AMERICAN HOME BIRTH IN THE 21ST CENTURY: IMPLICATIONS ON HEALTH AND CULTURE

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ABSTRACT

Every year more and more families are choosing home birth over the hospital. There is a growing movement, in person and online, of parents opting-out of hospital birth, sharing their stories, and encouraging others to do the same. At the same time, the United States is reckoning with its abysmal maternal mortality rates- the majority of which are the result of poor management of dangerous pregnancy complications. How can these two phenomena exist within the same social and cultural conversation? The landscape of home birth in the United States is complex. Data on the safety of home birth is limited, but it appears to be more dangerous than hospital birth. Further complicating the picture is a fractured, private American healthcare system, but families choosing to birth at home are highly motivated to navigate through it. We present multiple theories to explain why so many birthing people are opting for the home, some of which include feminist philosophical arguments, the romanticization of birth, the contemporary all-natural movement, and a strong distrust of our racist medical system. These arguments shed light on the flaws and inadequacies of our maternal healthcare system, and as a medical community we must actively work to alleviate them. We need to nationally and locally address maternal safety and implement practices to dismantle systemic racism within our institutions. While we address maternal mortality, we must also take steps to make home birth an equally safe option for parents who choose it.

To my parents, Tim and Linda,

Who showed me that the best

Traits to have are a

Kind heart and a good work ethic

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TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

DISCLOSURE

For the sake of expediency and consistency, I use the term “women” or “mom” to refer to a pregnant person experiencing birth. Not all people experiencing pregnancy and birth identify as women. It is a great oversight by the field of Obstetrics to ignore that trans men and gender non-conforming individuals endure pregnancy and birth, and we should all make efforts to modify our language accordingly.

CHAPTER 1: INTRODUCTION

In the United States over 3.7 million babies are born every year (Martin 2019). By the time they are 44 years old 88% of women in the US will have had a biological child (Martinez 2018). Pregnancy and childbirth are common experiences. They are so common that what was once a perilous time in a woman's life is now, for the vast majority of women, a joyful milestone. But pregnancy has not always been safe, and for some women and children in our modern era it still carries increased risk for morbidity and mortality. Birth used to happen solely in the home. Then with the advent of modern Obstetrics, the location of birth shifted to now primarily in the hospital. There has been rising interest most recently to revert back to the home for birth and forego medical intervention during labor. Famous celebrities, such as Gigi Hadid, have made headlines sharing their glamorous home birth stories (Malle 2021). Birth centers, a most recent invention, provide a middle ground between the hospital and the home. Another related phenomenon occurring in the same moment- recent pop culture has drawn attention to the shocking US maternal mortality rate, which is higher than any other developed nation. The cause for this primarily comes from the high maternal mortality rate for Black women, who are at least 4x more likely to die in childbirth than white women. How are these two phenomenon, maternal mortality and rising home birth, related and how can we reconcile them while maintaining patient autonomy? What are the motivations behind the culture shift to home birth and what is the current state of home birth in the United States?

Home Birth in the United States

An increasing number of people are choosing to birth at home. Initially declining in the 1990s and early 2000s, planned out of hospital birth has been steadily on the rise. The American

College of Obstetrics & Gynecology (ACOG) estimates that 35,000 births (0.9%) occur in the home annually, increasing 77% from 0.56% of total births to 0.99% total births in 2004 to 2017 (ACOG Committee Opinion Number 697). But due to lack of regulation around home birth, there are variations and omissions in the data. One study found that 35,578 births occurred outside the hospital in 2004 versus 62,228 births in 2017- meaning 1 out of every 62 births, or 1.61% of births, occurred outside the hospital in 2017 (MacDorman 2019). This study estimated 85% of home births were planned. Within the same time period birth center births more than doubled (0.23% to 0.52%).

Who are these patients opting into home births? While rates of home birth have risen nationally, certain geographic areas of the United States saw more growth than others. Out of hospital births are more common in the Pacific northwest and less common in the Southeast (ie Alabama, Louisiana) (MacDorman 2019). Non-Hispanic Whites have the highest rates of out of hospital births; from 2004 to 2017 their rate doubled from 1.2% of total births to 2.43% occurring at home. Native American have the second highest rate of home birth, followed by non-Hispanic Blacks, who have shown a sharp increase (76%) in the past few years. The overall increase in home births seen nationally was mostly due to non-Hispanic whites, who accounted for 81% of the increase.

The birth experience, while it has existed since the dawn of man, has come a long way in the past 100 years in terms of safety, yet it still remains more dangerous than most lay people believe. The American College of Obstetrics and Gynecology believes “hospitals and accredited birthing centers [are] the safest settings for birth” and recommends against planned home birth, though further states that each woman has the right to make an informed decision on her birthing location (ACOG Committee Opinion Number 697). Absolute contraindications to home birth

include conditions with significantly increased risk of danger to mother or baby such as twin or triplet pregnancy or prior cesarean-section. Low risk women without these conditions may be appropriately counseled, utilizing the tools of harm reduction, about safe avenues of home birth.

Home birth is associated with fewer maternal infections and fewer vaginal tears. It is also associated with fewer medical interventions (fewer labor-inducing medications, epidural anesthesia, episiotomies, and cesarean-sections) (ACOG Committee Opinion Number 697). Medical providers and patients alike are motivated and invested in lowering rates of labor intervention. In recent years high rates of c-section across the nation (in 2011 about one in three women gave birth via cesarean delivery, up from approximately one in five women in 1996) have been scrutinized and denounced by the medical community. High c-section rates without a concomitant decrease in maternal or neonatal mortality indicate unnecessary operations. National medical guidelines have specifically called for efforts to lower cesarean-section rates (ACOG Obstetric Care Consensus 1).

Some patients may have a personal preference for an unmedicated labor experience- which should be respected. Pregnancy and birth are deeply personal and individual- birth providers at all levels should be uniquely cognizant of this. There is debate, however, over whether it is truly the *location* of birth which results in lower intervention numbers. Midwives attend the lion's share of all home births. Even in the hospital setting midwife-led care is associated with lower rates of medical intervention. Parous women (women who have given birth at least once already) make up the majority of people giving birth at home, and they are known to have faster births with fewer complications requiring intervention. Variations in birth attendant and patient history may partly account for the differences seen. We can all agree that unnecessary intervention is bad, but not all intervention is unnecessary or unwarrented. C-

sections and labor enhancing medications can protect the health and safety of women and children at one of the most vulnerable moments of their lives.

The best data available in the United States show higher rates of neonatal mortality when birthing outside the hospital. This is particularly alarming because the rates are expected to be lower since only low-risk patients should be giving birth at home. North American and international data confirm increased risk of perinatal death for women with any complication of pregnancy, including chronic maternal disease, disease occurring since the onset of pregnancy, preterm birth, late term birth, or twins/triplets/etc. pregnancy (ACOG Committee Opinion Number 697, Cheyney 2014). In low risk patients the American College of Obstetrics and Gynecology reports planned home birth is associated with double the risk of perinatal death with 1.3 per 1,000 intrapartum fetal deaths (death between the onset of labor and birth) and 0.76 per 1,000 neonatal deaths (death between birth and the first 28 days of life) in the home birth setting versus 0.4 per 1,000 and 0.17 per 1,000 in the hospital setting, respectively. One study in 2015 published in the New England Journal of Medicine found home birth was associated with over double the risk of perinatal death (3.9 vs. 1.8 deaths per 1000 deliveries, p=0.003) even when correcting for maternal characteristics and medical conditions (Snowden 2015). Home birth is also associated with triple the risk of neonatal seizure or severe neurologic dysfunction. The absolute risk increase is approximately one neonatal death per 1,000 non-anomalous live births, which is relatively low, but there are over 60,000 babies born every year at home (American Academy of Pediatrics 2013). If we do the math, at least 60 of those babies will die.

Though ACOG recommends against home birth, the American College of Nurse-Midwives (ACNW) and the North American Registry of Midwives (NARM) support the right for low-risk women to give birth at home. US data supportive of home birth, and frequently cited

by NARM, show equilvant maternal and neonatal mortality between home versus hospital birth. So which studies are more accurate? Upon further investigation, many of pro-home birth studies inaccurately cite a higher intrapartum and neonatal death rate for low-risk women with hospital births (Cheyney 2014, Johnson 2005, Wax 2014). They then inadvertently concluded there is no significant difference between the groups. There are international studies which we can look to for favorable home birth outcomes- they are not, however, generalizable to the US population (de Jogne 2015, Janssen 2009, Kennare 2010). They typically involve home births within tightly regulated and integrated hospital systems attended by highly trained midwives with safe, timely hospital transport if necessary. The individualistic, private healthcare system in the United States is rarely positioned to be this efficient.

About a quarter to a third of first-time mothers planning for home birth will need intrapartum transfer to a hospital. This occurs for a variety of reasons, including but not limited to bleeding, need for pain control, failure to progress in labor, and fetal distress (ACOG Committee Opinion Number 669). Large-scale studies performed in foreign countries, such as Denmark and Canada, are able to show the safety of home birth with hospital transfer, but differences in insurance coverage and integrated medical networks between US and the rest of the world question the utility of such a comparison (de Jonge 2015, Janssen 2009). In other countries the home birth provider and labor experience are well integrated into the local health system. Facilitating this connection, these countries have established strict criteria and provisions for intrapartum emergency transport. Hospital systems in the United States do not seek out connections to grow nor have a foundational structure for a home birthing network. Whether this is due to lack of awareness or purposeful medical hesitancy around home birth is unclear- the reality is likely due to both. Additionally, complicating the US home birth scene is the large rural

population, many of whom live a substantial distance from an obstetric unit (ACOG Committee Opinion 586). In 2013 less than half the women living in rural counties were within a 30-minute drive to the closest hospital with a maternity unit (Rayburn 2012). Obstetrical services are expensive for hospitals to maintain, and rural hospitals are closing their maternity floors in increasing numbers. From 2004-2014, the percent of rural counties with an obstetrics unit decreased from 55% to 46%, leaving over half the rural counties in the US, which serve over 18 million women of reproductive age, without maternity services (Hung 2004). Longer intrapartum transfer times for any reason, be it professional connection or geography, increase the potential for adverse outcomes.

Plethora of Providers

Another stark difference between the US and countries with reputably safe home birth is the availability of highly trained midwives. Choosing a provider for home birth is an incredibly complex challenge, primarily due to the large variety of potential providers with varying levels of training. There are non-medical birth professionals which can assist in the labor process. Notably, doulas have gained recent popularity. A doula is a support person during pregnancy and labor who may function as a coach, cheerleader, and/or advocate. There are plenty of data supporting the benefits of having a doula during childbirth. Of course family members, significant others, and friends of the pregnant patient are all instrumental in the birthing process in regards to emotional support. Another group of people should be mentioned in this category; they are rare but need to be addressed. As will be described later, there are a variety of different kinds of midwives, differentiated by their specific training and the governing bodies who credential and certify them. There are other midwives who advertise themselves as midwives but

are not certified by the American College of Nurse-Midwifery nor the North American Registry of Midwives (the two main bodies of midwifery in the United States). These unliscence midwives attend births without legal professional recognition.

There are also, of course, medical professionals who attend births. These actors play a crucial role in ensuring the safety of both mother and baby, and they may coach the mother through delivery. First in this category are family medicine and obstetrics-trained physicians, which may be either M.D.s or D.O.s. There are also Certified Nurse Midwives (CNM) and Certified Midwives (CM). These clinicians are represented and credentialed by the American College of Nurse-Midwives. A Certified Nurse Midwife has a nursing background and has completed a graduate midwifery training program which included both didactic and clinical education. They are licensed in all 50 states plus the District of Columbia and their services are reimbursed by Medicaid in all states/territories where licensed. Certified Midwifes have no nursing training, but completed undergraduate education then enrolled in a Certified Midwife graduate training program. These providers are relatively new and as such their credentials are recognized in only Delaware, Hawaii, Maine, New Jersey, New York, and Rhode Island. Both CNMs and CMs may practice in all birth settings in the states they are licensed. Both CNMs and CMs are certified by the American Midwifery Certification Board (AMCB). ACOG and the American Academy of Pediatrics (AAP) endorse home birth "only by midwives who are certified by the American Midwifery Certification Board" (ACOG Committee Opinion Number 697).

Another type of midwife is a Certified Professional Midwife (CPM). Their training is apprenticeship-based and credentialed by the North American Registry of Midwives. To enter this course of study, applicants must have a minimum educational attainment of high school or

its equivalent. Training and educational programs are accredited and certified though NARM. Training may be obtained through a variety of routes; it is primarily an apprenticeship process that includes verification of knowledge and skills by qualified preceptors. Per NARM's website, CPMs have an educational philosophy of "competency-based credentialing", to then allow graduates the freedom to work as "autonomous health professionals." Unlike CM and CNM, training for CPM is solely based in the outpatient and home setting. Certified Professional Midwives attend the vast majority of home births, and they do not work in hospitals (MacDorman 2019). CPMs are legally able to attend births at home or at a birthcenter in the 33 states which have legal avenues for licensure. Medicaid will provide reimbursement for their services in 14 states. In three states plus DC the practice of Certified Professional Midwives is illegal. Many states have left the legal status of CPMs unregulated with no legal definition or variable judicial interpretation. As it is difficult to find data on the outcomes of home birth, it is additionally difficult to find data on specific home birth attendants, but one study from 2013 found that unlike CM and CNM, home birth at the direction of CPMs is associated with higher rates of neonatal morbidity and mortality (Cheng 2013). As previously mentioned, CPMs are not usually permitted to practice in the hospital setting, thus they may be less familiar with the hospital environment and have a greater reluctance to transfer patients emergently. It has been postulated that this unfamiliarity could be related to these adverse outcomes.

For all out-of-hospital births, it is estimated that 4.3% are attended by physicians, 34.1% are attended by CNM/CMs, 41.2% are attended by another type of midwife (likely CPMs), and 20.3% are attended by "other". Some studies estimate a quarter of out-of-hospitals births are unattended (ACOG Committee Opinion Number 697).

American Maternal Mortality Crisis

Let us turn our view to the issue of Americas maternal mortality crisis in relation to home birth. Though, as stated previously, an obstetrician would rarely recommend home birth, the option of home birth should preferentially be discussed with low risk women. But because no one can (or should) be forced to give birth in a hospital against their will, high risk pregnancies do occur in the home and birth-center settings. Attempting vaginal birth after caesarean section (VBAC) is carries incredible risk and is most safely managed in the hospital setting where emergency repeat surgery in the setting of maternal or fetal distress is easily accessible. In 2017 "4.2% of planned home births were vaginal births after cesarean (VBAC), compared to 1.7% of birth center, and 2.0% of hospital births" (MacDorman 2019). There are a myriad of complications which may occur to women trialing labor after c-section (TOLAC)- the most feared of which is uterine rupture. This occurs when the scar tissue formed by the prior surgery (scar tissue being weaker and less elastic than normal uterine tissue) rips apart from the increased stress during labor. Uterine contents, including the neonate, can spill into the abdominal cavity. This is an obstetrical emergency and requires immediate surgical delivery to save life of mom and baby. The incidence of uterine rupture is comparatively small, but the consequences if it does happen are disastrous, including massive blood loss, infection, emergency hysterectomy, and fetal and/or maternal death.

Absolute numbers related to morbidity and mortality in the obstetric population are low, but the most recent data from CDC showed maternal mortality increased over the past decade in the general US population (MacDorman 2016). In the US, there are an average 17.3 maternal deaths per 100,000 live births. This is in stark contrast to the UK where the rate is 7 per 100,000 live births, or Canada where the rate is 10 per 100,000 live births, or in the Netherlands where its

5 per 100,000. The CDC went a decade having *no* national numbers (only estimates) on the rate of maternal mortality due to changes in the way maternal deaths were categorized. As previously mentioned, this high general US rate is primarily due to the high Black maternal mortality rate- which is distressing, yet unsurprising given the generational oppression of the Black community. We have a maternal mortality crisis, and we also have families preferentially opting for limited medical care during delivery. How we can be in a society which is both asking to disengage birth from the medical system, yet at the same time reckoning with blatant failure of that system?

CHAPTER 2: WHY CHOOSE HOME BIRTH?

Given what the medical community knows about home birth and the recent extra concern for maternal safety, why are families choosing home birth over the hospital?

Romanticization of Birth

The natural birth movement and the consequent romanticization of natural birth are a large part of why women have been turning to the home for birth. Much of the natural birth movement is rooted in a rejection of medical culture and within that there is a strong desire for birth as a social, rather than medical event (Dailey 2020). Popular social, collective conceptions of birth before the 1800s (and before medical intervention) are highly romanticized. Qualitative research on women choosing home birth describe the pre-medicalized birth experience as "restoration of the old ways of birth care" and an "event that foregrounded female camaraderie and support, close social bonding, and the emotional experience of welcoming a new member into one's family."

This idealization remembers the beautiful parts of premedical birth and forgets its commonplace dangers. It overlooks how modern medicine has revolutionized the safety and social perception of pregnancy. Most available records from the premedical era are from upper-class, white women in colonial American society, which biases our perception but can provide some insights and understanding. Before the 1800s birth took place primarily in the home, was attended by a female midwife, and was, indeed, a large social bonding event. Women gave birth in their bedrooms, surrounded by female friends and family. These supporters would remain in the days and weeks following birth to offer emotional and material support in the form of childcare or wisdom. But early in the 1800s the growing clinical medical system redefined

pregnancy and birth as part of routine medical care under the direction of (majority male) physicians. Some would say clinical medicine redefined birth and the peripartum periods as "pathological."

The pre-medicalized birth was certainly a feminine bonding event, but it was not without its perils. Arrangements made before labor were quite akin to preparations in the event of death. This included writing letters to loved ones, arranging childcare in the event the mother would die and the child (or older living children) would survive, and organizing one's financial affairs. Maternal mortality was quite high at 900 deaths for 100,000 live births (the 2017 rate was 17.4). The woman who had never lost a friend or relative in childbirth was rare. The outpouring of support and love from female family and friends during labor bolstered a women's spirits against the hazards of labor. Women found comradiere and mutual support with each other while living under the oppression of aggressive patriarchy and in a state of near constant pregnancy. Romanticizing birth misremembers the past. It forgets the need for skilled birth attendants and medical intervention to mitigate the pain and danger of pregnancy.

Popular conceptions have the power to shape both the choices we make in seeking medical care and the experience of that care. The midwife is upheld as a symbol of the "old ways" of birth. But this again is a misunderstanding. While the modern midwife incorporates a personalized, holistic healthcare approach reminiscent of the old days, they are and should be an integrated part of the 21st century healthcare system- utilizing the latest biomedical understandings of disease.

"Natural is Best"

Another reason for the rise in popularity of home birth is the recent pop culture contemporary obsession with all things "natural" and "organic." It is a strongly held belief, augmented by social media, that natural products (the definition of which is arguably ambiguous) are inherently better for the human body. But there are plenty of unnatural things which are quite good for the body: Band-Aids and multivitamins. And there are plenty of natural things which are toxic to the body: water from a stream infected with bacteria, soil in the backyard crawling with tapeworms and parasites. To find the origins of society's current fixation with "natural", we must look broadly at the anti-science movement.

The modern anti-science movement has also been called the anti-intellectualism or anti-rationalism movement. A large manifestation of this campaign is a general diminished faith in "experts." Resistance to intellectual authority finds natural roots in the US, with its foundational principles of liberty, equality, and egalitarianism. Americans have always been and are proud of their anti-elitist attitudes. But the meaning of Democracy gets blurry- it is a political system ensuring equality of individual *rights* before the government. It does not ensure equal talent, ability, or knowledge. And it does not mandate every opinion hold equal weight in public discourse. "We think expertise is this very exclusionary idea, which it is, because it's supposed to be: Not everybody gets a vote on how to fly the plane," said Tom Nichols, who wrote about the trend in his 2017 book, The Death of Expertise. The internet has given the common person access to more information than ever before. It gives the *illusion* of knowledge when people are more accurately cherry-picking their sources.

The American political Right receives the majority of media attention for its anti-science policies around climate change, COVID-19, public health, evolution, sexual health, etcetera. But the Left is also dabbles in anti-science and pseudo-science rhetoric (Berezow 2014), and it is in

the left-wing anti-science community where we may find home birth proponents. The left proclaims itself as the "pro-science" party, but they are also guilty of policies not based in any science. Scare mongering over chemicals known to be safe, a fixation on organic produce, and tolerance of the anti-vaccine movement- all things propagated by the Left but all quite unscientific.

The modern natural movement rests on the emotionally convincing yet unscientific belief that natural things are good for you (and consequentially, unnatural things are bad for you). The fear of chemicals has become a hallmark of progressive policy in recent years. Portland, Oregon is today, in 2021, the largest metropolitan area in the country still without fluorinated water (Camhi 2020). Water fluorination is a fantastic public health triumph. It drastically reduces cavities, especially in children whose parents are unable to afford frequent dental visits. The safety and efficacy of fluoride in the water is quite well accepted among the medical and public health communities since its invention in the 1940s. But Oregon has one of the worst rates of child dental health in the country. Multiple attempts have been made by the city council and public health officials to switch to fluorination, but public outcry firmly stands in the way. Portlanders have made their voices heard- they do not want the government using their "drinking water as a medication route for dental health."

Fear of chemicals and toxins lead into the anti-vaccine movement. Jenny McCarthy first made the movement mainstream when she accused the MMR (measles, mumps, rubella) vaccine of inducing multiple seizures and developmental regression in her son (FRONTLINE 2015) . The Democratic political base placated anti-vaccine sentiments in the early 2000s. While on the presidential trail in 2008, Barack Obama said, "We've seen just a skyrocketing autism rate… Some people are suspicious that it's connected to the vaccines. This person included" (Breitman

2015). By all major medical associations, the science of vaccine safety was quite conclusive in 2008.

The "unnatural is bad" movement has also attacked hormonal birth control. Advocates, like self-identified wellness and hormone experts, health coaches, naturopathic practitioners, and functional medicine practitioners implore women to "ditch" their hormonal birth control (namely the pill) claiming it is bad for the body to be subjected to synthetic hormones. Search #birthcontrol on Instagram and you will find thousands of posts on "balancing hormones" and the supposed damaging side effects of hormonal birth control (such as cancer and Crohn's, to name a few). They argue that women need to detox their bodies from the damage of hormonal birth control, and they sell an entire online market of products to heal from "post-birth control syndrome." From a medical perspective, there are certainly side effects one should be cautious of when prescribing hormonal birth control pils, and some patients with certain risk factors should not be prescribed them. But it is grossly inaccurate to insinuate that hormonal birth control is poison to the body or that it will likely cause harm to the average user.

The success of the grocery store Whole Foods is a perfect example of the indoctrination of "natural is best". From documentaries like Food, Inc. greater public attention has been brought to the problematic American food industry. But people mistake the terrible consequences of industrialized, corporate farming for "inorganic" agriculture. It is easy for consumers to look at an organic brand and feel comfortable that they are buying a healthy, morally-sourced, environmentally-sustainable, local product- but this is often incorrect. Small, family-owned farms frequently cannot afford the expensive burdens required in order to obtain the USDA's "organic" label. Organic crops are also forbidden from genetic modification, and this is a huge oversight for any community which hopes to grow environmentally conscious crops using fewer

pesticides. Organic produce may have slightly more antioxidants when tested in a lab, but there is no evidence that eating organic foods will result in better health. Organic proponents also point out that toxic pesticides on conventional produce are harmful to consumer health. But they overlook that organic crops also use pesticides and fertilizers. The level of chemical residue left on both conventional and organic produce have been shown safe for human consumption. The scientific community has had, for years, a strong stance in favor of conventional farming practices and genetically modified foods. But this message gets lost in the hype and cult-like following of the natural food movement.

People are well within their right to make whatever decisions they believe are best for them- be it about food or birth. It's probably unreasonable for us to expect everyone to make decisions based on what experts say is the "best". And when we are not making decisions based on science, we should be honest and name those other reasons. We can live in a society which both respects autonomy and also respects scientific experts.

Medical Intervention as Unnecessary or Harmful

Families may also be reluctant to have a hospital birth due to the belief that medical intervention is unnecessary or even harmful. Sometimes their concerns rest on the problematic assumption that women have been giving birth throughout all of history without medical intervention, so "why is it necessary now?" As previously discussed, the collective memory of pre-medicalized birth forgets the danger pregnant women faced and still face. Obstetrical intervention saves lives, but it is important to recognize that it also comes with its own risks. Intervention can sometimes be worse than doing nothing- this was already noted with rise in c-section rates. Rising c-section rates without a concomitant decrease in maternal or infant

mortality means physicians are subjecting women to unnecessary surgeries. Surgery, while frequently performed and relatively safe, comes with the inherent risk of bleeding, infection, damage to surrounding anatomy, and, in the worst scenario, death. Women undergoing cesarean delivery are approximately 3 times more likely to die and twice as likely to suffer an amniotic fluid embolism than women who have a vaginal delivery (ACOG Obstetric Care Consensus No. 1). National c-section rates rose steadily from the mid-90's and have plateaued since 2009. Labor induction rates rose similarly during the same time period, such that now one in four pregnancies will be artificially induced with medication. As many as half of all pregnancies are artificially augmented (using the same medication, oxytocin, as induction) (Glantz 2012). And like c-sections, their increased use has not been accompanied by a decrease in any mortality measure. While it may speed up labor and might possibly lower the rate of c-sections, if not administered appropriately, oxytocin can strengthen uterine contractions to the point of neonatal injury (Drummond 2018). Data is limited, but hospitalization during birth increases the chance of all interventions during labor including epidural anesthesia, electronic fetal monitoring, episiotomy, operative vaginal delivery, and cesarean delivery (Wax 2010). Patient concerns regarding intervention should be respected, and they have the right to refuse completely. The risks of intervention, however, do not preclude their use because there are also risks to not intervening.

The Body as Machine

A more philosophical reason women are choosing to avoid the hospital during birth is that medicine, as a community, has reframed the body as machine and patient as object (Davis-Floyd 2018). Here's the perspective of an American trained obstetrician-gynecologist who now exclusively works in global obstetrics in low-resource areas of Africa:

> "Why would a New York City gynecologist deliver her own children in anything other than a major obstetric hospital setting with the highest level of neonatal care? Simple: I was terrified … of every iatrogenic possibility, and *of laboring and birthing in a dogmatic environment that deems every pregnancy an adversary to be conquered*, lest it wreak obstetrical havoc and malpractice litigation." (emphasis added) (Romanzi 2014)

Modern medicine has warped the patient-doctor relationship into a logic puzzle. The physician is tasked with completing it in as little time as possible (while also using the least amount of resources). Patients sense the change; one woman commented that her doctor treated her as if he were "in an autobody shop. … She said he instructed her brusquely, 'Hey, Mom, open up for me,' as he tried to check her cervix without explaining who he was or what he intended to do" (Proujansky 2021).

The Critique of Industrialized Labor

Medical intervention during labor can be perceived as anti-feminist, which is defined in philosophical journals as the "Critique of Industrialized Labor" (MacDonald 2011). The argument is as follows: pregnancy is an essential female experience (pertinent to note this theory is gender essentialism and trans exclusionary). The biomedical understanding of the female body and pregnancy are inherently intertwined within the historical patriarchy of medicine. Obstetric intervention paints itself in opposition to birth and is the patriarchy attempting to assert

dominance over the natural feminine process. Medicine takes the aggressive masculine role of "forcing" or "coercing" patients into medical decisions. Surgical birth removes a mother's engagement with the birthing process, whereas a natural birth at home puts the independence and agency of the mother at the forefront. With this history and precedent in mind, mothers perceive a loss of their fundamental right to autonomy when entering the hospital or obtaining classical biomedical care. The critique of Industrialized Labor has fueled the natural childbirth movement since its beginnings in the 1970's. In stark contrast, the Critique of Idealized Labor accuses the natural childbirth movement as creating unrealistic, pernicious pregnancy ideals (Jones 2012). These ideals create unachievable norms of motherhood and result in social stigmatization and feelings of failure in new mothers. It is outside the scope of this paper to critique and analyze these theories, but their dichotomy brings to light the crux of the issue: the phenomenological insight of the body as chiasm between material and ideal (Jones 2012). The body both experiences and constructs the world. Birth is both a real, lived experience and a social, cultural, medical construction.

The dichotomy of these feminist theories tightly intertwines with the issues of patient autonomy and choice. Medicine assumes that patients give up some amount of free-will when they come into the hospital: patients cannot eat the night before surgery, patients can only take the medicine given to them by nurses, patients must stay in the hospital until medical staff clear them to leave, sometimes patients must share a room with a stranger. When someone is sick, the benefit of entering the hospital and getting better outweigh the cost of losing autonomy. It is more difficult, however, to argue that a healthy, young women must give up her autonomy on one of the most important and anticipated days of her life to prevent the small risk of an adverse event. Some patients expect this- as older generations were taught "doctor knows best;" but

younger, more empowered generations question why. Why must pregnant people, an already vulnerable and stereotyped population, give up their rights? Why must they allow doctors to take control of their labor? Natural birth proponents will respond that they don't. When women give birth at home, they reclaim their voice, their agency, their power. It is no longer about what the doctor wants, it is about trusting and following the mother's ingenuity. Women reestablish their authority over their *own bodies* and *their* pregnancy; they put themselves back in control, particularly in a society and medical field which has decidedly excluded them.

The Online Natural Birth Movement

The natural birth movement empowers its members and has a strong online presence. The attitudes and messaging from the community can vary quite widely. @empoweredbirthproject is an Instagram account run by a registered nurse which shares pictures and videos of primarily home birth, but also hospital and c-section birth. Births are described as "beautiful… spiritual" events with encouragement for women to "acknowledge your power". The imagery and language used makes metaphors of birth as "transformation" and mother as "goddess". Some, like @birthofamama (with 195,000 followers on Instagram), show pictures and videos of home birth and comment on the beauty and awe-inspiring power of birth. One captioned "intuitive birth" (@birthofamama, April 21 2020) on a video of a baby exiting the birth canal. Another wrote "to birth feeling safe and supported ~ … Can you imagine feeling so safe in your surroundings and so empowered by the people around you that you literally smile while you gently push and hold your baby all the while you're half squatting?... I want you to see what truly feeling safe could look like" (@birthofamama, July 9, 2020) on a video of a women laughing in a tub of water while giving her last push.

Some of the more vocal community members are women who have been harmed and mistreated by biomedical obstetrics, but who went on later to have vastly different (better) experience at home. @birthuprising is such an Instagram account. It's owner posts natural birth and advocacy content aimed to give women "ALL the information and choices to have a birth that transforms them." She had a negative experience giving birth at a hospital and felt coerced into her emergency c-section. She felt depressed and defeated, but for her second pregnancy, she gave birth (VBAC) at home with a midwife and says the experience was "life-changing." The account has over 10,000 followers and in addition to its education and advocacy content, she shares hers and other women's stories through the hashtag #shitmyobsaid. Much of the content aims to implore women to take control of their pregnancy experience, like this post for example:

Figure 1. Instagram post, @birthuprising September 23, 2020

She encourages women that they do not need to compromise on their dreams:

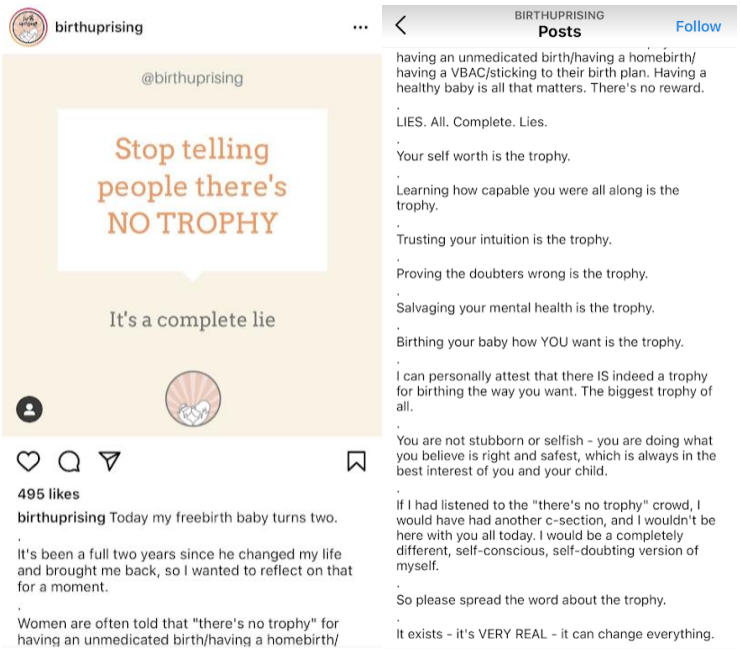

Figure 2. Instagram post, @birthuprising July 14, 2020

These examples range from suggestive to aggressive, from hospital-ambivalent to anti-obstetricial. But all these accounts center on the person who is pregnant. They are ripe with female empowerment, but specifically through reproduction. Such vocal calls for empowerment through reproduction, some feminists note, miss the mark in the struggle for feminist liberation. It reaffirms the societal notion that complete fulfillment and power is through pregnancy and birth.

The Phenomenology of Safety

What we may also explore within these accounts is how humans phenomenologically reflect and take energy from their environment. These images and words are meant to be percieved in a certain way, but not everyone experiences them in that way. Instead of thinking about peace and beauty, someone could look at them and see danger and risk. The medical community knows the home birth environment is not safe. Babies born at home are twice as

likely to die. But knowing or saying this fact would do little to alter the *perception* of safety for home birth proponents. That whether the environment is statistically safe or not safe, is almost irrelevant to what we *decide* is safe. We grade things as more safe based on our own personal experience, biases, and differential beliefs about what safety even is. A young doctor in training, after almost a decade of schooling, with ambitions of assimilating into the medical system would think that being hooked up to beeping machines and being constantly evaluated and examined in a sterile hospital bed 50 feet from an operating room would be a safe birth experience. But other women could find that experience impersonal and uncomfortable- they would rather be surrounded by family in their own home because in their home they feel *safe*. We each create our own individual notions of what safety means to us.

Medical Distrust and Racism

The likely largest motivator for home birth and what is arguably the biggest health issue today is a deep mistrust of the medical system. There are many good reasons for Americans to be hesitant of their doctors, particularly their Obstetrician/Gynecologists. Maternal death during pregnancy or childbirth is a traumatic event with catastrophic impact on families and communities and it serves as an important indicator of the quality of a healthcare system. The World Health Organization (WHO) has defined maternal mortality ratio (MMR) as "the number of maternal deaths per 100,000 live births, [where] maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy." It is the sixth most common cause of death in U.S. women ages 25-34 (Heron 2019). The US maternal mortality rate (17.4 maternal deaths for 100,000 live births, per the CDC in 2020) is the highest of any resource-rich nation and has been increasing since 2000 (25). According to the WHO and UNICEF, rates in Canada

(10 deaths/ 100,000 live births), Germany (7), the Netherlands (5), Spain (4), the United Kingdom (7), the United Arab Emirates (3), and Iran (16) were all below the United States (19) in 2017.

One explanation for this is that Black women disproportionately experience maternal mortality at much higher rates compared to their white counterparts (37.1 vs 14.7 per 100,000 births), even when controlling for socioeconomic status and educational attainment. Black mothers are 2.5-4 times more likely to die in labor and the particular danger lies in the six-week post-partum period. The Centers for Disease Control & Prevention estimates 60% of all maternal deaths are preventable. When we examine Black mortality, the leading cause of maternal death in non-Hispanic Black women are complications arising from cardiovascular and eclamptic disease (Peterson 2007). Cardiovascular disease ranges from peripartum cardiomyopathy (or remodeling/malfunctioning diseases of the heart) to coagulopathy and pulmonary embolism (a condition Serena Williams infamously suffered from after her pregnancy). Eclampsia and preeclampsia are a spectrum of high blood pressure disorders during pregnancy. Patients with preeclampsia (which Beyonce suffered from during her twin pregnancy) have high blood pressure and may have lab abnormalities indicating moderate organ dysfunction. Eclampsia is the most severe form; it manifests with seizures and can be life-threatening. Black mothers are two to three times more likely to die from eclamptic disorders when compared to white mothers, however the incidence of the preeclampsia and eclampsia is equal between races (Tucker 2007, Collier 2019). Racism crosses the placental barrier, too. Black infants (10.8 deaths/1,000 live births) are more likely to die within the first year of life when compared to all other ethnic groups (white infants: 4.6). The overall US infant mortality rate is 5.7 deaths/1,000 live births,

quite above peer countries such as the United Kingdom (3.8), New Zealand (3.9), Germany (3.2), and Canada (4.2) (WHO 2019).

Racism Inherent to the U.S. Healthcare System

Access to care, timing of entry into care, and coexisting medical conditions may contribute to these stark racial disparities, but implicit personal and systemic racial bias in the healthcare system are preeminently to blame. In the broader medical context, multiple studies have shown implicit bias and racist beliefs even today have a strong foothold in the medical community. Multiple research studies show that black patients are less likely than white patients to receive pain medication for the same conditions. And when they do receive medication, black patients receive fewer pills (Meghani 2011, Sabin 2012). One study from 2016, found that 11.6% of medical students and resident physicians endorsed factually incorrect beliefs about biological differences between black and white patients. 50% reported at least one false belief item was "possibly, probably, or definitely true" (Hoffman 2016).

Within only the last century there are multiple examples of coercive or deceptive practices from the medical community against Black patients. Starting in the 1930s, researchers at The Tuskegee Institute in Alabama funded by the U.S. national government began a study on the natural course of syphilis in black males. They followed hundreds of Black men with syphilis for 40 years, telling them they were receiving treatment for "bad blood." In exchange for their participation, the men received free medical care, but many of the participants and their families were never told they had syphilis nor provided informed consent for the experiment (McGill University 2020). When penicillin was invented and became widely available as the standard treatment in the late 1940s, researchers barred the men from receiving it. They allowed the

participants to develop the debilitating conditions of late-stage syphilis and unknowingly pass the disease onto family members until the study was halted in the 1970s due to public outrage.

In the realm of Obstetrics and Gynecology, the "Father of modern Gynecology" Dr. James Marion Sims experimented on enslaved women (unnamed except for Anarcha, Lucy, and Betsey) in the 19th century to develop surgical treatments for vesicovaginal fistulas- a relatively common postpartum complication. In the 1950s, researchers at Johns Hopkins took cervical cancer cells from Henrietta Lacks without her permission to create the world's first immortal cell line. The cell line has since been used in biomedical research around the world, including creation of the polio vaccine, studying leukemia and HIV, and developing techniques for invitro fertilization. Her cells are now mass produced and bought and sold all over the world in a multibillion-dollar biomedical market. Her family, who today still live in poverty and are frequently unable to afford medical care, were not aware of even the existence of her cells until the 1970s. They received no compensation for the use her cells and medical breakthroughs they have allowed, save for a few charitable donations to a family foundation (Witze 2020). In North Carolina from 1929 to 1974 7,600 people, mostly black and Hispanic women, were sterilized without their consent under a state sponsored eugenics program (Carmon 2020). The bias which systematically devalues black lives is not a just a historical remnant but is alive and well in modern-day. From 2006- 2010 the California Department of Corrections and Rehabilitation sterilized nearly 150 female, primarily minority, inmates, for the purpose of birth control (Johnson 2013). Former innates, staff, and advocates say the victims were coerced, not given informed consent, and some were not even told they had been sterilized. These are just a few of the horrific examples which prove systemic racism exists in medicine. Black patients have good reason to be wary of a medical system which has repeatedly shown it does not value them.

The Modern Black Family

These events come to the forefront of the minds of many Black parents as they make pregnancy and birth decisions. Support networks for black parents-to-be engage a sense of community by harkening back to the old infrastructure of black midwives (also called Granny Midwives) who guided women through pregnancy and labor during slavery (Wilkie 2003). These midwives were trusted community members, who passed on their skills and knowledge from generation to generation. But in the early 20th century, the American Medical Association publicly disparaged their reputation to establish sole physician jurisdiction over the management of pregnancy. Black midwifery went extinct. With the current disturbing disparities in Black maternal health, calls are being made to increase the Black maternity care workforce a la Granny Midwifery. Research shows that patients are more likely to be satisfied with their care if their doctor is the same race as them. Unfortunately for Black patients, only 5% of physicians and about 5% of Certified Nurse Midwives are Black (AAMC 2019, Mulder 2008).

As a way of combatting the real danger of medical mistreatment, many black women are turning to out-of-hospital births. As noted earlier, the rate of home birth in the black community has sharply risen over the past few years. These women are also finding an online community to "reclaim the black birth experience". They frame the black birth experience with phrases like "decolonizing motherhood, ancestral healing" (@birthofamama). The same themes of empowerment and choice weave through these posts, quite similarly to those already examined here. They use similar imaging, focusing on family, peace, and safety (@blackwomenbirthing). It is almost impossible to differentiate "black" natural birth content specifically because community members are so widely supportive of one another and share each other's content.

@empoweredbirthproject, a page already mentioned, is run by a white ICU nurse, and she uses her platform to advocate for black birth as well. In one of her posts advocating for home trial of labor after cesarean (TOLAC), she captioned “WE love a woman of color taking charge of HER birth, HER body, and HER experience. How many of you were ‘denied’ a VBAC? What did you do?”

The fear and distrust of medical society, particularly from the Black community and particularly of the field of Obstetrics and Gynecology, is entirely justified. Recent history shows multiple examples of the disrespect and violations of autonomy the Black community has suffered under our care. The American medical system is racist, and this will take decades of constant work to alleviate. Home birth is dangerous, but we must respect the hesitancy of our Black patients in the current climate. There is a tendency in modern medical discourse, particularly around race, to frame the question as “Why aren’t Black patients trusting of the medical system?” We, instead, need to be asking, “What has the medical system done to deserve trust?” (Warren 2020) There are countless reasons for our patients to be untrusting, and we can no longer expect our patients to blindly take our advice. If we want to ensure the health and safety of all pregnant women, providers must develop strategies to build trust and counteract the misinformation.

CHAPTER 3: RECOMMENDATIONS

As a medical community we must reconcile the flaws in our system to solve the bioethical question of home birth. There are a multitude of steps we may take. All pregnancy and birthing decisions should be made with the health, safety, and agency of mother and baby as foundation. Home birth in the United States has shown increased risk for neonatal mortality, though popularity continues to rise. Data from other countries proves that systems can be implemented to ensure neonatal safety in the home birth setting for low-risk women, though the healthcare system in the US poses huge barriers.

The desires of American women to have a more social, rather than medical, birth may be rooted in false conceptions of the traditional or pre-medical pregnancy and labor experience, but they will not be disappearing. There are nuanced understandings of beneficence and non-maleficence for our birthing patients whether they birth in or out of the hospital. We should stand with them in solidarity and respect the agency of pregnant women to choose the mental and spiritual environment for their labor or risk continuing to perpetuate the stereotype of physicians as paternalistic and impersonal.

As such, we should focus our efforts in a multifactorial approach: Firstly, reliable access to quality, affordable health care must be ensured for everyone. It must be ensured for women prior to becoming pregnant, lasting well into motherhood, and must be ensured for partners who will play a role in the birth experience. This will improve all health outcomes over a person's lifetime and is a first step toward social justice. Secondly, to maximize beneficence and minimize non-maleficence, we should work to make the in-hospital birthing experience more social and less interventional. To this end, we should incorporate midwife-led (CNM and CM) care into the academic medical center labor and delivery floor. Academic midwifery should be

supported at all academic medical institutions, building on the precedent set by instructions which already have a strong midwifery department such as University of Maryland Medical Center, Dartmouth-Hitchcock Medical Center, and Boston Medical Center to name a few.

As described by this model, the labor experience will be patient centered, encourage patient autonomy, and improve the provider-patient relationship. This means that patients are free to birth in a variety of positions different from the classical dorsal lithotomy and free to walk and move (if choosing to birth without anesthesia). Patients will "lead the way" in the journey to birth by communicating their needs with the care team, and providers will use their skills to ensure a safe delivery. Many Obstetricians do not practice this way due to their training, which has historically excluded experiences with midwifery to foster these skills. With midwifery routinely included in the academic medical center, we can remedy this deficit in training.

The American College of Obstetrics and Gynecology already strongly recommends decreased intervention during low-risk labor, but this is not routinely followed in the fast-paced, hectic reality of a busy labor and delivery ward (ACOG Committee Opinion No. 766). Institutions require herculean effort to update policy and day-to-day management of laboring patients to reflect these guidelines. Intervention rates should be as low as possible to maintain the current maternal and neonatal morbidity and mortality levels- ensuring non-maleficence from intervention. When we reframe normal labor as not needing intervention and intervention to remedy abnormal labor as a patients' choice through shared decision-making, we can reframe the notion that obstetrical intervention is anti-feminist. When patients chose to act it will be self-empowerment and agency.

Another large step we must take in remedying the situation is building on pre-existing mechanisms to standardize safety and quality in the hospital setting, making birth safer for

everyone. First we can improve team communication; according to a report from the Joint Commission, “failures in communication were the second leading root cause of severe maternal morbidity and maternal mortality and the leading root cause of perinatal deaths and injuries (Collier 2019).” We must encourage a culture of safety and mutual respect with free-flowing communication between members of the care team. We must adopt standardized communication tools, like safety huddles and “SBAR” handoffs (situation, background, assessment, recommendation). Second, we can implement evidence-based safety toolkits for obstetric complications that are most linked to maternal mortality and morbidity. The California Maternal Quality Care Collaborative (CMQCC) utilized data from the Department of Health to develop large-scale quality improvement initiatives. They found that hospitals which participated in their program had a significant reduction in their maternal morbidity (Main 2017). On a national level, there safety toolkits were developed to encourage adherence to evidence-based guidelines. Adoption of these toolkits by hospitals has been associated with reduction in maternal deaths, notably after cesarean delivery. Third, we can implement maternal mortality review committees (MMRC) in all states (currently only in two thirds of states) and use data-driven MMRC recommendations to develop initiatives to decrease maternal mortality.

Most timely and importantly, we must actively do anti-racist work in the national and local healthcare system and commit to social justice. We need to build a more diverse healthcare workforce- where patients are taken care of by providers who look like them and understand their perspective. Medical schools should increase the proportion of Black students in their classes, and academic medical centers should actively recruit and maintain Black faculty. This is an important step, but we must go further. The responsibility of finding solutions for systemic racism should not fall solely on Black people. It seems just as cruel to manipulate the energy of

Black employees in order to advertise “diversity” and “social justice” without any effort needed for their White colleagues (Warren 2020).

White clinicians and researchers must do their part to earn their patient’s trust and recommit to the quiet, intimate work of doctoring. To start, we must obtain superb informed consent for every intervention, procedure, and medication. Providers need to reconcile that the best management is the one the patient is most motivated to sustain- despite whether they professionally think it is the “best” option. Part of this is recognizing and accepting that we all have implicit biases that affect our most disadvantaged patients- to pretend we do not is to allow racism to persist.

Education on racism and social determinants of health need greater focus in medical education- not just in the classroom, but in real-life context on rounds and at national conferences. The curriculum should have as equal importance as the basic sciences in rigor and grading, emphasizing the history of systemic racism and teaching cultural humility. From students to medical school deans, everyone should make it a priority- not a fluffy, social science afterthought. National medical organizations should frequently and consistently to educate their members, some of whom may be quite a few years out of medical school. Patient advocacy should be an intimate component of all organizational missions- lasting long after the excitement of Black Lives Matter loses national attention.

While we work to make the hospital a more welcoming place for mothers, we should, fueled by the principles of solidarity, agency, and non-maleficence, take a harm reduction approach and strengthen the home birth network across the United States. Hospital providers need to have open, non-judgemental conversations with their patients interested in home birth and discuss emergency transfer. We must create collaborative agreements between home

midwives and local hospital systems to facilitate emergency transport and develop clear guidelines for transfer. We must, like other countries, create mutually agreed-upon risk stratification categories to define candidates for home birth. And we should improve access to highly trained certified nurse-midwives and certified midwives in the home birth setting. And we must strengthen the education and credentialing for certified professional midwives. This should entail implementation of a national licensing standard and legal status in all 50 states including DC. We should strengthen education and competencies to elevate the level of care received in the home to near CMN or CM. This means, at minimum, ensuring all CPM meet the standards of the International Confederation of Midwives' Global Standards for Midwifery Education.

Lastly, as is commonly the struggle in women's health, we must increase funding to study the safety and efficacy of birthing techniques and practices common in the home birth setting. Many methods used in home birth are not recommended in the hospital due to a lack of evidence proving its safety. Doing this research will allow us to stand in solidarity with our patients, without the risk of unintentional maleficence. For instance, water births or tub births are quite common in birthing centers and can be utilized at home. While the safety of water immersion for non-pharmacologic pain management during early labor appears supported in the literature, little research has been done on maternal or neonatal safety after water birth. The particular concern of the Obstetrician is risk of either maternal or neonatal infection from bacteria in the water, which can be life threatening to both parties. Research proving the safety of a variety of home birth techniques can open the door for their implementation in the hospital.

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