

Population Group Abortion Rates and Lifetime Incidence of Abortion: United States, 2008–2014

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Objectives. To assess the prevalence of abortion among population groups and changes in rates between 2008 and 2014.

Methods. We used secondary data from the Abortion Patient Survey, the American Community Survey, and the National Survey of Family Growth to estimate abortion rates. We used information from the Abortion Patient Survey to estimate the lifetime incidence of abortion.

Results. Between 2008 and 2014, the abortion rate declined 25%, from 19.4 to 14.6 per 1000 women aged 15 to 44 years. The abortion rate for adolescents aged 15 to 19 years declined 46%, the largest of any group. Abortion rates declined for all racial and ethnic groups but were larger for non-White women than for non-Hispanic White women. Although the abortion rate decreased 26% for women with incomes less than 100% of the federal poverty level, this population had the highest abortion rate of all the groups examined: 36.6. If the 2014 age-specific abortion rates prevail, 24% of women aged 15 to 44 years in that year will have an abortion by age 45 years.

Conclusions. The decline in abortion was not uniform across all population groups. (*Am J Public Health*. 2017;107:1904–1909. doi:10.2105/AJPH.2017.304042)



See also Foster, p. 1860.

Abortion is a common medical procedure and an important component of public health.^{1,2} In 2014, 926 190 abortions were performed in the United States; the abortion rate was 14.6 abortions per 1000 women aged 15 to 44 years, meaning that in that year 1.5% of women of reproductive age had an abortion.³ In 2008, it was estimated that 30% of women aged 15 to 44 years would have an abortion by age 45 years if the prevailing rate continued,⁴ and this figure is often used to demonstrate the commonality of abortion.^{2,5} However, the abortion rate has declined substantially since that time—14% between 2011 and 2014 alone³—and it is likely that the estimate of the lifetime incidence of abortion has also declined.

In addition to fewer women having abortions, the characteristics of the women who obtained them has changed. In 2014, 49% of abortion patients had family incomes below 100% of the federal poverty level, a significant increase from 42% in 2008.⁶ Adolescents accounted for a significantly

smaller share of abortion patients: 12% in 2014 compared with 18% in 2008. Low-income and younger women have traditionally been at increased risk for unintended pregnancy and, in turn, abortion. Changes in the prevalence of abortion for these and other groups, as measured by the abortion rate, could inform strategies to reduce disparities in access to family planning services and other types of reproductive health care.

We combined information on abortion rates and the characteristics of women who have abortions to determine if declines in abortion were experienced by all populations of women. Specifically, we estimated abortion rates in 2014 according to age, income, race and ethnicity, and other characteristics, and we also examined changes in population

rates since 2008, the last year these measures were generated. Finally, we provide an updated estimate of the lifetime incidence of abortion.

METHODS

We used secondary data from multiple sources to construct 2 measures: population group abortion rates, for comparisons between 2008 and 2014, and the lifetime incidence of abortion for 2014. We relied on 3 data sets to calculate these estimates: the Guttmacher Institute's 2014 Abortion Patient Survey (APS), the American Community Survey (ACS), and the National Survey of Family Growth (NSFG). We used Stata 14.2 (StataCorp, College Station, TX) to analyze these data. The US federal government makes ACS and NSFG publicly available. The APS is currently available only to the study team and provides information about a hard-to-reach population; thus, we have summarized the data collection, and we provide more detailed information in Appendix A (available as a supplement to the online version of this article at <http://www.ajph.org>).

The 2014 APS provides information on the characteristics of US women obtaining abortions (including both medical and surgical) in that year. This was the Guttmacher Institute's fifth national survey of abortion patients. As in past surveys, patients at facilities that reported fewer than 30 abortions in 2011 were excluded because of the high likelihood that these facilities would perform few or no abortions during the survey period. Their exclusion can cause little bias

ABOUT THE AUTHORS

Rachel K. Jones and Jenna Jerman are with the Research Division of the Guttmacher Institute, New York, NY.

Correspondence should be sent to Rachel K. Jones, Guttmacher Institute, 125 Maiden Lane, New York, NY 10038 (e-mail: rjones@guttmacher.org). Reprints can be ordered at <http://www.ajph.org> by clicking the "Reprints" link.

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because these facilities accounted for less than 1% of all reported procedures in 2014.³ The 2014 APS used the same methodology as previous surveys with 1 exception: it did not include patients obtaining abortions at hospital facilities. We excluded these facilities because of past recruitment and logistical challenges. In 2014, hospitals with caseloads of 30 or more abortions accounted for 4% of all abortions.³

The 2014 APS survey design randomly sampled 113 US nonhospital facilities selected from a database of all clinics and physician's offices where abortions were known to be performed in 2011,⁷ with updates for new facilities known to have started providing abortion services between 2011 and 2014. We stratified the database by provider type (clinics and private physicians' offices) and caseload (30–399; 400–1999; 2000–4999; and 5000 or more abortions) and then listed them by census region and state within each stratum to ensure that the sample was geographically representative. Every *n*th facility was sampled. Facilities were asked to administer the questionnaire to all women who obtained an abortion during the fielding period, which ranged from 2 to 12 weeks. If a facility declined to participate or did not obtain usable questionnaires from at least half of the target population, it was replaced by the next facility in its stratum, which was usually in the same state or in a neighboring state in the same region. Between April 2014 and June 2015, 87 facilities participated in the study.

The survey collected information directly from abortion patients, using a 4-page, paper-and-pencil, self-administered questionnaire available in English and Spanish. Envelopes were provided so that staff could not see patients' responses.

Participating facilities reported performing 11 024 abortions during the sampling period; usable data were collected from 8380 women, for a response rate of 76%. We constructed weights to correct for any bias produced by patient nonresponse and deviation from the original sampling plan. We used survey items on age, union status, race and ethnicity, foreign-born status, education, number of previous births, and poverty.

Information on the characteristics of all women aged 15 to 44 years comes from 2 surveys: the ACS and the NSFG. The ACS is

a monthly government survey of more than 2 million households conducted by the US Census Bureau, and the sample is selected to represent the civilian noninstitutional population.⁸ We used the 2014, 1-year supplemental file of the ACS to estimate distributions of age group, race and ethnicity, education (among women aged 20 years and older), foreign-born status, and poverty for US women aged 15 to 44 years. We used the 2013 to 2015 NSFG to estimate union status and number of previous births because this information was not available in the ACS. The NSFG, which is overseen by the National Center for Health Statistics, collected data on pregnancy, childbearing, and related measures from a nationally representative sample of 5699 US women aged 15 to 44 years between July 2013 and July 2015.⁹

We applied weights to the APS, ACS, and NSFG data to generate frequency distributions. We applied these patient and population characteristics to the total number of abortions and total number of US women aged 15 to 44 years. Estimates of the total number of abortions in 2014 come from the Guttmacher Institute, which conducts a periodic census of all known abortion providers.³ Population figures for the total number of women aged 15 to 44 years come from the US Census Bureau July 1, 2014, estimates.¹⁰

We calculated population group abortion rates by dividing the number of abortions in a specific group by the number of women in that group in the US population; we then multiplied this figure by 1000. We rounded population figures for both abortion patients and all women to the nearest tenth.

Our analysis focused on changes in abortion rates by demographic characteristic for the period between 2008 and 2014, because 2008 was the next most recent APS. Abortion rates for 2008 were published,⁴ but we adjusted them to be comparable with the 2014 analysis. The previous study relied on the 2008 Current Population Survey to estimate population characteristics. However, the ACS is now considered more accurate than the Current Population Survey, so we reestimated population characteristics used to construct the 2008 abortion rates using the 2008 ACS. Additionally, on the basis of the 2010 Census, the Census Bureau

retrospectively adjusted population totals for the years 2006 through 2010; thus, we relied on the updated 2008 count of women aged 15 to 44 years. Finally, the 2008 APS included hospital abortion patients, and the 2014 survey did not. To make the data comparable, we excluded the 402 patients in the 2008 APS (4.2% of the sample) obtaining abortions at hospitals.

As a sensitivity analysis, we compared the demographic profiles of hospital and non-hospital patients in 2008 to determine whether their exclusion appeared to bias the sample (Table A, available as a supplement to the online version of this article at <http://www.ajph.org>). The 2 groups differed significantly on 2 of the 8 characteristics we examined. Relative to patients obtaining abortions at clinics and physicians' offices, a larger proportion of hospital patients were aged 25 to 29 years (28.2% compared with 24.2%). They were also less educated: 22.7% had not graduated from high school compared with 11.9% of nonhospital abortion patients. Despite these differences, the non-hospital sample was very similar to the full sample on these 2 characteristics, and it is unlikely that the exclusion of the hospital patients biased the sample.

To estimate the lifetime incidence of abortion, or the proportion of women of reproductive age who will have an abortion by age 45 years, we adopted the methodology developed by Forrest.¹¹ We used data from the 2014 APS to determine the proportion of women who were obtaining first abortions in each of the following age groups: younger than 15, 15 to 17, 18 to 19, 20 to 24, 25 to 29, 30 to 34, 35 to 39, and 40 years and older. Because first abortion rates for the youngest abortion patients are traditionally lower than are those for older adolescents, we estimated age-specific abortion rates separately for adolescents younger than 15 years.

Although standard demographic analyses restrict the population denominator to women aged 15 to 44 years, this component of the analysis estimates abortion rates for adolescents younger than 15 years, using those aged 14 years as the denominator. (We did not calculate an overall abortion rate for those younger than 15 years because this group is so small.) We applied these proportions to the age-specific abortion rates to obtain age-specific first abortion rates.

We obtained the cumulative first abortion rate, or proportion of women estimated to have had an abortion by the time they reach the end of a specified age range, by multiplying each age-specific first abortion rate by the number of years in that age group (e.g., the 15–17 years age group had a multiplier of 3) and summing all age groups up to that age group.

RESULTS

Between 2008 and 2014 the national abortion rate declined 25%, from 19.4 to 14.6 abortions per 1000 women aged 15 to 44 years (Table 1). Abortion rates decreased among all groups of women examined in the analysis. However, the degree of change within and among groups varied considerably.

When examined by age group, women aged 20 to 24 years accounted for the largest share of abortions and also had the highest abortion rate: 28.0 per 1000. The second highest abortion rate was among those aged 25 to 29 years: 22.8 per 1000. The drop in abortion rates between 2008 and 2014 was particularly marked for individuals aged 15 to 19 years, declining 56% among those aged 15 to 17 years and 41% among women aged 17 to 19 years.

When examined by union status, never married women accounted for the largest proportion of abortions in 2014 (45.9%) and had an abortion rate of 16.9 per 1000. Women cohabiting with but not married to their partners had the highest abortion rate: 31.0 per 1000. Between 2008 and 2014, declines in abortion were most pronounced for cohabiting women (39%) and lowest for married women (21%), although the latter group had a low abortion rate in both periods.

White women accounted for the largest share of abortions among the 4 racial and ethnic groups examined (38.7%), although they had the lowest abortion rate: 10.0 per 1000. Black women were overrepresented among abortion patients and had the highest abortion rate: 27.1 per 1000. The decline in the abortion rate among non-Hispanic Black women (32%) was greater than that for that non-Hispanic White women (14%); declines were also substantial for Hispanic women (36%) and non-Hispanic women who

TABLE 1—Number of US Abortions and Population Characteristics of Women Aged 15–44 Years in 2014 and Estimated Abortion Rates and Percentage Change in Estimated Rates Between 2008 and 2014: United States

Characteristic	Abortions in 2014		All Women in 2014, No. (%)	No. Abortions per 1000 Women		
	No.	% (95% CI)		2008 ^a	2014	% Change
Total	926 190		63 397 514	19.4	14.6	–25
Age group, y						
< 15	2 220	0.2 (0.2, 0.4)	NA	NA	NA	NA
15–19	108 360	11.7 (10.9, 13.0)	10 333 790 (16.3)	19.4	10.5	–46
15–17	31 610	3.4 (3.0, 3.9)	6 086 160 (9.6)	11.8	5.2	–56
18–19	76 360	8.2 (7.5, 9.0)	4 247 630 (6.7)	30.3	18.0	–41
20–24	310 980	33.6 (32.3, 34.9)	11 094 560 (17.5)	39.9	28.0	–30
25–29	245 260	26.5 (25.4, 27.5)	10 777 580 (17.0)	28.8	22.8	–21
30–34	147 450	15.9 (14.9, 16.9)	10 714 180 (16.9)	17.2	13.8	–20
35–39	84 060	9.1 (8.2, 10.0)	10 016 810 (15.8)	9.5	8.4	–11
≥ 40 ^b	28 300	3.1 (2.7, 3.5)	10 460 590 (16.5)	3.2	2.7	–16
Union status						
Married	132 540	14.3 (13.2, 15.5)	24 167 130 (38.1)	7.0	5.5	–21
Cohabiting, not married	287 120	31.0 (29.8, 32.3)	9 256 040 (14.6)	50.9	31.0	–39
Never married, not cohabiting	425 210	45.9 (44.2, 47.7)	25 175 150 (39.7)	23.1	16.9	–27
Previously married, not cohabiting	81 500	8.8 (7.9, 9.7)	4 803 000 (7.6)	23.4	17.0	–28
Race/ethnicity						
Non-Hispanic White	358 810	38.7 (34.6, 43.0)	36 009 790 (56.8)	11.6	10.0	–14
Non-Hispanic Black	255 630	27.6 (23.6, 32.1)	9 446 230 (14.9)	39.8	27.1	–32
Non-Hispanic other	81 960	8.8 (7.7, 10.1)	5 033 760 (7.9)	26.6	16.3	–39
Hispanic	229 790	24.8 (20.8, 29.3)	12 679 500 (20.0)	28.4	18.1	–36
Foreign-born						
No	776 800	83.9 (81.5, 86.1)	52 493 140 (82.8)	19.7	14.8	–25
Yes	149 390	16.1 (13.9, 18.5)	10 904 370 (17.2)	19.0	13.7	–28
Hispanic and foreign-born	73 910	8.0 (6.4, 9.8)	5 078 140 (8.0)	16.5	14.6	–12
Education^c						
< high school	71 700	8.8 (7.6, 10.1)	5 041 050 (9.5)	21.2	14.2	–33
High school graduate or GED	227 920	27.9 (26.4, 29.6)	11 408 700 (21.5)	23.6	20.0	–15
Some college or associate degree	337 930	41.4 (39.8, 43.1)	19 209 070 (36.2)	21.5	17.6	–18
≥ college graduate	178 550	21.9 (20.0, 23.9)	17 351 840 (32.7)	13.4	10.3	–23
Previous births						
0	376 770	40.7 (38.1, 43.2)	29 086 780 (45.9)	17.3	13.0	–25
1	242 750	26.2 (25.0, 27.5)	11 031 170 (17.4)	32.0	22.0	–31
≥ 2	306 660	33.1 (31.1, 35.2)	23 273 230 (36.7)	17.3	13.2	–24
Family income as % of federal poverty level						
< 100	457 070	49.4 (46.6, 52.1)	12 489 310 (19.7)	49.5	36.6	–26
100–199	237 730	25.7 (24.5, 26.8)	12 463 960 (19.7)	28.0	19.1	–32
≥ 200	231 360	25.0 (22.6, 27.4)	38 482 290 (60.7)	9.4	6.0	–36

Note. CI = confidence interval; GED = general equivalency diploma; NA = not available.

^aOn the basis of previously published abortion rates (Jones and Kavanaugh⁴) and adjusted to account for updated population figures and to exclude nonhospital abortions.

^bDenominator is women aged 40–44 years.

^cAmong women aged 20 years and older.

identified with a race other than Black or White (39%).

The majority of abortions in 2014 (83.9%) were obtained by women born in the United States. Foreign-born women had an abortion rate that was slightly lower than that of US-born women, 13.7 and 14.8 per 1000, respectively, and rates for both groups declined approximately the same amount. The abortion rate for foreign-born Hispanic women, 14.6 per 1000, was lower than was the abortion rate for all Hispanic women, 18.1 per 1000.

In 2014, 1 in 5 abortion patients (aged 20 years and older) had a college degree, and this group had the lowest abortion rate, 10.3 per 1000, compared with 14.2 to 20.0 per 1000 for the other education groups. Declines in abortion were steepest for women aged 20 years and older who had not graduated from high school (33%).

The majority of abortion patients in 2014 had previously given birth. Women with only 1 previous birth had a higher abortion rate, 22.0 per 1000, than did both women with more than 1 previous birth, 13.2 per 1000, and nulliparous women, 13.0 per 1000. The decline in abortion among women with 1 child (31%) was slightly higher than was that for women with no (25%) or 2 or more children (24%).

Women with family incomes less than 100% the federal poverty level accounted for almost half of all abortion patients in

2014, and this group had the highest abortion rate of all groups we examined; 36.6 per 1000. As income levels increased, the abortion rate decreased; women in the highest income group had an abortion rate less than half the national rate: 6.0 per 1000. Although abortion declined for all income groups between 2008 and 2014, poor women experienced the smallest decline (26%), and the declines grew greater with income.

We used age-specific first abortion rates to estimate the lifetime incidence of abortion (Table 2). In 2014, almost all abortion patients younger than 15 years were obtaining a first abortion (96.1%) and, the first abortion rate was the same as their age-specific abortion rate: 1.1 per 1000 (Figure A, available as a supplement to the online version of this article at <http://www.ajph.org>). The overwhelming majority of adolescents aged 15 to 17 years were also obtaining their first abortion (93.1%), resulting in a first abortion rate that was only slightly lower than was their age-specific abortion rate (4.8 compared with 5.2 [per 1000]). We obtained the cumulative first abortion rate for those aged 15 to 17 years by multiplying their first abortion rate by 3 (to account for the 3 years in the age group) and adding this to the first abortion rate for adolescents younger than 15 years.

Women aged 40 years and older had a cumulative first abortion rate of 236.7 per

1000, meaning that an estimated 23.7% of women aged 15 to 44 years in 2014 will have an abortion by age 45 years if the 2014 abortion rates continue throughout their reproductive lives. Correspondingly, an estimated 4.6% of women will have had an abortion by age 20 years and 19% by aged 30 years.

DISCUSSION

The US abortion rate fell 25% between 2008 and 2014, but this decline was not uniform across all population groups.

The decline in the abortion rate was largest, 46%, for young women aged 15 to 19 years. This parallels the 23% drop in the adolescent birth rate over the same period.^{12,13} Recent research suggests that most of the decline in adolescent fertility between 2007 and 2012 was a result of changes in contraceptive use, including increased reliance on long-acting reversible contraception (LARC) such as the IUD (intrauterine device) and implants.¹⁴

Changes in contraceptive use were likely an important factor behind the steep drop in abortion among adult women, as well.¹⁵ Reliance on LARC among all contraceptive users increased 130% between 2007 and 2009 and continued into 2011, although at a slower pace.¹⁶ Between 2011 and 2014, LARC use increased 48% among clients at federally funded family planning clinics,¹⁷ and this pattern may apply to all women of reproductive age. A recent study found that, for the first time in 2 decades, typical use failure rates for condoms improved.¹⁸ This may also have contributed to the decline in abortion because it is the second most common reversible contraceptive method.¹⁹

For the first time in 2 decades, the abortion rate declined among women with incomes less than 100% the federal poverty level.²⁰ Still, the abortion rate for this group was the highest of all the groups examined, and the decrease in abortion was less pronounced than was that for higher income women. Between 2008 and 2014, the number of state abortion restrictions increased,²¹ and research suggests that some of these restrictions made abortion more difficult for women to access in at least some states.^{3,22–24} We might expect these types of laws to

TABLE 2—Abortion Rate, Percentage of First Abortions, First Abortion Rate, and Cumulative First Abortion Rate of Women Aged 15–44 Years, All by Age: United States, 2014

Age at Outcome, Years	No. Abortions per 1000 Women	% Obtaining First Abortion (95% CI)	No. First Abortions per 1000 Women	Cumulative First Abortion Rate
<15 ^a	1.1	96.1 (77.5, 99.4)	1.1	1.1
15–17	5.2	93.1 (89.8, 95.5)	4.8	15.6
18–19	18.0	84.7 (81.8, 87.2)	15.2	46.0
20–24	28.0	61.9 (59.2, 64.5)	17.4	132.8
25–29	22.8	47.0 (44.3, 49.6)	10.7	186.2
30–34	13.8	41.2 (38.3, 44.2)	5.7	214.6
35–39	8.4	39.9 (35.4, 44.7)	3.4	231.3
≥40 ^b	2.7	39.9 (32.9, 47.3)	1.1	236.7
Total	14.6	55.0 (53.2, 56.9)	8.0	236.7

Note: CI = confidence interval.

^aDenominator is women aged 14 years.

^bDenominator is women aged 40–44 years.

have the greatest impact on low-income women, resulting in even more of a decline in abortion for this group relative to others. That this was not the case may be because of several factors. The most recent research available suggests that in 2009 through 2012 reliance on LARC was as common for women with family incomes less than 100% the federal poverty level as for higher income women.¹⁶ However, if LARC or other highly effective contraceptive methods became less accessible to low-income women in recent years, this could have led to differential declines in unintended pregnancy and abortion.

Another factor potentially contributing to the trends in abortion by income is health reform. Although federal Medicaid can be used to pay for abortion only under very limited circumstances, 15 states use their own funds to pay for abortions for women with coverage.⁶ All but 2 of these 15 states expanded Medicaid eligibility under the Affordable Care Act. Previous research using the 2014 APS found that Medicaid coverage increased among abortion patients in states where Medicaid covers abortion, and the proportion using Medicaid to pay for the procedure also increased significantly: from 44% in 2008 to 52% in 2014.⁶ It is possible that more poor women in states where Medicaid pays for abortion acquired coverage and were able to use it to pay for their procedures. This, in turn, could have increased access to abortion for economically disadvantaged women in these states.

We found that White women had the lowest abortion rate of all the racial and ethnic groups examined, although the decline in abortion was greater for women of color. It is possible that increased reliance on LARC and more consistent use of condoms were more pronounced for non-White women. For example, previous research found that the increase in LARC use was significantly higher among Latina (but not Black) women than among Whites.¹⁶ Alternately, the decline could reflect reduced access to care. For example, a disproportionate share of women of color may have lived in states where abortion restrictions successfully reduced access to care,^{3,22,23} or they may have been disproportionately affected by restrictions in those and other states. If this was the case, the larger decline in

abortion would actually be an indicator of racial and ethnic disparities. More research is needed to better understand the dynamics behind these declines.

The proportion of women expected to have an abortion by age 45 years declined from 30% in 2008 to 24% in 2014. This pattern parallels, but was less pronounced than, the decline in the abortion rate during that same period. That nearly 1 in 4 women is anticipated to have an abortion during her reproductive years demonstrates that it is not an uncommon experience.

Limitations

Our study has several limitations. The APS data contain some amount of measurement error. For example, imputation was used to assign values on key demographic measures when they were not provided by respondents. Social desirability may have affected responses to survey items about family income, previous abortion, and other measures. Owing, in part, to the fact that patients of similar racial and ethnic backgrounds tend to be concentrated within facilities, estimates for this characteristic were more imprecise and had larger confidence intervals. Thus, the abortion numbers and rates we calculated should be considered estimates and not precise measures.

The information from patients did not include women who obtained abortions in a hospital setting. Our analysis of the 2008 APS suggests that their exclusion did not bias the findings, but it is possible that we would have detected differences between these 2 populations in 2014 had we been able to make the same comparisons. Our estimate of the lifetime incidence of abortion is on the basis of patients' reports of previous terminations. Underreporting of abortions is common in nationally representative surveys.^{25,26} Because the study questionnaire was filled out by women obtaining abortions, we expect that underreporting was less common. Still, if some women obtaining abortions failed to report previous abortions, this would mean that the estimate of the lifetime incidence of abortion is artificially high.

Conclusions

Disparities in abortion rates correspond with disparities in unintended pregnancy.¹⁵

Not only do women of color and those with family incomes less than 100% of the federal poverty level have higher rates of abortion than do White women and those with higher incomes, but they also have higher rates of unintended birth. Equitable access to wide-range family planning and contraceptive services would better allow women in underserved populations to avoid unintended pregnancy, but these efforts alone will not eliminate these disparities. Efforts should also be devoted to making sure that women who want abortions are able to have them without having to overcome financial and logistical barriers.

Laws and policies that make abortion more difficult to access have a disproportionate impact on groups overrepresented among abortion patients, particularly those who are poor or low income. Future research and interventions focused on abortion and unintended pregnancy should seek to understand the underlying causes of disparities in these outcomes, because this information could inform a comprehensive set of policies and programs that benefit all women. **AJPH**

CONTRIBUTORS

R. K. Jones was the lead analyst and drafted the article. J. Jerman oversaw data collection and contributed to the writing and editing of the article.

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HUMAN PARTICIPANT PROTECTION

The Abortion Patient Survey questionnaire and survey procedures were approved by the Guttmacher Institute's federally registered institutional review board; no approval was needed for our analyses because we relied on secondary data.

REFERENCES

1. American Public Health Association. Restricted access to abortion violates human rights, precludes reproductive justice, and demands a public health intervention. 2015. Available at: <http://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2016/01/04/11/24/restricted-access-to-abortion-violates-human-rights>. Accessed February 1, 2017.
2. American College of Obstetricians and Gynecologists. Increasing access to abortion. 2014. Available at: <http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Health-Care-for-Underserved-Women/Increasing-Access-to-Abortion>. Accessed February 1, 2017.

3. Jones RK, Jerman J. Abortion incidence and service availability in the United States, 2014. *Perspect Sex Reprod Health.* 2017;49(1):17–27.
4. Jones RK, Kavanaugh ML. Changes in abortion rates between 2000 and 2008 and lifetime incidence of abortion. *Obstet Gynecol.* 2011;117(6):1358–1366.
5. Steinberg JR, McCulloch CE, Adler NE. Abortion and mental health: findings from the National Comorbidity Survey–replication. *Obstet Gynecol.* 2014;123(2 pt 1):263–270.
6. Jerman J, Jones RK, Onda T. Characteristics of US abortion patients in 2014 and changes since 2008. 2016. Available at: <https://www.guttmacher.org/report/characteristics-us-abortion-patients-2014>. Accessed February 1, 2017.
7. Jones RK, Jerman J. Abortion incidence and service availability in the United States, 2011. *Perspect Sex Reprod Health.* 2014;46(1):3–14.
8. US Census Bureau. *American Community Survey Design and Methodology*. Washington, DC: US Government Printing Office; 2014.
9. National Center for Health Statistics. *2013–2015 National Survey of Family Growth Public Use Data and Documentation*. Hyattsville, MD; 2016.
10. National Center for Health Statistics. *Vintage 2014 Postcensal Estimates of the Resident Population of the United States*. Hyattsville, MD; 2015.
11. Forrest JD. Unintended pregnancy among American women. *Fam Plann Perspect.* 1987;19(2):76–77.
12. Hamilton BE, Martin JA, Osterman MJK, Curtin SC, Matthews TJ. Births: final data for 2014. *Natl Vital Stat Rep.* 2015;64(12):1–18.
13. Martin JA, Hamilton BE, Ventura SJ, Osterman MJ, Mathews TJ. Births: final data for 2011. *Natl Vital Stat Rep.* 2013;62:1–69, 72.
14. Lindberg L, Santelli J, Desai S. Understanding the decline in adolescent fertility in the United States, 2007–2013. *J Adolesc Health.* 2016;59(5):577–583.
15. Finer LB, Zolna MR. Declines in unintended pregnancy in the United States, 2008–2011. *N Engl J Med.* 2016;374(9):843–852.
16. Kavanaugh ML, Jerman J, Finer LB. Changes in use of long-acting reversible contraceptive methods among United States women, 2009–2012. *Obstet Gynecol.* 2015;126(5):917–927.
17. Fowler CI, Gable J, Wang J, Lasater B. *Family Planning Annual Report: 2015 National Summary*. Research Triangle Park, NC: RTI International; 2016.
18. Sundaram A, Vaughan B, Kost K, et al. Contraceptive failure in the United States: estimates from the 2006–2010 National Survey of Family Growth. *Perspect Sex Reprod Health.* 2017;49(1):7–16.
19. Guttmacher Institute. Contraceptive use in the United States. Available at: <https://www.guttmacher.org/fact-sheet/contraceptive-use-united-states>. Accessed June 8, 2017.
20. Jones RK, Darroch JE, Henshaw SK. Patterns in the socioeconomic characteristics of women obtaining abortions in 2000–2001. *Perspect Sex Reprod Health.* 2002;34(5):226–235.
21. Guttmacher Institute. Last five years account for more than one-quarter of all abortion restrictions enacted since Roe. 2016. Available at: <https://www.guttmacher.org/article/2016/01/last-five-years-account-more-one-quarter-all-abortion-restrictions-enacted-ro>. Accessed August 21, 2017.
22. Grossman D, Baum S, Fuentes L, et al. Change in abortion services after implementation of a restrictive law in Texas. *Contraception.* 2014;90(5):496–501.
23. Gerds C, Fuentes L, Grossman D, et al. Impact of clinic closures on women obtaining abortion services after implementation of a restrictive law in Texas. *Am J Public Health.* 2016;106(5):857–864.
24. Upadhyay UD, Johns NE, Combellick SL, Kohn JE, Keder LM, Roberts SC. Comparison of outcomes before and after Ohio’s law mandating use of the FDA-approved protocol for medication abortion: a retrospective cohort study. *PLoS Med.* 2016;13(8):e1002110.
25. Jones RK, Kost K. Underreporting of induced and spontaneous abortion in the United States: an analysis of the 2002 National Survey of Family Growth. *Stud Fam Plann.* 2007;38(3):187–197.
26. Fu H, Darroch JE, Henshaw SK, Kolb E. Measuring the extent of abortion underreporting in the 1995 National Survey of Family Growth. *Fam Plann Perspect.* 1998;30(3):128–133, 138.

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