Potential Effects of the Controversial Dobbs Decision on Maternal Mortality in the US

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Abstract— This study aims to investigate the potential effects of this rollback on maternal outcomes, particularly focusing on maternal mortality, utilizing publicly available data from the CDC's Mortality Multiple Cause-of-Death Public Use Data. Findings reveal that while overall maternal mortality appears to continue its decline, albeit at a slower rate post-Dobbs, disadvantaged and marginalized groups, notably Black women, have not experienced equivalent improvements in maternal health outcomes, maternal mortality rising more than 4% from 2022 to 2023 compared to at least a small decrease for every other race. Instead, these populations endure persistent or even heightened mortality rates. Additionally, there is a small trend towards younger maternal deaths, potentially indicating that resource disparities may exacerbate vulnerabilities resulting from restrictive abortion legislation. These findings underscore the exacerbation of existing health disparities following the Dobbs decision and the pressing need for comprehensive data collection and nuanced policy interventions to protect maternal health, particularly for those most vulnerable.

Keywords—Dobbs decision; maternal mortality; ICD codes; health disparities; racial inequities

I. Introduction: Background

In 2022 the controversial Dobbs decision made by the Supreme Court of the United States of America reversed nearly 50 years of constitutional protection for women's reproductive rights. The long-term consequences of this decision are still unfolding, ongoing legal challenges and other action by reproductive right's organizations and activists are pushing back against this change. Many states still have protections for reproductive rights in place but as this decision has been returned to state legislatures the US is now a patchwork of different laws governing the legality of abortion, a crucial reproductive health procedure. With the return of a new and emboldened Trump Administration the prospect of a national ban is not entirely out of the question. With these recent developments the goal of this project is to see if there is a discernible effect of this roll back of legality for those on maternal outcomes in states that have lost that right. The type of data that would potentially provide those types of insights would be infant and maternal mortality and morbidity data for the U.S. from the last few years, and potentially postpartum mental health data.

Since this project is limited in scope and not a full review or thesis it will focus on maternal mortality data that is available publicly for the United States. One of the key datasets for analyzing the maternal and infant mortality data from the past few years that is consistently referenced in the studies discussed in the literature review in the next section is the Mortality Multiple Cause-of-Death Public Use Data from the National Vital Statistics System at the CDC[1]. This project will hopefully provide new insights to the

effects over time on maternal mortality as abortion has become increasingly restricted in more states.

II. Existing Research

A. Overall Concerns

Restricting abortion access undermines established reproductive healthcare, exacerbates maternal mortality, and disproportionately affects marginalized groups, particularly Black and Hispanic communities. Up to two-thirds of maternal deaths were previously preventable and these numbers could rise. Beyond reproductive care, legal restrictions may limit access to necessary medications and fertility preservation treatments, and increase adverse outcomes, especially for very young adolescents. Additionally ethical, legal, and professional dilemmas face clinicians in restrictive legal environments[2].

B. Infant Mortality

One original investigation examines the impact of abortion bans on infant mortality rates across the U.S. using data from 2012 to 2023. States implementing complete or 6-week abortion bans were found to experience a 5.60% relative increase in infant mortality compared to expected rates—an absolute increase from 5.93 to 6.26 per 1000 live births. Analysis highlighted that the increase was more pronounced among Black infants, those with congenital anomalies, and in southern states. Notably, Texas significantly influenced these results. The findings suggest that abortion bans exacerbate existing disparities, disproportionately affecting populations already facing elevated infant mortality risks[3].

C. Maternal Mortality

In contrast there seems to be a lack of recent comprehensive review of maternal mortality in relation to recent abortion bans. There is a Pregnancy Mortality Surveillance System[4] put in place in 1987 by the CDC but it has been noted that despite this, the United States faces challenges posed by insufficient data collection in maternal health and mortality. Additionally the reliance on death certificates, which often lack complete information, complicates determining whether deaths during the first postpartum year are linked to the pregnancy[5].

III. METHODS AND RESULTS

A. Methods Considered

One of the key datasets used by much existing research focusing on this topic is analyzing the Maternal and Infant Mortality data from the past few years of NVSS Public Use Mortality Multiple Cause-of-Death Data File. This is the data that will be used in this project as well. Compiling a list of which states implemented abortion bans and when, along with their populations, allowing for a comparison of total maternal mortality to the percent of the population under total and partial abortion bans was heavily considered but it

was quickly discovered that compiling such a list was a sizable research project on it's own as the patchwork of often changing legal landscapes in different states is difficult to track and it seems almost nobody has compiled data on it save for a few resources that are either out of date as of 2022 or earlier or do not store date data[6]. Efforts will likely need to be taken to account for yearly trends and other possible confounding factors such as covid[3].

B. Implementation

Many potential angles for examining the data were considered, some were much more fruitful than others at yielding tangible results. Factors considered that did not lead to particularly clear results included examining more specific breakdowns of ICD-10 Codes for obstetric related deaths, obstetric related deaths as a percentage of total death, resident status, education level, and marital status.

Though nothing in particular was gleaned about the effects of the Dobbs decision on maternal mortality there were several notable trends in some of these factors. Obstetric related deaths that were caused by maternal complications complicating pregnancy spiked massively in 2022, likely directly caused by the COVID-19 pandemic. This was at its peak in September of 2021 where maternal deaths were 0.07% of all deaths up from an average of 0.03%.

Overall with the exception of the rise in deaths during the COVID-19 pandemic it seems like maternal mortality has continued to decline, if at a slightly less quick pace than it was before 2022/the Dobbs decision.

C. Results Found

What was found was that in populations that may be already disenfranchised or disadvantaged the gains that others are seeing in maternal mortality have been small or non-existent. It does seem that there has been a slight trend towards younger maternal deaths, perhaps indicating that younger people have fewer resources to cope with any medical realities legislation on abortion has created. This can be seen in the below figures depicting maternal death by age for 2022 and 2023. Though this may just be noise in a slower trend that seems to be the result in better care for those of older maternal health.

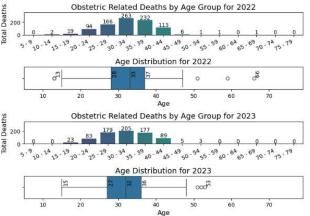


Fig. 1. Maternal Mortality (ICD Codes O00-O99) for age groups (2022-23)[8]

The most significant finding however seems to be the effect of the Dobbs decision on those who are disenfranchised through being people of color, specifically black people. While deaths and mortality dipped from 2022 to 2023 for all other races by varying degrees, for the Black population it

held more steady than other races in terms of total deaths. But when measuring maternal mortality for the black women captured in this dataset there is a notable difference between them and other races. Black maternal mortality rose 4.1% from 2022 to 2023. This is in comparison to it falling 11.5% considering all other races, a difference of more than 15%.

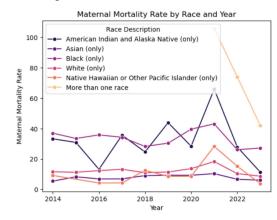


Fig. 2. Maternal Mortality (ICD Codes O00-O95 & O98-O99)

IV. CONCLUSION

Overall, the effect of the Dobbs decision on maternal mortality seems to be small, and hard to account for given that there are many confounding factors and only one full year of data post Dobbs. That decision reversed nearly 50 years of constitutional protections for women's reproductive rights, resulting in a fragmented legal landscape across the United States with varying state-level abortion laws. It is clear that those who can still afford and are able to travel state lines to receive needed medical care will do so leaving those without to suffer the consequences. It is clear by the fact that the total number of abortions performed in the United States has risen after this legislature instead of falling[9] as we can imagine these lawmakers intend, that these restrictive laws do not stop what they are trying to stop and instead only hurt the most vulnerable.

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