

The Health and Socioeconomic Outcomes of Abortion Denial in Rhode Island: A Health Impact Assessment

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ABSTRACT

OBJECTIVES: To determine the health and socioeconomic consequences of comprehensive abortion denial in Rhode Island.

METHODS: Using Turnaway Study findings and RI abortion data from 2013-2016, we project the burden of negative outcomes for women and their families under 100% abortion denial conditions.

RESULTS: Findings suggest negative impacts on the health and socioeconomic well-being of RI women and their families. 982 and 910 women, who would have otherwise received an abortion, will report anxiety and depression, respectively, at one-week post abortion denial, and 1,499 will report receiving Temporary Assistance for Needy Families funding at six months post denial.

CONCLUSIONS: If women who would seek a safe and legal abortion in RI are denied one, clear and undue burden will exist for those who carry to term and raise the child, as well as affecting existing children.

KEYWORDS: abortion denial, Rhode Island, outcomes, women, health

INTRODUCTION

Abortion denial is a critical public health issue.¹ In 1965, 17% of all childbirth mortalities were subsequent to illegal abortions (IA). Today, less than 0.03% of women who undergo legal abortions (LA) sustain serious injury or complications resulting in hospitalization.² Death is even less common, with only six mortalities from LA in 2014.³ Further, the American Gynecological & Obstetrics Association underscores the epidemiological reality that childbirth poses a 14 times higher risk of death for women than LA.⁴

The Supreme Court of the United States' (SCOTUS) 1973 landmark ruling to legalize abortion nationally improved the public's health by making this service both more accessible and through clinical regulation, safe.⁵ Repercussions of *Roe v. Wade* have been far-reaching and influential to "the full emancipation of women," as Justice Harry Blackmun proclaimed.² With the right to decide whether to terminate a pregnancy – to have a child and raise a family – women have participated in educational and employment opportunities

that, during the ban, were scarcely obtainable.²

Today's women, however, are facing the most direct threats to their reproductive freedom since before 1973. With new conservative Justices recently appointed, SCOTUS' balance has shifted to the right, once again, actually in favor of limiting and outlawing abortions. In attempts to preserve the right currently afforded to women by *Roe*, state-level protections have emerged in General Assemblies across the country. With *Roe* in jeopardy of overturn, Rhode Island (RI), which depends upon the federal decree to ensure abortion access, is now engaging in efforts to safeguard the right to abortion by passing consistent local legislation.

To our knowledge, there is no robust, existing literature that has studied abortion and the consequences of its inaccessibility in Rhode Island. Towards the goal of better understanding proposed health policy, we conduct a Health Impact Assessment (HIA) using rudimentary projection modeling to examine the health and socioeconomic burden of abortion denial among RI women.

METHODS

Turnaway Study Data Collection

Secondary data were compiled from the Turnaway Study (TS) (see Table 1).⁶⁻¹¹ From 2008 to 2010, the TS recruited 955 participants from 30 abortion facilities registered with the National Abortion Federation across 21 states. Gestational limits of these facilities ranged from 10 weeks through second trimester. Eligible women included those 15 years or older who spoke English or Spanish, had no known fetal complications indicating a potential maternal health need for an abortion, and reported to one of the study facilities seeking an abortion.⁶

The TS aimed to describe the mental and physical health, as well as socioeconomic consequences of receiving a desired abortion compared to those who were "turned away" at the clinical facility, carrying an unintended pregnancy to term.¹² A prospective cohort design, the TS collected data during a five-year period (2010-2015) by conducting ~8,000 telephone interviews. Women were first interviewed 8 days after seeking an abortion, receiving or being denied the procedure, and were followed-up at six-month intervals.¹²

For comparison, all participants were classified into one of three study groups based on gestational age at the time an

abortion was sought. Women who sought an abortion up to three weeks over the gestational limit and were turned away without receiving an abortion were included in the Turnaway Birth Group (TBg). Women assigned to the Near-limit Group (NLg), sought their abortions up to two weeks prior to the facility's gestational limit and received an abortion. Lastly, women in the First Trimester Group (FTg) received an abortion during the first 12 weeks of their pregnancy.¹²

Extrapolation Process

RI abortion prevalence trends (2013-2016) obtained from the RI Department of Health's Health Center for Data and Analysis were averaged to 2,372 annually. For extrapolation purposes, in a policy environment where abortion is illegal, we define the 2,372 annual abortions as 100% denials and equate them in the projections to the TBg category from the TS.

The CDC reports, among RI women receiving abortions, 92% are received at ≤ 13 weeks gestation and 8% at > 13 weeks.³ These proportions were applied to dichotomize the abortion group consistent with the TS's groupings. For mean extrapolation, TS means by group were multiplied by each RI group to determine the expected number of additional days per year that women will experience the outcome (see **Figure 1**).

Adjusted odds ratios (aOR) from the TS were inverted so the TBg was compared to both NLg (ref) and FTg (ref) separately. Estimated probabilities were calculated from aOR reciprocals and multiplied by the number of RI women proportioned to each expected annual abortion prevalence subgroup (see **Figure 1**). For physical violence specifically, in order to extrapolate to the RI population of women receiving abortions per year, we applied the proportion of women in the TS sample who reported experiencing physical violence by the male involved in pregnancy during the 6 months prior to baseline (5%) to the RI average (2,372 women) abortion prevalence.⁹

For each construct, the number of women projected to experience the specific outcome was calculated by totaling the subgroups using an adjusted strength formula (see **Figure 1**). The number of first trimester RI women was multiplied

by 2/3 in an effort to account for inherent differences between the comparison groups. Two-thirds strength was chosen because demographic data from the TS showed financial differences between FTg and those of NLg and TBg (monthly income is 1.5 times higher and household monthly income is 1.4 times higher in the FTg versus the NLg and TBg).⁷ NLg and TBg were found to be demographically consistent.

For subjective poverty, comparison groups include: mothers with an existing child who received a desired abortion (ExCag) versus those with an existing child who were turned away and gave birth (ExCTBg). According to the CDC, 55% of women who receive abortions in RI have existing children in the household.³ This proportion was applied to determine the number of children living in a home where the mother, who would have otherwise sought an abortion, has reported subjective poverty post-denial.

RESULTS

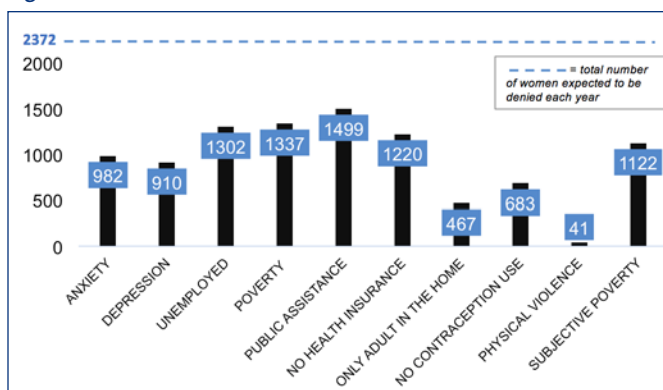
Based on an average of 2,372 abortions received per year and drawing upon the TS national sample's findings collected from 2010-2015, extrapolations for comprehensive abortion denial in RI show an increase in the number of women (and children) experiencing adverse health and socioeconomic outcomes.

In RI, the average induced termination prevalence per year is 2,372 with a rate of ~ 11.32 abortions being performed for every 1,000 women aged 15-44 years. The total number of days per year that physical limitation would be experienced post-partum by women, who would have otherwise sought and received an abortion, was found to be 23,957 days. This is a threefold increase with 16,424 additional days of limitation attributed to abortion denial.

If abortions were outlawed in RI, an estimated 982 (41.4%) and 910 (38.4%) of the 2,372 (100%) women turned away will report experiencing anxiety or depression, respectively, at one-week post abortion denial. 1,220 (51.4%) women who would have otherwise received either a FTg or NLg abortion, will report not having private or public health insurance at six months post denial. Over the five years following denial, 683 (28.8%) of these women are not expected to be using a modern contraception method. Regarding socioeconomic outcomes, 1,302 (54.9%), 1,337 (56.4%), and 1,499 (63.2%) women will report being unemployed, at or below the Federal Poverty Level, and receiving Temporary Assistance for Needy Families (TANF) funding, respectively, as of six months post denial. Four hundred sixty-seven (19.7%) women at six months following denial will reside without adult family or a male partner. With comprehensive denials, an additional 41 (1.7%) women will report being victims of physical violence (e.g. pushed, hit, slapped, kicked, choked, or physically hurt by the man involved in the pregnancy during the 2.5 years following their sought abortion.

Lastly, projections suggest that 1,122 (47.29%) children

Figure 1.



(<5 years old at one week post denial) born previous to abortion denial will live in a home where their mother reports, during six months to four years after the denial, insufficient money to pay for food, housing, and transportation.

Combining projections for the ten health and socioeconomic constructs examined in our HIA, we project that a total of 9,663 (excluding physical health) new cases of negative outcomes will be experienced within 5 years post denial compared to if abortion was legal.

DISCUSSION

These findings show that comprehensive abortion denial has negative impacts on the health and socioeconomic well-being of RI women (see **Table 1** and **Figure 2**). If all 2,372 women expected to receive an abortion in RI each year were no longer able to access this health service, approximately 20%–63% of them would experience *at least* one of the negative outcomes examined in this HIA. When women

who would otherwise seek a safe and LA are denied one, clear and undue burden emerges.

While this study did not assess the relationship between abortion denial and unregulated abortion mortality, acute health outcomes are important to consider. Regression to a pre-Roe level of access would not prevent all abortions from occurring, but instead, increases the frequency of unsafe abortions.⁵ Examining national abortion data between 1972 and 1974, the CDC found that IA mortality fell from 39 deaths of women to only 5 deaths.¹³ This is likely an underestimate of the burden due to the procedure's illegal nature and under-reporting.¹⁴ Injury and mortality from IAs would increase in RI if there is widespread abortion denial.

Existing literature provides insight, consistent with these projections, into the expansive range of impact abortion denial has on women and their families. Although no research has been conducted on abortion denial in RI, national analyses suggest that compared to abortion recipients, those denied are more likely to experience serious complication from the end of pregnancy (including eclampsia and death), stay tethered to abusive partners, and are less likely to have aspirational life plans for the coming year.^{11,9,14}

Table 1. Turnaway Study Adjusted Odds ratios and Estimated Probabilities by Construct

Construct	Turnaway Study (national sample)		Present Study (RI extrapolation)
	aOR	Estimated Probability (95% CI)	Women with Outcome N (%)
[ref (1) = TBg]			
Anxiety			982 (41.41%)
NLg	0.89	0.47 (0.44, 0.50)	89
FTg	1.59	0.61 (0.58, 0.64)	893*
Depression			910 (38.37%)
NLg	0.87	0.47 (0.43, 0.50)	88
FTg	1.30	0.57 (0.53, 0.60)	822*
Employment Status			1,302 (54.90%)
NLg	3.06	0.75 (0.72, 0.78)	143
FTg	3.92	0.80 (0.77, 0.82)	1159*
Poverty Status			1,337 (56.37%)
NLg	3.77	0.79 (0.76, 0.82)	150
FTg	4.44	0.82 (0.79, 0.84)	1187*
Public Assistance			1,499 (63.20%)
NLg	6.26	0.86 (0.84, 0.89)	164
FTg	11.18	0.92 (0.90, 0.94)	1335*
Health Insurance			1,220 (51.43%)
NLg	2.54	0.72 (0.69, 0.75)	136
FTg	2.92	0.75 (0.71, 0.77)	1084*
Household Structure			467 (19.71%)
NLg	0.55	0.36 (0.32, 0.39)	67
FTg	0.38	0.28 (0.24, 0.31)	400*
Contraceptive Use			683 (28.78%)
NLg	0.57	0.36 (0.33, 0.39)	69
FTg	0.73	0.42 (0.39, 0.45)	614*
Physical Violence			41 (1.72%)
NLg	0.98	0.50 (0.46, 0.53)	5
FTg	0.98	0.50 (0.46, 0.53)	36*
Subjective Poverty			1,122 (47.29%)
ExCTBg	6.13	0.86 (0.82, 0.90)	

LIMITATIONS

Risk factors for negative outcomes, such as prior mental health diagnoses or history of child abuse, neglect, sexual violence, and intimate partner violence, were not known. Therefore, we do not know if RI women are comparable to those sampled by the TS. We calculated confidence intervals rather than prediction intervals because we do not have access to the standard error of residuals in each of the regression models performed in the TS. As such, more uncertainty exists around our estimates than the confidence intervals show.

Data on percentage of women in RI who report physical violence during the six months prior to abortion were not known. Instead, the percentage found in the TS was applied to the extrapolation. Further, the extrapolation for subjective poverty is likely an underestimate because data regarding subsequent children is not known for women receiving abortions in RI. These projections assume causality from the 5-year longitudinal TS. All constructs are mutually exclusive in the projections, so experience of more than one negative outcome could not be determined. Despite the rudimentary methodological approach, this is the first study attempting to project the health and socioeconomic impacts of abortion denial in RI.

PUBLIC HEALTH IMPLICATIONS

Access to LA must be maintained and protected in RI. In June of 2019, the RI General Assembly passed The Reproductive Privacy Act, a state statute consistent with Roe, protecting safe and legal abortion at the local level. A Health in All Policies approach to sexual and reproductive health should be employed to address this public health issue by incorporating health considerations into decisions made across policy areas.¹⁵ This interdisciplinary strategy has the potential to prevent unnecessary harm to women and cost to the community.

Although there are limitations in our study, these projections offer RI health professionals and policymakers evidence of abortion denial's consequences for their patients and constituents. These results also set precedent for a Department of Health plan of action, such as a harm reduction model, in preparation for potential abortion right abolishment.

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Figure 2: Method of Extrapolation from Turnaway Study to RI Projections

Turnaway Study

Mean

aOR

- Calculated: 2013-2016 abortion prevalence averaged = 2,372 abortions expected per year

- Calculated: Logit = $\ln(aOR)$
- Calculated: Estimated Probability (EP) = $e^{b \text{ coefficient}} / (1 + e^{b \text{ coefficient}})$
- Calculated: 2013-2016 abortion prevalence averaged = 2,372 abortions expected per year

Women Outcome (1 construct)

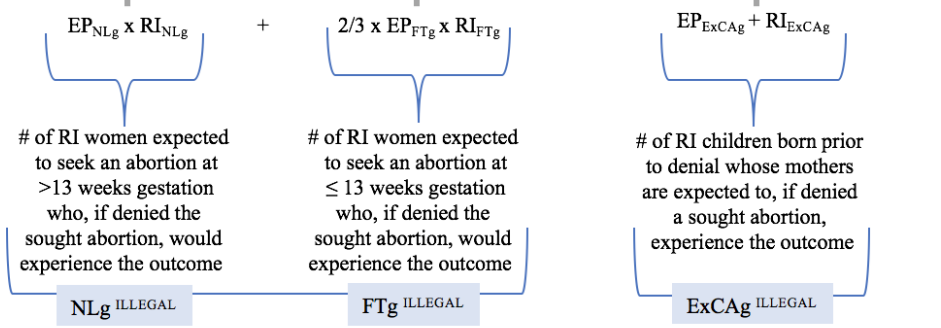
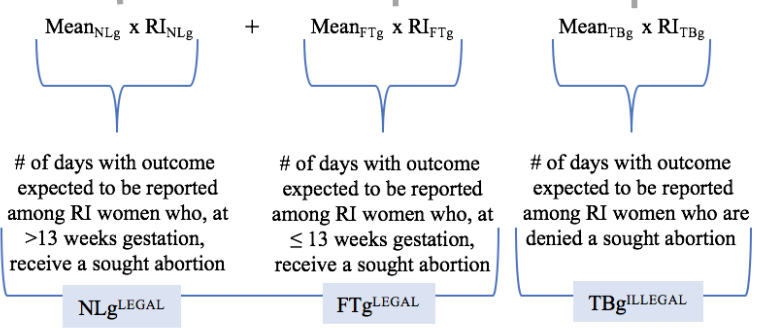
Women Outcome (9 constructs)

Children Outcome (1 construct)

TBg: 100% denial (n = 2,372)
FTg: 92% (n = 2,182)
NLg: 8% (n = 190)

FTg: 92% (n = 2,182)
NLg: 8% (n = 190)

ExCAg: 64% (n = 1,511)



$NLg^{LEGAL} + FTg^{LEGAL} =$
 total # of days/year expected to experience the outcome when abortion is legal in RI

$TBg^{LEGAL} =$
 total # of days/year (TBg) expected to experience the outcome when abortion is legal in RI

$NLg^{ILLEGAL} + FTg^{ILLEGAL} =$
 total # of women projected to experience the outcome when abortion is illegal in RI

$ExCAg^{ILLEGAL} =$
 total # of children projected to live in home where their mothers report experiencing the outcome

$(TBg^{ILLEGAL} - [NLg^{LEGAL} + FTg^{LEGAL}]) =$
 projected increase in the # of reported days/year expected to experience outcome when abortion is illegal (100% denial)