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Change in abortion services after implementation of a restrictive law in Texas

Daniel Grossman, MD[a,b,c], **Sarah Baum, MPH**[a,b], **Liza Fuentes, MPH**[a,b], **Kari White, PhD**[a,d], **Kristine Hopkins, PhD**[a,e], **Amanda Stevenson, MA**[a,e], and **Joseph E. Potter, PhD**[a,e]

[a]Texas Policy Evaluation Project, Austin, TX

[b]Ibis Reproductive Health, Oakland, CA

[c]Bixby Center for Global Reproductive Health, Department of Obstetrics, Gynecology and Reproductive Sciences, University of California, San Francisco, San Francisco, CA

[d]Department of Health Care Organization and Policy, School of Public Health, University of Alabama at Birmingham, Birmingham, AL

[e]Population Research Center and the Department of Sociology, University of Texas at Austin, Austin, TX

Abstract

Objectives—In 2013, Texas passed omnibus legislation restricting abortion services. Provisions restricting medical abortion, banning most procedures after 20 weeks and requiring physicians to have hospital admitting privileges were enforced in November 2013; by September 2014, abortion facilities must meet the requirements of ambulatory surgical centers (ASCs). We aimed to rapidly assess the change in abortion services after the first three provisions went into effect.

Study Design—We requested information from all licensed Texas abortion facilities on abortions performed between November 2012 and April 2014, including the abortion method and gestational age (<12 weeks versus ≥12 weeks).

Results—In May 2013, there were 41 facilities providing abortion in Texas; this decreased to 22 in November 2013. Both clinics closed in the Rio Grande Valley, and all but one closed in West Texas. Comparing November 2012–April 2013 to November 2013–April 2014, there was a 13% decrease in the abortion rate (from 12.9 to 11.2 abortions/1000 women age 15–44). Medical abortion decreased by 70%, from 28.1% of all abortions in the earlier period to 9.7% after November 2013 ($p<0.001$). Second-trimester abortion increased from 13.5% to 13.9% of all abortions ($p<0.001$). Only 22% of abortions were performed in the state's six ASCs.

Corresponding author: Daniel Grossman, Ibis Reproductive Health, 1330 Broadway, Ste 1100, Oakland, CA 94612, Phone: (510) 986-8941, Fax: (510) 986-8960, DGrossman@ibisreproductivehealth.org.

Conclusions—The closure of clinics and restrictions on medical abortion in Texas appear to be associated with a decline in the in-state abortion rate and a marked decrease in the number of medical abortions.

Implications—Supply-side restrictions on abortion—especially restrictions on medical abortion—can have a profound impact on access to services. Access to abortion care will become even further restricted in Texas when the ASC requirement goes into effect in 2014.

Keywords

abortion; access; restriction; law; Texas

1. Introduction

Recent years have seen a surge in state laws restricting abortion services [1]. Initially these laws focused on the “demand” side of abortion and aimed to discourage women from seeking abortion by mandating parental involvement for minors, biased counseling or waiting periods [2]. Other than laws requiring an extra visit to the clinic, demand-side restrictions appear to have minimal effect on the overall abortion rate [3]. More recently, states have passed laws focused on the “supply” side of abortion that make it more difficult for facilities to provide services [2]. One of the few studies on supply-side restrictions found a substantial decline in the number of abortions performed after 16 weeks to Texas women following enactment of a law requiring later procedures to be performed at ambulatory surgical centers (ASCs) [4].

In July 2013, the Texas legislature enacted House Bill 2 (HB2) that put into place four supply-side abortion restrictions: abortions are banned after 20 weeks “post-fertilization” excluding certain exceptions; physicians performing abortion must have admitting privileges at a hospital within 30 miles of the facility; the provision of medical abortion must follow the labeling approved by the Food and Drug Administration (with some allowances for drug dosages); and all abortion facilities must meet the standards of an ASC. The first three provisions went into effect on November 1, 2013, and the ASC requirement is scheduled to go into effect September 1, 2014. The American College of Obstetricians and Gynecologists and the American Medical Association oppose these restrictions, highlighting the safety of outpatient abortion in the United States and concerns that HB2 would negatively affect women’s health [5].

The restrictions on medical abortion imposed several important changes to practice. Prior to HB2, most facilities in Texas provided medical abortion using the evidence-based regimen of mifepristone 200 mg followed 24–48 hours later by misoprostol 800 mcg administered buccally at home up to 63 days’ gestation. HB2 limited the gestational age to 49 days and required women to return to the facility for misoprostol, as well as for a follow-up visit. These visit requirements, in addition to the 2011 law requiring women living less than 100 miles from an abortion facility to have an ultrasound at least 24 hours before the procedure, meant that most women seeking medical abortion needed four clinic visits after November 2013. Finally, under HB2 providers could either use the regimen included in the Mifeprex® labeling with 600 mg of mifepristone, which is considerably more expensive than the

evidence-based regimen, or they could use the drug dosages in the 2005 ACOG Practice Bulletin on medical abortion. This was interpreted as allowing the use of mifepristone 200 mg followed 2 days later by misoprostol 800 mcg orally, a regimen supported by limited evidence [6].

Although a few states have implemented admitting privilege requirements and one has enforced a similar restriction on medical abortion, no state has implemented both at the same time, and none has been evaluated. We hypothesized that following HB2 there would be a significant decrease in the abortion rate in Texas, as well as in the proportion of medical abortions performed. The law appeared likely to cause some clinics to close if physicians could not obtain hospital privileges. The restrictions on medical abortion also seemed likely to reduce use of this method. In this paper, we aimed to rapidly assess the effect of these provisions on abortion services in the first six months after HB2 was implemented.

2. Material and methods

2.1. Tracking open licensed facilities

Since 2012, the Texas Policy Evaluation Project has tracked the number of open facilities providing abortion care in the state through interviews with clinic staff, reports in the press and by intermittent requests to the Texas Department of State Health Services (DSHS) concerning licensed abortion providers. We focus on the number of facilities open in three six-month periods relating to the passage and implementation of HB2. Period 1 included the six months prior to the debate on HB2: November 1, 2012, through April 30, 2013. Period 2, May 1, 2013, through October 31, 2013, was when HB2 was publicly debated and passed, but before it was enforced. Period 3 included November 1, 2013 through April 30, 2014, after enforcement of all provisions of HB2 except the ASC requirement.

We also estimated the number of reproductive aged Texas women living in a county more than 50, 100 or 200 miles from a licensed Texas abortion provider in each of these periods. For each county, we calculated the distance women would need to travel to an open facility as of April 30, 2013; October 31, 2013; November 1, 2013; and April 30, 2014. We also estimated travel distance as of September 1, 2014, when we expect there will be only four metropolitan areas with facilities meeting the ASC requirements: Austin, Dallas/Ft. Worth, Houston and San Antonio. We used the U.S. Census Bureau's American FactFinder tool to generate county-level estimates of the population of women aged 15–44 residing in each of Texas's 254 counties on July 1, 2012 [7]. We computed the travel distance from each of these counties to the nearest Texas county in which there was at least one abortion provider using Traveltime3 in Stata version 13.0, which accesses the Google Distance Matrix Application Programming Interface.

2.2. Collecting data from abortion providers

Evaluations of this kind usually use state vital statistics on abortion. However, these data only become public after approximately two years. In order to rapidly evaluate the impact of HB2 to inform public policy debates in Texas and elsewhere, we collected data directly from abortion providers.

Between February and May 2014, we attempted to contact by email or telephone every licensed abortion facility that provided abortions in November 2012. We did not include hospitals or physicians not licensed as abortion facilities, since they performed only 0.3% of abortions in Texas in 2012 (summary statistics on 2012 Texas occurrence abortions obtained from the DSHS Center for Health Statistics in response to a data request on June 3, 2014). From providers we requested the total number of induced abortions, early medical abortions (≤63 days gestation), surgical abortions performed at <12 weeks gestation, and surgical abortions performed at ≥12 weeks for each month between November 2012 and April 2014. We also requested the monthly number of abortion patients who reported residing in the Lower Rio Grande Valley (LRGV) in South Texas, since both abortion facilities there had closed by the start of Period 3. Women in the LRGV represent a particularly vulnerable population since this area has higher levels of poverty than the rest of the state and women would have to travel at least 150 miles to the nearest clinic; undocumented immigrants in the LRGV faced particular obstacles to access services further north since they would need to pass border patrol stations.

Of the 41 licensed facilities open at some point during the study periods, 36 (including all six ASCs) provided complete data. One additional facility open in Period 3 provided data only for Periods 1 and 2; data for Period 3 from another non-responding facility were reported in the media [8]. For most responding facilities, physicians or staff reviewed electronic databases, logs or other records to determine the number of monthly procedures and patients from the LRGV. If these data were not available, the physician gave an estimate based on her or his experience. In Period 1, 88% of estimated abortions in Texas were reported by providers, 89% in Period 2, and 90% in Period 3, and almost all of these reports came from clinic records. If we did not receive a response from a clinic, we spoke with other providers in the same community to estimate the total procedures performed by the non-responding facility and assumed the distribution of type of abortion procedure was the same as the 2012 statewide total. We relied on knowledgeable sources for 5% of procedures performed in Period 1, 4% in Period 2 and 7% in Period 3. If these estimates were not available, we made an internal estimate based on the volume of other providers in the community or data available for the facility for other periods. We relied on internal estimates for 7% of procedures performed in Period 1, 6% in Period 2 and 3% in Period 3.

Using these data, we estimated the annualized abortion rate per 1,000 women aged 15–44 for each period based on the 2012 population. We also compared the distribution of abortions by procedure type and time period using chi-squared tests. We also estimated the number of abortions among women living in the LRGV in each period and the change in the number of procedures performed in the four largest metropolitan areas. This study was approved by the Institutional Review Board of the University of Texas at Austin.

3. Results

During Period 1 (November 1, 2012–April 30, 2013), 41 facilities provided abortion care, and none closed (Figure 1). Eight clinics closed or stopped providing abortions during Period 2, leaving 33 facilities providing abortion care on October 31, 2013. When HB2 was enforced on November 1, 2013, eleven clinics closed or stopped providing abortions,

leaving 22 open facilities. During the remainder of Period 3, five facilities reopened when physicians obtained admitting privileges, and five facilities closed because physicians lost temporary privileges or for other reasons. At the end of Period 3, there were 22 facilities providing abortion services. Facilities outside the four largest metropolitan areas were particularly affected, with 11 of 13 clinics closing between Periods 1 and 3.

The number of reproductive aged women living more than 50, 100 or 200 miles from a clinic providing abortions in Texas increased as clinics closed (Figure 2). While approximately 10,000 women in Period 1 lived >200 miles from a Texas clinic providing abortions, this increased to 290,000 at the end of Period 3; more than twice that many woman will live >200 miles from a Texas clinic when the ASC requirement goes into effect.

Compared to Period 1, there was a 13% decline in the state's abortion rate in Period 3 (the same 6-month period one year later), corresponding to about 9,200 fewer abortions annually (Table 1). The number of medical abortions declined by 70% in Period 3 compared to Period 1, and seven facilities stopped offering medical abortion in Period 3. There was a small but significant increase in the proportion of abortions performed in the second trimester in Period 3 compared to Periods 1 and 2.

The number of abortions among women from the LRGV declined from 1,349 in Period 1 to approximately 1,065 in Period 3, a larger decrease than the state average. During Period 3, 15% of the women from the LRGV obtained abortions at a facility in San Antonio, 25% in Houston, and about half went to the clinic in Corpus Christi, which has since closed.

The percent change in the number of abortions performed between Periods 1 and 3 varied across the four largest metropolitan areas, where the state's six ASCs are located. The number of abortions performed in Austin and Houston increased, while they decreased in Dallas-Ft. Worth and, to a lesser extent, in San Antonio. Although the proportion of the state's abortions performed in these metropolitan areas increased over time, only 22% of all abortions were performed at ASCs in Period 3. This proportion is essentially unchanged from 2012, when 21% of all abortions were performed at ASCs and is a decrease from Periods 1 and 2.

4. Discussion

This study was designed to rapidly assess the repercussions of two abortion restrictions implemented in Texas in November 2013: the admitting privileges requirement, and restrictions on medical abortion. The admitting privileges requirement was almost certainly the main driver of the large number of clinic closures observed in the months preceding and following its implementation. In just one year, the number of facilities providing abortion in Texas declined by 46%, vast swaths of the state were left without a provider, and the number of women required to travel great distances to reach a provider increased dramatically. Over the same year, the state abortion rate declined by 13%, a drop that is steeper than that reported for both Texas and the nation in recent years [9].

Given the number of closures, and the size of the population left without a nearby provider, it is surprising that the overall decline in the abortion rate was not greater than the 13%

change we observed. One reason is that the admitting privileges requirement disproportionately affected clinics in smaller cities, where there may be fewer hospitals and where stigma may discourage hospital-based physicians from publicly endorsing the privileging of abortion providers [10]. In 2011, about one-quarter of Texas abortions were to women living outside the four largest metropolitan areas [11], and these women have been profoundly affected by the closures. For example, women living in the LRGV now must travel 250 miles each way to obtain an abortion in San Antonio, where the nearest open facility is located. Our findings suggest that most women desiring an abortion—but not all—overcame the barriers of distance and additional cost to obtain the service they needed. In addition, the public opposition to HB2 galvanized a coordinated response among activists who provided financial and logistical support to women seeking abortions [12].

The decrease in the abortion rate also may have been muted by a potential increased demand for abortion following the severe reduction in public funding for family planning in Texas in 2011 [13]. Although the legislature restored some funding in 2013, many organizations had not yet received these funds by the end of 2013. Preliminary data from the Centers for Disease Control and Prevention for 2013 indicate an increase in births to women in Texas since 2012 [14, 15]. While representative survey data on pregnancy intentions in Texas after 2011 are not yet available, we expect that unintended pregnancy increased during the period of observation.

The second restriction we assessed related to the use of medical abortion. In contrast to the national trend toward an increase in the proportion of abortions that are medical [9], the 70% decline in medical abortion we observed in Texas is dramatic evidence of the law's effect. Some facilities stopped offering medical abortion because of the law, and fewer women were eligible because of the gestational age limit. The cost of the procedure increased at most facilities offering the regimen with 600 mg of mifepristone, and the increased number of visits also likely reduced its appeal. Many women have a strong preference for medical abortion [16, 17], and it may be that some of these women either traveled out of state to obtain the method or perhaps decided not to have an abortion at all if they could not obtain it. Women with a strong preference for a medical method of termination may be more likely to attempt to self-induce their abortion [18], and this should be explored in future research in Texas.

The final restriction included in HB2, the ASC requirement, will go into effect in September 2014. While we can only speculate about the likely impact of this provision, our study showed virtually no increase in the proportion of abortions performed in ASCs. Indeed, despite the increase in abortions performed in some cities with ASCs, less than a quarter of all abortions in the state are currently performed at ASCs, and it seems highly unlikely that existing facilities could expand their capacity four-fold to meet the demand for services. The ASC requirement will further reduce the number of facilities providing abortion to about six in the entire state, leaving Texas women with very few options.

This analysis has several limitations. Since this is an observational study, we cannot prove causality between the state restrictions and falling abortion rate; the timing, however, is suggestive of a link. In addition, where data were not directly available, we used informants

or made internal estimates. However, our estimates for Period 1 are similar to numbers reported by the state for 2012. We also do not have data on women traveling out of state for abortion services, so we do not know if the "missing abortions" were obtained elsewhere or not at all. Since Louisiana and Oklahoma have recently enacted admitting privileges requirements, the option to travel to a neighboring state soon will be very limited. While we successfully collected statewide data very rapidly after HB2 was enforced, more in-depth research will be needed in the coming years to fully understand the law's impact. For example, the eventual impact of the admitting privileges requirement remains to be seen, since some hospitals require a minimum number of admissions to maintain privileges, a condition that abortion providers with a limited practice are unlikely to meet. Strengths of the study are that it includes the entire universe of licensed abortion facilities in the state and that 90% of the abortion data in Period 3 was obtained directly from providers.

As more restrictions on abortion care are imposed by state legislatures, it is critical to assess the effect of these laws on women. In Texas, we plan further research to explore whether limited access to services pushes women to obtain an abortion later in pregnancy, as suggested by our findings here, when the procedure has a higher risk of complications and is more expensive [19, 20]. We also plan to study whether abortion self-induction may become more prevalent in Texas, where it already appears to be more common than other parts of the country [21].

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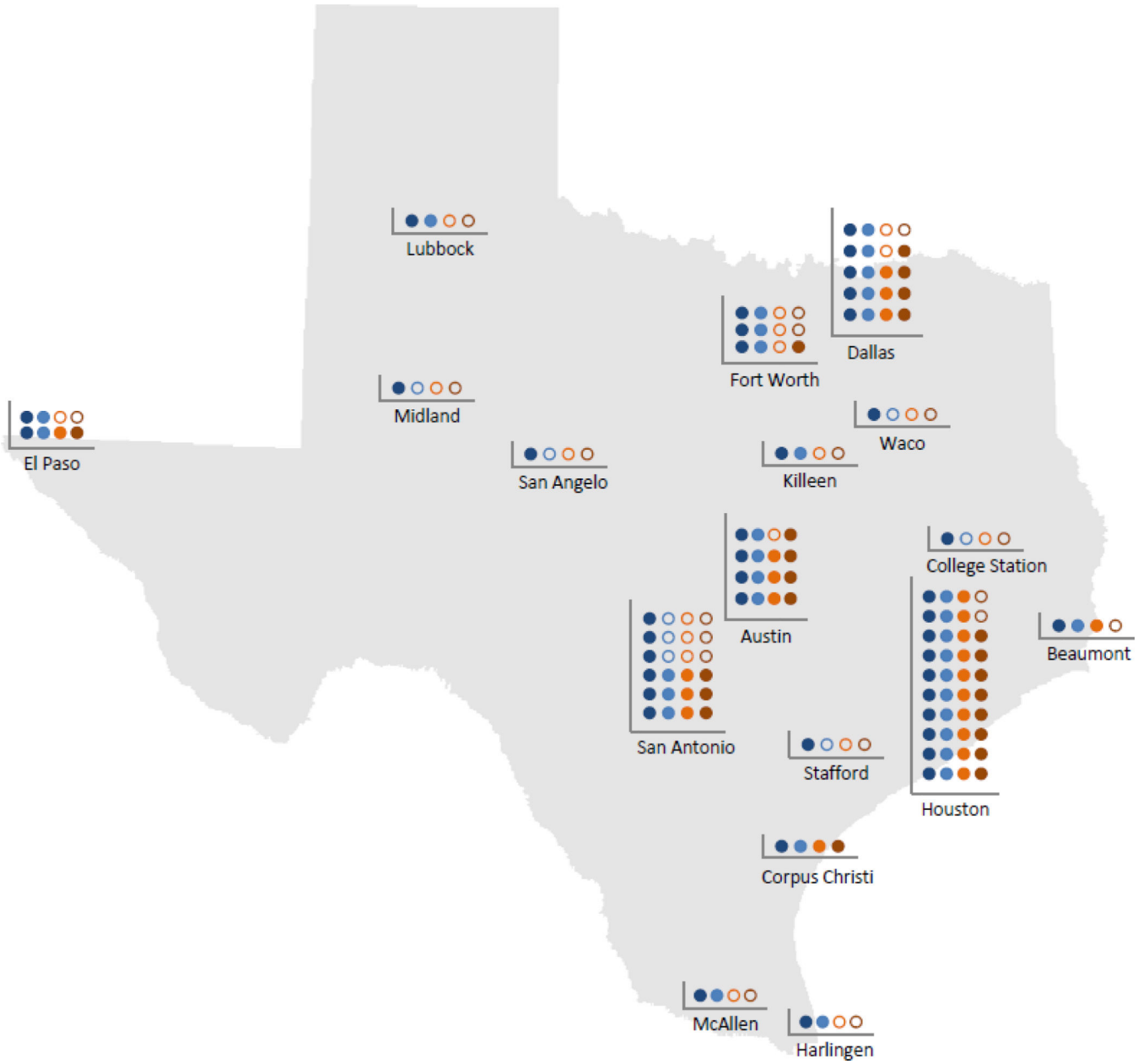

Figure 1.

Geographic distribution of abortion facilities in Texas, November 2012–April 2014. For each city, dot charts present number of open (solid circle ●) and closed facilities (open circle ○) on the Y axis at four key time points on X axis: ■ November 1, 2012–April 30, 2013 ■ October 31, 2013 ■ November 1, 2013 ■ April 30, 2014

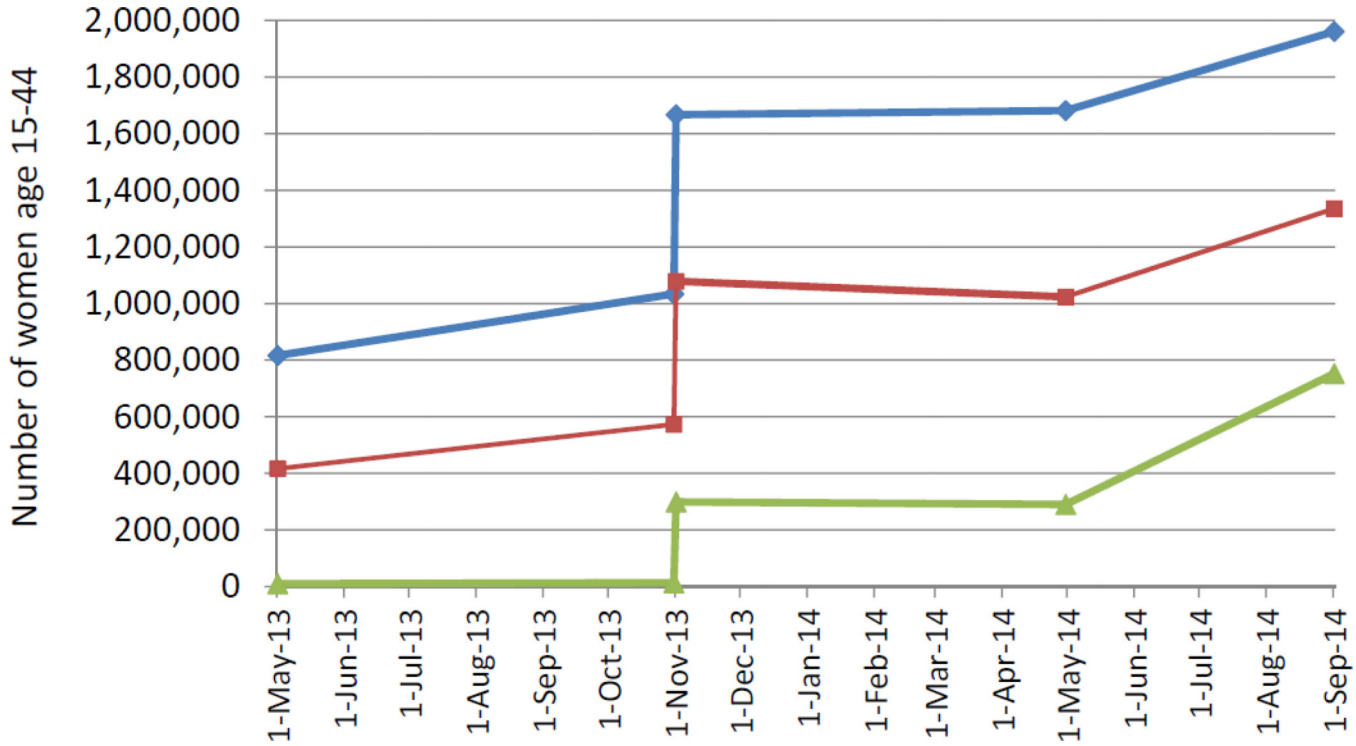

Figure 2.

Number of women age 15–44 living in a county at various distances from the nearest Texas abortion provider on various dates

The blue line (diamonds) represents the number of women age 15–44 in a county >50 miles from the nearest Texas abortion provider, the red line (squares) represents those living >100 miles from the nearest Texas provider, and the green line (triangles) represents those living >200 miles from the nearest Texas provider.

Table 1

Abortions performed in Texas during three periods, November 2012–April 2014

	Texas 2012 statewide statistics (12 months)	**Period 1 (1 Nov 2012 – 30 Apr 2013)**	**Period 2 (1 May 2013 – 31 Oct 2013)**	**Period 3 (1 Nov 2013 – 30 Apr 2014)**	**Change from Period 1 to 3**	**Change from Period 2 to 3**
Total number of abortions	68,298	35,415	32,611	30,800	−13.0%	−5.6%
Annualized abortion rate (per 1000 women age 15–44)	12.5	12.9	11.9	11.2	−13.0%	−5.6%
Number of early medical abortions (% of all abortions)	18,960 (27.8%)	9,948 (28.1%)	9,079 (27.8%)	2,991 (9.7%)[a]	−69.9%	−67.1%
Number of first-trimester surgical abortions (<12 weeks) (% of all abortions)	42,017 (61.5%)	20,698 (58.4%)	19,343 (59.3%)	23,531 (76.4%)	13.7%	21.7%
Number of second-trimester surgical abortions (≥12 weeks) (% of all abortions)	7,321 (10.7%)	4,768 (13.5%)	4,190 (12.8%)	4,278 (13.9%)[b]	−10.3%	2.1%
Number of women living in Lower Rio Grande Valley[c] obtaining abortion	N/A[d]	1,349	1,304	1,065	−21.1%	−18.3%
Total number of abortions performed in select metropolitan areas						
Austin	N/A	3,444	3,158	3,744	8.7%	18.6%
Dallas/Ft. Worth	N/A	11,468	11,111	8,830	−23.0%	−20.5%
Houston	N/A	10,349	10,156	11,254	8.7%	10.8%
San Antonio	N/A	4,321	3,605	4,034	−6.6%	11.9%
Total (% of all abortions)		29,582 (83.5%)	28,030 (86.0%)	27,862 (90.5%)		
Total number of abortions performed at an ambulatory surgical center	14,361 (21.0%)	9,378 (26.4%)	8,867 (27.2%)	6,786 (22.0%)		

[a] X^2 p-value<0.001 for medical abortion compared to surgical abortion <12 weeks for both Period 1 vs. Period 3 and Period 2 vs. Period 3

[b] X^2 p-value<0.001 for surgical abortion ≥12 weeks compared to surgical abortion <12 weeks for both Period 1 vs. Period 3 and Period 2 vs. Period 3

[c] Women reporting a residence in Starr, Hidalgo, Willacy or Cameron County

[d] Data not available for 2012. In 2011, 2,634 women living in the Lower Rio Grande Valley obtained an abortion.