

# Denial of Abortion Because of Provider Gestational Age Limits in the United States

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The majority of abortions in the United States are in the first trimester of pregnancy, but 8.5% (approximately 100 000) occur after 13 weeks' gestation.<sup>1</sup> Most women having second trimester abortions would have liked to have had the procedure earlier,<sup>2</sup> and women report a number of delaying factors, including cost and access barriers and late detection of pregnancy.<sup>2–4</sup> These delays can result in women being denied care because they present with pregnancies beyond an abortion provider's gestational age limit and are unable to obtain an abortion elsewhere. (An "abortion provider" is a facility where abortions are performed.<sup>5</sup>) Little is known about how frequently this occurs and what happens to women denied abortion care.

The 1973 Supreme Court *Roe v. Wade*<sup>6</sup> decision established the point of potential fetal viability as the threshold after which states could restrict women's access to abortion care as long as they allowed for exceptions to preserve the life and health of the pregnant woman. However, *Roe v. Wade* did not specify a gestational age for viability. Many states have established an upper gestational limit, most commonly after 24 weeks from a woman's last menstrual period, and some states have done so without the required exceptions.<sup>7</sup> At least 8 states have recently reduced or plan to reduce the upper gestational limit to 20 weeks, and 1 state to 18 weeks.<sup>8</sup> Individual abortion providers can set their limits at lower gestational ages, and do so based on the availability of trained physicians, clinician and staff comfort, and facility regulations. According to a national survey of abortion providers, 23% offer abortions after 20 weeks' gestation, and 11% do so at 24 weeks.<sup>5</sup> Because fewer providers offer abortion care after the first trimester, women must travel longer distances to obtain later abortions. Because later abortions are more complex procedures, often occurring over 2 or more days, they are also more costly; the average

**Objectives.** We examined the factors influencing delay in seeking abortion and the outcomes for women denied abortion care because of gestational age limits at abortion facilities.

**Methods.** We compared women who presented for abortion care who were under the facilities' gestational age limits and received an abortion (n = 452) with those who were just over the gestational age limits and were denied an abortion (n = 231) at 30 US facilities. We described reasons for delay in seeking services. We examined the determinants of obtaining an abortion elsewhere after being denied one because of facility gestational age limits. We then estimated the national incidence of being denied an abortion because of facility gestational age limits.

**Results.** Adolescents and women who did not recognize their pregnancies early were most likely to delay seeking care. The most common reason for delay was having to raise money for travel and procedure costs. We estimated that each year more than 4000 US women are denied an abortion because of facility gestational limits and must carry unwanted pregnancies to term.

**Conclusions.** Many state laws restrict abortions based on gestational age, and new laws are lowering limits further. The incidence of being denied abortion will likely increase, disproportionately affecting young and poor women. (*Am J Public Health*. 2014;104:1687–1694. doi:10.2105/AJPH.2013.301378)

charge for an abortion at 10 weeks is \$543 compared with \$1562 for an abortion at 20 weeks.<sup>5</sup> Some women must also arrange for childcare, take time off work or other responsibilities, and incur transportation and hotel expenses; raising these funds results in additional delays.<sup>9</sup>

We sought to describe the characteristics associated with being turned away because of provider gestational age limit, and the efforts such women make to obtain a desired abortion. Additionally, we explored the factors associated with obtaining a desired abortion elsewhere. Finally, we estimated the incidence of women being denied an abortion in the United States because of provider gestational limits.

## METHODS

We obtained the data for this study from 2 sources, the University of California, San Francisco (UCSF) Turnaway Study and the Guttmacher Institute's Abortion Provider

Census. Both studies were approved by their institutional review boards.

The Turnaway Study is a 5-year longitudinal prospective study of women who receive an abortion and women who are denied an abortion because they present for care after the provider's gestational limit. The study was designed to assess a variety of outcomes of receiving an abortion compared with carrying an unwanted pregnancy to term. From 2008 to 2010, the Turnaway Study recruited women from 30 abortion providers across the United States. Only "last stop" providers were selected, defined as being more than 150 miles from a facility with a later gestational limit. They were located in 21 states distributed relatively evenly across the country. Women were recruited on a 1:2:1 ratio: women who presented up to 3 weeks over the provider's gestational limit and were turned away ("turnaways"), women who presented up to 2 weeks under the limit and received abortions ("near-limit abortion patients"), and women who presented in the first trimester

and received abortions (“first trimester patients”).

Women were eligible for participation if they sought an abortion within the gestational limits for each of the study groups, spoke English or Spanish, and were aged 15 years or older. Further details on recruitment and methods can be found elsewhere.<sup>10–12</sup> After the baseline survey, study participants were contacted for a follow-up phone interview every 6 months for 5 years. Turnaway Study data for this analysis were from the baseline (1 week after recruitment) and 6-month interviews.

To reduce losses to follow-up, researchers collected detailed contact information and participants’ preferred methods of communication and confidentiality protection preferences; they also called women after 2 months to confirm that the woman’s primary and secondary contact information was still valid. When participants could not be reached, researchers called each day, for up to 5 days. If the participant still could not be reached, researchers sent up to 3 follow-up letters by mail or e-mail (according to stated contact preferences) and continued to call at the same frequency for a maximum of 10 sequential days. To mitigate respondent burden and to compensate them for their time, participants received a \$50 gift card to a large retail store upon completion of each interview.

Facility data from the Guttmacher Provider Census were used to estimate the incidence of being denied an abortion nationally because of facility gestational age limit. These data have been used to create national estimates of a variety of abortion-related indicators.<sup>5,13–16</sup> In 2009, the Guttmacher Institute surveyed all US facilities known to have performed abortions. In May 2009, up to 3 rounds of questionnaires were mailed to all potential providers, and extensive phone follow-up was conducted. Of the 2344 facilities surveyed, 1024 responded to the mailed questionnaire, 501 responded during nonresponse follow-up, and health department data were used for 451 facilities. A total of 1793 facilities reported providing at least 1 abortion in 2008. All facilities were asked the number of abortions performed and the maximum gestation at which abortion services were offered, and about other aspects of abortion care. Further details can be found elsewhere.<sup>5</sup>

### Measures

All measures were taken from the Turnaway Study. During the baseline Turnaway Study interview, participants were asked about sociodemographic characteristics, their reproductive histories, when they discovered they were pregnant, when they first considered an abortion, and any difficulties they experienced accessing care. Access to abortion was operationalized by the distance women traveled to get to the study recruitment facility and the number of other facilities they called or visited before presenting at the recruitment facility. Distance traveled by road was estimated using the STATA module (StataCorp, College Station, Texas) TRAVELTIME<sup>17</sup> which uses Google maps (Google, Mountain View, California) to geocode distance between participant and facility zip codes.

All participants were asked about the reasons for delay in seeking an abortion. First, they were asked an open-ended question, “Did anything slow you down and prevent you from getting to the [Recruiting site] earlier in your pregnancy?” A few months after data collection began, additional closed-ended items about specific reasons for delay were added to the instrument, including: not knowing you were pregnant, not knowing where to go to get the abortion, figuring out how to get to the provider, travel costs, costs of the procedure, insurance coverage, and trouble deciding whether an abortion was wanted. Participants could select all that applied. Responses from the open-ended question were coded by 2 of the authors and combined with the closed-ended item categories. We conceptualized insurance delays as distinct from procedure cost delays, in that the former included administrative and logistical problems, such as having to determine whether the procedure was covered among women with insurance or waiting for Medicaid-based coverage. Women who were not asked the closed-ended items and did not mention the issue in response to the open-ended question were coded as missing for that category. At baseline, and if they had not had an abortion at baseline, again at 6 months, turnaways were asked whether they considered obtaining an abortion elsewhere, whether they had obtained an abortion elsewhere, and what barriers they faced in accessing care.

### Data Analysis

We conducted the analysis in 3 parts. First, we compared the sociodemographic characteristics and reproductive history and intentions of first trimester patients, near-limit abortion patients, and turnaways. Because almost one third of participants, nearly exclusively women living with their parents, did not know their household income, we also examined mother’s education as a proxy for socioeconomic status. We used bivariate mixed-effects regression models that included random effects for facility, presenting *P* values that adjusted for the clustering of participants within providers. We used mixed-effects logistic regression to assess group difference in binary variables, mixed-effects multinomial logistic regression for categorical variables, and mixed-effects ordinal logistic regression for ordered categorical variables. For continuously coded characteristics, we used mixed-effects linear models to assess differences in means among the study groups. We also described the access-related barriers and compared these experiences by study group using mixed-effects regression models.

Second, we examined the factors associated with having an abortion after being denied one. We fit a multivariable mixed-effects logistic regression model to assess the characteristics associated with ultimately obtaining an abortion among turnaways. The model included sociodemographic variables and reproductive history and intentions. Because of clustering of gestational age by site, both site gestational limit and the individual’s deviation from the site gestational limit were entered into the model. Statistical significance was set at  $P < .05$  for all comparisons and adjusted odds ratios (AORs), and 95% confidence intervals are reported. All statistical analyses were performed using STATA 12 (Stata Corp, 2011).

Finally, we estimated the incidence of being denied an abortion because of provider gestational limit and projected the number of women affected nationally per year. We used data provided by 4 study providers (1 on the east coast, 2 in the midwest, and 1 on the west coast) that maintained records of all women denied care because of gestational limits to estimate the proportion of all clients

who presented beyond the facility's gestational limit. All 4 facilities performed at least 400 abortions, provided abortion care at the latest gestational age for at least 150 miles, and went to at least 13 weeks' gestation, characteristics that were similar to abortion facilities in the larger sample of last-stop abortion facilities.

We applied this estimated proportion to the total number of women seeking abortions at last stop facilities based on the Guttmacher Provider Census data. Last stop facilities were those that performed  $\geq 400$  abortions in 2008, provided abortion care at the latest gestational age for that state, but went to at least 13 weeks' gestation, and were more than 150 miles from a facility in a bordering state that had a later gestational limit.

## RESULTS

Among the 3045 women who were approached, 39.4% were interested in being interviewed semiannually for 5 years, and agreed to speak with UCSF researchers by phone. The most common reason for refusal was the time commitment required for participation. Among these, 94.4% were eligible, gave informed consent to participate in the study, and were enrolled. After stratifying by study group, nonparticipants (among those consented) did not differ from participants on age or gestational age of the pregnancy at the time of enrollment. A total of 956 women completed the baseline interview: 273 in the first trimester group, 452 in the near-limit abortion group, and 231 in the turnaway group. Among the women enrolled, 92% were retained at 6 months, with no differential loss to follow-up among groups.

The sample was racially and ethnically diverse, with more than half (50.4%) being Latina or African American (Table 1). The majority were single and never married (78.8%), and most had previous children (59.2%).

Sociodemographic characteristics of first trimester patients differed substantially from near-limit abortion patients. Near-limit abortion patients were less likely to be aged 25 to 34 years, more likely to be multiracial or other race, less likely to have a college degree, less likely to be in the highest income category, and less likely to be employed. Near-limit abortion

patients discovered their pregnancies at later gestational ages than first trimester patients, and near-limit abortion patients were less likely to report difficulty deciding about the abortion.

There were few sociodemographic differences between turnaways and near-limit abortion patients; turnaways were younger, less likely to be employed, and less likely to have children than were near-limit abortion patients. Most notably, turnaways discovered their pregnancies at later gestational ages than did near-limit abortion patients.

### Reasons for Delay and Access Barriers

Among all causes of delay, turnaways were more likely than first trimester patients to report that each reason caused a delay except for difficulty deciding whether to have an abortion (Figure 1). Reasons for delay included travel and procedure costs (36.5% among first trimester patients and 58.3% among turnaways), not recognizing the pregnancy (37.8% among first trimester patients and 48.1% among turnaways), insurance problems (20.3% among first trimester patients and 37.2% among turnaways), not knowing where to find abortion care (19.9% among first trimester patients and 33.5% among turnaways), and not knowing how to get to a provider (12.8% among first trimester patients and 29.8% among turnaways; all  $P$  values  $< .05$ ).

Between turnaways and near-limit abortion patients, there were no significant differences in reasons for delay. For women in both groups, the most common reason for delay was travel and procedure costs. Most responses to the open-ended questions did not specify which costs caused the delay: women commonly cited, "money," and "finances."

Near-limit abortion patients and turnaways reported a variety of additional life circumstances that did not fit the predeveloped categories of reasons, including (in no order) having to wait a while for an appointment, opposition from family or friends, being in jail, needing to obtain an ID or birth certificate, weather (ice storm, blizzard, or flooding), fear of protesters, difficulties getting time off work, and difficulties getting childcare. A few women cited problems with referrals; for example, 1 woman reported that she had to

wait a week before she could get an appointment at another provider, and by then she had also surpassed the new provider's gestational limit.

Generally, near-limit abortion patients went to greater lengths than turnaways to obtain an abortion. Although because they were at later gestational ages, turnaways may have had fewer provider options (Table 2). Near-limit abortion patients traveled greater distances than first trimester patients (30.5% vs 13.6% traveling  $> 100$  miles,  $P < .001$ ), and called (49.4% vs 34.9%,  $P < .001$ ) and visited (51.9% vs 32.2%,  $P < .001$ ) more providers. Near-limit abortion patients also traveled greater distances than turnaways (30.5% vs 19.5%,  $P < .001$ ) and were more likely to have visited other providers before presenting at the recruitment site (51.9% vs 34.5%,  $P < .001$ ).

### Factors Associated With Obtaining an Abortion After Being Denied One

Among the 231 turnaways, 48.5% said they did not consider having an abortion elsewhere after being denied one; however, among these women, over half (55%) said they still wished they could have had an abortion.

An additional 21.6% of turnaways said they considered having an abortion elsewhere, but never obtained one. Among this group, the most commonly reported reason for not obtaining an abortion after being denied one were procedure and travel costs (85.4%), followed by not being able to find a provider who would do the abortion so late, not knowing where to go, or a belief that no services were available for their gestational age (54.8% combined), and not knowing how to get there (51.1%). One woman cited the burden of the combination of factors:

It was probably travel costs, procedure costs, not knowing who I would have to come with me on the four day adventure. I was at the point that there was no guarantee wherever I went.

Six months after recruitment into the study, 64 of the 231 turnaways (27.7%) had received an abortion, and 5 women (2.2%) had had a miscarriage or stillbirth. Among all turnaways, 15 (6.5%) placed their children for adoption (9.3% among those who gave birth).

**TABLE 1—Sociodemographic Characteristics and Reproductive History of the Study Population by Study Group: United States, University of California, San Francisco Turnaway Study, 2008–2010**

Characteristics	Total %	First Trimester Patients (F) (n = 273) %	P (F vs N)	Near-Limit Abortion Patients (N) (n = 452) %	Turnaways (T) (n = 231) %	P (N vs T)
Gestational age (mean d)	163.1	77.2	< .01	189.7	212.7	< .01
<b>Sociodemographics</b>						
Age, y						
15–17 <sup>a</sup>	18.1	13.2	Ref	16.8	26.4	Ref
18–24	36.1	30.4	.94	39.4	36.4	.01
25–34	38.3	47.3	.03	36.3	31.6	.01
35–46	7.5	9.2	.19	7.5	5.6	.04
Race/ethnicity						
Non-Hispanic White	36.9	42.5	Ref	34.7	34.6	Ref
Non-Hispanic Black	29.4	29.3	.1	29.4	29.4	.67
Hispanic/Latina	21.0	20.5	.15	20.4	22.9	.37
Multiracial/other	12.7	7.7	< .01	15.5	13.0	.76
Highest grade completed						
≤ high school	19.6	15.8	.73	19.0	25.1	.09
High school diploma or GED	33.4	31.5	Ref	35.2	32.0	Ref
Some college, vocational training	39.3	41.4	.36	39.2	37.2	.82
College degree	7.7	11.4	.03	6.6	5.6	.84
Poverty status <sup>b</sup>						
< 100% FPT	33.6	29.7	Ref	35.8	33.8	Ref
100%–200% FPT	21.8	25.3	.1	21.5	18.2	.66
> 200% FPT	12.7	20.9	< .01	10.4	7.4	.37
Don't know household income	32.0	24.2	.62	32.3	40.7	.13
Employed						
Unemployed	46.9	37.4	Ref	46.7	58.4	Ref
Part or full time	53.1	62.6	.01	53.3	41.6	< .01
Maternal education						
< high school	15.1	20.5	.04	12.6	13.4	.9
High school	36.4	36.3	Ref	36.1	37.2	Ref
Some/grad tech, or college	18.0	13.9	.15	19.2	20.3	.91
≥ college grad	22.1	24.2	.67	21.9	19.9	.58
Don't know	8.5	5.1	.04	10.2	9.1	.63
Insurance status (n = 953)						
None	28.8	28.9	.31	29.6	26.8	.86
Medicaid	43.8	39.2	.12	43.7	49.4	.2
Private/other	27.5	31.9	Ref	26.7	23.8	Ref
Marital status						
Single, never married	78.8	75.1	Ref	79.2	82.3	Ref
Married	9.1	11	.18	8.0	9.1	.77
Separated, divorced, widowed	12.1	13.9	.61	12.8	8.7	.11
<b>Reproductive history and intentions</b>						
Previous children (n = 954)						
0	40.9	40.8	Ref	37.5	47.6	Ref
1	27.4	24.6	.13	30.4	24.7	.02
≥ 2	31.8	34.6	.93	32.2	27.7	.04

Continued

TABLE 1—Continued

Previous abortions (before index abortion) (n = 955)							
0	54.3	53.7	Ref	53.3	57.1	Ref	
1	27.3	25.4	.5	29.0	26.4	.38	
≥ 2	18.3	21.0	.39	17.7	16.5	.51	
How difficult to make the decision							
Very or somewhat difficult	44.4	52.0	.01	41.2	41.6	.93	
Very or somewhat easy, not easy or difficult	55.6	48.0		58.8	58.4		
Gestational age when discovered pregnancy (n = 954), wk							
≤ 10	65.9	99.3	Ref	57.6	42.6	Ref	
11–20	24.9	0.7	< .01	32.8	38.3	.01	
> 20	9.1	0.0	NA	9.5	19.1	< .01	

Note. FPT = federal poverty threshold; GED = general equivalency diploma; NA = not applicable; P value could not be computed because of empty cell. The sample size was n = 956 unless indicated.

<sup>a</sup>This age category includes 1 woman aged 14 years who was recruited early in the study before the minimum enrollment age was changed to 15 years.

<sup>b</sup>The FPTs were defined by the US Census (2008–2010).

At the provider with the lowest established gestational age limit in the study (10 weeks), 20 of the 21 women turned away (95.2%) eventually obtained an abortion despite being more than 150 miles from another facility. When women from this 1 site were excluded, 21.5% of turnaways were able to obtain an abortion. Among turnaways who had an abortion, the majority (84.1%) found out about the providing facility from the original recruitment provider. An additional 7.9% reported learning about the providing facility from another

health care provider, whereas another 7.9% reported learning about it from other sources such as the Internet and the National Abortion Federation hotline.

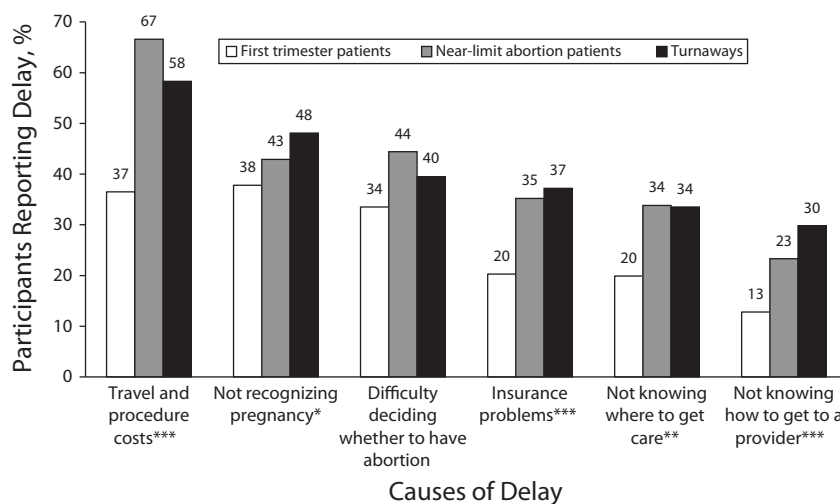
Results of the multivariable model predicting the likelihood of obtaining an abortion after being denied one demonstrated that women who were Latina (AOR = 0.12, 95% confidence interval [CI] = 0.03, 0.56), who reported it was very or somewhat difficult to make the decision to have an abortion (AOR = 0.19, 95% CI = 0.07, 0.49), and who were recruited at a facility with a later

gestational limit (AOR = 0.68, 95% CI = 0.61, 0.77) were less likely to have an abortion after being denied one than were other women (Table 3).

### Incidence of Being Denied Abortion Because of Gestational Limits

The providers in our study had gestational limits from 10 to 26 weeks, with a mean limit of 20 weeks. Based on data from 4 of the study facilities with complete records on women turned away, we estimated that facilities turned away an average of 2.0% of clients seeking care because they presented for care after the provider's gestational limit.

Using the Guttmacher Provider Census, we estimated that there are 101 last stop providers across the United States. These providers have a total patient volume of about 263 917 per year. Applying the 2.0% turnaway rate, we estimated that in 2008 approximately 5278 women presented at providers but were denied an abortion in the United States because they were beyond the provider's gestational limits. Based on the proportion of turnaways (at providers with limits at 13 weeks or more) who were able to obtain an abortion elsewhere (21.5%), we estimated that 4143 women carried their unwanted pregnancies to term. These estimates did not include women who were denied care for other reasons such as medical ineligibility, not having funds to pay for the abortion, or not having permission from a parent (where parental consent was required).



\*P < .05; \*\*P < .01; \*\*\*P < .001; P values reflect differences between first trimester patients and turnaways.

FIGURE 1—Reported causes of delay, by study group: United States, University of California, San Francisco Turnaway Study, 2008–2010.



**TABLE 2—Access to Abortion by Study Group: United States, University of California, San Francisco Turnaway Study, 2008–2010**

Access Indicator	First Trimester Patients		P (F vs N)	Near-Limit Abortion Patients		Turnaways	P (N vs T)
	Total %	(F; n = 273), %		(N; n = 452), %	(T; n = 231), %		
Distance to provider (n = 956), miles							
≤ 50	59.2	71.4	< .001	51.1	60.6	< .001	
50–100	17.8	15.0		18.4	19.9		
> 100	23.0	13.6		30.5	19.5		
No. of providers called (n = 947)							
No other providers	56.2	65.1		50.6	56.5		
≥ 1 other provider	43.8	34.9	< .01	49.4	43.5	.12	
No. of providers visited (n = 947)							
No other providers	58.0	67.8		48.1	65.5		
≥ 1 other provider	42.0	32.2	< .01	51.9	34.5	< .01	

Other women not included in our estimate were women who knew their gestational age, inquired about the facility's gestational limit by phone, and never presented for care.

## DISCUSSION

Findings from this study suggest that in 2008 more than 4000 women carried unwanted pregnancies to term after they were denied an abortion because of provider gestational age limits. This study was initiated before the recent state abortion bans at 20 weeks' gestation. Almost 15% of US women live in the states with such new legislation; thus, many more will be denied abortions in the coming years. These bans present an undue burden because, as demonstrated in this study, many women do not realize they are pregnant until later in pregnancy and cannot travel to other states for abortion care. Children born from unintended pregnancies have multiple health consequences<sup>18–21</sup> compared with children born from intended pregnancies. Additionally, women who raise children born from unintended pregnancies have higher rates of economic<sup>22</sup> and educational<sup>23</sup> disadvantages.

In this study, one of the primary reasons for delay in seeking an abortion was time spent raising the funds to pay for the procedure and travel. Once a woman is beyond the first trimester, raising the funds to pay for the abortion can lead to further delays and create a cycle of increasing cost and delay. Currently, in

33 states and the District of Columbia, poor women have no access to Medicaid-funded abortions, except in cases of life endangerment, rape, or incest.<sup>24</sup> Public financing and insurance coverage for abortion would have made procedures possible for many of the turnaways, and ability to pay while in the first trimester could have prevented some women from needing later abortions. These findings were consistent with those of Henshaw et al.<sup>25</sup> who estimated that one fourth of women who would have had Medicaid-funded abortions instead gave birth when this funding was unavailable.

We found that first-trimester patients were more likely to report difficulty deciding whether to have an abortion than both near-term abortion patients and turnaways. This might be because first-trimester patients had fewer other delays. It was easier for them to find a provider, raise the money, etc., so their definition of “delay” was relatively lower.

Our findings demonstrate a need to strengthen existing financial support and referral systems to ensure that women can be served elsewhere if they cannot be treated where they originally present for care. Referrals could be made immediately at the facility that denied care or via a phone consultation service. A few organizations, such as the National Abortion Federation and the National Network of Abortion Funds, provide women with information about abortion providers nearest to them, including the latest gestation at which abortions are available, as well as financial assistance.<sup>26,27</sup>

However, the financial support for these services is limited and privately donated, and many women are unaware of these resources or unable to access them.

Expanding the number of abortion facilities in underserved areas and enabling providers to raise their gestational limits would likely reduce out-of-pocket costs associated with travel, time off work, and childcare. Several factors influence how providers set their gestational limits. An informal survey conducted by one of the authors in 2007 among 74 second trimester abortion providers found that the most commonly reported factors in determining gestational limit were surgical skills and comfort (71%), state regulations (42%), and personal beliefs (37%).<sup>28</sup> Potential strategies for raising limits include investing in training clinicians to perform later procedures, ensuring these providers have ample institutional and emotional support,<sup>29,30</sup> and addressing the social stigma that they face.<sup>31,32</sup>

## Study Limitations

This study had a few limitations. First, the Turnaway study was limited to fewer than 1000 women, and many women who were invited to participate declined. The percentage of women who did not want to participate varied widely by facility, with the 10 top-ranking facilities achieving 60% to 80% agreement and the bottom 5 facilities having less than 30% agreement. The low recruitment rate among some facilities was likely because of the long-term demands of study participation. To assess the extent of this limitation, we compared the outcomes of women who went to high recruiting facilities with those who went to low recruiting facilities and found very little difference.<sup>10</sup> We also compared the demographics of the women in our study to the demographics of women receiving abortions nationally, and found that they were very similar, with the exception that our participants were more likely to be in the second trimester. To the extent that those who refused to participate experienced different barriers to accessing care, this could have affected our findings. Second, we had high rates (16%–20%) of missing data on reasons for delay because early in data collection women were not asked the specific questions. However, data were not differentially missing between

**TABLE 3—Unadjusted and Adjusted Odds of Obtaining an Abortion After Being Turned Away: United States, University of California, San Francisco Turnaway Study, 2008–2010**

	Odds of Having an Abortion After Being Turned Away	
	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
<b>Sociodemographic characteristics</b>		
Age, y	1.02 (0.95, 1.08)	1.00 (0.91, 1.09)
Race/ethnicity		
Non-Hispanic White (Ref)	1.00	1.00
Non-Hispanic Black	0.43 (0.16, 1.15)	0.42 (0.14, 1.31)
Hispanic/Latina	0.18** (0.05, 0.62)	0.12** (0.03, 0.56)
Multiracial/other	0.36 (0.11, 1.21)	0.40 (0.10, 1.59)
Highest grade completed		
< high school	0.84 (0.27, 2.64)	0.98 (0.26, 3.68)
High school diploma or GED (Ref)	1.00	1.00
Some college, vocational training	1.52 (0.60, 3.83)	0.72 (0.22, 2.32)
College degree	4.65 (0.87, 24.91)	3.09 (0.49, 19.66)
Maternal education		
< high school	0.23* (0.06, 0.92)	0.28 (0.06, 1.31)
High school (Ref)	1.00	1.00
Some/grad tech, or college	0.63 (0.22, 1.87)	0.60 (0.18, 2.03)
≥ college grad	0.89 (0.31, 2.53)	0.66 (0.21, 2.14)
Missing	0.60 (0.13, 2.83)	0.56 (0.08, 3.85)
Insurance status		
None	1.06 (0.40, 2.83)	1.56 (0.48, 5.08)
Medicaid	0.61 (0.23, 1.63)	0.48 (0.14, 1.58)
Private/other (Ref)	1.00	1.00
<b>Reproductive history</b>		
How difficult to make the decision		
Very or somewhat difficult	0.28** (0.13, 0.64)	0.19*** (0.07, 0.49)
Very or somewhat easy, not easy or difficult (Ref)	1.00	1.00
Facility gestational age limit	0.74*** (0.68, 0.80)	0.68*** (0.61, 0.77)
Deviation from site gestational age	1.21 (0.85, 1.72)	0.99 (0.68, 1.43)
Previous children		
0 (Ref)	1.00	1.00
≥ 1	0.85 (0.39, 1.85)	1.83 (0.65, 5.13)
Previous abortions (before index abortion)		
0 (Ref)	1.00	1.00
≥ 1	1.49 (0.67, 3.29)	1.57 (0.60, 4.11)

Note. CI = confidence interval; GED = general equivalency diploma; OR = odds ratio. The sample size was n = 226. \*P < .05; \*\*P < .01; \*\*\*P < .001.

turnaways and near-limit abortion patients, and it is unlikely that the missing data biased the estimates. Third, our estimate of more than 4000 denied abortions was subject to some amount of error. It was based on the proportion of women turned away at 4 abortion facilities. We assumed that these 4 facilities, which had complete data on women turned away because of gestational limits, were representative of all

101 last stop facilities. At the same time, we expect the estimate is a conservative one because it did not include, for example, women who could not raise the funds to cover the procedure, take time off work, or get parental permission. It also did not include women who did not present for abortion care because they called ahead and realized they were beyond the gestational limit. The total number of

women who did not obtain a desired abortion is likely much greater than 4000.

### Conclusions

Women seeking abortions are more economically disadvantaged than the larger population of women.<sup>33</sup> Women in need of second-trimester abortions are particularly vulnerable insofar as there are fewer providers that offer these services, and when they are available, procedures typically cost several hundred, or even thousands, more dollars than a first-trimester procedure. Laws that impose lower and lower gestational limits will exacerbate the burdens these women face, and almost certainly, result in more unintended births. ■

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### Contributors

D. G. Foster was responsible for conceptualizing and designing the Turnaway Study. U. D. Upadhyay developed the analysis plan for this article, analyzed the data, and drafted the article. R. K. Jones was responsible for analyzing and interpreting data from the Guttmacher Institute's Abortion Provider Census. T. A. Weitz, R. K. Jones, R. E. Barar, and D. G. Foster interpreted the data, reviewed drafts of the article, and provided substantive comments on its content. R. E. Barar also provided management support for the Turnaway Study.

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Study protocol and procedures for the Turnaway Study received institutional review board approval from the

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