The Effect of Restrictions in Abortion Access on Overall Abortion Rate

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INTRODUCTION

An estimated 30% of women will have an abortion by age 45. In 2011, 730,322 abortions were reported to the Center for Disease Control, a rate of 219 abortions per 1,000 live births. This is a rate of 13.9 abortions per 1,000 women ages 15-44, which is the lowest abortion rate in more than three decades.

While myriad factors including increased use of low-failure-rate contraception and lower pregnancy rates contribute to the lower incidence of abortion, our study looks at factors that limit access to abortion and the impact these barriers have on overall abortion rate. These factors include access limitations such as distance to abortion facilities, multiple mandated clinic visits with 24-hour waiting periods, legal ordinances, financial resources, stigma and harassment, socioeconomic status, insurance coverage and knowledge of insurance coverage.

All of these access limitations can be affected by the ever-increasing burden of abortion legislation. Forty-two states prohibit abortion after a certain point in pregnancy, with three prohibiting third-trimester abortions, 21 prohibiting abortion at fetal viability, and 18 prohibiting abortion after a certain number of weeks. Additionally, since 2008, many states have passed legal limitations on access, including laws requiring counseling before an abortion, trips to the provider over multiple days, required ultrasounds, limits on insurance coverage and unnecessarily burdensome regulations on providers.

What are some factors that limit US women's access to abortions, and how do these factors affect overall abortion rate?

We hypothesize that the access limitations of more burdensome abortion legislation will lead to lower rates of abortion since they make it harder for women to use abortion services. Also, areas of the country with more burdensome regulations should have lower abortion rates, and higher social costs associated with abortion

RESULTS

Author	Study Design	Study Limitations	Key Findings	Significance
Jerman, J., and Jones, R.K. (2014). Secondary measures of access to abortion services in the United States, 2011 and 2012: gestational age limits, cost, and harassment. Womens Health Issues Off. Publ. Jacobs Inst. Womens Health 24, e419–e424.	Cross-Sectional	May not have found all US abortion providers. Survey response rates between 54% and 80% mean a biased sample. Regional differences may be obscured by the national data set.	Average price for an abortion at 10 weeks: $495, At 20 weeks: $1,350. Most pay out-of pocket. Average travel distance is 30 miles, and farther for second trimester abortions, and in states with a 24-hour waiting limit. 95% of facilities offer abortion services at eight weeks, 16% at 24 weeks. Highest rates of harrassment in Midwest (85%) and South (75%).	Since this study attempts to survey all US abortion providers, its findings can be considered representative of the general state of US abortions.
Jones, R.K., and Jerman, J. (2014). Abortion Incidence and Service Availability In the United States, 2011. Perspect. Sex. Reprod. Health 46, 3–14.	Longitudinal Time-Series Cohort Study	Surveys collected for 86% of tallied abortions, the rest are informed estimates. Doesn't include abortions without a doctor's prescription, and abortions outside the US. Abortions may have been obtained in state other than state of residence.	The abortion rate declined 13% between 2008 and 2011. The majority of abortions occur in the first trimester. Louisiana and Missouri implemented new restrictions, and saw 19% and 17% declines in abortion rate, respectively.	Since this study attempts to survey all US abortion providers, its estimate of the number of abortions and abortion providers should have high external validity.
Jones, R.K., Upadhyay, U.D., and Weitz, T.A. (2013). At What Cost? Payment for Abortion Care by U.S. Women. Womens Health Issues 23, e173–e178.	Cross-Sectional	Purposive sampling of geographically diverse clinics in 2008. 639 women surveyed, some did not answer all questions. Not representative of late-term abortions or women unable to afford desired abortions	12% of abortions were paid for by private insurance. 41% of women said it was somewhat or very difficult to pay for the procedure. A majority cited added transportation expenses, and a minority had lost wages, childcare expenses and other travel costs. Significant minorities of women delayed or did not pay other bills including rent (14%), food (16%) or utilities and other bills (30%) to pay for the abortion.	Though a small study, this showed that women around the country find it difficult to pay for all the costs related to an abortion, and cannot rely on insurance coverage, instead getting money from someone else.
Joyce, T., and Kaestner, R. (2000). The impact of Mississippi's mandatory delay law on the timing of abortion. Fam. Plann. Perspect. 32, 4–13.	Non-Randomized Control Trial	May be biased by heterogeneity between counties. Study lacked abortion timing data for women who went out of state for abortions and for women unable to afford desired abortions	After the Mississippi mandatory delay law was enacted, women's rates of abortion declined 10% in the treatment group, and only 3% in the control group. In the treatment group, the proportion of late-term abortions rose from 7.5% to 11.5%, a 53% increase, compared to an 8% increase in the control group	Control and treatment groups indicate that lower abortion rates are due in part to increasingly restrictive abortion laws. Mississippi has excellent abortion reporting, which makes for a good natural experiment on the effects of decreased abortion access.
Roberts, S.C.M., Fuentes, L., Kriz, R., Williams, V., and Upadhyay, U.D. (2015). Implications for women of Louisiana's law requiring abortion providers to have hospital admitting privileges. Contraception 91, 368–372.	Cross-Sectional	Surveys only three out of five Louisiana abortion clinics. The effects of the Louisiana law can only be forcasted as inactment of the law is pending. Assumes surrounding states do not implement similar laws.	Most women were low income with a high school education. Average one-way travel distance was 58 miles law will increase that to 208 miles. 72% of women will be more than 150 miles from a clinic, compared to 1% now.	The study demonstrated that if all five Louisiana clinics were to close, the distance women would need to travel would increase significantly, increasing logistic and financial difficulties of abortion, especially for the most vulnerable population. Does not consider the posibility of clinic closures in surrounding states
Upadhyay, U.D., Weitz, T.A., Jones, R.K., Barar, R.E., and Foster, D.G. (2013). Denial of Abortion Because of Provider Gestational Age Limits in the United States. Am. J. Public Health 104, 1687–1694.	Cross-Sectional	Fewer than 1,000 participants, and many invited to participate declined. Recruting efficacy into the study varied between 80% and under 30%. Participants demographics were similar to national demographics, but included a higher percentage of second trimester abortions. Question variation over time resulted in 16-20% missing data. Does not include those who called in advance and learned that way the pregnancy was too advanced to undergo abortion at the facility.	Most women having second trimester abortions wanted to have it earlier. More of the women turned away due to gestational age than women who got first-trimester abortions cited reasons for delay in seeking the procedure. Reasons included: travel and procedure costs, not recognizing the pregnancy, insurance problems, not knowing where to find abortion care or get to a provider.	On average women undergoing abortion have lower socioeconomic status, and those getting second trimester are particularly vulnerable because of the higher cost. Gestational limit laws will disproportionaly impact women of low socioeconomic status, likely resulting in more unintended births.

METHODS

A literature search was performed for studies involving access to abortions in PubMed. Search terms included variations on *abortion, access, gestational age, abortion law, abortion policy,* and *abortion cost,* as well as studies categorized under "Abortion, Induced" and "Health Care Quality, Access, and Evaluation" in the Medical Subject Headings Database.

The initial search yielded approximately 400 articles. Results were limited to recent studies published in English and available in full text. Articles were then individually searched for populations (US women affected by legal limitations on abortions); specific barriers to abortion access (e.g. cost, gestational age, travel distance, etc.); and outcomes involving abortion rate. Results yielded studies ranging from January 2000 to February 2015.

Six studies were reviewed, with the results shown in the adjacent table. While mostly cross-sectional studies, there was some variety in methods. Although randomized controlled trials of abortions are not possible, all the studies are recent, large, and performed on women in the United States, which gives them high external validity for evaluating trends in US abortions. While the heavy reliance on survey responses in these studies does raise the question of a convenience sample, all are large studies, and at least one endeavored to include every abortion performed in the USA, which helps limit the potential for bias.

CONCLUSIONS

Overall, the studies show a decline in abortion rates and a 4% decline in abortion providers between 2008 and 2011. Abortion rates declined most sharply where clinics closed or laws required a second visit.

The average abortion at 10 weeks cost approximately $500, but at 20 weeks an abortion costs $1350. Most abortion recipients are low-income and pay out-of-pocket. In addition to the cost of the abortion, most women incur ancillary expenses related to travel, and 30% delayed or did not pay a bill in order to pay for the abortion.

Women in rural areas and those in states with a 24-hour waiting period traveled farther to receive abortions. A recently passed Louisiana law, which is being contested in court, will result in the closure of at least three of the state's five abortion clinics, thereby increasing mean one-way travel distance from 58 to 208 miles and increasing logistic and financial strains tied to the procedure. Coupled with Louisiana's extant mandatory delay laws, this new legislation may result in increases in late-term abortions similar to those seen in Mississippi women. Women affected by Mississippi mandatory delay laws are less likely to get abortions than controls, and more likely to travel farther and get more expensive late-term abortions.

Women having second-trimester abortions report that cost and access prevented them from aborting earlier. However, late abortions have significantly more problems with cost and access, because only 23% of abortion providers offer abortions at 20 weeks, and only 11% do so at 24 weeks. So while restrictive legislation decreases the abortion rate, it increases the incidence of late-term abortions and increases the overall cost to women.

FUTURE DIRECTIONS

Restrictive abortion laws increase direct and indirect costs of abortions, and cause fewer women to get abortions, and more to receive abortions later in pregnancy. Since late term abortions are significantly more hazardous to women's health, these access limitations have a negative impact on women's health and finances.

The long-term impacts of abortion access are not well quantified and could be spelled out through additional research. Gestational age limits at many facilities caused 4,000 women to be unable to obtain an abortion. When surveyed, women receiving late-term abortions cite access limitations such as cost and distance a major reason for their late presentation.

The Turn-Away study is an ongoing longitudinal study comparing women who are refused an abortion to women who receive a later-term abortion, and should help determine the long-term consequences of these limitations to abortion access.