas for 30 years. Her first book, Being a Buddhist Nun: The Struggle for Enlightenment in the Indian Himalaya (Harvard 2004) won the Sharon Stephens Prize for best ethnography in 2005, and an edited volume with Robbie Davis-Floyd is in press: Sustainable Birth in Disruptive Times (Springer Nature, Forthcoming 2021). David A. Schwartz MD, MS Hyg, FCAP is a Clinical Professor at the Medical College of Georgia in Augusta with specialization in global maternal and infant health, emerging infections, and medical anthropology. He has studied the effects of HIV, Zika virus, Ebola virus, and COVID-19 on maternal and fetal outcomes and anthropological aspects of pregnancy, and is the editor of the Springer book series Global Maternal and Child Health. ORCID: 0000-0002-7486-8545. Email: davidalanschwartz@gmail.com.

This rapid-response article seeks to describe the quick and dramatic changes occurring in birth practices across the United States resulting from the pandemic of the novel coronavirus, SARS-CoV-2, and the lifethreatening disease it produces, COVID-19. Long before the COVID-19 epidemic hit the United States, the medicalization of pregnancy led to a broad acceptance of birthing as hospital-based, where it is often treated like a dysfunctional mechanical process and the normal physiology of labor and delivery is ignored. We explore the question of how COVID-19 is causing women and birth providers to consider birth differently, given that hospitals are now, more than ever, being perceived as sites of contagion. We show that COVID-19 offers a testing ground for ongoing debates about the efficacy of maternity care and the safety of hospital versus out-of-hospital (OOH) or community births. We conclude by suggesting specific policy changes to generate effective maternity care in the face of future pandemics and other disasters that are bound to increase in our era of the Climate Crisis.

#### Summary of Questionnaire Responses

In order to address these issues, between March 27 and April 11, 2020, we queried via email members of the list servers of the Council on Anthropology and Reproduction (CAR), REPRONETWORK, and multiple birth practitioners, including midwives, doulas, and obstetricians. We received 41 responses, which we have collated below under each question we asked.

# Q. Are pregnant women expressing anxiety and fear about COVID-19 and about the possibility of contagion in hospitals or during prenatal visits? If they do fear hospitals, is that fear starting to outweigh their fear of out-of-hospital birth?

The answer to these questions was an overwhelming "Yes." Representatively, midwife and family practice physician Sarita Bennet said, "There are so many pregnant people calling all of us home birth/birth center midwives as the pandemic grows and that flurry increases with an area's increasing number of confirmed cases." All community midwife respondents noted that their current clients are very glad that they were already planning a birth at home or in a freestanding birth center.

For hospital birthers, doula Stevie Merino elaborated on another fear that results from the changing face of prenatal care:

Many prenatal appointments have been cancelled (or shifted completely to brief virtual appointments with a nurse), depending on their estimated due date or unless they are high risk, to limit exposure/risk in hospital/clinics. For 20-week anatomy screenings, only the pregnant person has been allowed to attend and not the partner or support person—to most people this has actually created more anxiety and fear about contracting and overall questioning the safety of the hospital for their birth.

In contrast, Lauren Hicks, a labor and delivery (L&D) nurse from San Antonio, Texas, stressed a fear-mitigating factor for women laboring in her hospital—that their anxiety is decreased by seeing the nurses and doctors being so cautious following strict personal protective equipment (PPE) guidelines to protect themselves and the patient.

### Q. Are you seeing an increase in homebirth and birth in freestanding birth centers?

The cumulative answer to this question was also a resounding, "Yes," including for women who are very late in their pregnancies. The differences lie in the motivating factors. Representatively, North Carolina CNM Ami Goldstein said that most families are making such decisions "out of fear of the hospital rather than a desire for homebirth." A different motivating factor for a particular group of women—those who are switching to homebirth from hospital-based nurse-midwifery practices—is supplied by midwife Jessica Willoughby, who attends births at home and in her St. Petersburg birth center. She says these women, who were already planning to have natural births in the hospital, are switching to OOH with cognitive ease:

These moms had already been planning unmedicated labors, they have all had doulas—maybe these seeds of OOH birth have been planted by their doula or maybe the new rules of only one support person and their previous plan to have their doulas with them were too much of an ideal to lose. But I haven't seen fear of disease be the motivator for these women. . . it's more the fear of losing their doula support. They all have been excellent candidates for OOH birth and had already put in the work [to achieve] a natural childbirth by taking childbirth education and hiring doulas. They may have considered an OOH birth before and this was the final push to make them decide to go with it. One mom told me that she told her doula, "If I have a fourth baby, I would have it at home." To which her doula responded, "Then why not have this baby at home?" She came into [homebirth] care at 39 weeks.

Not all women are able to make this kind of choice. Doula Stevie Merino said:

#### 4 Journal of Prenatal and Perinatal Psychology and Health

Many people who are in their third trimester are scrambling to get exceptions from their insurance (which some have successfully been able to get covered) or to find a midwife/birth center in their area. Unfortunately, there are very few birth centers and only one or two who accept Medi-Cal, so home birth midwives and birth centers are experiencing an increase in inquiries but not necessarily follow-through.

Reporter Emily Bobrow (2020) described that by the end of March 2020, several New York City birthing centers were swamped with inquiries, with a birth center in Brooklyn getting as many as 150 calls in two days, mostly from women in their third trimesters. A homebirth CNM received more requests in a day than she usually receives in a year.

Some qualified their "yes" responses in various ways. Sarita said that this increase "leaves us with trying to put a Bandaid on a broken system instead of fixing it. And it's stressing our already too-small workforce." Ami Goldstein noted that the freestanding birth centers are not just taking everyone who applies but rather "screening folks carefully." Jessica brought up racial inequities in access: "All of my late transfer requests due to the pandemic have been of white women with commercial insurance." Amy Romano stated, "I know at Vanderbilt they are diverting some of their low-risk hospital births to the birth center there, and the [inhospital birth center has done a substantial amount of planning and transformed their service model to create the capacity." Yet she worried about homebirth transfers, saying that where there are not effective linkages already, outcomes are likely to be worse, but that's likely to be the case in all settings until this crisis has passed. "The PPE and staffing issues for all settings are real, and we need to address that. One of the challenges for birth centers and home birth midwives currently is that they are not being given preference for PPE, and their normal supply chains have dried up."

Other community midwife respondents differed, saying that their supply chains are intact. In contrast to the above responses, doula Diana Snyder noted that her clients are not interested in switching to homebirth, even though she will not be allowed to be with them, "but they certainly have no illusions about the hospital being clean or safe."

#### Q. Is freebirth on the rise in your area?

In a statement referencing the insufficient numbers of homebirth midwives available, one midwife commented that she has anecdotally "heard of a not-insignificant number of women planning late in pregnancy to have unattended homebirths [otherwise known as "freebirths"] because of COVID-19, and in part because of the shortage of qualified home birth midwives."

Doula Stevie Merino, an organizer/trainer for a Doula of Color training in Long Beach, California, provides two other reasons for choosing freebirth: the costs of out-of-hospital birth and/or being too close to their due dates to be taken on by midwives. She declines requests to attend freebirths as she has no medical training and is concerned about the motivations of people who are suddenly deciding to freebirth. She states:

I've found that [in the past] most people who intentionally make the decision to freebirth [were] very attuned to their body/health/... very much making their decision from a space of empowerment and preparation, which is not what I'm seeing in these cases. Most of the inquiries I've received have clearly been from a space of fear and panic, which unfortunately is generally not the most conducive to a positive birth experience.

Our stance is that while we absolutely support people's autonomy, right to birth where/how they want and trust their bodies, and the shift to reclaim/decolonize birth—we also recognize the increased legal risk for us, as trained professionals and People of Color, if things do not go as planned (and sometimes even when they do). I do however know doulas that work with those who seek to have intentional freebirths, and generally I'll refer.

## Q. How have you changed your practices—in-hospital or out—in response to COVID-19? How have your hospital protocols changed?

Most of the responses we received to this question came from community midwives and doulas. Their major changes included more wearing of masks and gloves; sanitizing their workspace and equipment; fewer in-person visits; lots of virtual prenatal and postpartum visits often conducted on Zoom; and clients keeping their own health care records and checking their own vitals.

Betty-Anne Daviss described what midwives in Ontario, Canada are doing to limit their exposure and their clients' exposure:

At our practice, we are wearing masks even at prenatal visits, hair tied, changing shoes, limiting the number of visits and limiting each visit to minutes instead of the usual half hour to hour for each visit. doing more by phone; asking mothers to lie low the last few weeks of pregnancy with no or limited visitors, not to have more than their husbands at the births . . . switching any last instruments to plastic trays . . . wearing garments over something that can act like scrubs, taking the outer off as we leave the client's house . . . washing all of it as soon as we get home . . . and washing, washing, washing hands.

Jessica Willoughby described the changes at her Florida birth center as follows:

We clean the birth center more and wipe everything down after every visit. We are limiting the in-person visits to the schedule recommended by SMFM [the Society for Maternal-Fetal Medicine] . . . We are doing phone visits. We are asking only one support person to come to visits and that they leave kids at home if possible . . . We don't require doulas but we also aren't limiting them. I think that the doulas are helping give information to the families about their choices in OOH birth . . . Hilarious to me that now ACOG wants to connect with OOH providers in the community if they meet some guidelines (always a catch). Now [after persecuting midwives like me], you want me during a pandemic!

Lauren Hicks' response is representative of those from hospital-based personnel:

So many things have changed so quickly. . . The main change for me as a L&D nurse has been to wear PPE to protect myself and my patients. For example, I wear an N-95 mask, goggles, and a OR hat for the whole 12-hour shift. I also change into scrubs when I arrive at the hospital. Before I leave, I change back into my regular clothes and change my shoes. Also, I try to decrease the number of times I go into my patient's rooms in order to decrease exposure to them and to myself.

We have not had many COVID-19-positive patients on our unit yet, but if we have one that comes in in active labor, the protocol is to separate the infant and mother immediately—there will be no skinto-skin or breastfeeding . . . Additionally, most of the obstetricians have expressed that if a patient comes in in active labor and is COVID-19-positive, they will want to deliver by cesarean section so the birth can be more controlled and less people will potentially be exposed . . . Most obstetricians have been sending their postpartum patients home from the hospital after one day in an attempt to decrease exposure.

Hick's response begs the question, will we soon be seeing an intensification of the overly interventive technocratic treatment of birth in the form of an increased amount of medically unnecessary labor inductions and rapidly rising cesarean rates?

### Q. Are doulas and partners being excluded from the birthing room in your area? If so, how is the exclusion of partners and doulas affecting laboring women/people?

It took decades of effort for birth activists and humanistic practitioners to get fathers/partners, and later doulas, routinely allowed in labor and delivery rooms. Now, in what California homebirth obstetrician Stuart Fischbein calls a "reflex reaction," as we have seen in our responses, these efforts are being undone. Partners and doulas are being completely excluded in some hospitals, while in others the birther must choose either partner or doula but not both. In New York state, the organization Change.org rapidly circulated a petition to prevent this exclusion and received over 600,000 responses. Governor Andrew Cuomo, who had, on March 27, 2020, issued Executive Order 202.11 allowing midwives licensed in another US state or Canadian territory to practice in New York until April 26, on March 28 issued Executive Order 202.12:

Any article 28 facility [public hospitals & nursing homes] licensed by the state, shall, as a condition of licensure permit the attendance of one support person who does not have a fever at the time of labor/delivery to be present for a patient who is giving birth. (State of New York Executive Chamber, 2020)

While New York state explicitly recognized the importance of allowing a support person to attend a woman in labor, other states do not. While many of our respondents confirmed that their hospitals are now allowing only one support person to attend during labor, some are limiting the partner to delivery alone. Stevie Merino, a California doula, notes that the measures limiting support people for labor and birth will have negative impacts on maternal well-being and mental health:

I have already had clients . . . who made the decision to have me there as their doula rather than the other parent for advocacy and support. The long-term implications of these measures and experiences on people's mental health and increase in postpartum mood disorders are going to be overwhelming. For many postpartum units, no visitors are allowed, which means the doula or whoever else is their one "visitor" has to leave after the birth . . . If baby is taken to the NICU, many hospitals . . . are not allowing any visitors including the birthing

person. The implications on the health of babies and parents are depressing to think about, truly.

Other respondents also noted the tremendous stress and anxiety pregnant people face when making this decision about who their one support person will be—and its long-term consequences, which can include postpartum depression from being completely left alone after birth. As Merino describes, many hospitals are making the support person leave immediately after the baby is born, even if the new mother has had a cesarean section and very much needs postpartum support.

The exclusion of doulas/partners is also negatively impacting hospital staff, who have reported to us that they miss the help provided and feel badly that they are unable to give one-on-one support to laboring and postpartum people. Anita Chary, an anthropologist and emergency medicine physician, argues that the measures about excluding support people are intended to keep providers safe from contagion by their patients, even as she recognizes that these measures are disruptive to bonding and maternal well-being:

Hospital policies about limiting visitors are truly designed to protect the public from a highly contagious virus. They are not at all designed to cut people off from important social supports, especially during such incredible biopsychosocial processes like childbirth. They are not designed to be cruel. They are designed to flatten the curve. It is such a difficult decision to limit visitors, including on L&D floors and emergency units. But, at a time that we health care workers don't have sufficient protective equipment, and during which many of us are getting sick from working in the hospital, we truly want to keep our patients and their family members from getting coronavirus. And, as community transmission is high, we want to keep visitors from bringing it into the hospital.

Homebirth midwife Bayla Berkowitz noted that people switching to homebirths, where they can have both a doula and their partner, is one effect of this exclusion. Ami added that "the majority of people hiring doulas are well-off, educated, so this is affecting a specific portion of the population." Jessica stated, "I think the doulas are helping give information to the families about their choices in OOH birth." Some of our responses indicate that some doulas are supporting their clients virtually during their labors via iPads or smartphones.

Q. Are your local hospitals becoming more supportive of out-of-hospital birth, or are they more adamant than ever that birth should take place in the hospital? If so, what forms does that opposition take?

Stevie Merino provided a representative response:

The clients I have who have expressed their desire to move to birthing centers or midwifery care have all been [discouraged] by their doctors about the "risk" of birthing outside of hospital, and one even mentioned that when they have to be transferred from the birth center to hospital for an emergency, they will have to be taken in an ambulance, increasing their risk of COVID-19 to them and baby, so should just birth in hospital to be safe! Hopefully, this is not the tone of all doctors/hospitals, but I'm not optimistic that the medical model attitude has changed much in this month [March-April, 2020].

And indeed, the "medical model attitude" in general has not changed much. In times of crisis, it is common to revert back to original or most deeply-held belief systems (Davis-Floyd, 2018). In obstetric practices, we are seeing this sort of cognitive reversion, as medical practitioners deny the logic of community birth during this pandemic, "circling the wagons" in favor of intensifying the technocratic treatment of birth (Davis-Floyd, 2001, 2003). One Austin obstetrician commented: "I always thought homebirthers were nuts. Now with this pandemic, I am losing patients to homebirth midwives and birth centers, despite the fact that I tell them that those are completely irresponsible and badly informed choices. Today more than ever, the hospital is the safest place for birth."

We respectfully disagree, as do many across the US who have worked to integrate community births into the US maternity care system. Jessica Willoughby reports, "We have a very supportive university-based midwifery practice and most of my transfers have come from there. And the patients are telling me the providers are telling them things like, 'Excellent, you are a great candidate for OOH birth.' I've had other moms tell me the same thing from other practices as well."

#### Systemic Flaws Revealed

Many of our respondents reported that, even as providers, they had to beg or plead for testing—a situation that demonstrates the unpreparedness of the US maternity care system for a pandemic and reveals its flaws. While Columbia University's Irving Medical Center in Manhattan, a private maternity facility, is testing all women they admit in labor, regardless of their symptoms, providers at public facilities across the city are struggling to have themselves or their clients in labor tested (Bobrow, 2020). The unequal access to safe and high-quality maternity care within the US has only been exacerbated by the COVID-19 virus.

Long before COVID-19, Black women were dying of pregnancy-related causes at three times the rate of White women (Eichelberger et al., 2016),

while infant mortality was 2.3 times higher for Black infants as for White infants (Davis, 2019). In New York City, systemic racial bias has long produced worse maternity and health outcomes overall for women of color and other minority groups (Bridges, 2011). While the data is still being collected in the early months of COVID-19 in the US, there is significant evidence that Black individuals in general are already dying at disproportionate rates and that racial bias is preventing access to timely care and effective screening, while magnifying existing health inequities (Eligon et al., 2020). In Chicago, by early April, 2020, statistics suggested that Black individuals made up 72% of all virus-related fatalities and over half of those who tested positive in the city, while making up only onethird of its population (Eligon et al., 2020).

#### **Conclusion: The Larger Picture**

In the larger picture, we place the COVID-19 pandemic in the context of other disasters such as earthquakes and volcanic eruptions, as well as increased superstorms resulting from the Climate Crisis—all of which present massive challenges to maternity caregivers. Davis-Floyd et al. (2020) have shown that maternity care systems that worked in immediate disaster aftermaths and beyond revealed the lack of need for technological surveillance and intervention and highlighted the much more pressing need for skilled, low-tech, high-touch midwifery care with basic equipment and obstetric backup when possible.

#### Motivating Factors for Switching to Community Birth

In sum, the factors that motivated many pregnant people to switch from planned hospital to planned OOH births included:

- fear of the hospital as a site of contagion;
- fear of contagion during prenatal visits;
- a desire for natural childbirth; and
- the strong desire to have both partner and doula present at their births and postpartum.

Impediments to switching included:

- the inability to find a community midwife or birth center that would accept them:
- lack of insurance coverage and the costs of out-of-hospital birth; and
- being too close to their due dates or having risk factors that did not make them good candidates for community birth.

#### Recommendations: Decentralize Maternity Care and Provide Greater Autonomy for Midwives

The lack of access to OOH/community births pushed some families to choose freebirths with no practitioners present. The current rises in both freebirths and community births are revealers<sup>2</sup> of how ill-equipped our current maternity care system is to deal with pandemics or other disasters. For this reason, we strongly recommend the overall decentralization of maternity care in the US, on the basis of the excellent results achieved by certified professional midwives (CPMs) and certified nurse-midwives (CNMs) who attend OOH births, as documented in two large-scale prospective studies (Johnson & Daviss, 2005; Cheyney et al., 2014). We further support the recommendations for adapting birth to the COVID-19 pandemic that were made by the Foundation for the Advancement of Midwifery on March 23 (FAM, 2020).

CPMs are legal, licensed, and regulated in only 35 states and are not allowed to practice in hospitals. To achieve greater birth decentralization, they should be licensed in the 15 holdout states and allowed and encouraged to have close relationships with hospitals in case of a need to transfer care. Such transfers should follow the "Best Practice Guidelines: Transfer from Planned Homebirth to Hospital" created in 2013 by the US Homebirth Consensus Summit, which was comprised of obstetricians, family medicine physicians, midwives, consumers, women's health advocates, and nurses (Homebirth Consensus Summit, 2013). CNMs should be granted greater autonomy, including the ability to practice without need of official physician backup. Midwives' general lack of autonomy, along with the lack of licensure in 15 states that plagues the CPMs practicing there, reveal some of the fractures and fissures in our maternity care system.

It is our hope that this fractured US maternity care system will rapidly become more integrated, including community midwives as fully recognized participants in that system, and intensively supporting homebirth and freestanding birth centers, de-racializing and equitizing access to them by covering them under government insurance. Midwifery and doula care should be available to all and covered by Medicaid or insurance. The midwifery model of care, with its emphasis on caring, compassion, hands-on skills, and facilitating the normal physiology of birth, should prevail over the technocratic model of care. Instead of defending a model that causes iatrogenic harm, we hope that obstetricians will become more aware and accepting of the high value and cost-savings of midwifery care and community births. Only then will an integrated maternity system be ready for the massive challenges that future pandemics and the Climate Crisis may present.

#### Acknowledgments

We sincerely thank all those busy practitioners who took the time to respond to our email questionnaire.

#### **Endnotes**

- 1. This article is abridged, adapted, and updated from "Pregnancy, Birth, and the COVID-19 Pandemic in the United States" by the same authors, which will appear in *Medical Anthropology* (in press).
- 2. We take this term "revealers" from Ivry, Takaki-Einy and Murotsuki (2019).
- 3. These Guidelines can be found at www.homebirthsummit.org/wp-content/uploads/2014/03/HomeBirthSummit\_BestPracticeTransf erGuidelines.pdf

#### References

- Bobrow, E. (2020, April 1). A chaotic week for pregnant women in New York City. *The New Yorker*.
- Bridges, K. (2011). Reproducing race: An ethnography of pregnancy as a site of racialization. University of California Press.
- Cheyney, M., Bovbjerg, M., Everson, C., Gordon, W., Hannibal, D., & Vedam. S. (2014). Outcomes of care for 16,924 planned home births in the United States: The Midwives Alliance of North America statistics project, 2004 to 2009. Journal of Midwifery and Women's Health, 59(1), 17-27. https://doi.org/10.1111/jmwh.12172
- Davis-Floyd, R. (2001). The technocratic, humanistic, and holistic paradigms of childbirth. *International Journal of Gynecology & Obstetrics*, 75(S1), 5–23.
- Davis-Floyd, R. (2003). Birth as an American rite of passage. University of California Press.
- Davis-Floyd, R. (2018). Open and closed knowledge Systems, The 4 stages of cognition, and the cultural management of birth. Frontiers in Sociology, special issue on Gender, Sex, and Sexuality Studies, 3, 23. https://doi.org/10.3389/fsoc2018.2018.0023
- Davis-Floyd, R., Penwell, V., Lim, R., & T. Ivry, T. (2020). Sustainable birth care in disaster zones: Low-tech, skilled touch. In: *Birth in Disruptive Times: Sustainable Solutions*, K. Gutschow, R. Davis-Floyd, and B-A. Daviss, (eds.). Springer Nature.
- Davis, D-A. (2019). Reproductive injustice: Racism, pregnancy, and premature birth. NYII Press

- Eichelberger, K.Y., Doll, K., Ekpo, G.E., & Zerden, M.L. (2016). Black lives matter: Claiming a space for evidence-based outrage in obstetrics and gynecology. *American Journal of Public Health*, 106(10), 1771-1772. https://doi.org/10.2105/AJPH.2016.303313
- Eligon, J., Burch, A.D.S, Searcey, D., & Oppel, Jr., R.A. (2020, April 7). Black Americans face alarming rates of coronavirus infection in some states. The New York Times. https://www.nytimes.com/2020/04/07/us/coronavirusrace.html
- FAM (Foundation for the Advancement of Midwifery). (2020, March 23). FAM Statement on out-of-hospital birth and pandemic planning. https://formidwifery.org/
- Homebirth Consensus Summit. (2013). Best practice guidelines for transfer from planned home birth to hospital. www.homebirthsummit.org/wp-content/uploads/2014/03/HomeBirthSummit\_BestPracticeTransferGuidelines.pdf
- Ivry, T., Takaki-Einy, R., & Murotsuki, J. (2019). What disasters can reveal about techno-medical birth: Japanese women's stories of childbirth during the 11 March, 2011 earthquake. *Health, Risk & Society, 21*(3-4), 164-184. https://doi.org/10.1080/13698575.2019.1643827
- Johnson, K.C., & Daviss, B-A. (2005). Outcomes of planned homebirths with certified professional midwives: Large prospective study in North America. British Medical Journal, 330(7505), 1416. https://doi.org/10.1136/bmj.330.7505.1416
- New York State Taskforce on Maternal Mortality and Disparate Racial Outcomes. (2019, April 7). Recommendations to the governor to reduce maternal mortality and racial disparities. https://www.gnyha.org/news/governor-releases-recommendations-from-the-new-york-state-taskforce-on-maternal-mortality-and-disparate-racial-outcomes/
- State of New York Executive Chamber. (2020, April 6). Executive Order No. 202.11 & Executive Order No. 202.12. https://www.governor.ny.gov/executiveorders