

# Abortion Incidence and Service Availability In the United States, 2011

**CONTEXT:** Following a long-term decline, abortion incidence stabilized between 2005 and 2008. Given the proliferation of state-level abortion restrictions, it is critical to assess abortion incidence and access to services since that time.

**METHODS:** In 2012–2013, all facilities known or expected to have provided abortion services in 2010 and 2011 were surveyed. Data on the number of abortions were combined with population data to estimate national and state-level abortion rates. Incidence of abortions was assessed by provider type and caseload. Information on state abortion regulations implemented between 2008 and 2011 was collected, and possible relationships with abortion rates and provider numbers were considered.

**RESULTS:** In 2011, an estimated 1.1 million abortions were performed in the United States; the abortion rate was 16.9 per 1,000 women aged 15–44, representing a drop of 13% since 2008. The number of abortion providers declined 4%; the number of clinics dropped 1%. In 2011, 89% of counties had no clinics, and 38% of women of reproductive age lived in those counties. Early medication abortions accounted for a greater proportion of nonhospital abortions in 2011 (23%) than in 2008 (17%). Of the 106 new abortion restrictions implemented during the study period, few or none appeared to be related to state-level patterns in abortion rates or number of providers.

**CONCLUSIONS:** The national abortion rate has resumed its decline, and no evidence was found that the overall drop in abortion incidence was related to the decrease in providers or to restrictions implemented between 2008 and 2011.

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An estimated 30% of U.S. women will have an abortion by age 45,<sup>1</sup> and abortion incidence is one indicator of unintended pregnancy. In 2008, 51% of pregnancies were unintended, and 40% of these ended in abortion.<sup>2</sup> While one of the goals established in 2000 in *Healthy People 2010* was to reduce the incidence of unintended pregnancy,<sup>3</sup> progress has been elusive. Between 2001 and 2008, the unintended pregnancy rate increased from 49 to 54 pregnancies per 1,000 women aged 15–44, and the proportion of pregnancies that were unintended increased from 48% to 51%; the proportion of unintended pregnancies ending in abortion declined from 47% to 40%.<sup>2</sup> These patterns could represent increased difficulty in accessing abortion services.<sup>2</sup>

In 2008, the most recent year for which we have complete abortion data, 1.21 million abortions were performed.<sup>4</sup> This figure was notable because it was similar to that found for several preceding years, which suggested that the long-term decline in abortion had stalled. The abortion rate declined steadily from 1990 to 2005—from 27.4 to 19.4 abortions per 1,000 women aged 15–44—but leveled off between 2005 and 2008, when it was also 19.4.\* The Centers for Disease Control and Prevention (CDC) compiles and publishes annual abortion statistics, and while its counts are incomplete (e.g., abortions in California are not included), the trends are often consistent with more complete abortion counts.<sup>4,5</sup> The most recent CDC abortion surveillance reports showed a 5% drop in the number

and rate of abortions between 2008 and 2009,<sup>5</sup> and a 3% decline between 2009 and 2010.<sup>6</sup>

Changes in abortion rates, or lack thereof, may be influenced by a number of variables, including changes in sexual activity, the economy and the demographic profile of the population. Two well-monitored variables that may directly influence both the need for and the use of abortion services are contraceptive use and the availability of abortion services.

The increased use of contraceptives, improvements in consistency of use and greater reliance on highly effective methods can reduce levels of unintended pregnancy.<sup>7–9</sup> According to an analysis of data from the 2006–2010 National Survey of Family Growth, long-acting reversible contraceptive (LARC) methods have begun to displace shorter term methods among women using contraceptives, especially those younger than 25, who are traditionally at high risk of unintended pregnancy.<sup>7</sup> Consequently, fewer unintended pregnancies and abortions may be occurring.

A change in the number of abortion providers could affect access to abortion, and the number of facilities that offer abortions is one measure of service availability. The number of providers peaked in 1981 at approximately

\*The prior published figure for 2008 was 19.6 abortions per 1,000 women.<sup>4</sup> Earlier population figures were adjusted when the 2010 census was released, resulting in a slightly lower rate.

2,900 facilities, and declined steadily to about 1,800 facilities in 2000.<sup>10</sup> Since then, the decline in provider numbers appears to have stalled, as slightly fewer than 1,800 facilities were identified in 2008.<sup>4</sup> However, a focus on the total number of facilities can obscure the dynamics of abortion access, as caseloads vary substantially by provider type. In 2008, hospitals accounted for 34% of abortion facilities, but they performed only 4% of abortions. By contrast, clinics accounted for 47% of facilities and 94% of procedures. Physicians' offices represented 19% of facilities but provided only 1% of abortions.<sup>4</sup> Hence provider type, and the number of clinics in particular, may be a more important indicator of access than the total number of providers.

Abortion restrictions can also reduce access to services and, in turn, abortion incidence. Many abortion laws, such as mandated counseling and waiting periods, are intended to discourage women from obtaining abortions, thereby reducing the "demand" for services.<sup>11</sup> To date, little evidence indicates that these demand-side laws have substantially reduced state abortion rates; the potential exceptions are 24-hour waiting periods that require two in-person visits<sup>12</sup> and the elimination of state Medicaid funding of abortion services.<sup>13</sup> Legislators have also increased efforts to restrict the "supply" of abortion, typically through targeted regulation of abortion providers (TRAP) laws. TRAP laws place unnecessary and burdensome regulations on providers, typically by targeting clinics. For example, a handful of states have implemented, or attempted to implement, laws that require physicians at abortion clinics to have admitting privileges at local hospitals or that require clinics to meet the same requirements as surgical centers. Since 2008, a number of states have enacted a range of laws pertaining to abortion services,<sup>14–17</sup> and these restrictions potentially made it more difficult for women to obtain abortions and for abortion facilities to provide services.<sup>18</sup>

In the last decade, early medication abortion has played an important role in abortion care in the United States and developed the potential to influence service provision and availability. Mifepristone was introduced in late 2000, and by the first half of 2001, early medication abortions accounted for 6% of procedures.<sup>19</sup> The role of early medication abortions has continued to increase: Fourteen percent of nonhospital abortions were medication procedures in 2005,<sup>20</sup> as were 17% in 2008.<sup>4</sup> The majority of these early procedures were provided by clinics that specialized in abortion services, but some physicians' offices and nonspecialized clinics that are unable or unwilling to provide surgical procedures (e.g., because the latter require more equipment and training) now offer early medication

abortions. Provision of this procedure at physicians' offices increased substantially immediately after mifepristone was introduced, but quickly stabilized;<sup>21</sup> the number of physicians' offices offering this service decreased slightly between 2005 and 2008, though the number of nonspecialized clinics doing so increased.<sup>4</sup> In Iowa, early medication abortion provided via telemedicine appears to have made abortion more accessible to women living in rural areas:<sup>22</sup> After this procedure became available through telemedicine, women were more likely to obtain a medication abortion and to obtain an abortion at an earlier gestation, even though the overall abortion rate in the state decreased.

This study summarizes information from the Guttmacher Institute's most recent Abortion Provider Census, and provides updated information about abortion incidence and facilities in the United States, focusing on changes between 2008 and 2011. It also considers abortion restrictions enacted during the study period, and discusses whether they may have affected state patterns in abortion incidence and access to services.

## METHODS

### Survey Content and Fielding

Between April 2012 and May 2013, we surveyed the known universe of abortion providers in the United States. This was the 16th census of its kind since 1973, and the questionnaire was modeled on the instrument used in 2007 and 2008.<sup>4</sup> All respondents were asked the number of induced abortions that were performed in their facilities in 2010 and 2011,\* and whether early medication abortions (defined as procedures at or before nine weeks' gestation) were offered. Clinic and physician providers (but not hospital providers) were also asked about the number of early medication abortions performed, with separate items for mifepristone, methotrexate and misoprostol alone. Finally, clinic and physician providers were asked about the proportion of their services accounted for by abortions. We asked fewer questions of hospitals because hospital informants typically have access to less information about the specifics of abortion service provision. Information restricted to nonhospital facilities represents the experience of most women having abortions, since these providers performed 96% of all abortions in 2008.<sup>4</sup>

Survey recipients included all providers known to have performed abortions in 2008, as well as possible new providers, which were identified via Internet searches, telephone directories, media articles and membership directories of organizations that work with abortion service providers. We mailed the first questionnaire to all potential abortion providers in April 2012 and sent two additional mailings at four-week intervals to those that had not responded to previous mailings.

Intensive telephone follow-up of nonrespondents was carried out between June 2012 and June 2013,† with particular effort made to obtain the total number of abortions performed. During this phase of data collection, more than 7,800 contacts were made with approximately 1,200

\*Because data were collected from providers, figures represent incidence according to the state in which abortions were performed, not abortion patients' state of residence.

†This process was interrupted following Hurricane Sandy in October 2012, when all project staff were displaced from their office. After a two-week hiatus, they continued follow-up from a temporary location for the next six weeks. However, because telephone and fax numbers changed over this period, it is possible that some surveys were not received.

providers; these included some facilities that had closed, as former administrators are sometimes accessible.

To supplement information received from providers, we obtained abortion incidence data from health department agencies in 45 states and the District of Columbia. States differ in reporting requirements, and data are often incomplete. However, when possible, we used the information to cross-check and validate information from providers, and it was sometimes used to make estimates for nonresponding providers.

Of the 2,288 providers surveyed, 971 responded to the mailed questionnaire, and 251 responded during follow-up; health department data were used for 470 facilities. We determined that 71 facilities had closed or stopped offering abortion services during the survey period. For 51 facilities, we obtained estimates of the number of abortions performed from knowledgeable sources, including other providers of reproductive health services. We made our own estimates for the remaining 474 facilities, usually relying on prior abortion census results. If a provider had not previously participated in the census, we made estimates using informal data, such as information from the provider's Web site and from telephone calls (e.g., days and hours of operation, gestations at which abortions were provided). Notably, the number of facilities for which we had to generate estimates was higher than the number in 2008 (230). Half of the 474 nonresponding facilities were hospitals, and one-quarter were physicians' offices, and both types typically have small caseloads. After consulting providers' Web sites, media reports of closures and mergers, and informants, we estimated that one-third of these facilities had not performed any abortions during the survey period.

Of the abortions that we tallied for 2011, 86% were reported by providers, 4% came from health department data, 4% were estimated by knowledgeable sources and 6% were internal estimates. By comparison, in 2008, 82% of abortions were reported by providers, 9% came from health departments, 6% were estimated by informants and 3% were estimated internally.<sup>4</sup>

### State Laws

Between 2008 and 2011, a number of states enacted abortion-related laws. We provide a summary of these laws and explore their possible relationship with state-level patterns in abortion incidence. Information about state laws comes from the Guttmacher Institute.<sup>14-17</sup> We focus on laws that were actually implemented, and not ones currently being challenged in court, as the latter would not be expected to directly affect abortion incidence.<sup>23</sup> Similarly, laws that were struck down or whose implementation was temporarily enjoined are not included. Finally, we exclude implemented laws that pertain to abortion under health care exchanges, as these would not be expected to have any impact until 2014.

We consider laws implemented in 2008–2010 separately from those implemented in 2011. While a record number of restrictions were passed in 2011,<sup>24</sup> many were enacted

in the second half of the year, and there is typically a lag of several months between the passage of a law and its implementation. Thus, we would not necessarily expect to see these restrictions affect abortion incidence in 2011.

Laws that address similar aspects of abortion services are grouped together even when they differ in their specifics. For example, several states have implemented ultrasound requirements. Some of these laws require that providers display and describe the fetal image to women seeking abortions, while others require only that patients be offered the opportunity to view the ultrasound.<sup>25</sup> Unfortunately, it is beyond the scope of this analysis to make these more detailed distinctions.

### Analysis

We distinguish among four types of abortion-providing facilities: abortion clinics, nonspecialized clinics, hospitals and physicians' offices. Abortion clinics are defined as nonhospital facilities in which half or more of patient visits are for abortion services. Nonspecialized clinics are sites in which fewer than half of patient visits are for abortion services; these include physicians' offices that provide 400 or more abortions per year. Physicians' offices are facilities that perform fewer than 400 abortions per year and have names suggesting that they are physicians' private practices.

We obtained some information on the provision of early medication abortion from 74% of nonhospital facilities. Because response rates varied by facility type and caseload, we constructed weights that accounted for these differences to be used in relevant analyses. Unless otherwise noted, all abortion data presented include both surgical and medication abortions.

Census Bureau data on the population of women aged 15–44 for July 1, 2010, and July 1, 2011, were used as denominators for calculating abortion rates for the entire United States and for each state and the District of Columbia.<sup>26</sup> Updated population estimates, based on intercensal adjustments for the years 2001–2009, were used to revise abortion rates for those years. We estimated the national abortion ratio as the proportion of pregnancies (excluding those ending in miscarriages) that ended in abortion; to do this, we combined our abortion counts with National Center for Health Statistics data on the number of U.S. births in the one-year periods beginning on July 1 of 2010 and 2011 (to match conception times for births with those for abortions).<sup>27-29</sup>

## RESULTS

### Abortion Incidence

The number of abortions and the abortion rate declined steadily between 2008 and 2011—about 4–5% per year. In 2011, there were 1.06 million abortions, and the abortion rate was 16.9 per 1,000 women aged 15–44 (Table 1). This is the lowest rate since 1973 (not shown). In 2011, the abortion ratio was 21 procedures per 100 pregnancies (excluding miscarriages); by contrast, in 2008, the ratio was 23 per 100 pregnancies.

**TABLE 1. Number of reported abortions, abortion rate and abortion ratio, United States, 1991–2011**

Year	No. (in 000s)	Rate*	Ratio†
1991	1,556.5	26.3	27.4
1992	1,528.9	25.7	27.5
1993	[1,495.0]	[25.0]	[27.4]
1994	[1,423.0]	[23.7]	[26.6]
1995	1,359.4	22.5	25.9
1996	1,360.2	22.4	25.9
1997	[1,335.0]	[21.9]	[25.5]
1998	[1,319.0]	[21.5]	[25.1]
1999	1,314.8	21.4	24.6
2000	1,313.0	21.3	24.5
2001	[1,291.0]	[20.9]	[24.4]
2002	[1,269.0]	[20.5]	[23.8]
2003	[1,250.0]	[20.2]	[23.3]
2004	1,222.1	19.7	22.9
2005	1,206.2	19.4	22.4
2006	[1,242.2]	[19.9]	[22.9]
2007	1,209.6	19.4‡	21.9
2008	1,212.4	19.4‡	22.5‡
2009	[1,151.6]	[18.5]	[22.2]
2010	1,102.7	17.7	21.7
2011	1,058.5	16.9	21.2

\*Abortions per 1,000 women aged 15–44 as of July 1 of each year.  
†Abortions per 100 pregnancies ending in abortion or live birth; for each year, the ratio is based on births occurring during the 12-month period starting in July of that year. ‡Figure slightly altered from the previously published one on the basis of updated birth and population estimates. Note: Figures in brackets were estimated by interpolation of numbers of abortions and adjustments made to state health department reports. Sources: **Number of abortions, population data and birth data, 1991–2008:** reference 4. **Number of abortions, 2009–2008:** Guttmacher Abortion Provider Census and interpolations. **Population data, 2009–2011:** reference 26. **Birth data, 2009–2012:** references 27–29.

The number of abortions and the abortion rate both decreased 13% between 2008 and 2011 (Table 2). Declines in abortion rates were found in almost all states and the District of Columbia. Only six states—Alaska, Maryland, Montana, New Hampshire, West Virginia and Wyoming—experienced no change or an increase in abortion rates. Five rates declined by less than half the national decline of 13% (those in the District of Columbia, Hawaii, Massachusetts, Virginia and Wisconsin), while a similar number declined by at least 50% more than the national average (those in Delaware, Kansas, Missouri, Oklahoma, South Dakota and Utah). The decline was particularly notable in Delaware, as this state had the highest abortion rate in the country in 2008.

The highest abortion rates were in New York, Maryland, the District of Columbia, Delaware and New Jersey (27–34 abortions per 1,000 women); notably, Delaware, New Jersey and New York all saw substantial declines in their rates between 2008 and 2011. The five states with the lowest abortion rates were Wyoming, Mississippi, South Dakota, Kentucky and Missouri (1–5 abortions per 1,000 women). Yet rates are based on state of occurrence; in 2009, substantial proportions of abortion patients who lived in South Dakota (26%) or Wyoming (more than 90%) went out of state to obtain an abortion.<sup>5</sup> Thus, the actual abortion rates for women who live in these states are likely higher.

Abortion rates dropped in all four regions of the country, but the declines were steepest in the Midwest (17%) and

the West (15%); the rate decline in the South (12%) was similar to the national decline, while the Northeast had a lower decrease (9%). As in prior years, the Northeast maintained the highest abortion rate (25 abortions per 1,000 women), followed by the West, South and Midwest (19, 15 and 12 per 1,000, respectively).

### Provider Type and Numbers

In 2011, a total of 1,720 providers performed at least one abortion (Table 3); slightly more than one-third performed fewer than 30 abortions, while one in five had caseloads of 1,000 or more abortion patients. About half of all facilities were clinics. Abortion clinics—where at least 50% of patient visits are for abortion services—accounted for 19% of all providers. The majority had caseloads of 1,000 or more per year, and these sites accounted for 63% of abortions. By comparison, in 2008 there were 49 more abortion clinics, and these facilities performed 70% of abortions.<sup>4</sup>

Nonspecialized clinics represented 30% of known abortion providers. Many of these clinics focus on contraceptive and family planning services, though almost half performed 400 or more procedures per year. These facilities accounted for 31% of abortions. In 2008, some 37 fewer nonspecialized clinics were identified, and these clinics performed 24% of abortions.<sup>4</sup>

More than one-third of abortion providers were hospitals, two-thirds of which performed fewer than 30 abortions per year; hospitals accounted for 4% of all abortions. Finally, physicians' offices represented 17% of abortion facilities, but only 1% of procedures were performed at these sites.

The total number of abortion providers declined 4% between 2008 and 2011 (Table 4). The number declined in 21 states, remained stable in 20 and increased in nine states plus the District of Columbia. Given the important role of clinics in providing access to abortion care, we examined state-level changes in the numbers of these facilities (specialized and nonspecialized combined). The decline in clinics, 1% between 2008 and 2011, was less pronounced than that for all facilities. Sixteen states and the District of Columbia had an increase, 15 saw no change and 19 had declines. Proportionately, clinic increases were greatest in Alaska, Iowa, Nebraska, Nevada and Utah; in three of these states, the number of clinics increased by one, though the number in Iowa increased by seven and in Nevada by two. The five states with the steepest proportionate declines in clinics were Arkansas, Idaho, Kansas, Oklahoma and Vermont. While these states lost only one clinic each, they had few to begin with, so the loss of even one may have affected access to services. Indeed, the closure of a clinic may have contributed to the larger-than-average declines in abortion incidence in Kansas and Oklahoma. In 2011, three states (Mississippi, North Dakota and South Dakota) had only one clinic, and one state (Wyoming) had none.

The Midwest was the only region that had more clinics in 2011 than in 2008 (an 8% increase). Most of the increase occurred in Iowa, where the number of clinics rose 70%, from 10 to 17. Illinois, Indiana, Minnesota and Nebraska

**TABLE 2. Number of reported abortions and abortion rate, selected years; and percentage change in rate, 2008–2011—all by region and state in which the abortions occurred**

Region and state	Number			Rate*			
	2008	2010	2011	2008†	2010	2011	% change, 2008–2011
<b>U.S. total</b>	<b>1,212,350</b>	<b>1,102,670</b>	<b>1,058,490</b>	<b>19.4</b>	<b>17.7</b>	<b>16.9</b>	<b>-13</b>
<b>Northeast</b>	<b>302,710</b>	<b>281,250</b>	<b>272,020</b>	<b>27.1</b>	<b>25.3</b>	<b>24.6</b>	<b>-9</b>
Connecticut	17,030	15,430	14,640	24.4	22.3	21.3	-13
Maine	2,800	2,490	2,360	11.2	10.3	9.9	-12
Massachusetts	24,900	24,360	24,030	18.4	18.0	17.8	-3
New Hampshire	3,200	3,040	3,200	12.4	12.2	12.9	4
New Jersey	54,160	48,840	46,990	30.9	28.1	27.1	-12
New York	153,110	142,790	138,370	37.7	35.3	34.2	-9
Pennsylvania	41,000	38,650	36,870	16.7	15.8	15.1	-9
Rhode Island	5,000	4,290	4,210	22.9	20.0	19.8	-13
Vermont	1,510	1,370	1,370	12.5	11.6	11.7	-7
<b>Midwest</b>	<b>186,930</b>	<b>159,360</b>	<b>153,380</b>	<b>14.0</b>	<b>12.1</b>	<b>11.7</b>	<b>-17</b>
Illinois	54,920	44,400	44,580	20.7	16.9	17.0	-18
Indiana	10,680	10,400	9,430	8.2	8.1	7.3	-11
Iowa	6,560	6,000	5,640	11.3	10.4	9.7	-14
Kansas	10,620	7,240	6,940	19.2	13.0	12.5	-35
Michigan	36,790	30,770	29,190	18.6	16.1	15.3	-18
Minnesota	13,060	11,570	11,140	12.4	11.1	10.7	-14
Missouri	7,440	6,160	5,820	6.3	5.2	5.0	-21
Nebraska	2,840	2,490	2,570	8.0	7.0	7.2	-10
North Dakota	1,400	1,290	1,250	11.0	10.0	9.5	-14
Ohio	33,550	30,220	28,590	14.8	13.5	12.9	-13
South Dakota	850	740	600	5.6	4.8	3.9	-30
Wisconsin	8,230	8,080	7,640	7.4	7.4	7.0	-6
<b>South</b>	<b>400,770</b>	<b>374,490</b>	<b>356,790</b>	<b>17.3</b>	<b>16.1</b>	<b>15.2</b>	<b>-12</b>
Alabama	11,270	10,280	9,550	11.7	10.7	10.0	-15
Arkansas	4,890	4,680	4,370	8.6	8.2	7.6	-11
Delaware	7,070	6,570	5,090	39.3	36.6	28.4	-28
District of Columbia	4,450	4,660	4,750	29.1	28.6	28.5	-2
Florida	94,360	86,180	84,990	26.4	24.2	23.7	-10
Georgia	39,820	35,590	34,910	19.2	17.1	16.8	-13
Kentucky	4,430	4,040	3,970	5.1	4.7	4.6	-10
Louisiana	14,860	12,710	12,210	16.1	13.7	13.1	-19
Maryland	34,290	34,310	34,260	28.7	28.7	28.6	0
Mississippi	2,770	2,300	2,220	4.6	3.8	3.7	-19
North Carolina	33,140	32,700	28,600	17.1	16.8	14.6	-15
Oklahoma	7,160	6,290	5,860	9.8	8.5	7.9	-20
South Carolina	7,300	6,730	6,620	7.9	7.2	7.1	-10
Tennessee	19,550	17,850	16,720	15.3	14.0	13.1	-15
Texas	84,610	79,390	73,200	16.2	14.9	13.5	-17
Virginia	28,520	27,660	27,110	17.3	16.7	16.3	-6
West Virginia	2,280	2,540	2,390	6.6	7.4	7.0	6
<b>West</b>	<b>321,940</b>	<b>287,570</b>	<b>276,300</b>	<b>21.9</b>	<b>19.4</b>	<b>18.5</b>	<b>-15</b>
Alaska	1,700	1,930	1,820	12.1	13.4	12.4	3
Arizona	19,500	15,180	16,100	15.5	12.0	12.7	-18
California	214,190	191,550	181,730	27.4	24.3	23.0	-16
Colorado	15,960	15,060	14,710	15.8	14.7	14.2	-10
Hawaii	5,630	5,520	5,580	21.6	21.0	21.1	-2
Idaho	1,800	1,740	1,680	5.9	5.7	5.4	-8
Montana	2,230	2,220	2,220	12.3	12.4	12.3	0
Nevada	13,450	11,850	11,290	24.5	21.6	20.6	-16
New Mexico	6,150	5,630	5,180	15.5	14.1	13.0	-16
Oregon	12,920	11,010	10,690	17.2	14.6	14.1	-18
Utah	4,000	3,540	3,290	6.8	5.9	5.4	-21
Washington	24,320	22,240	21,880	18.1	16.4	16.0	-12
Wyoming	90	90	120	0.9	0.8	1.1	30

\*Abortions per 1,000 women aged 15–44. †The rates for 2008 have been slightly revised from previously published figures because of improved population estimates generated when the 2010 census was released. Note: Numbers of abortions are rounded to the nearest 10. Sources: See Table 1.

also had more clinics in 2011 than in 2008, though the level of change was smaller. The Northeast experienced the largest proportionate decrease (7%), having 15 fewer clinics in 2011; New York accounted for more than half of this drop.

In 2011, 89% of counties had no clinic (abortion or non-specialized), and 38% of women aged 15–44 lived in those

counties. These proportions are essentially unchanged from the 2008 figures, which referred to counties with any abortion provider, as most hospitals and physicians' offices that provide abortion care are located in counties that have one or more clinics. Access appeared to be best in the District of Columbia and in California, Connecticut,

**TABLE 3. Number and percentage distribution of abortion providers and of abortions, by caseload, according to provider type, 2011**

Caseload	Total		Abortion clinics		Other clinics		Hospitals		Physicians' offices*	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Providers</b>	<b>1,720</b>	<b>100</b>	<b>329</b>	<b>19</b>	<b>510</b>	<b>30</b>	<b>595</b>	<b>35</b>	<b>286</b>	<b>17</b>
1–29	610	35	0	0	50	3	400	23	160	9
30–399	534	31	20	1	216	13	172	10	126	7
400–999	227	13	50	3	158	9	19	1	na	na
1,000–4,999	329	19	244	14	81	5	4	†	na	na
≥5,000	20	1	15	1	5	†	0	0	na	na
<b>Abortions</b>	<b>1,058,490</b>	<b>100</b>	<b>671,940</b>	<b>63</b>	<b>331,880</b>	<b>31</b>	<b>40,500</b>	<b>4</b>	<b>14,180</b>	<b>1</b>
1–29	5,450	1	0	0	530	0	3,140	†	1,790	†
30–399	77,720	7	5,100	†	41,440	4	18,790	2	12,390	1
400–999	149,890	14	34,910	3	103,990	10	10,990	1	na	na
1,000–4,999	691,100	65	537,270	51	146,250	14	7,580	1	na	na
≥5,000	134,330	13	94,660	9	39,670	4	0	0	na	na

\*Offices that reported 400 or more abortions a year were classified as other clinics. †Less than 0.5%. Notes: Numbers of abortions are rounded to the nearest 10. Abortion counts may not sum to totals, and percentages may not add to 100, because of rounding. na=not applicable.

Hawaii, Massachusetts and Nevada, where 10% or fewer of women lived in a county without a clinic. All, or almost all, women residing in Mississippi, West Virginia and Wyoming lived in a county without a clinic.

**Early Medication Abortion**

For 2011, we estimated that 239,400 early medication abortions were performed (Table 5), 20% more than in 2008. These procedures accounted for 23% of all nonhospital abortions, up from 17% in 2008. Most providers who offer early medication abortion do so through nine weeks' gestation on the basis of its demonstrated safety and efficacy,<sup>30,31</sup> and this was the gestational limit defined in the survey instrument. Using gestational data from the CDC,<sup>5</sup> we estimated that 36% of abortions up to nine weeks' gestation in 2011 were early medication procedures (not shown); the proportion in 2008 was 26%.<sup>4</sup> Virtually all early medication abortions (98%) were done with mifepristone, and the rest with methotrexate or misoprostol alone (not shown).

The number of early medication abortions increased across provider types and caseloads except providers that performed fewer than 30 abortions per year. While non-specialized clinics accounted for 31% of all abortions, they accounted for 46% of early medication abortions; abortion clinics provided 52% of these procedures.

We estimated that 1,023 facilities, or 59% of abortion providers, performed early medication abortions in 2011 (not shown). The overwhelming majority of both abortion and other clinics (90–91%) offered this service. A minimum of 193 facilities, or 17% of all nonhospital providers, offered only early medication abortions; these facilities were concentrated in the nonspecialized clinic category and accounted for 31% of this group. Most facilities that offered only this abortion service were located in areas that were also served by providers of surgical abortions, though 18 were the sole abortion provider in their metropolitan area.

**New Abortion Laws**

Between 2008 and 2010, some 18 states implemented 44 laws pertaining to abortion (Table 6). Most of these states were in the Midwest and the South; the exceptions were Arizona, Idaho and Utah.

Many of the laws would not be expected to have a measurable impact on abortion incidence. For example, three of the four states with new counseling laws—Missouri, North Dakota and Utah—simply added new information to existing counseling requirements. Similarly, because the overwhelming majority of abortions occur in the first trimester,<sup>5</sup> bans and limits on later abortions implemented in Arizona, Arkansas, Nebraska and Utah would likely have little effect on abortion incidence.

A few states adopted restrictions that may have affected access to abortion services. For example, in 2009 Missouri implemented a law that required women to make an in-person visit for counseling at least 24 hours prior to an abortion. That state's abortion rate dropped 17% between 2008 and 2010, possibly reflecting, at least in part, that fewer women could make the additional visit.

The closure of even one facility that is unable to meet TRAP regulations has the potential to affect several hundred, or even several thousand, women.<sup>11</sup> In 2010, Louisiana enacted a statute granting the health secretary the sole ability to shut down an abortion-providing facility for any reason,<sup>32</sup> and the law resulted in the temporary closure of one or more clinics.<sup>33</sup> While the number of facilities in the state did not change between 2008 and 2011, the disruption in services may have contributed to the 19% decline in abortion incidence. This decline is all the more notable given the substantial increase in the abortion rate (38%) that occurred between 2005 and 2008.<sup>4</sup>

It is crucial to note that abortion rates decreased by larger-than-average amounts in several states that did not implement any new restrictions between 2008 and 2010, such as Illinois (18%) and Oregon (15%). So, even in states like Louisiana and Missouri, we cannot assume that the new restrictions were responsible for the decline in abortion incidence.

In 2011, 62 new abortion regulations were implemented in 21 states. The most common regulation, implemented in seven states, was a new or amended abortion reporting requirement. These states already mandated that abortions be reported to the health department, and the new laws required one or two new pieces of information. North Carolina implemented a new abortion counseling law and a 24-hour waiting period. Most of the decline in the state's abortion rate occurred between 2010 and 2011 (13%), while a modest dip was seen between 2008 and 2010 (2%). However, since the new requirements did not go into effect until October of 2011,<sup>34</sup> it is unlikely that these restrictions account for most of the decline in abortion incidence. The TRAP laws implemented in Indiana, Kansas, Louisiana, Texas and Virginia included either requirements that physicians who provide abortions have a relationship with a hospital or new regulations for clinics (typically requiring

them to meet the standards of hospitals or surgical centers).<sup>17</sup> In many cases, the laws were implemented late enough in the year or in such a way that they would not be expected to have reduced access to services during the study period.

## DISCUSSION

The national abortion rate appears to have resumed its long-term decline. After dropping steadily between 1990 and 2005, the rate stabilized, with slight fluctuations, between 2005 and 2008. We found that both the abortion number and the abortion rate declined by 13% between 2008 and 2011. The drop in abortion occurred in all but six states, though substantial variation was seen across states. It is beyond the scope of this study to assess the dynamics responsible for these patterns, but we suggest several possible factors, many of which may be suitable for future analyses.

Abortion incidence is inherently affected by service availability. The total number of abortion providers declined by 4% since 2008, while the number of clinics offering abortion declined by just 1%. Although the loss of even one clinic can have a measurable and substantial impact on service availability in some states, the scale of the decline in providers does not appear to account for the considerable drop in abortion incidence nationally.

Forty-four laws intended to restrict access to abortion were implemented in 18 states between 2008 and 2010; an additional 62 were implemented in 2011 in 21 states. Some of these laws, such as those that added information to existing counseling requirements, would not necessarily be expected to have a measurable impact. In turn, we found no indication that they affected state-specific trends in abortion incidence. A few, such as regulations for in-person counseling and a 24-hour waiting period in Missouri, may have posed a barrier to service for some women, and TRAP laws like the one implemented in Louisiana may have disrupted clinic services, thereby reducing abortion incidence. However, while most of the new laws were enacted in states in the Midwest and the South, abortion incidence declined in all regions, and the number of clinics fell only in the Northeast and the West. Finally, a number of states that did not enact any new abortion restrictions and that are generally supportive of abortion rights—for example, by allowing state Medicaid funds to pay for abortions for eligible women—experienced declines in their abortion rates comparable to, and sometimes greater than, the national decline (e.g., California, New Jersey and New York). That these states also experienced a slight drop in the number of clinics offering abortion services may reflect a decline in demand as opposed to the imposition of legal barriers.

More broadly, it is possible that fewer women experienced unintended pregnancies in 2011 than in 2008, and one factor could be the uptake of more effective contraceptive methods. While little improvement in contraceptive nonuse among all women at risk of unintended pregnancy

**TABLE 4. Number of abortion providers and number of clinics, 2008 and 2011, and percentage change between these years; number of counties and percentage with no clinic, 2011; and percentage of women aged 15–44 living in counties with no clinic, 2011—all by region and state**

Region and state	Providers			Clinics			Counties, 2011		% of women in counties with no clinic, 2011*
	2008	2011	% change, 2008–2011	2008	2011	% change, 2008–2011	No.	% with no clinic	
<b>U.S. total</b>	<b>1,793</b>	<b>1,720</b>	<b>–4</b>	<b>851</b>	<b>839</b>	<b>–1</b>	<b>3,143</b>	<b>89</b>	<b>38</b>
<b>Northeast</b>	<b>500</b>	<b>453</b>	<b>–9</b>	<b>201</b>	<b>186</b>	<b>–7</b>	<b>217</b>	<b>65</b>	<b>24</b>
Connecticut	47	41	–13	22	21	–5	8	13	5
Maine	13	11	–15	6	5	–17	16	81	55
Massachusetts	41	40	–2	11	12	9	14	36	10
New Hampshire	11	13	18	4	5	25	10	50	23
New Jersey	75	64	–15	27	24	–11	21	48	28
New York	249	225	–10	103	94	–9	62	53	12
Pennsylvania	50	47	–6	22	20	–9	67	87	49
Rhode Island	4	4	0	2	2	0	5	80	37
Vermont	10	8	–20	4	3	–25	14	79	51
<b>Midwest</b>	<b>173</b>	<b>173</b>	<b>0</b>	<b>115</b>	<b>124</b>	<b>8</b>	<b>1,055</b>	<b>94</b>	<b>53</b>
Illinois	37	37	0	22	26	18	102	92	39
Indiana	12	12	0	9	10	11	92	93	61
Iowa	11	18	64	10	17	70	99	85	50
Kansas	4	3	–25	4	3	–25	105	98	74
Michigan	46	41	–11	32	30	–6	83	86	36
Minnesota	14	15	7	6	7	17	87	95	59
Missouri	6	5	–17	5	4	–20	115	97	74
Nebraska	5	5	0	2	3	50	93	97	41
North Dakota	1	1	0	1	1	0	53	98	73
Ohio	26	26	0	19	18	–5	88	91	54
South Dakota	2	2	0	1	1	0	66	98	77
Wisconsin	9	8	–11	4	4	0	72	96	67
<b>South</b>	<b>366</b>	<b>357</b>	<b>–2</b>	<b>246</b>	<b>245</b>	<b>0</b>	<b>1,423</b>	<b>93</b>	<b>49</b>
Alabama	8	8	0	7	6	–14	67	93	59
Arkansas	6	5	–17	4	3	–25	75	97	78
Delaware	8	8	0	4	4	0	3	33	18
DC	8	9	13	4	5	25	1	0	0
Florida	91	88	–3	72	72	0	67	73	22
Georgia	32	28	–13	17	19	12	159	96	58
Kentucky	3	3	0	2	2	0	120	98	74
Louisiana	7	7	0	7	7	0	64	92	63
Maryland	34	34	0	20	21	5	24	67	24
Mississippi	2	2	0	1	1	0	82	99	91
North Carolina	31	36	16	18	21	17	100	90	53
Oklahoma	6	5	–17	4	3	–25	77	96	55
South Carolina	6	9	50	3	3	0	46	93	72
Tennessee	13	14	8	10	9	–10	95	96	63
Texas	67	62	–7	50	46	–8	254	93	35
Virginia	40	35	–13	21	21	0	134	92	78
West Virginia	4	4	0	2	2	0	55	98	90
<b>West</b>	<b>754</b>	<b>737</b>	<b>–2</b>	<b>289</b>	<b>284</b>	<b>–2</b>	<b>448</b>	<b>79</b>	<b>16</b>
Alaska	8	9	13	3	4	33	29	90	37
Arizona	19	17	–11	16	15	–6	15	67	14
California	522	512	–2	169	160	–5	58	45	5
Colorado	42	42	0	24	24	0	64	78	28
Hawaii	37	33	–11	5	6	20	5	40	4
Idaho	4	4	0	3	2	–33	44	95	69
Montana	8	8	0	6	7	17	56	89	46
Nevada	13	14	8	6	8	33	17	88	10
New Mexico	12	12	0	6	7	17	33	94	60
Oregon	29	29	0	15	15	0	36	78	31
Utah	7	9	29	3	4	33	29	97	62
Washington	50	45	–10	33	32	–3	39	64	13
Wyoming	3	3	0	0	0	0	23	100	100

\*Population counts are for July 1, 2011. Sources: **All providers, 2008:** reference 4. **Clinics, 2008:** Special tabulations of data from the 2008 Guttmacher Abortion Provider Census. **Population data, 2011:** reference 26.

has been seen in recent years,<sup>7,35,36</sup> some evidence suggests improvement among younger women. Between 2007 and 2009, the level of nonuse among women younger than

**TABLE 5. Number of early medication abortions provided at nonhospital facilities, 2008 and 2011; percentage change between these years; and these abortions as a percentage of all nonhospital abortions—all by provider type and caseload**

Provider type and caseload	Number			% of all abortions	
	2008	2011	% change, 2008–2011	2008	2011
<b>Total</b>	<b>199,000</b>	<b>239,400</b>	<b>20</b>	<b>17</b>	<b>23</b>
<b>Provider</b>					
Abortion clinics	106,000	123,400	16	13	18
Other clinics	89,000	111,100	25	30	33
Hospitals	u	u	u	u	u
Physicians' offices	4,000	4,900	23	23	35
<b>Caseload</b>					
1–29	1,000	1,000	0	37	18
30–399	26,600	31,700	19	49	41
400–999	32,000	41,700	30	23	28
1,000–4,999	120,400	142,500	18	16	21
≥5,000	18,900	22,600	20	9	17

Notes: Early medication abortions include those performed with mifepristone, methotrexate or misoprostol alone. Numbers of abortions are rounded to the nearest 100. u=unavailable. Source: 2008 data: reference 4.

30 decreased from 15% to 12% (a statistically significant change).<sup>7</sup> In addition, substantial shifts in the contraceptive method mix away from less effective methods have been observed, particularly toward uptake of LARC methods, such as the IUD. In 2002, only 2% of contraceptive users were relying on LARC methods, but this proportion rose to

9% in 2009.<sup>7</sup> If LARC use continued to increase during the study period, this could help explain the national decline in abortion incidence. Use of these methods has increased among all subgroups, including young adults and lower income women, who are at highest risk of unintended pregnancy.<sup>7</sup> LARC methods are more than 99% effective at preventing pregnancy, last 3–12 years and, unlike methods such as the pill, leave little to no room for user error.<sup>8,37</sup> Thus, even small increases in LARC use could affect abortion rates.

Unintended pregnancy and abortion are more common among low-income women than among women with higher incomes,<sup>1,38</sup> and the former population may have a harder time accessing contraception, particularly the most effective methods. More women were in need of publicly funded family planning services in 2010 than in 2006 (19.1 million vs. 17.5 million), but fewer received these services (8.9 million vs. 9.4 million).<sup>39</sup> However, the estimated number of unintended pregnancies averted by federally funded family planning programs increased 15% over this period (from 1.9 million to 2.2 million).<sup>39</sup> One explanation for the increased impact of these programs is that more women were using long-acting methods; LARC use among women accessing publicly funded contraceptive services increased from 4% to 11% in this period, and reliance on condoms or nonprescription

**TABLE 6. State abortion laws implemented in 2008–2010 and 2011**

Law	2008–2010	2011
Requires counseling designed to dissuade a woman from obtaining an abortion	AZ, MO, ND, UT	IA, IN, KS, NC, ND, SD
Requires waiting period between counseling and the abortion	AZ, SC	NC
Requires two trips to the provider (one for counseling and one for the abortion)	MO	AZ
Places requirements on use of ultrasound before an abortion	KS, LA, MO, ND, NE, OH, SC, SD, UT, WV	AZ, FL, IA, IN, KS
Requires parental consent before a minor obtains an abortion		KS, NE
Amends process for a minor seeking an abortion without parental involvement	AZ	FL, IN, KS, ND, NE
Requires that parental consent for a minor's abortion be notarized		AZ
Limits access to medication abortion	OK	AZ, KS, NE, SD
Continues limits on state Medicaid coverage of abortion	IA, MD, MN, SC	IA, MD, SC
Limits abortion coverage in private insurance plans	AZ, SC	KS, NC, OK
Prohibits abortion for the purpose of gender or race selection	OK	AZ
Bans self-induced abortion	UT	
Amends laws related to abortion reporting	AZ, NE, OK	AL, ID, IN, KS, MO, OH, OK
Requires reporting of minors' abortions	AZ, MI, OK	FL, IN, KS, ND, NE
Allows provider to withhold information about a woman's pregnancy so she does not seek an abortion	OK	
Amends laws related to the refusal to participate in abortion services	AZ, ID, LA, OK	UT
Prohibits payment for visits or services until waiting period has expired	AZ	ND
Places unnecessary and burdensome regulations on providers*	LA	IN, KS, LA, TX, VA
Allows only physicians to perform abortions		AZ
Bans "partial-birth" abortion	AR, AZ	KS, MI
Limits abortion after fetal viability	UT	KS, MO, OH
Limits abortion at ≥20 weeks' postfertilization	NE	AL, ID, IN, KS, OK

\*These laws are known as targeted regulation of abortion providers, or TRAP.

methods fell from 25% to 17%.<sup>39</sup> Compared with all women of reproductive age, those who rely on publicly funded family planning services tend to be younger and, by default, have lower income.<sup>39</sup> Increased LARC use among this population may have had a disproportionate impact on the abortion rate.

Macro-level factors also may have contributed to the decline in abortion. The U.S. birthrate decreased 9% between 2008 and 2011,<sup>26,40</sup> and as found with abortion rates, this drop was seen in nearly all states. Taken together with the 13% decline in the national abortion rate, this means that substantially fewer women got pregnant in 2011 than in 2008. One common factor—the economy—may have played a role.

The official start and end dates of the most recent U.S. recession were December 2007 and June 2009,<sup>41</sup> but it is widely acknowledged that the recovery period through 2011 was quite sluggish.<sup>42</sup> Women and couples facing economic uncertainty may have been particularly motivated to postpone, or even forgo, childbearing. In support of this argument, studies have found that trends in unemployment between 2007 and 2009 were accompanied by a drop in the fertility rate<sup>43</sup> and, more specifically, that states that experienced greater economic distress had larger birthrate declines during this period.<sup>44</sup> These findings are substantiated by a national survey of women conducted in 2009, which found that 44% wanted to delay or limit childbearing because of the economy; this sentiment was more common among women with lower incomes (52%).<sup>45</sup> Presumably, then, more women and couples were making conscious decisions to avoid pregnancy and so resumed or continued using contraceptives. This strategy would be expected to have a bigger impact on the rate of intended pregnancies than on the abortion rate, but could also have averted the 5% of abortions that followed intended pregnancies.<sup>46</sup> Furthermore, while the majority of women want to avoid pregnancy, multiple studies have found that approximately one in five are ambivalent,<sup>47,48</sup> and that pregnancy ambivalence is associated with inconsistent contraceptive use.<sup>47,49,50</sup> During a period of prolonged economic uncertainty, women and couples may be more resistant to an “accidental” or “surprise” pregnancy, and hence more consistent in their contraceptive use. This would lead to fewer pregnancies that likely would have been classified as unintended.

Reliance on early medication abortion increased substantially over the study period. Even though fewer abortions were performed in 2011 than in 2008, the number of early medication abortions increased 20%. More than one in five nonhospital abortions in the United States were early medication procedures, and we estimated that they accounted for more than one-third of all abortions obtained up to nine weeks' gestation. Shifts in provider types have likely contributed to this pattern. In 2000, nonspecialized clinics accounted for 21% of abortion facilities and 23% of abortions;<sup>19</sup> by 2011, these figures had increased to 30% and 31%, respectively. These facilities accounted for a

disproportionate share of early medication abortions in 2011 (46%), and approximately one-third of these providers offer only this procedure.

### Limitations

We are aware of several limitations of our study. Undoubtedly, some abortion providers were not counted because we were unable to identify them, and the issue of undercounting abortions has potentially become more pronounced over the last decade because of the use of early medication abortion. For the 2005 and 2008 Abortion Provider Censuses, the distributor of mifepristone mailed the questionnaire to its clients on our behalf. We did not pursue this strategy for the current survey, as relatively few new providers had been identified in this way, and the cost of the additional mailing did not warrant the extra effort. However, given the increasing popularity of mifepristone, it is possible that a growing number of small providers are offering this service and were not captured in our study. While this omission might have influenced statistics related to the total number of providers, it is less likely to have affected overall abortion counts. Facilities with larger caseloads are more easily identified because they are typically known by other providers in their communities and advertise on the Internet and in the yellow pages. As additional reassurance, our total count of early medication abortions using mifepristone was comparable to the distributor's estimate based on sales, and our estimate of the number of providers offering this procedure was 98% of the total counted by the distributor.<sup>51</sup>

Although intense efforts were made to obtain data from all known abortion providers, we had to make informed estimates for some facilities. We obtained direct information from a lower proportion of providers than in the 2008 census, and thus had to rely on more estimates. Most providers we were unable to obtain data from, such as physicians' offices and hospitals, had smaller caseloads. Furthermore, 86% of abortions estimated to have occurred in 2011 were reported to us directly by the providers, compared with 82% in 2008. Still, if we substantially underestimated caseloads for the 474 facilities for which abortion procedures were generated, the actual number of abortions would be higher than our count.

Another development may have resulted in an undercount of abortions. The drug misoprostol is part of the early medication abortion regimen and is typically taken 24–72 hours after mifepristone. However, it can also be used alone to terminate a pregnancy, and while it is less effective than the combined regimen, clinical studies have shown that misoprostol alone can successfully terminate a pregnancy 76–90% of the time.<sup>52–54</sup> Misoprostol is available only by prescription in the United States, but can be obtained “behind the counter” in some countries, including Mexico. Over the last decade, anecdotal and media reports suggest that some U.S. women procure the drug—from contacts living in countries where it is available without a prescription, from the black market and

through the Internet—and use it to terminate their pregnancies.<sup>55,56</sup> Two studies conducted more than five years ago, one among abortion patients and one among women obtaining family planning or general health care, found that very few women had ever used misoprostol to terminate a pregnancy.<sup>55,57</sup> However, in the context of increasing abortion restrictions, rising economic vulnerability and growing awareness of misoprostol, more women may be successfully procuring and using this drug to terminate their pregnancies outside clinical settings. If this was the case, our estimate of the number of abortions is artificially low, and the actual drop in the abortion rate was not as large as it appears.

Finally, our abortion counts and rates are by state of occurrence. While most women obtain abortions in the state in which they reside, in at least two states (Mississippi and Wyoming) the majority of residents in need of abortion care go out of state for it;<sup>5</sup> in other states, a sizable proportion of abortions are performed on women who come from neighboring states to access services.<sup>5</sup> Thus, the abortion numbers and rates in this study do not always reflect abortion incidence for women who reside in a given state.

### Conclusions

Substantially fewer pregnancies, births and abortions occurred in 2011 than in 2008. Unintended birth and pregnancy rates for 2011 are not yet available, but these probably declined as well; given the substantial decline in births, it is unlikely that most of the decline in the abortion rate is due to women's having more unintended births.

Some improvements in contraceptive use occurred during the study period. If fewer women were experiencing unintended pregnancies because they were using more effective methods, or were using methods more consistently, this would suggest that—after a decade of stalled progress—the United States has made headway in the public health goal of reducing the rate of unintended pregnancy.<sup>58</sup>

Finally, although we found no evidence that new abortion restrictions affected abortion incidence or services at the national level during the study period, this does not mean these laws are not problematic. Some of the new regulations undoubtedly made it more difficult, and costly, for facilities to continue to provide services and for women to access them. Regardless of any measurable impact on incidence or services, increased regulation of abortion contributes to the stigmatization of abortion and of the women who obtain one,<sup>59–61</sup> and can create a climate of fear and hostility even in states where such regulations are not imposed. Because state legislatures continued to debate and enact more restrictive abortion measures throughout 2011, 2012 and 2013, future research will need to examine whether and to what extent these laws affect abortion incidence and access to services.

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