

Changes in Abortion Rates Between 2000 and 2008 and Lifetime Incidence of Abortion

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OBJECTIVE: To estimate abortion rates among subpopulations of women in 2008, assess changes in subpopulation abortion rates since 2000, and estimate the lifetime incidence of abortion.

METHODS: We combined secondary data from several sources, including the 2008 Abortion Patient Survey, the Current Population Surveys for 2008 and 2009, and the 2006–2008 National Survey of Family Growth, to estimate abortion rates by subgroup and lifetime incidence of abortion for U.S. women of reproductive age.

RESULTS: The abortion rate declined 8.0% between 2000 and 2008, from 21.3 abortions per 1,000 women aged 15–44 to 19.6 per 1,000. Decreases in abortion were experienced by most subgroups of women. One notable exception was poor women; this group accounted for 42.4% of abortions in 2008, and their abortion rate increased 17.5% between 2000 and 2008 from 44.4 to 52.2 abortions per 1,000. In addition to poor women, abortion rates were highest for women who were cohabiting (52.0 per 1,000), aged 20–24 (39.9 per 1,000), or non-Hispanic African American (40.2 per 1,000). If the 2008 abortion rate prevails, 30.0% of women will have an abortion by age 45.

CONCLUSION: Abortion is becoming increasingly concentrated among poor women, and restrictions on abortion disproportionately affect this population.

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LEVEL OF EVIDENCE: III

Slightly more than one in five U.S. pregnancies ends in abortion,¹ and abortion is one of the most common surgical procedures experienced by U.S. women.² Although the number of abortions and the abortion rate declined every year between 1990 and 2005,³ decreases in abortion were not experienced by all groups of women. For example, although the abortion rate decreased 11% between 1994 and 2000, it actually increased 25% for poor women.⁴ In addition, some groups have typically been overrepresented among abortion patients, including women in their 20s, cohabiting women, and African American women.^{4–6} One goal of this analysis is to provide updated estimates of abortion rates by subgroup and compare rates in 2008 to those in 2000. Most abortions are the result of unintended pregnancies, and the continued overrepresentation of certain subpopulations among abortion patients would suggest that these groups have unmet need for contraceptive and family planning services.

Henshaw estimated that 43% of reproductive-age women in 1992 would have an abortion by age 45.⁷ However, the abortion rate has declined since 1992,¹ and the proportion of women who will terminate a pregnancy in their lifetime has probably declined as well. Another goal of this article is to provide an updated estimate of the lifetime incidence of abortion.

MATERIALS AND METHODS

The analysis focuses on two measures: subgroup abortion rates and the cumulative abortion rate. We relied on three datasets: the Guttmacher Institute's 2008 Abortion Patient Survey, the Current Population Survey, and the 2006–2008 National Survey of

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The conclusions and opinions expressed in the manuscript are those of the authors.

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Family Growth. The construction of each measure and the secondary data sources used are described below. Because the 2008 Abortion Patient Survey is somewhat unique and currently available only to the authors, we provide a substantial amount of information about the data collection procedures. No Institutional Review Board approval was sought for the analyses presented in this article as they are based on secondary data.

Information on the characteristics of women obtaining abortions comes from the 2008 Abortion Patient Survey.⁸ This survey was the Guttmacher Institute's fourth national survey of abortion patients, and previous surveys were conducted in 1987, 1994, and 2000.⁴⁻⁶ For the most recent survey, a sample of 107 facilities was selected from the universe of all hospitals, clinics, and physician's offices where abortions were known to be performed in 2005, according to information from the Guttmacher Institute's 2006 Abortion Provider Census.³ The universe was stratified by provider type (hospital or nonhospital) and 2005 caseload (30–394 abortions; 395–1994; 1995–4994; and 4995 or more), and then listed by census region and state within each stratum. Facilities that reported fewer than 25 abortions in 2005 were not included because of the high likelihood that they would perform few or no abortions during the survey period. Their exclusion could cause little bias as these facilities accounted for less than 1% of all reported procedures in 2008.¹ Next, every *n*th facility was sampled (*n* varied by stratum). Facilities with large caseloads were oversampled to obtain adequate representation of the variety of facilities in the sample, and each facility was assigned a sampling period that was inversely proportional to its probability of being selected. Facilities were asked to administer the questionnaire to all women who obtained an abortion during a specified fielding period, which ranged from 2 weeks in the largest facilities to 12 weeks in the smallest facilities.

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 listed in its stratum, which in most cases was in the same state or in a neighboring state in the same region. Of the initial 107 providers sampled, 48 participated in the study; 59 had to be replaced, but we succeeded in replacing only 47. Of the 12 facilities that could not be replaced, seven were in the smallest caseload category sampled (30–390 abortions in 2006).

The questionnaire, available in both English and Spanish, was distributed to women by facility staff.

The questionnaire included an introduction explaining the purpose of the survey and informing women that participation was voluntary and anonymous. Envelopes were provided so that patients' responses could not be seen by staff when they were returned. The questionnaire and procedures were approved by Guttmacher Institute's federally registered Institutional Review Board.

Participating facilities reported performing 12,866 abortions during the sampling period, which extended from April 2008 to May 2009; usable data were collected from 9,493 women obtaining abortions at 95 facilities, for a response rate of 74%. Facility staff supplied information about age, race, ethnicity, insurance coverage, and method of payment for 1,162 of the women who did not complete the questionnaire. (Reasons women did not complete the questionnaire included refusal to participate, failure of the clinic to distribute questionnaires, and lack of time to complete the questionnaire.) No information was available for the remaining 2,211 women.

To correct for any bias produced by deviation from the original sampling plan and nonresponse, a three-stage weighting process was followed. First, individual weights were developed to adjust for the demographic characteristics of the 1,162 nonrespondents for whom the facility staff provided information. Second, facility-level weights adjusted for the other 2,210 nonrespondents for whom no demographic data were available. Third, stratum weights were constructed to correct for departures from the number of facilities to be sampled in each grouping by caseload and provider type. Because women of the same race and ethnicity tend to be clustered within clinics, the confidence intervals for these characteristics were larger.⁸

Information on the characteristics of all women aged 15–44 years comes from two surveys, the Current Population Survey and the National Survey of Family Growth. The Current Population Survey is a monthly government survey of approximately 50,000 households conducted by the U.S. Bureau of the Census, and the sample is scientifically selected to represent the civilian noninstitutional population. The March supplement of the 2008 Current Population Survey was used to estimate age group, race and ethnicity, education (among women aged 20 years and older), and foreign-born status for U.S. women aged 15–44. The 2009 Current Population Survey was used to estimate poverty levels in 2008, as this survey collects information about income in the year preceding the survey. The June 2008 fertility supplement of the Current Population Survey was used to



estimate number of previous births. The 2006–2008 National Survey of Family Growth, conducted by the National Center for Health Statistics, collected data on pregnancy, childbearing, and related issues from a national sample of 7,356 U.S. women 15–44 years of age between July 2006 and July 2008. The National Survey of Family Growth was used to estimate union status and religious affiliation.

Estimates of the total number of abortions in 2008 come from the Guttmacher Institute, which conducts a periodic census of all known abortion providers.¹ (The census was approved by the Guttmacher Institute’s Institutional Review Board.) Although the Centers for Disease Control and Prevention (CDC) compiles and publishes annual abortion surveillance reports, the most recent year for which these data are available is 2007.⁹ Moreover, the CDC abortion data are incomplete and, for example, do not include California, a state that accounted for 18% of U.S. abortions in 2008.¹ Thus, the Guttmacher estimates of number of abortions and the abortion rate are the most accurate available. Population figures for the total number of women aged 15–44 come from the U.S. Bureau of the Census July 1, 2008, estimates.¹⁰

Weights were applied to the Abortion Patient Survey, Current Population Survey, and National Survey of Family Growth data to generate relevant frequency distributions, and we provide the confi-

dence intervals for the 2008 Abortion Patient Survey. Subgroup abortion rates in 2008 were calculated by dividing the number of abortions in a specific subgroup by the number of women in that group in the U.S. population; this figure was then multiplied by 1,000. For example, to estimate abortions by age group, the proportion of women in a particular age group as estimated by the 2008 Abortion Patient Survey was applied to the total number of abortions in 2008. The total number of U.S. women in a particular age group was taken from the 2008 Current Population Survey and applied to the Census Bureau’s population estimate. In Table 1 we identify the characteristics examined in our analysis and the data sources used to estimate each. Population figures for both abortion patients and all women are rounded to the nearest 100.

Our analysis focuses on changes in subgroup abortion rates for the time period between 2000 and 2008 as 2000 was the year that the last Abortion Patient Survey was conducted by the Guttmacher Institute. With two exceptions, abortion rates for 2000 come from a previously published study.⁴ For the current analysis, the 2000 abortion rates were re-estimated for union status and religious affiliation. The 2000 Abortion Patient Survey items measuring union status and religious affiliation were adopted word-for-word from the 2002 National Survey of

Table 1. Demographic Characteristics Examined and Data Sources Used to Estimate Subgroup Abortion Rates

Characteristic	Data Source		Notes
	Abortions, 2008	All Women Aged 15–44 Years, 2008	
Age group	2008 Abortion Patient Survey	2008 Current Population Survey	
Union status	2008 Abortion Patient Survey	2006–2008 National Survey of Family Growth	Previously published population estimates* relied on the 2006 and 2008 General Social Survey because the 2006–2008 National Survey of Family Growth was not yet available
Race or ethnicity	2008 Abortion Patient Survey	2008 Current Population Survey	
Foreign-born	2008 Abortion Patient Survey	2008 Current Population Survey	
Education	2008 Abortion Patient Survey	2008 Current Population Survey	Restricted to women aged 20 and older
Previous births	2008 Abortion Patient Survey	2008 Current Population Survey	
Religious affiliation	2008 Abortion Patient Survey	2006–2008 National Survey of Family Growth	Previously published population estimates* relied on the 2008 Current Population Survey because the 2006–2008 National Survey of Family Growth was not yet available
Poverty status	2008 Abortion Patient Survey	2009 Current Population Survey	
Total, universe	2008 Abortion Provider Census	July 2008 U.S. Census estimates	

* See Jones et al.⁸



Family Growth. However, this dataset had not yet been released at the time of the earlier analysis, and the researchers had to rely on the 2000 Current Population Survey and the 2001 American Religious Identification Survey to obtain estimates of the population distributions for cohabitation and religious affiliation, respectively. The 2000 Current Population Survey provides a less accurate measure of cohabitation, defined as unmarried women living with male partners, because it was measured indirectly.¹¹ Relying on the 2002 National Survey of Family Growth to assess religious affiliation improves reliability because item wording was identical between the 2000 Abortion Patient Survey and the 2006–2008 National Survey of Family Growth.

We adopted the methodology developed by Forrest¹² and used by Henshaw⁷ to estimate the proportion of women of reproductive age who will have an abortion by age 45. Data from the 2008 Abortion Patient Survey were used to determine the proportion of women who were obtaining first abortions in each of the following age groups: younger than 15 years, 15–17, 18–19, 20–24, 25–29, 30–34, 35–39, and 40 years and older. (Because first-abortion rates for the youngest abortion patients are substantially lower than those for older adolescents, age-specific abortion rates were estimated separately for adolescents younger than 15 years. Whereas standard demographic analyses restrict the population denominator to women aged 15–44, this component of the analysis estimates abortion rates for adolescents under age 15, using 14-year-olds as the denominator.) These proportions were applied to the age-specific abortion rates (calculated as explained in the preceding section) to obtain age-specific first-abortion rates. The cumulative first-abortion rate, or proportion of women estimated to have had an abortion by the time they reached the end of a specified age range, was obtained by multiplying each age-specific first-abortion rate by the number of years in that age group (eg, the 15- to 17-year age group had a multiplier of 3), and summing all age groups up to that age group. The lifetime incidence of abortion is the equivalent of the cumulative first-abortion rate for women aged 40–44.

RESULTS

Between 2000 and 2008 the national abortion rate declined 8.0%, from 21.3 to 19.6 abortions per 1,000 women aged 15–44 (Table 2). Put differently, 1.96% of women aged 15–44 had an abortion in 2008. Abortion rates among subgroups of women varied, sometimes considerably.

Women aged 20–24 accounted for 404,920 abortions and had the highest abortion rate, 39.9 per 1,000. The second highest abortion rate was seen among 18- to 19-year-olds, 34.7 per 1,000, whereas women over the age of 40 had the lowest abortion rate, 3.2 per 1,000. Patterns in abortion by age group were similar in 2000 and 2008, and rates declined for most age groups. Declines were more pronounced for women aged 15–17 years, whose abortion rate dropped 22.4%, from 14.6 to 11.3 per 1,000.

Married women accounted for only 14.8% (95% confidence interval [CI] 13.5–16.2%), or 179,430, abortion patients, although an additional 29.2% (95% CI 27.6–30.8%) were living with a male partner at that time. Married women had the lowest abortion rate, 6.6 per 1,000, and cohabiting women, or those living with a male partner, had the highest, 52.0 per 1,000. Never-married women had a rate higher than all women, 23.9 per 1,000. Between 2000 and 2008, abortion rates decreased for all marital groups except those who had been previously married.

White women were the most common racial and ethnic group among abortion patients, accounting for 437,660, or 36.1% (95% CI 31.5–40.9%), of abortions. However, minorities were overrepresented and, in turn, had higher abortion rates. African American women had the highest rate, 40.2 per 1,000, followed by Hispanic women, 28.7 per 1,000. Women of all races and ethnicities experienced declines in abortion between 2000 and 2008, and the largest decline, 18.4%, was seen among African American women.

The overwhelming majority of women having abortions, 83.6%, were born in the United States (95% CI 80.8–86.1%), and foreign-born women had an abortion rate comparable to, or slightly lower than, U.S.-born women, 18.8 compared with 19.7 per 1,000, respectively. Notably, 7.9% (95% CI 6.1–10.2%) of all abortion patients were foreign-born Hispanic women, and the abortion rate for this group, 18.2 per 1,000, was lower than the abortion rate for all Hispanic women. The 2008 Abortion Patient Survey was the first to obtain information on foreign-born status, and comparisons over time were not possible.

Just fewer than one in five abortion patients aged 20 years and older had a college degree in 2008 and, most commonly, 39.5% of women (95% CI 38.1–40.9%) had some college or an associate's degree. Among women aged 20 and older, college graduates had an abortion rate that was substantially lower than that for all other groups, 12.4 abortions per 1,000. Although differences in abortion rates among the other three educational groups were small, they followed the same pattern during both time periods:



Table 2. Number of U.S. Abortions and Population Characteristics of Women Aged 15–44 Years in 2008 and Abortion Rates and Percentage Change in Rates Between 2000 and 2008, All by Selected Characteristics

Characteristic	Abortions, 2008			All Women Aged 15–44 Years, 2008		Abortion Rate		
	n	%	95% CI	n	%	2000*	2008	% Change
Total	1,212,350			61,918,950		21.3	19.6	–8.0
Age group (y)								
Younger than 15	4,850	0.4	0.3–0.6	NA		NA	NA	NA
15–19	208,520	17.2	16.1–18.3	10,526,220	17.0	24.9	19.8	–20.3
15–17	75,170	6.2	5.6–6.8	6,625,330	10.7	14.6	11.3	–22.4
18–19	133,360	11.0	10.3–11.8	3,838,970	6.2	39.5	34.7	–12.0
20–24	404,920	33.4	32.2–34.6	10,154,710	16.4	46.7	39.9	–14.7
25–29	295,810	24.4	23.4–25.4	10,340,460	16.7	31.7	28.6	–9.6
30–34	163,670	13.5	12.7–14.3	9,597,440	15.5	17.4	17.1	–2.0
35–39	99,410	8.2	7.6–9.0	10,464,300	16.9	9.3	9.5	1.7
40 or older†	35,160	2.9	2.5–3.4	10,835,820	17.5	3.6	3.2	–9.8
Union status								
Married	179,430	14.8	13.5–16.2	26,996,660	43.6	7.9	6.6	–15.6
Cohabiting, not married	354,010	29.2	27.6–30.8	6,811,080	11.0	60.1‡	52.0	–13.6
Never married, not cohabiting	545,560	45.0	43.0–47.1	22,848,090	36.9	28.4‡	23.9	–15.8
Previously married, not cohabiting	133,360	11.0	9.9–12.1	5,201,190	8.4	23.5‡	25.6	9.3
Race and ethnicity								
Non-Hispanic white	437,660	36.1	31.5–40.9	38,080,150	61.5	12.8	11.5	–10.2
Non-Hispanic African American	358,860	29.6	24.6–35.1	8,916,330	14.4	49.3	40.2	–18.4
Non-Hispanic other	113,960	9.4	7.4–11.8	4,396,250	7.1	29.4	25.9	–11.7
Hispanic	301,880	24.9	19.8–31.0	10,526,220	17.0	33.5	28.7	–14.3
Foreign-born								
No	1,013,520	83.6	80.8–86.1	51,330,810	82.9	NA	19.7	NA
Yes	198,830	16.4	13.9–19.2	10,588,140	17.1	NA	18.8	NA
Hispanic and foreign-born	95,776	7.9	6.1–10.2	5,263,110	8.5	NA	18.2	NA
Education§								
Did not finish high school	122,870	12.3	10.9–13.9	5,242,060	10.2	23.2	23.4	0.8
High school graduate or general equivalency diploma	282,710	28.3	26.7–30.0	13,310,720	25.9	20.1	21.2	5.7
Some college or associate degree	394,590	39.5	38.1–40.9	16,754,030	32.6	25.6	23.6	–8.1
College graduate or higher	198,800	19.9	18.3–21.5	16,085,920	31.3	13.2	12.4	–6.3
Previous births								
0	474,030	39.1	37.0–41.2	27,182,420	43.9	19.5	17.4	–10.5
1	321,270	26.5	25.2–27.8	10,835,820	17.5	32.5	29.6	–8.7
2 or more	418,260	34.5	32.8–36.1	23,900,710	38.6	18.2	17.5	–4.0
Religious affiliation								
Protestant	453,420	37.4	33.5–41.4	29,597,260	47.8	17.9	15.3	–14.2
Born-again, Evangelical, Fundamentalist	180,640	14.9	12.8–17.2	15,789,332	25.6	NA	11.4	NA
Roman Catholic	341,880	28.2	24.9–31.7	15,355,900	24.8	20.1‡	22.3	10.6
Other	84,860	7.0	6.2–7.9	6,625,330	10.7	26.7‡	12.8	–52.1
None	333,400	27.5	25.6–29.5	10,340,460	16.7	34.0‡	32.2	–5.2
Family income as percentage of federal poverty level								
Less than 100	514,040	42.4	39.8–45.1	9,845,110	15.9	44.4	52.2	17.5
100–199	321,270	26.5	25.4–27.7	11,516,920	18.6	37.6	27.9	–25.8
200 or more	377,040	31.1	28.7–33.6	40,494,990	65.4	13.0	9.3	–28.4

CI, confidence interval; NA, not available.

* Abortion rates for most subgroups for 2000 were published originally in Jones et al.⁴

† Denominator is women aged 40–44 years.

‡ Differs from previously published rates because population distributions have been re-estimated using the 2002 National Survey of Family Growth.

§ Among women aged 20 years and older.



abortion rates were highest for those with some college or an associate's degree (23.6 per 1,000 in 2008), followed by those who had not graduated from high school (23.4 per 1,000) and then high school graduates (21.2 per 1,000).

The majority of women having abortions in 2008 had previously given birth, and 39.1% (95% CI 37.0–41.2%) were nulliparous. Women with only one previous birth had a substantially higher abortion rate than both women with no children and those with more than one previous birth (29.6 compared with 17.4 and 17.5 per 1,000, respectively).

The majority of women having abortions in 2008 had a religious affiliation. Most commonly 37.4% (95% CI 33.5–41.4%) of abortion patients identified as Protestant, and this group had an abortion rate slightly lower than the national average, 15.3 per 1,000. Some 14.9% (95% CI 12.8–17.2%) of all patients identified as born-again or Fundamentalist Protestant, and this group had an abortion rate almost half as low as the rate of all women—11.4 per 1,000. Catholics had an abortion rate of 22.3 per 1,000, and women with no affiliation had a higher abortion rate than those with any affiliation—32.2 per 1,000.

Poor women, or those with family incomes at less than 100% of the federal poverty level, accounted for 514,040, or 42.4% (95% CI 39.8–45.1%), abortions in 2008, and this group had one of the highest abortion rates of all the subgroups examined, 52.2 abortions per 1,000. As income levels increased, the abortion rate decreased, and women with family incomes at or above 200% of the federal poverty level had a rate just less than half of the national rate at 9.3 per 1,000. The abortion rate increased 17.5% for poor women over the 8-year time period, whereas it decreased at a higher-than-average rate for each of the two higher-income groups.

Considering the substantial changes in abortion rates observed among young women, African American women, and poor women, abortion rates were calculated to determine potential interactions among these groups (Table 3). Because some of these subgroups are relatively small and because the confidence intervals suggest some degree of inaccuracy, these findings are best interpreted as general patterns as opposed to precise measures.

Patterns by poverty status were the same across racial and ethnic groups: abortion rates were highest

Table 3. Estimated Abortion Rates for 2000 and 2008 and Percentage Change Between the Two Years by Poverty Status and Age According to Race and Ethnicity

	2000 Rate*	2008		% Change in Rates
		%	95% CI Rate	
Poverty group				
Non-Hispanic white				
Less than 100% poverty	23.3	11.7	9.9–13.9	44.6
100–199% poverty	26.9	9.9	8.5–11.5	–20.8
200% poverty and higher	9.1	14.5	12.7–16.4	–31.3
Non-Hispanic African American				
Less than 100% poverty	62.4	14.1	11.5–17.1	16.4
100–199% poverty	67.7	8.1	6.7–9.8	–33.1
200% poverty and higher	35.1	7.4	5.7–9.4	–42.7
Hispanic				
Less than 100% poverty	68.5	13.0	10.0–16.8	–13.6
100–199% poverty	34.0	6.1	4.9–7.7	–29.7
200% poverty and higher	16.7	5.8	4.3–7.7	–15.0
Age group (y)				
Non-Hispanic white				
Younger than 20	15.3	5.9	5.0–6.9	–26.0
20 and older	12.3	30.2	26.4–34.3	–6.5
Non-Hispanic African American				
Younger than 20	55.2	5.9	4.8–7.2	–25.3
20 and older	48.1	23.7	19.6–28.3	–16.8
Hispanic				
Younger than 20	37.9	4.5	3.5–5.7	–22.5
20 and older	32.4	20.4	16.2–25.4	–11.9

CI, confidence interval.

* Abortion rates for most subgroups for 2000 were published originally in Jones et al.⁴



for poor women and decreased with income. Poor white women accounted for 11.7% (95% CI 9.9–13.9%) of abortions in 2008, similar to the 14.1% (95% CI 11.5–17.1%) and 13% (95% CI 10.0–16.8%) accounted for by poor African American and Hispanic women, respectively. Regardless of poverty group, African American women had the highest abortion rates, followed by Hispanic women and then white women. These same patterns were also evident in 2000. Between 2000 and 2008, abortion rates appear to have decreased for all groups with two exceptions: poor white and poor African American women experienced increases in abortion rates, with the former group experiencing the most substantial increase.

Adolescent and adult abortion rates in 2008 were similar within all three racial and ethnic groups. Adolescents in all three groups exhibited substantial declines in their abortion rates and the magnitude of the decline was similar across groups (22.5–26.0%). Rates of decline were more variable and less pronounced for adult women, ranging from 6.5% for white women aged 20 and older to 16.8% for African American women in the same age group.

In 2008, there were 2.4 abortions for every 1,000 adolescents under the age of 15 (Table 4). Because 97.3% (95% CI 83.4–99.6%) of these were first-time procedures, the first-abortion rate and cumulative first-abortion rate for this group were also 2.4 per 1,000. The overwhelming majority, 85.7% (95% CI 81.6–89.0%), of adolescents aged 15–17 were obtaining their first abortion. In turn, the first-abortion rate for this group was slightly lower than their overall abortion rate (9.7 compared with 11.3 per 1,000). By adding the first-abortion rate for women younger than 15 years to 3 times the first-abortion rate of women

15–17 (to account for the 3-year size of that age group), their cumulative first-abortion rate was 31.5 per 1,000.

The cumulative first-abortion rate increases with age, and women aged 40 and older had a rate of 300.9 per 1,000 women. Put differently, an estimated 30.1% of women aged 15–44 in 2008 will have an abortion by age 45 if exposed to prevailing abortion rates throughout their reproductive lives. Similarly, an estimated 8.3% of U.S. women would have had an abortion by age 20 and 25.1% by age 30.

DISCUSSION

The abortion rate declined 8% between 2000 and 2008, and decreases in abortion were seen among most groups of women. The notable exception was poor women, for whom the abortion rate increased 18%; similarly, although the number of abortions declined during the time period examined, the number of abortions to poor women increased from 349,000 in 2000⁴ to 514,000 in 2008. This descriptive study is unable to identify reasons for this increase, but several factors may have contributed to this pattern. The economic recession that was occurring in 2008 may have made it harder for poor women to access contraceptive services, resulting in more unintended pregnancies.^{13,14} Alternately, when confronted with an unintended pregnancy, poor women who might have felt equipped to support a child, or another child, when not in the midst of a recession may have decided that they were unable to do so during a time of economic turmoil. Most poor women obtaining abortions lack health insurance and have to pay for this service out-of-pocket.⁸ The increase in abortion among this group suggests that at least some

Table 4. Abortion Rate, Percentage of First Abortions, First-Abortion Rate, and Cumulative First-Abortion Rate, All by Age, 2008

Age at Outcome (y)	Abortions per 1,000	% Obtaining First Abortion		First-Abortion Rate	Cumulative First-Abortion Rate
		%	95% CI		
Younger than 15*	2.4	97.3	83.4–99.6	2.4	2.4
15–17	11.3	85.7	81.6–89.0	9.7	31.5
18–19	34.7	73.4	69.6–76.8	25.5	82.5
20–24	39.9	55.6	53.2–57.9	22.2	193.4
25–29	28.6	39.9	36.8–43.1	11.4	250.5
30–34	17.1	34.6	31.2–38.1	5.9	280.0
35–39	9.5	32.2	28.6–36.1	3.1	295.3
40 and older†	3.2	34.5	28.5–41.2	1.1	300.9
Total	19.6	50.4	48.2–52.6	9.9	300.9

CI, confidence interval.

* Denominator is girls aged 14 years.

† Denominator is women aged 40–44 years.



are still able to access these services despite potential financial barriers. Nonetheless, that abortion is increasingly concentrated among poor women means that this population is most affected when legal restrictions around abortion are implemented.

As in previous years, some groups were overrepresented among abortion patients⁴⁻⁶ and, in turn, had higher abortion rates; these include women aged 18-24, cohabiting women, and African American women. There is some indication that the decline in the abortion rate for African American women was larger than that for other racial and ethnic groups examined, although the less-precise measurement of race and ethnicity in the Abortion Patient Survey surveys means that this finding is more tentative.

One potential explanation for the higher abortion rates among African American and Hispanic women is the higher rates of poverty experienced by these populations.¹⁵ Abortion rates are highest for poor women within each racial and ethnic group, but, within the population of poor women, highest for African American women, followed by Hispanic women. These patterns suggest that poverty alone does not explain the higher abortion rates among minority women. There is tentative evidence that the increase in abortion among poor women between 2000 and 2008 was not seen among those who were Hispanic and was most substantial for white women. These patterns suggest that the factors affecting the abortion rate for poor women were most pronounced for those who were white.

Adolescents account for fewer than one in five abortions, and most of these were concentrated among older adolescents aged 18-19. Indeed, younger adolescents account for an increasingly smaller proportion of abortion patients, and those aged 15-17 have lower-than-average abortion rates. Declines in the abortion rate for the 15- to 19-year age group between 2000 and 2008 are consistent with a decline from 2000 to 2006 observed in a previous analysis using different data sources; and indeed teen pregnancy rates, including abortion, declined every year between 1990 and 2005.¹⁶ However, that analysis also found that the teen pregnancy rate increased 3% between 2005 and 2006, including a 1% increase in the abortion rate. The abortion rate we estimate among adolescents aged 15-17 in 2008 is nearly identical to the estimate produced for 2006 in the other study (11.3 and 11.4, respectively), but our estimate for women aged 18-19 in 2008 is higher than the rate estimated in the other analysis for 2006 (34.7 and 31.5, respectively). Because we do not have data for years between 2000 and 2008, it is not yet

clear whether we have found further evidence of a reversal of the downward trend since 2005 or an artifact of differing data sources, and we will not be able to assess the correspondence of our estimate to those based on the other data sources until the 2008 CDC abortion estimates are available.

The proportion of women expected to have an abortion by age 45 declined substantially, from 43% in 1992 to 30% in 2008, and this pattern parallels the substantial decline in abortion rates during that time period. Still, that almost one-third of women are anticipated to have an abortion by age 45 suggests that it is not an uncommon procedure. It is likely that a substantial proportion of patients seen by many obstetricians and gynecologists will have had an abortion or will have one in the future. With this information in mind, clinicians should adopt a neutral demeanor when confirming or discussing pregnancy outcomes with patients.

This study has several limitations. The subgroup estimates, for both abortion patients and, to a lesser extent, all women, contained some amount of error. In particular, the greater margin of error in the measurement of race and ethnicity for abortion patients means that findings for these characteristics are less reliable than for characteristics such as age and education. Our study examined two points in time, and it cannot be assumed that changes in subgroup abortion rates were uniform over the 8-year time period. Data from several sources indicate that the decline in abortion has stalled in recent years,^{1,9,17} and, for example, the abortion rate increased 1% between 2005 and 2008.¹ Our estimate of the lifetime incidence of abortion is based on reports of earlier terminations. Underreporting of abortions is common on nationally representative surveys of women.^{18,19} Our analysis assumes that women obtaining abortions were more likely to report previous terminations, but even in this clinical setting some patients may have failed to report them. This would mean that the estimate of the lifetime incidence of abortion is artificially high.

About one-half of the 6.4 million U.S. pregnancies that occur each year are unintended and about half of those end in abortion.²⁰ Abortion is only part of the story. Groups with higher-than-average abortion rates—including women in their 20s, and cohabiting, minority, and poor women—also have higher rates of contraceptive failure²¹ and higher rates of unintended birth.²⁰ Collectively, these patterns suggest that much more could be done to minimize the need for abortion by reducing unintended pregnancy. For example, clinicians may want to make sure they ask women in these groups about their family plan-



ning goals and pregnancy prevention strategies and devote extra time to discussing these issues with young adult women, African American women, cohabiting women, and poor women.

Finally, if current abortion rates prevail, almost one-third of American women will obtain an abortion in their lifetime. Despite its frequency, abortion remains stigmatized in both public discourse and in health care.^{22,23} Greater sensitivity to and awareness of this experience could help to reduce stigma among both patients and health care professionals. Awareness among clinicians of the frequency of abortion, as well as the characteristics associated with abortion, should help to normalize abortion within the medical community.

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