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Maternal Mortality in the United States: An Outlying Social Phenomenon in the Industrialized World

Abstract

Maternal mortality rates claim the lives of over 300,000 individuals per year, with most of these deaths taking place in low to middle-income nations. Since 1990, maternal mortality rates have declined significantly with a global reduction from 385 to 216 maternal deaths per 100,000 births; an average decline of 2.9% per year. While this is an honorable reduction, there are outlying nations that experience higher than normal maternal mortality rates given their region and circumstance. While many studies focus on lower to middle-income nations for maternal mortality associated with lack of medical access and evolved care, there is also the reality that some industrialized countries experience high rates of maternal mortality, most notably, the United States.

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Maternal Mortality in the United States

An Outlying Social Phenomenon in the Industrialized World

Whitney Buckendorf

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Maternal Mortality in the United States

An Outlying Social Phenomenon in the Industrialized World

Executive Summary

Maternal mortality rates claim the lives of over 300,000 individuals per year, with most of these deaths taking place in low to middle-income nations.¹ Since 1990, maternal mortality rates have declined significantly with a global reduction from 385 to 216 maternal deaths per 100,000 births; an average decline of 2.9% per year.² While this is an honorable reduction, there are outlying nations that experience higher than normal maternal mortality rates given their region and circumstance. While many studies focus on lower to middle-income nations for maternal mortality associated with lack of medical access and evolved care, there is also the reality that some industrialized countries experience high rates of maternal mortality, most notably, the United States.

In the last century in the United States, the maternal mortality rate has decreased based on medical advancement, improved health and living conditions, and antiseptic practices. However, within the last decades, the maternal mortality rate (MMR) has increased, making “complications during pregnancy, childbirth, and the postpartum period the 6th greatest cause of death among women aged 20 to 34 in the United States.”³ Since 2001, the MMR in the US doubled from 9.8 deaths per 100,000 live births to 21.5 in 2014.⁴ This statistic raises concerns across the birth and medical communities. Such a trend stands out against other highly industrialized and high-income nations as comparably other nation-states have decreased their MMR in that same period.

¹ Gülmezoglu, A Metin. “Interventions to Reduce Maternal and Newborn Morbidity and Mortality.” *Reproductive, Maternal, Newborn, and Child Health: Disease Control Priorities, Third Edition (Volume 2)*. U.S. National Library of Medicine, April 5, 2016.

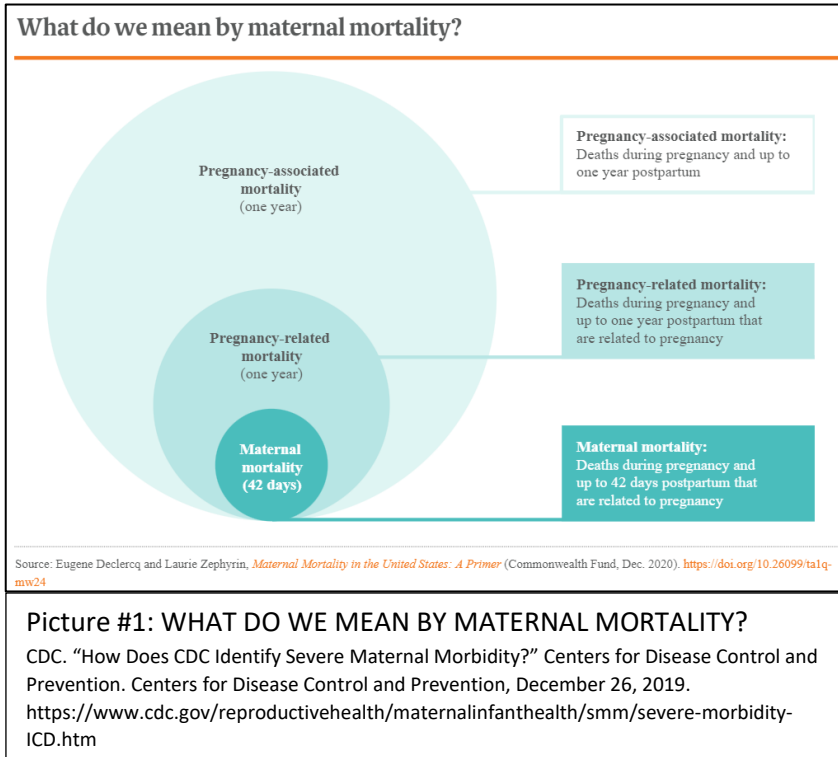
² UNICEF. “Maternal Mortality Rates and Statistics.” UNICEF DATA, September 20, 2021.

³ Collier, Ai-Ris Y, and Rose L Molina. “Maternal Mortality in the United States: Updates on Trends, Causes, and Solutions.” *NeoReviews*. U.S. National Library of Medicine, October 2019.

⁴ *Ibid.*,

Problem Definition

What we know to be true about this statistic is the reality that the United States maternal mortality rate is inextricably high for the medical standards of such a nation. However, one must consider the data ascertainment techniques over the above-mentioned time frame. In 2003, the United States added “pregnancy-related causes” to US death certificates, which coincided with the rise in deaths reported. This



improved detection made it so the categories of death caused by pregnancy are primarily put within two spheres; however, the improved statistical advancement is not the only cause, as seen in picture #1. The first category is considered: 1) “the death of a woman while pregnant or within one year of termination of pregnancy, from any cause related to or aggravated by her pregnancy

or its management, but not from accidental or incidental causes.”⁵ These deaths could include death that occurs in the hospital or within 42 days post-partum such as hemorrhage, pre-eclampsia, or pregnancy-related embolisms. The other category of pregnancy-related deaths recognized in the United States is 2) “the death of a woman while pregnant or within 1 year of termination of pregnancy or postpartum from a cause that cannot be determined or conclusively categorized as either pregnancy-related or not pregnancy related.”⁶ This example would be associated with postpartum depression suicide or similar associated

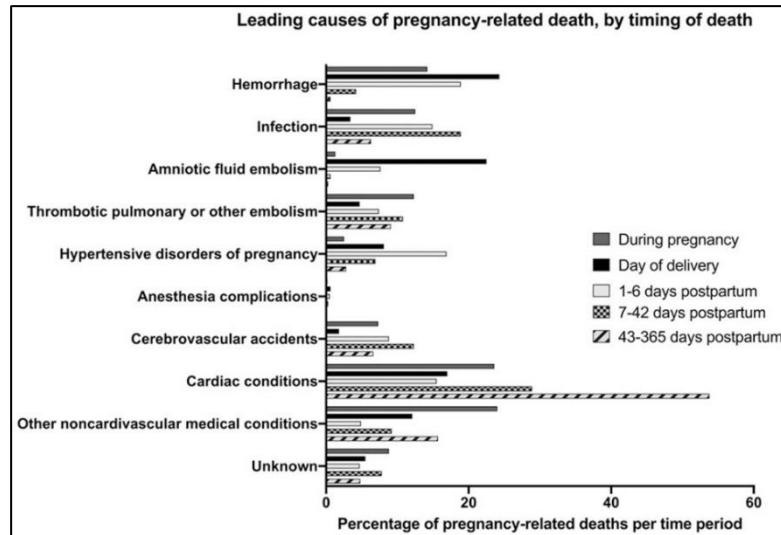
⁵ Ibid.,

⁶ Declercq, Eugene, and Laurie Zephyrin. “Maternal Mortality in the United States: A Primer.” Commonwealth Fund, December 16, 2020.

issues with post-pregnancy complications. For the sake of this analysis, we will focus on the tangible definition of maternal mortality during pregnancy or within 42 days of the postpartum period.

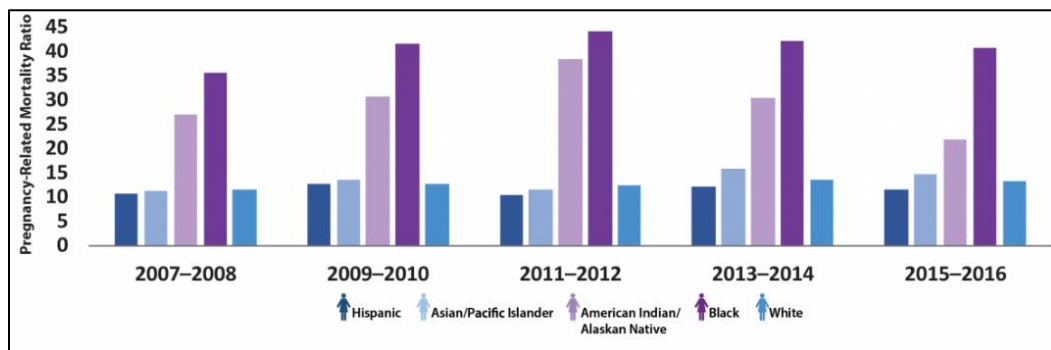
Comorbidities

The social phenomenon of maternal mortality rates in the United States is associated with many different causes. Pregnancy-related deaths in the United States were primarily caused by hemorrhage, cardiovascular conditions,



Picture #2: LEADING CAUSES OF PREGNANCY RELATED DEATH

cardiomyopathy, infection, eclampsia, or mental health conditions, as seen in picture #2.⁷ However, what is not explained, is even while these comorbidities exist, why are individuals dying at such a high rate from ailments that can be cured? These ailments disproportionately afflict women of color, with Black and



Picture #3: PREGNANCY RELATED MORTALITY RATIO BY RACE

CDC. "Infographic: Racial/Ethnic Disparities in Pregnancy-Related Deaths - United States, 2007-2016." Centers for Disease Control and Prevention. Centers for Disease Control and Prevention, February 4, 2020. <https://www.cdc.gov/reproductivehealth/maternal-mortality/disparities-pregnancy-related-deaths/infographic.html>.

Brown women in the United States being at risk of pregnancy-related death at two times that of their

⁷ D’Alton, Mary E., Alexander M. Friedman, Peter S. Bernstein, Haywood L. Brown, William M. Callaghan, Steven L. Clark, William A. Grobman, et al. “Putting the ‘m’ Back in Maternal-Fetal Medicine: A 5-Year Report Card on a Collaborative Effort to Address Maternal Morbidity and Mortality in the United States.” *American Journal of Obstetrics and Gynecology* 221, no. 4 (2019). <https://doi.org/10.1016/j.ajog.2019.02.055>.

white peers, see picture 3.⁸ The preexisting medical conditions in women of different racial backgrounds can largely be attributed to the poverty and social inequality in the United States that leaves women of diverse backgrounds in more stressful lifestyles. Additionally, the medical access and preliminary prevention strategies against diseases such as cardiovascular disease, obesity, stress, and hypertension look different for communities of color putting them at increased risk of missing the signs of these diseases when intersecting with pregnancy and childbirth.⁹

Changing Age of Fertility

Maternal mortality in the United States has been associated with the changing demographic of birthing people. The changing demographic of new parents is claimed to be associated with higher-risk pregnancies, largely due to the growing chronic health crisis in the United States as well as the older age individuals choosing to have children.¹⁰

A 2020 study reported that that 13.8 deaths per 100,000 live births in the US were associated with women under the age of 25, as compared to 22.8 for women aged 25-39, and 107.9 for those over 40 years of age.¹¹ The risk associated with death and childbirth, as associated with age can be attributed to a few different factors. Proportions of women with assisted conception, obesity, diabetes, as well as chronic hypertension, increased with age, which in turn led to life-threatening complications for individuals giving birth in their 40s. However, most predominantly is the increased risk associated with the delivery method of older women. Older individuals are associated with increased use of the cesarean section,

⁸ Collier, Ai-Ris Y, and Rose L Molina. "Maternal Mortality in the United States: Updates on Trends, Causes, and Solutions." NeoReviews. U.S. National Library of Medicine, October 2019.

⁹ Davis, A. M., Vinci, L. M., Okwuosa, T. M., Chase, A. R., & Huang, E. S. (2007, October). *Cardiovascular health disparities: A systematic review of Health Care Interventions*. Medical care research and review : MCRR. Retrieved April 3, 2023, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2367222/>

¹⁰ UNICEF. "Maternal Mortality Rates and Statistics." UNICEF DATA, September 20, 2021. <https://data.unicef.org/topic/maternal-health/maternal-mortality/>.

¹¹ CDC. (2022, February 23). *Maternal mortality rates in the United States, 2020*. Centers for Disease Control and Prevention. Retrieved March 6, 2023, from [https://www.cdc.gov/nchs/data/hestat/maternal-mortality/2020/maternal-mortality-rates-2020.htm#:~:text=Rates%20increased%20with%20maternal%20age,\(Figure%20%20and%20Table\)](https://www.cdc.gov/nchs/data/hestat/maternal-mortality/2020/maternal-mortality-rates-2020.htm#:~:text=Rates%20increased%20with%20maternal%20age,(Figure%20%20and%20Table).).

commonly due to previous cesareans with earlier children. This association with maternal mortality, regardless of age, comorbidities as well as race, surpasses all other indicators of maternal mortality factors.

Cesarean Section and Maternal Mortality

The United States is known for having one of the highest rates of cesarean section procedures in the industrialized world with 320 procedures done per 1,000 live births.¹² The rate for cesareans has increased from 4.5% in 1965 to over 30%, or 1 in 3 women in 2020.¹³ As compared to other industrialized and highly resourced nations, Norway and the Netherlands reports cesareans being utilized at half the rate, aligned with the lowest maternal mortality ratios in the world at 2.7 deaths per 100,000 live births.¹⁴ While cesarean is a safer method of childbirth in high-risk scenarios, the CDC reported that over 80% of births in the United States are not outside the confines of healthy childbirth. The overutilization of this method of delivery has not benefited mothers in the United States, and lead to more short- and long-term complications for mothers. This overutilization is consistently critiqued at an international level and is heavily linked with the growing maternal mortality rate in the US.

While many individuals believe that cesarean rates have increased over time due to maternal preference, changing age of child-rearing parents, and the liability pressure on healthcare providers, all three have been debunked in 2016, through a study done by Childbirth Connections.¹⁵ The primary

¹² The Commonwealth Fund. (2018, December 19). *U.S. women more likely to die in pregnancy and childbirth and skip care because of cost, multi-nation survey finds; C-section rates rank among highest*. Commonwealth Fund. Retrieved March 8, 2023, from <https://www.commonwealthfund.org/press-release/2018/us-women-more-likely-die-pregnancy-and-childbirth-and-skip-care-because-cost>

¹³ Childbirth Connection. (2016). *Why is the U.S. cesarean section rate so high?* Retrieved March 9, 2023, from <https://www.nationalpartnership.org/our-work/resources/health-care/maternity/why-is-the-c-section-rate-so-high.pdf>.

¹⁴ The Commonwealth Fund. (2018, December 19). *U.S. women more likely to die in pregnancy and childbirth and skip care because of cost, multi-nation survey finds; C-section rates rank among highest*. Commonwealth Fund. Retrieved March 8, 2023, from <https://www.commonwealthfund.org/press-release/2018/us-women-more-likely-die-pregnancy-and-childbirth-and-skip-care-because-cost>

¹⁵ Childbirth Connection. (2016). *Why is the U.S. cesarean section rate so high?* Retrieved March 9, 2023, from <https://www.nationalpartnership.org/our-work/resources/health-care/maternity/why-is-the-c-section-rate-so-high.pdf>.

reasons for these rates, which is unique to the American context are 1) disempowering women, 2) side effects of American labor interventions, and 3) refusal to offer the informed choice of vaginal birth.¹⁶ Broken down, these drivers point to some basic solutions and interventions that could come at the policy level to incentivize healthcare providers to limit the number of cesareans that are being performed.

Structurally, the disempowerment of women often comes from limited childbirth education and full knowledge of choices in women's birth preferences. Due to a host of factors, the ignorance of health care providers and "trusting physiological birth", financial incentives, and protection of liability; unrealistic concerns push an individual towards a cesarean. Common "diagnoses" that come from providers include "large babies," incorrectly positioned fetuses, "small pelvises," etc.¹⁷ Through the American culture of rarely questioning the advice of medical workers, mothers do not realize that these "concerns" are rarely correct and thus are disempowered to vaginally give birth due to fear. With proper childbirth education as well as asking questions of providers, individuals would be able to choose alternative methods of resolving these issues without surgical intervention, those methods will be discussed in the policy recommendation section.¹⁸

The second leading cause of cesarean rates in the United States is the side effects of common medicinal labor interventions. The most common interventions in American hospitals include induction of labor, continuous fetal monitoring, and epidurals, all of which increase the risk of c-sections.¹⁹ The cost and benefits of these interventions are rarely fully discussed with the mother, and the increased likelihood

¹⁶ Ibid.,

¹⁷ Mazumdar, M. (2018). *Cephalopelvic disproportion (CPD)- a complication of labor and childbirth*. Gynaecology. Retrieved April 6, 2023, from <http://gynaecology.com/cpd.htm>.

¹⁸ Pinchas-Cohen, T., Hiaev, Z., Rubinstein, H., Bar, J., & Kovo, M. (2020). *The impact of childbirth education classes on delivery outcome*. Retrieved April 7, 2023, from <https://obgyn.onlinelibrary.wiley.com/doi/10.1002/ijgo.13016>.

¹⁹ Mitchell, Connie, Elizabeth Lawton, Christine Morton, Christy McCain, Sue Holtby, and Elliott Main. "California Pregnancy-Associated Mortality Review: Mixed Methods Approach for Improved Case Identification, Cause of Death Analyses and Translation of Findings." *Maternal and Child Health Journal*. Springer US, April 13, 2013. <https://link.springer.com/article/10.1007/s10995-013-1267-0>.

of cesarean is not required to be explicitly stated. All of these methods again affirm the American culture of childbirth that distrusts physiological birth, as well as attempts to control the process within a schedule that is more convenient for the hospital and the care providers. Through the use of inductions, hospitals are more equipped to schedule deliveries and benefit schedule, availabilities of beds and This adversely affects the physiological process, overworking the uterine muscle as well as stressing out the baby, leading to increased use of crash c-sections.

The third leading cause of increased use of cesareans is the unwillingness to offer the informed choice of vaginal birth in specific circumstances. The most common circumstance is previous cesareans. The overuse of the procedure is creating a cycle of incentivizing hospitals to increase the use of cesareans due to the rate at which they are being used for a first-time mother. Most hospital policy requires that previous cesarean patients must have cesareans for all future birth, despite the recommendations set out by the UN and the CDC. According to a 2016 study, 9 in 10 women with previous cesareans were having repeat cesareans, doubling down on the cycle, rather than growing away from it.²⁰ Other circumstances in which most hospitals require cesareans are twin birth and breech birth. Both scenarios are very much compatible with vaginal delivery, however, fewer and fewer providers are being trained for these types of deliveries in their training. All of these policies point to the fault of hospitals and care providers, rather than the medical necessity of surgical birth, due to maternal circumstances.

Research Approach

Over the course of the last two years of thesis writing, I have been conducting a literature review of both international and national studies on the declining statistics of maternal health in the United States. Since the COVID-19 pandemic, our nation saw the first improvement in maternal health since the

²⁰ Leonard, Stephanie A., Elliott K. Main, and Suzan L. Carmichael. "The Contribution of Maternal Characteristics and Cesarean Delivery to an Increasing Trend of Severe Maternal Morbidity." *BMC Pregnancy and Childbirth*. BioMed Central, January 9, 2019. <https://link.springer.com/article/10.1186/s12884-018-2169-3>.

late 20th century.²¹ This research points to the cause being a cultural shift of birthing out of hospitals.

When I learned that it is statistically safer for women to birth in their homes, rather than in the hospital setting, I knew I had to understand more.

Through the analysis of the research and data present, there are clear indicators that the American approach to childbirth is the leading factor in maternal mortality outcomes. Nations with significantly less medical access and economic stability give mothers a better childbirth experience than the US. While the United States is exceptional in many areas of social inequality, it is timely and necessary to understand why birth is one of the leading causes of death for women of color despite their economic background.

Not only does this analysis include a literature review of the present data that is being conducted on both a national and international level, but I have also invested in my education and apprenticeship as a birth worker in the past two years, which is directly informing the analysis of this paper. Over the last two years, I have attended over 100 births as a doula in all settings: hospitals, birth centers, and home births. In addition, I have assisted to births of women from all backgrounds: newly arrived refugees, teen moms, single mothers, economically stable couples, as well as white, black, and brown individuals. My data has almost always pointed to the same conclusions as the research: the US healthcare system is getting birth wrong from the moment new moms choose to give birth in a hospital.

Through the historical context, literature review, as well as my personal experience, I hope to convey that the interventions necessary to curb maternal mortality are for states to incentivize healthcare workers to shift the lens through which they “treat” birth.

²¹ CDC. (2022, November 17). *Home births in the U.S. increase to highest level in 30 years*. Centers for Disease Control and Prevention. Retrieved April 3, 2023, from https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2022/20221117.htm#:~:text=The%20percentage%20of%20home%20births%20for%20all%20U.S.%20women%20increased,to%2049%25%20for%20West%20Virginia.

Issue Analysis

The midwifery care model is one of the oldest care models in human history, defined as a “women-centered” phenomenon committed to the supportive care of women during childbearing years.²² For centuries, this model of care was undertaken by nonprofessionals who had attended several births growing up and learned the trade through generational knowledge. Care providers were in the community with the families they served, and were oftentimes related to the new parents. This practice and trade single-handedly birthed generations for centuries.

The medical model of caring for pregnancy is a new human phenomenon that didn’t begin until the late 19th century. During the age of medicinal advancements, it became clear that midwives, primarily Black women, were doing work in homes and communities that hospitals could instead make a profit from. The primary shift from birthing at home to a hospital came in the early 20th century when obstetricians saw the value of not only treating high-risk patients but all expecting mothers in a medical context. In the 1920s, the majority of laboring women began giving birth in hospital wards under morphine and scopolamine or “twilight sleep”.²³ This phenomenon was accompanied by the outlawing of midwifery care for the sake of controlling community abortions, as well as having women being cared for by obstetricians, rather than midwives.²⁴ From 1900 to 1930, maternal mortality not only shifted, but skyrocketed in the medical setting due to overuse of surgical interventions, but still was accepted in the common zeitgeist as a more “humane” way to give birth.²⁵ This was the dawn of medical birthing in the United States.

²² Journal of Research in Nursing and Midwifery (JRNM) (ISSN: 2315-568x) Vol. 2(8) pp. 114-121, December, 2013 DOI: <http://dx.doi.org/10.14303/JRNM.2013.064> Available online <http://www.interestjournals.org/JRNM> Copyright ©2013 International Research Journals.

²³ Ibid.,

²⁴ Ibid.,

²⁵ CDC. (1999). *Achievements in public health, 1900-1999: Healthier mothers and babies*. Centers for Disease Control and Prevention. Retrieved April 3, 2023, from <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm4838a2.htm#:~:text=Poor%20obstetric%20education%20and%20delivery,trained%20or%20untrained%20medical%20practitioners.>

Since this time, OBGYNs have evolved to understand that research does not support the use of generalized anesthetics during birth, the use of episiotomies, or forceps-assisted labor, however, the research has not ever fully returned home birth back to the larger social culture.

National and international research has shown that in the case of low-risk or typical-risk pregnancies, a reinvestment in community birth with a trained birth attendant could “avert 41% of maternal deaths, 39% of neonatal deaths, and 26% of stillbirths,” or avoid 2.2 million deaths by 2035.²⁶ Until the covid-19 pandemic, there was very little medical or community buy-in to shifting hospital births to communities due to the paternal beliefs of hospital safety. When hospitals became the breeding ground for infectious diseases, women began choosing to birth at home. These collective choices were directly linked to the decline of maternal mortality over recent years.

The primary reasons the United States stands out in maternal mortality are the comorbidities associated with birth, changing age demographics, and the increase in cesarean sections. With the reinvestment of midwives, and professionals trained under different circumstances and understanding birth differently, research shows that maternal health outcomes would significantly benefit.²⁷ The political incentivization with who and how will be discussed in a later section, but as history shows us from the past, this generation’s grandmothers were safer birthing in a community context than our contemporary women are in 2023.

Proposed Solutions

The maternal mortality rate in the United States has been steadily rising in recent years pointing to a larger issue than the improved acquisition of healthcare statistics and comorbidities. The origin of

²⁶ U.S. National Library of Medicine. (2021, January). *Potential impact of midwives in preventing and reducing maternal and neonatal mortality and stillbirths: A lives saved tool modelling study*. The Lancet. Global health. Retrieved March 17, 2023, from <https://pubmed.ncbi.nlm.nih.gov/33275948>.

²⁷ U.S. National Library of Medicine. (2021, January). *The potential impact of midwives in preventing and reducing maternal and neonatal mortality and stillbirths: A lives saved tool modeling study*. The Lancet. Global health. Retrieved March 17, 2023, from <https://pubmed.ncbi.nlm.nih.gov/33275948/>.

maternal mortality in the United States stems from a complex combination of unnecessary use of cesarean sections, socioeconomic factors, differences in the delivery of care, and systemic racial injustices.²⁸ The necessary policy interventions to curb the MMR in the US are multi-faceted. Due to the reality that maternal mortality occurs from a variety of causes, the intervention must also consider a variety of solutions.

As seen in the problem identification, oftentimes maternal mortality is attributed to comorbidities, the health of the mother or infant, and additional micro factors. When you look at the nation as a whole, there is a trend that points to systemic issues, requiring multifaceted approaches to decline the growing number of adverse outcomes. Federal and state policy has begun to take interest in the incentivization of growing and diversifying the perinatal workforce. As research shows, the midwifery model of care leads to improved health outcomes for mothers.²⁹ Primarily, this is due to the increased capacity of individual midwives to spend longer than an allotted 20 minutes with each patient at each appointment. Birth is a physiological and healthy event in a human's life and development, yet it is one of the only times in a person's life that a perfectly healthy body is hyper-policed in non-life-affirming ways. Statistically speaking, the average amount of time a maternal patient gets with their care provider in the US is 13-16 minutes per appointment.³⁰

This limited amount of time with a patient contributes to the signs missed during pregnancy that could indicate a problem, increase the dismissal of doctors to patients, particularly if the patient is a person of color, and contributes to the power dynamic and rushed culture around medical care.³¹ With the

²⁸ Sparkman, Lora, Lora Sparkman, Mha, and Clinical Effectiveness Consultant. "Reducing Maternal Mortality: Steps to Improve Outcomes." Relias, December 14, 2020.

²⁹ U.S. National Library of Medicine. (2021, January). *The potential impact of midwives in preventing and reducing maternal and neonatal mortality and stillbirths: A lives saved tool modeling study*. The Lancet. Global health. Retrieved March 17, 2023, from <https://pubmed.ncbi.nlm.nih.gov/33275948/>.

³⁰ Tai-Seale, M., McGuire, T. G., & Zhang, W. (2007, October). *Time Allocation in Primary Care Office visits*. Health services research. Retrieved April 3, 2023, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2254573/>.

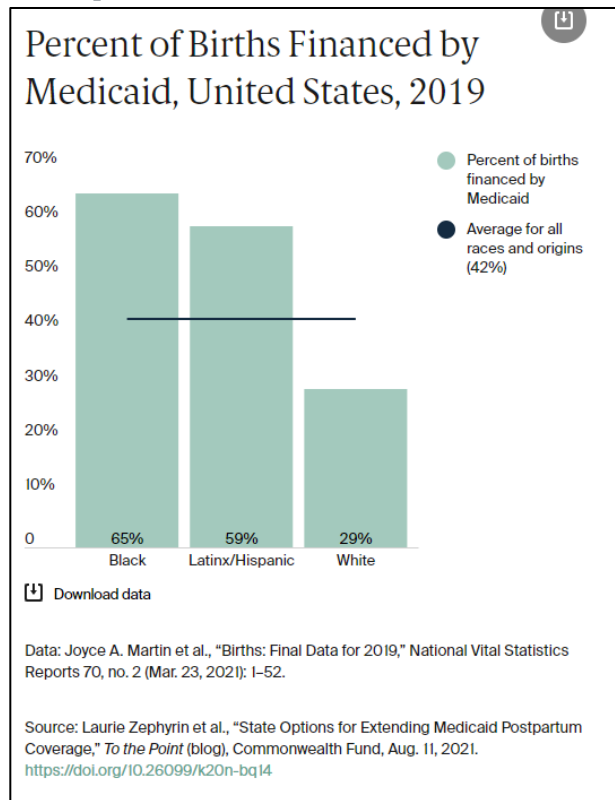
³¹ Ibid.,

employment of the midwifery care model, patients statistically have better birth outcomes, improved early interventions if something is wrong, and increased education about their bodies and pregnancies.

Strategic Recommendations

Childbirth in the United States is the most common inpatient admission as of 2022, while cesarean section is the most common operating room procedure. These costs can vary based on state ranging from \$8,300 in Arkansas to over \$20,000 in New York state.³² The primary difference across states is the varying charges of vaginal delivery, while the cost of c-sections largely stays consistent as compared to cost of living. The intensive nature of abdominal surgery, as carried out in cesarean sections, are associated with longer and more expensive hospital stays as well as more intensive post-operative care, driving up the cost of this method of delivery. In the United States in 2022,

c-sections accounted for nearly 33% of births, doubling in their rates from 12% in 2000 to 21% in 2015 to 33% in 2022.³³ As the rate of cesarean section has increased over time, employee backed insurance packages as well as Medicaid have increased the cost of the procedure creating the average cost of a c-section in the US to come out to \$17,004 vs. the



Picture #4: PERCENT OF BIRTHS FINANCED BY MEDICAID, UNITED STATES, 2019

Zephyrin, Laurie, Kay Johnson, Akeissa Coleman, and Rachel Nuzum. "State Options for Extending Medicaid Postpartum Coverage." Commonwealth Fund, August 11, 2021. <https://www.commonwealthfund.org/blog/2021/state-options-extending-medicare-postpartum-coverage>.

³² Melillo, G. (2020, July 30). *How much does it cost to give birth in the United States? it depends on the State.* AJMC. Retrieved April 3, 2023, from <https://www.ajmc.com/view/how-much-does-it-cost-to-give-birth-in-the-united-states-it-depends-on-the-state>.

³³ Ibid.,

\$12,235 it costs to deliver vaginally in a hospital setting.³⁴

The expansion of birth professionals that Medicaid covers in the perinatal period is a direct policy intervention that many states have identified as a solution to address the drivers in maternal mortality as listed above. More than half of Medicaid's 73 million recipients identify as Black, Hispanic, Asian American or other minority groups. Over 40% of births in the United States are covered by Medicaid, with more than half of those deliveries being for families of color, see picture #4.³⁵ By increasing the accessibility to wholistic care through the program, some of the pitfalls outlined above could be caught earlier to prevent maternal mortality.³⁶ By increasing the expansion of Medicaid to cover the costs of increased midwifery staffing over OBGYNs, covering birth center births or homebirths, access to doulas, lactations specialists, and other community support networks, new parents are better supported in this transitional stage of their life which improves outcomes. Through the current roll out of contemporary bills to expand Medicaid coverage, Medicaid outlines that "states may consider building on person-centered models of perinatal care to support individuals in the prenatal, delivery, and postpartum periods.....coverage of these services may be effectuated through multiple preexisting benefit categories, including but not limited to, preventive services, services of licensed practitioners, clinic services, and freestanding birth center services."³⁷ These categories are already in effect through Federal Medical Assistance Percentage (FMAP) given to states, and maternal mortality prevention packages are looking at strategic ways to incentivize medical facilities to utilize these services at a higher rate.

³⁴ Ibid.,

³⁵ Zephyrin, Laurie, Kay Johnson, Akeissa Coleman, and Rachel Nuzum. "State Options for Extending Medicaid Postpartum Coverage." Commonwealth Fund, August 11, 2021. <https://www.commonwealthfund.org/blog/2021/state-options-extending-medicaid-postpartum-coverage>.

³⁶ Advising Congress on Medicaid and CHIP Policy. (2021). *Racial and ethnic disparities in Medicaid: An annotated ... - macpac*. Retrieved April 4, 2023, from <https://www.macpac.gov/wp-content/uploads/2021/04/Racial-and-Ethnic-Disparities-in-Medicaid-An-Annotated-Bibliography.pdf>

³⁷ Centers for Medicaid and CHIP Services. (2021). *SHO# 21-007 re: Improving maternal health and extending ... - medicaid*. <https://www.medicaid.gov/federal-policy-guidance/downloads/sho21007.pdf>. Retrieved April 4, 2023, from <https://www.medicaid.gov/federal-policy-guidance/downloads/sho21007.pdf>.

Health expenditures must focus on a holistic maternal health approach that grants birthing people accessible insurance for prenatal appointments through postpartum.³⁸ This safety net allows birthing people to access care that focuses on the development of the fetus as well as their maternal health. With this increased expenditure, health systems would have increased the ability to expand the care team to include more birth professionals and allow for care providers to look at the whole individual, taking into account their medical history that will inevitably intersect with their pregnancy health. Under the current FMAP agreements between the federal government and states, programs already exist to offset the responsibility of patient well-being to include wholistic and community-based care providers to supplement the medical care received at a medical facility.³⁹ Through expanded education of Medicaid reimbursements and payment plans, facilities could increase the number of individuals involved in a patient's perinatal care, without significantly increasing the expenditure that is the responsibility of the facility.⁴⁰ Additionally, through the expansion of the perinatal care field, there are consequences to cesarean rates. The current model of under-resourced and understaffed clinical settings encourages the use of interventions and augmentations of labor to increase the effectiveness and proficiency, solely for the convenience of the hospital staff, rather than the centralized care of the birthing parent. Through increased diversification and resources, hospitals and clinical settings would increase time and labor allowing for each birthing parent to have the necessary time and space to go through the physiological process of birth with more presence from staff.

Unlike other medical diagnoses, a majority of birth requires the consistent care and attendance of a skilled eye to navigate the labor and birth process, rather than a medical professional scouring for a

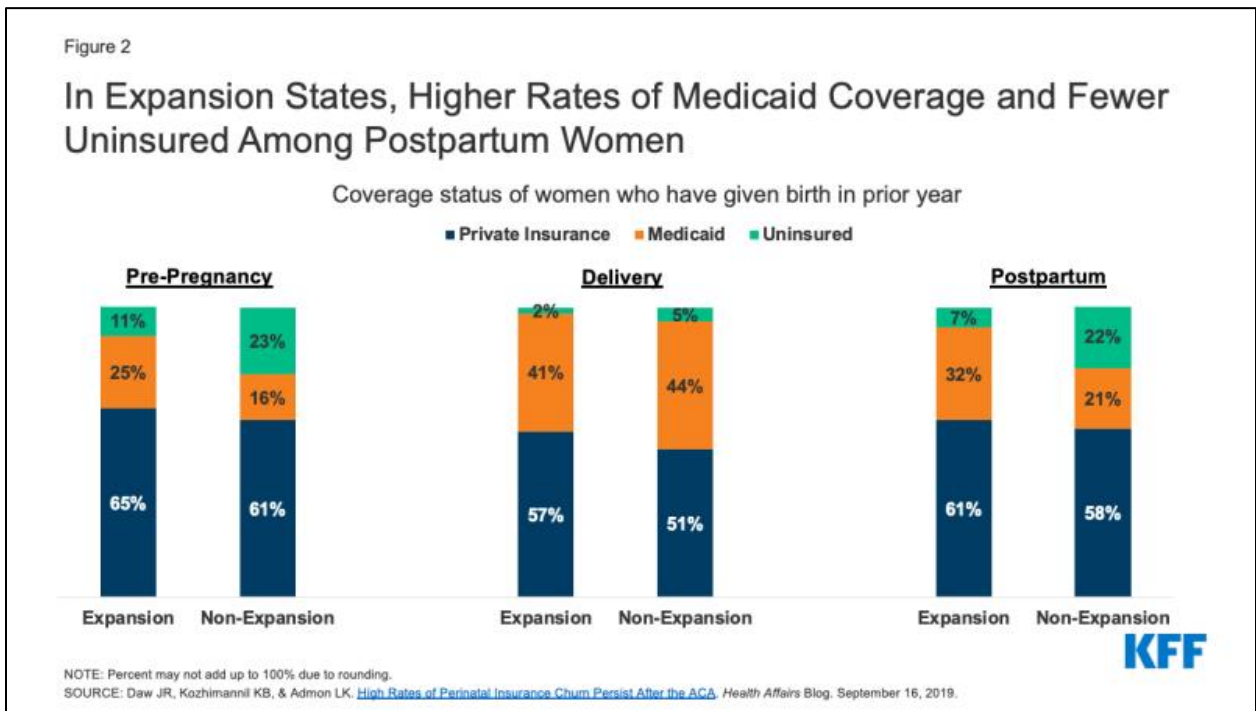
³⁸ Michael C. Lu, MD. "Reducing Maternal Mortality in the United States." JAMA. JAMA Network, September 25, 2018.

³⁹ Centers for Medicaid and CHIP Services. (2021). *SHO# 21-007 re: Improving maternal health and extending ... - medicaid*. <https://www.medicaid.gov/federal-policy-guidance/downloads/sho21007.pdf>. Retrieved April 4, 2023, from <https://www.medicaid.gov/federal-policy-guidance/downloads/sho21007.pdf>.

⁴⁰ Nashp, A. A. (2023, January 4). *Expanding the perinatal workforce through Medicaid coverage of Doula and Midwifery Services*. NASHP. Retrieved April 3, 2023, from <https://nashp.org/expanding-the-perinatal-workforce-through-medicaid-coverage-of-doula-and-midwifery-services/>.

problem to be fixed. In high-risk scenarios, the cutting-edge work of medical advancements can help offset complications and save lives. However, when all births are treated as high risk, issues of understaffing, over use of interventions, and lack of resources and labor drive down positive outcomes for both-high risk and low-risk patients due to the oversaturation of medical facilities.

In a majority of healthy pregnancies and deliveries, improved birth outcomes are associated with a more relaxed environment, the presence of a trusted birth professional, and the clear companionship and listening skills of individuals who know what is normal and abnormal about birth.⁴¹ Maternal mortality in the US is often linked to BIPOC or marginalized communities due to the lack of truly “hearing” the concerns of the patient. Whether this occurs in the prenatal, labor and delivery, or postpartum period, undereducated and under-resourced hospital staff often neglect the concerns of the parent until it is too



Picture #5: HIGHER RATES OF MEDICAID COVERAGE AND FEWER UNINSURED AMONG POSTPARTUM WOMEN

Nashp, A. A. (2023, January 4). *Expanding the perinatal workforce through Medicaid coverage of Doula and Midwifery Services*. NASHP. Retrieved April 3, 2023, from <https://nashp.org/expanding-the-perinatal-workforce-through-medicaid-coverage-of-doula-and-midwifery-services/>

⁴¹ Sparkman, Lora, Lora Sparkman, Mha, and Clinical Effectiveness Consultant. “Reducing Maternal Mortality: Steps to Improve Outcomes.” Relias, December 14, 2020.

late, which contributes to the reality that all too often translates to: “maternal mortality is preventable”. Through the federal expansion of Medicaid compensated services and the increased state funding for professionals outside medical settings, patients benefit from professionals who have time and capacity to care for them, directly correlating with decreased maternal mortality and higher prevention rates of uninsured people, see picture #5.⁴² Additionally, expanding these services will not only benefit the current facilities capacity, but by increasing the number of professionals from a variety of backgrounds and employers will increase the diversity of employer culture and expertise that surrounds a patient. Through Medicaid’s expansion of professional compensation to benefit those outside of medical facilities, patients benefit from a community-based web of professionals that can more cohesively meet the diverse needs that arise during the perinatal period.⁴³

Weaknesses and Limitations

As with any expenditure policy intervention, there are tradeoffs. Continuous health insurance coverage of prenatal and postpartum care will fill in the gap of community members losing access to health care after giving birth. This continuous care can take into account the intense and adverse mental health impacts that occur in the postpartum stage.⁴⁴ Under Medicaid, birthing people lose coverage automatically after 60 days postpartum, while their child born under coverage automatically receives coverage.⁴⁵ With the increased rate of MMR, the US government has a wealth of options to expand Medicaid to fill in the gaps that are costing lives. States can produce waivers, shift the qualifications of

⁴² Haley, Jennifer, Emily Johnston, Ian Hill, Genevieve Kenney, and Tyler Thomas. “The Public Health Insurance Landscape for Pregnant and Postpartum Women.” urban.org. Urban Institute, January 2021. https://www.urban.org/sites/default/files/publication/103561/the-public-health-insurance-landscape-for-pregnant-and-postpartum-women_0.pdf.

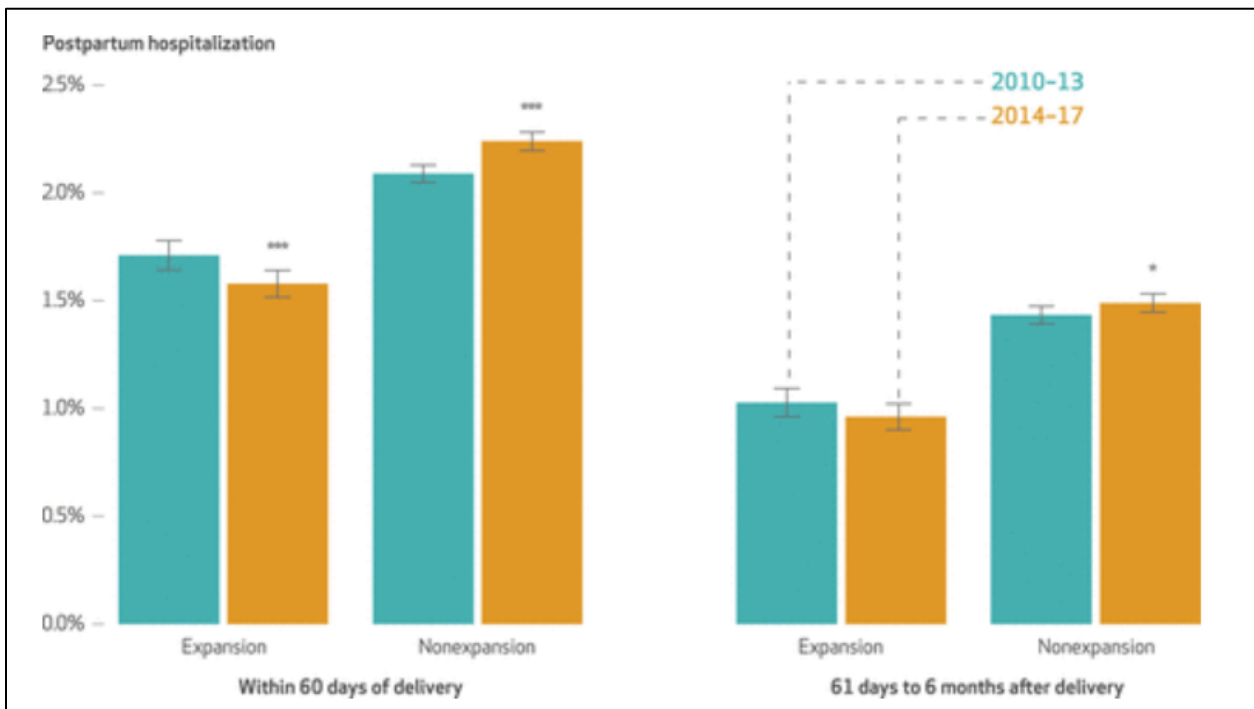
⁴³ Ibid.,.

⁴⁴ Ibid.,.

⁴⁵ Zephyrin, Laurie, Kay Johnson, Akeissa Coleman, and Rachel Nuzum. “State Options for Extending Medicaid Postpartum Coverage.” Commonwealth Fund, August 11, 2021.

Medicaid incurred over pregnancy, and expand beyond the 60-day window.⁴⁶ This expansion faces the risks of incurred debt, and for some, the concern of a greater enrollment of Medicaid patients.⁴⁷

Medicaid expansion states saw a sharp decrease in postpartum hospitalization and maternal mortality declines over the trial era, see picture #6.⁴⁸ While this genuinely benefits the lives and experiences of new parents, some argue that the increased expenditure on Medicaid coverage depletes state resources, coupled with the lack of profit medical facilities incur due to decreased hospitalizations. While this is a purely profitable point of view, those in disagreement of the expansion argue that while public health is increased over time, for profit medical facilities receive less funds for services rendered as well as contribute higher amounts of public benefit insurance, leading to less profit.



Picture #6: POSTPARTUM HOSPITALIZATION IN MEDICAID EXPANSION VS. NON-EXPANSION STATES
 Steenland, M. (2023). *Medicaid expansion led to reductions in postpartum hospitalizations ...* Health Affairs. Retrieved April 4, 2023, from <https://www.healthaffairs.org/doi/10.1377/hlthaff.2022.00819>

⁴⁶ Guth, Madeline and Rachel Garfield. “The Effects of Medicaid Expansion under the ACA: Studies from January 2014 to January 2020 - Report.” KFF, May 6, 2021.

⁴⁷ Ibid.,

⁴⁸ Steenland, M. (2023). *Medicaid expansion led to reductions in postpartum hospitalizations ...* Health Affairs. Retrieved April 4, 2023, from <https://www.healthaffairs.org/doi/10.1377/hlthaff.2022.00819>.

Additionally, others argue that expansion of Medicaid services and coverage only expand the coverage of low quality services. Research shows that through expansion, maternal mortality, postpartum complications both physically and mentally benefit from the expenditure, however qualitative analysis argue that the expansion of Medicaid puts mounting pressure on an unsustainable system. Medicaid is oversaturated with those covered and lacks the necessary resources and staffing to ensure sustainability. Through the expansion of Medicaid services, this could exacerbate the quality of services delivered.⁴⁹ This argument can be off set through the Medicaid FMAP programs that benefit providers outside of these facilities. By expanding the number of providers that are able to be compensated through Medicaid; including but not limited to, freestanding birth centers, independent doulas, midwives, lactation consultants, perinatal therapists, and nurse / family partnerships, the same medical facilities will not be continuously oversaturated with the same clientele base and rather expand the number of providers their qualify for.

Lastly, through my own analysis and observance of birth, there are limitations and weaknesses. My analysis primarily consisted of the contemporary data and research that is fairly new. The maternal mortality crisis in the United States has only recently garnered attention and funding to ensure that quality research is accumulated to begin to address the problem. This analysis lacks the value of understanding data over time. Additionally, all of my birth experience comes from a small group of births observed since the inception of the pandemic and limited to the geographical area of the Denver metro region. As compared to other states, Colorado has consistently led the way in cutting edge, research-backed approaches to improve maternal mortality outcomes. This translates to the reality that my own experience in birth comes with a consistent lens of bias through observing facilities that typically have better staffing and resources as compared to other areas of the United States. With that limitation in mind, my lived experience has been influenced by these variables.

⁴⁹ Steenland, M. (2023). *Medicaid expansion led to reductions in postpartum hospitalizations ...* Health Affairs. Retrieved April 4, 2023, from <https://www.healthaffairs.org/doi/10.1377/hlthaff.2022.00819>.

Conclusion

Through the concrete expansion of Medicaid services for women in prenatal and post-partum stages, the adverse effects on women of color in particular could be addressed. More than 40% of births in the US are covered by Medicaid. Primarily those covered by Medicaid are for families of color.⁵⁰ With the increased care, maternal mortality related to pre-existing conditions (primarily associated with women of color or families in lower economic situations) as well as postpartum mental healthcare coverage; the two largest conditions of MMR in the US would have more intervention. With increased health expenditure targeting these particular risks, care providers could increase the bandwidth to wholistically care for women in vulnerable positions.

The sanctity of birth requires the support of multiple professionals, family, and friends in order to be able to properly heal from child birth, acclimate to a changing lifestyle, and ensure the most positive health outcomes for baby and mother. Through Medicaid's expansion of compensating a variety of birth professionals, women who are most at risk of maternal mortality as well as who are in the most vulnerable positions for experiencing adverse outcomes during the perinatal period, have increased safety nets to improve health outcomes. The United States is at an embarrassing and unnecessary point in maternal health history, boasting some of the highest rates of MMR in the industrialized world. Through the strategic use of research backed projects, as well as increasing expenditure and the wealth of expertise at the community level, those most at risk for adverse perinatal outcomes can benefit from an expanded number of professionals and beneficial services to give them the best shot at a positive new-parent season.

⁵⁰ Guth, Madeline and Rachel Garfield. "The Effects of Medicaid Expansion under the ACA: Studies from January 2014 to January 2020 - Report." KFF, May 6, 2021.

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