

Historical Trends in Maternal Mortality: 1960s-1970s

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Background and Research Objectives



Abortion, pre-eclampsia, puerperal sepsis, and peritonitis are all major causes of maternal mortality known as such for well over a century. In the late 1960s to the early 1970s, however, there was a dramatic increase in the number of medical journal articles internationally having to do with these four causes of maternal mortality. This study sought to understand why this increase in medical journal articles occurred during this time.

Methods

First, a quantitative data analysis was completed to see how many articles were published each year and where there were peaks, spikes, and a lack of articles. Peaks were noted if the number of medical journal articles did not generally increase and spikes were noted if the number of medical journal articles significantly increased within one year. Second, a qualitative analysis was performed by reading all the articles to determine if the reasoning behind the rise in articles was apparent within the articles themselves.



Figure 1. "Abortion" and "maternal mortality" (First article appeared in 1930)



Figure 2. "Pre-eclampsia" and "maternal mortality" (First article appeared in 1952)



Figure 3. "Sepsis" and "maternal mortality" (First article appeared in 1928)

Table 1. Rates After Abortion Legislation

Year	Legislation	Statistics
1967-1969	California's Therapeutic Abortion Act	Legal abortion ↓ from 48 (per 1,000 live births) to 22 (per 1,000 live births); maternal mortality ↓ from 8 (per 100,000 live births) to just over 3 (per 100,000 live births)
1972	India's Medical Termination of Pregnancy Act of 1972	Birth rate ↓
1967	1967 Abortion Act of England and Wales	Early 1960s-1969: (illegal abortions ↓ from ~30 per year to 15; 1968-1971: legal abortions ↑ by between 30,000-40,000 each year [despite this, maternal mortality rate continues to ↓]); # of births ↓ at the rate of 2.75%
1969	1969 Criminal Code Amendment Act of Canada	1970-1971: deaths ↓ by 1/3 despite total # of legal abortions ↑ by 3x
1970	1970 New York Abortion Law	1970-1971: births ↓ from 149,182 to 131,820 (decline of 1.6%); 1971: 2.8 deaths (per 10,000 live births) (lowest maternal mortality rate on record); 1971: live births ↓

Table 1 illustrates various abortion legislation and the birth, legal abortion, illegal abortion, and maternal mortality rates.

Figure 4. Article Data

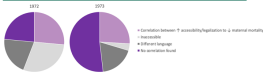


Figure 4 displays the number of articles from both 1972 and 1973 that found a correlation between increased accessibility/legalization and decreased maternal mortality, were inaccessible/in a different language, and did not mention a correlation.

Results and Conclusions

Authors of the 9/34 and 7/27 articles made the following correlations concerning abortions and maternal mortality:

- Increased accessibility/legalization = decreased maternal mortality
- Increased accessibility/legalization =
 - Increased legal abortion = increased legal abortion on deaths
 - YET decreased maternal mortality
- Decreased illegal abortion
- Decreased birth rates
- HOWEVER, this could be due to other factors!

Limitations

- There was limited access to articles in the sense that some articles were not available to me online right away, preventing complete analysis.
- A language barrier existed as some of the articles were in different languages, so I was not able to clearly analyze their trends.
- Due to a lack of time, the pre-eclampsia and puerperal sepsis spikes were not analyzed. Additionally, I only got to look at a very limited number of articles in the time that I had.

Future Research

- Other factors must be investigated. For instance, it was found that during the time of India's Medical Termination of Pregnancy Act of 1972, there were also forced sterilizations and birth control promotion, which both could have aided in the decreased birth rate. Looking at such factors would give individuals more insight into maternal mortality.
- Due to time constraints, the pre-eclampsia and puerperal sepsis spikes were not analyzed, but assuming there had been more time, I would conduct the same process for both conditions and attempt to find the reasoning for their spikes as well.
- Further research must analyze the correlation between race and maternal mortality. It is already seen today that Black mothers die at significantly higher rates than white mothers and evaluating how historical papers accounted for this inequity and defined race, racism, and structural racism would be necessary to investigate.