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ABORTION IN THE UNITED STATES

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■ **Abstract** Abortion is an extremely safe and common medical procedure. In the United States, over one million women had an abortion in the year 2000. Advances in early abortion techniques have helped to increase the proportion of early procedures, the safest type. Abortion rates have been declining since the early nineties among adults and adolescents, but rates among poor, minority women remain high. State restrictions to abortion have a larger impact on poor women and young women. Restrictions and regulations have also resulted in the concentration of abortion services in specialized clinics. These clinics are subject to harassment. The expansion of abortion services to more types of providers could increase access, as well as integrate abortion into women's health care.

LEGAL CHANGES AND STATE RESTRICTIONS

Since the passage of *Roe v. Wade* in 1973, many legal challenges to abortion rights have been mounted. The 1992 decision *Planned Parenthood v. Casey* upheld the right to abortion but, at the same time, gave states the right to enact restrictions that do not create an "undue burden" for women seeking abortion. This decision encouraged numerous legal and regulatory restrictions on abortion. These restrictions tend to have a greater effect on women who are at the highest risk of unintended pregnancy, namely poor women and young women. The restrictions also often define the clinical settings where services can be delivered. State regulatory restrictions, including zoning rules, state licensing, and inspection requirements, explain the concentration of abortions in specialized abortion clinics (24).

In addition to targeted regulations, abortion restrictions that impede access to services include state-mandated waiting periods and counseling topics, such as showing women sonographic or other images of fetal development, parental involvement for minors, and insurance restrictions. Although many states require some kind of counseling, five states (Louisiana, Mississippi, Utah, Wisconsin, and Indiana) require counseling in person at least 18 h before the procedure, which

means women must make at least two trips to the office or clinic (3). This type of requirement is particularly burdensome for women who have to travel some distance to reach a clinic, including women who live in the 87% of counties, mostly rural, that do not have abortion services (24).

Most states require parental consent or notification for minors,[1] but provide the option of seeking a court order exempting minors from the requirement. The regulations are complex, ranging from consent, notification, judicial bypass, involvement of other adult relatives, to exceptions for medical emergencies or abuse, assault, incest or neglect (4). Such extensive variation in different laws means that few minors are likely to be aware of all requirements.

Coverage of abortion costs is limited. The federal Medicaid program pays for abortion only for life endangerment, incest, or rape, as required by the Hyde Amendment [1977]. Only 18 states cover abortion under Medicaid for reasons beyond rape, incest, and life endangerment, as of December 2002. South Dakota, however, will cover Medicaid recipients only for life endangerment and not for incest or rape (5). State prohibitions on coverage for abortion exist for both public employee plans and private insurance plans. In Colorado and Kentucky, abortion coverage is never given for public employees, not even when life is at risk. In four states (Idaho, Kentucky, Missouri, and North Dakota), private insurance can cover abortion only in cases of life endangerment (6).

Federal Restrictions

During the 1990s several states passed a ban on a procedure referred to as "partial-birth" abortion, though the accepted medical term is dilation and extraction (D&X), a procedure used rarely in second-trimester terminations. The procedure accounted for approximately 0.17% or 2000 abortions in the year 2000 (19). In *Stenberg v. Carhart*, in 2000, the Supreme Court declared unconstitutional Nebraska's law criminalizing "partial-birth" abortion because the law lacked an exception to protect health and was written so broadly as to confuse D&X with other second-trimester procedures including dilation and evacuation (D&E). Whereas state courts blocked 18 state bans, in other states the bans were unchallenged (5).

The legal movement to ban D&X culminated in the passage of the federal Partial Birth Abortion Act. The Act went into effect in November 2003. However, hospitals and physicians immediately began to challenge the constitutionality of the ban because it potentially includes many different types of procedures that may be medically necessary (7). The Justice Department responded by issuing subpoenas for medical records of patients who have had abortions. However, the clinics and hospitals have stated that the subpoena violates the patient-privacy

[1]Thirty-three states require parental consent or notification: Alabama, Arkansas, Arizona, Delaware, Georgia, Iowa, Idaho, Indiana, Kansas, Kentucky, Louisiana, Massachusetts, Maryland, Michigan, Minnesota, Missouri, Mississippi, North Carolina, North Dakota, Nebraska, Ohio, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Wisconsin, West Virginia, and Wyoming.

provisions of the Health Insurance Portability and Accountability Act (HIPAA), and the Justice Department has amended its request for patient records and lists of physicians who provide abortion at the plaintiff institutions (34). The Federal District Court in San Francisco recently rejected the constitutionality of the ban, but decisions are pending in other cases and appeals are likely to bring the legislation before the Supreme Court.

Clinics Under Siege

Harassment and violence have aroused fear in women seeking abortions and are significant factors in the decline in the numbers of abortion providers over the past few decades. In response to clinic harassment and violence, in 1994 the federal government enacted the Freedom of Access to Clinic Entrances Act, prohibiting property damage, use of force or threat of force, or obstruction of someone entering a clinic. Several states have passed specific legislation to ensure the federal act is upheld (8). However, harassment is still common, particularly at larger clinics. Eighty percent of providers of 440 or more abortions per year reported harassment in 2000, 28% reported picketing with physical contact with patients, 18% reported vandalism, 14% reported picketing homes of staff, and 15% reported receiving bomb threats. Aside from picketing, other types of harassment have declined since implementation of the act to protect clinics (24).

In addition to harassment, there have also been attempts to arouse fear in women seeking services by linking abortion to the risk of breast cancer. Although scientific evidence does not support this link (14, 15), it took a full panel of experts to remove misleading information from the Web site of the National Cancer Institute. However, the misinformation did not stop at the Web site; several states enacted legislation that required the inclusion of misleading breast cancer information as part of "informed consent" for abortion. In some states it is also required to include photographs of developing fetuses and descriptions of mental and physical risks not proven to be associated with abortion.

SERVICES

Advances in medicine and other areas have helped to improve abortion services in spite of the myriad factors that work to block access. Abortion in the early first trimester (before eight weeks) is far more accessible than in the past, and the choice of methods has expanded to include several regimens of medical abortion and manual uterine aspiration. Advancements in abortion clinic protocols, such as the requirement of fewer clinic visits and provision of all types of contraception, including emergency contraception, have increased convenience for women and efficiency for clinics and decreased costs (32, 37). Clinical research on abortion continues to improve the safety of the various procedures and opens up new possibilities for the future as well (21, 36). Scientific progress in abortion research and improvements in services are important for women's health because induced

abortion is among the most common medical procedures in the United States. In the year 2000 there were 1.31 million abortions. Nearly half of American women will have one or more in their lifetimes (19).

Although abortion is a common procedure, the abortion rate has been declining over time since the early nineties. In 1973, when abortion was first made legal throughout the United States, there were 16.3 abortions per 1000 women aged 15–44; the rate increased to 29.3 in 1982 and fell to 21.3 in 2000 (19). The adolescent abortion rate has been declining since 1987, and from the mid-nineties to 2000, it declined at a faster rate than that of adult women (28). Almost 90% of abortions occur in the first trimester (by 12 weeks gestation), and more than 98% are done by 20 weeks gestation (19).

The majority of abortions in the United States are provided in freestanding clinics. Clinics provided 93% of abortions in 2000; specialized abortion clinics provided 71%. Hospitals provided 5%, down from 22% in 1980. Physicians' offices accounted for only 2% of abortions (19). Although this service delivery model has been satisfactory for many years, it has also served to isolate abortion from the broader spectrum of women's health care and has made providers and clients more susceptible to antiabortion harassment and violence. If abortion services were integrated into mainstream medical care, harassment and violence would be less common.

Demographic Characteristics

Data from a nationally representative survey of women undergoing abortions in 2000–2001 showed the overall adolescent abortion rate (aged 15–19 years) to be 25 per 1000 women aged 15–19; the younger adolescents, ages 15–17 years, had a rate of 15 per 1000; and ages 18–19 years had a rate of 39 per 1000. Women aged 20–24 years had the highest rate of 47 per 1000. Higher rates among young women ages 18–24 years are due to lower usage of effective contraception in that age range than in older women, as well as to higher fecundity (28).

Women who are unmarried (single or cohabitating) are more likely to have abortions than are married women. Low-income women also have more abortions because they have far more unintended pregnancies than do high-income women. Abortion rates in the year 2000 among low-income women were 44 per 1000 compared with 10 per 1000 among high income. Abortion rates fell for high- and middle-income women from the mid-nineties to the year 2000, but they increased among low-income and Medicaid recipients, including low-income teenagers. Black women are more likely to have unintended pregnancies than are women in other racial/ethnic groups, and thus they are more likely to have abortions. The abortion rate is 49 per 1000 for blacks, 33 per 1000 for Hispanics, 31 per 1000 for Asians, and 13 per 1000 for whites (28).

Safety

After legalization, deaths and morbidity caused by abortion experienced a steep and rapid decline (12, 18, 42). Data from the Abortion Mortality Surveillance

System of the Centers for Disease Control and Prevention show that the risk of death associated with abortion is low, at 0.6 per 100,000 abortions. The risk of death from childbirth is 11 times greater than the risk of death from abortion. The causes of death from abortion are equally distributed among hemorrhage, infection, embolism, and anesthesia complications. The risk of major complications is less than 1%, and there is no evidence of subsequent childbearing problems among women who have had abortions (18).

Early procedures are extremely safe. Most deaths result from abortion during more advanced gestational periods. Bartlett et al. (9) estimated the relative risk of abortion-related mortality at higher gestations compared with abortions at 8 weeks or less. The relative risk was 14.7 at 13–15 weeks gestation, 29.5 at 16–20 weeks, and 76.6 at 20+ weeks (95% CI 32.5, 180.8). The authors concluded that up to 87% of deaths in women having abortions may have been avoided if the pregnancy had been terminated before 8 weeks gestation. Increased access to abortion services, and particularly early abortion services, may help to decrease abortion-related deaths.

Early Abortion

Before 1990 provision of early abortion was rare. However, a growing proportion of providers now offer very early abortion: Whereas only 7% of providers offered early abortion in 1993, 37% did in 2000. Abortion clinics are more likely to offer very early abortion than are other providers. The proportion of abortions performed in early pregnancy (up to 6 weeks gestational age) increased from 14% in 1992 to 22% in 1999 (19).

Research has shown high rates of success at early gestational ages with both medical and surgical abortion owing to advances such as vaginal ultrasonography and highly sensitive urine pregnancy tests (17). Manual uterine aspiration, a non-electric aspiration technique used in low-resource settings for postabortion care, has recently been shown to be an acceptable and effective method in the United States as well (20). Manual uterine aspiration can be used for early abortion and as a backup for failed medical abortions.

Medical Abortion

In September 2000, the U.S. Food and Drug Administration (FDA) approved mifepristone for abortion in the United States. While methotrexate had been available earlier for medical abortion, its use was off-label and infrequent. Distribution of mifepristone began in November 2000, and in the first half of 2001, there were approximately 37,000 medical abortions, or 6% of all abortions. One third of abortion providers offered medical abortion in that time period: 72% of these used mifepristone, and the rest used methotrexate. Medical abortion was more likely to be available from large clinics that already used surgical methods than from doctors' offices or hospitals. The average cost of a medical abortion in nonhospital facilities in 2000 was $490 (24). By comparsion, the inflation-adjusted cost of surgical abortion remained steady until the late nineties, and then began to rise;

the average client paid $319 for surgical abortion at 10 weeks in 1997 and $373 in 2001 (24).

Research has shown that medical abortion can be provided in any physician's office or medical facility and that it could be done successfully by all types of providers (10). Because the method requires no surgical training, primary care physicians, family practice physicians, internists, and adolescent health specialists could offer medical abortion (26). The involvement of nurse practitioners and physicians' assistants, along with more streamlined protocols such as home use of misoprostol, can reduce the cost of medical abortions. The expansion of abortion services outside of specialized clinics also means that abortions could take place in privacy, outside of the scrutiny of picketers and protesters (11, 22).

However, integrating medical methods of abortion into mainstream medical practice will take some experimentation and flexibility. The FDA-approved labeling is restrictive (use within 7 weeks gestational age, mifepristone dose 600 mg; misoprostol oral dose in person in physician's office; follow-up visit for exam). In addition, other requirements such as sonographic evaluation, backup for surgical abortion, and direct ordering of the drug rather than availability through pharmacies have hindered the expansion to providers who do not perform surgical abortions (27).

Both research and clinical practice have shown more convenient and efficient approaches to be safe and effective, including a 200-mg, rather than a 600-mg, dose of mifepristone, vaginal rather than oral misoprostal, and fewer clinic visits (35, 37, 38). Most providers in the United States have adopted the newer, convenient protocols, giving a dose of 200 mg mifepristone (83%) and allowing the client to take misoprostol at home (84%) (24). The experience in Europe with medical abortion has shown that although it has taken a long time to integrate services into the health care system, once this integration happens over half of women seeking early abortion choose medical abortion. The availability of medical abortion services in Europe has not increased overall abortion rates, although women have begun to seek abortions earlier in the pregnancy.

ACCESS TO ABORTION

Geography

Many women in need of an abortion face obstacles to services. For example, women encounter bureaucratic barriers such as state laws requiring waiting periods and parental consent prior to obtaining an abortion. Another barrier to access is the absence of physicians who do abortions. The number of abortion providers has declined substantially since rising to a peak level in 1982 (24). The percentage of counties without an abortion provider has remained high since 1973. Yet more counties than ever lack an abortion provider: 87% of counties had no abortion provider as of the year 2000, and these counties contain over one third of the population of women aged 15–44 (19). Consequently, nearly one quarter (24%) of

women seeking an abortion travel 50 miles or more to find a capable physician (24). Long travel distances, along with mandatory wait periods, can delay services (28).

Counties without an abortion provider usually are in a rural region. Just 3% of nonmetropolitan counties have an abortion provider. Abortion providers are more likely to be found in urban areas; nonetheless, over one third of metropolitan areas have no abortion provider. Women in the northeast and the western regions of the United States are served by a greater number of abortion providers than are women in other regions; these regions also have less-restrictive laws, and abortion rates are higher. Some variation in state abortion rates can be attributed to women's travel from states that have fewer providers or more-restrictive policies and gestational limits to states where they can receive care (25). An example is the decline in the Wisconsin abortion rate after the passage of a two-day mandatory delay law and a concomitant rise in Illinois.

Providers and Training

Currently the majority of abortion providers are physicians specializing in obstetrics and gynecology (OB-GYN). A smaller proportion of providers who offer abortions are family practice physicians and general internists. Interest in offering medication abortion was relatively high among obstetrician gynecologists, family practice physicians, and even nonphysician providers (APNs, CNMs, PAs) prior to the approval of mifepristone (23). Consequently, in states permitting nonphysician clinicians to offer first-trimester abortions (e.g., Colorado, Maine, and California), small numbers of nurse practitioners (NP), physician assistants (PA), and certified nurse midwives (CNM) have sought training and are beginning to provide first-trimester abortions.

Abortion training opportunities, which had remained at low levels for more than two decades, have begun to increase, though primarily as an optional rather than a mandatory component of medical education. More OB-GYN residency programs are including abortion training as a routine part of medical education (2). For example, all public hospitals offering OB-GYN residencies in New York City must now provide abortion training; California passed similar legislation in 2002 applying to state-supported residencies. In 1991–1992, 70% of residency programs in obstetrics and gynecology offered first-trimester abortion training; however, only 12% of OB-GYN residency programs included the training as a standard component of medical education (33). Residency programs in family medicine are also beginning to incorporate abortion training, but levels of training among family practice residents remain low: Only 12% of residencies provided the option in 1994 (41). A survey found that 29% offered optional or routine training in first-trimester abortion, but only 15% of chief residents had any clinical experience providing abortion (39). Changes to graduate medical education requirements and the development of new fellowship programs in family planning may increase the availability of abortion training. The likelihood that a physician will offer abortion services is highly associated with the training they receive during residency (1, 40).

FUTURE PROSPECTS

Early Abortion

New abortion techniques and medical protocols that have recently been developed are expanding the options women have for obtaining abortions in the early weeks of an unwanted pregnancy. The benefits for women are substantial, as are the potential benefits for abortion access. Expanded abortion options in the first eight weeks of pregnancy are available using either medication or manual uterine aspiration. The availability of medication abortion is increasing, but only approximately one third of abortion facilities offer it (24). A survey of National Abortion Federation (NAF) members in 2000 found that 59% of sites were offering early surgical or medication abortion (11), and in early 2002, two thirds of NAF members were offering medication abortion (30). The expansion of medication abortion services in France, Great Britain, and Sweden provide some insight into the potential for the United States because these countries approved mifepristone years ago and have observed the diffusion of the new option (30), though in a much-less-contested political environment. In each of these countries, medical abortion became more accessible over time. Given the size of the United States and the absence of providers in most counties, medication abortion has the potential to increase access.

Unique barriers to offering medical abortion and strategies to overcome them have been identified for the United States (13). The opportunities to make abortion available in new settings and to expand the number of providers increase with these new options, but they will not be realized without organizational and financial assistance to training programs wanting to establish new services.

Contraceptive Use

A recent nationally representative study of contraceptive use among women obtaining abortions found that more than half of women were using some kind of contraceptive (either consistently or inconsistently) in the month they became pregnant (29). Low-income women were more likely to report difficulty accessing contraceptive services as one reason for their nonuse or inconsistency. Reductions in Medicaid health insurance coverage and stagnating Title X funding for reproductive health services and supplies are undoubtedly decreasing access to contraceptives in many states. Women and couples need a range of contraceptive options and comprehensive information to help them select and use a method that suits their needs.

Sixteen percent of all women obtaining abortions became pregnant because they were not expecting to have sex (29). Research suggests that increased emphasis on abstinence as a method of contraception may result in increased demand for abortion; although theoretical effectiveness is high, use effectiveness is low. Emergency contraception use may be responsible for some of the decline in the abortion rate during the nineties (29).

Sociodemographics, Social Disparities, and Abortion

Public health researchers and policy makers are increasingly attentive to social disparities in health and health care access in the United States (43). But little attention is paid to trends in abortion and how they are affecting women differently by race and class. In recent years, the rate of abortion has risen among low-income women (those living below 200% of the federal poverty line) so that these women account for over half of all abortions obtained in the United States, although they comprise only 15% of the population. Abortion rates among black and Hispanic women have risen in recent years, whereas rates fell for white women. Access to information, education, quality health care, and contraceptive methods and services may contribute to the disparity in rates. Policies and programs that help women avoid unintended pregnancy are important public health measures, but maintaining access to abortion services is also critical to the lives of women with limited resources.

Changes in welfare policy in the United States may affect abortion access and incidence. The 1996 Personal Responsibility and Work Opportunity Reconciliation Act (P.L. 104–193) introduced new U.S. welfare policy that included work requirements and permitted states to place caps on the amount of money a woman could receive irrespective of her family size. The reform to welfare policy was driven, in part, by public perceptions that poor women were having additional children to get more money from the government. Twenty-three states implemented the family cap policies, which were intended to discourage women reliant on Temporary Assistance for Needy Families (TANF) from having more children. The act may reduce women's capacity to support children and might increase rates of abortion. Research on the impact of welfare reform and family cap policies on abortion rates is limited but has not found such an association thus far (16, 31). The increase in abortion rates for poor women that has occurred in recent years, as overall rates have fallen, could be partially a result of the economic pressures poor families increasingly face; but no evidence supports the assumption that poor families have changed their childbearing patterns because of changes in welfare policy. Broadening the abortion rights platform to include the right to bear children and to support wanted children with profamily policies could result in reductions in the abortion rate for low-income women if some of these women are having abortions for economic reasons. Conversely, if they want fewer children for other reasons, such as work opportunity, rates may not change.

Women over the age of 25 comprise a greater proportion of the population of women having abortions than they did in 1973. Increases in the mean age for women at first marriage, as well as changes in the U.S. age structure, may have contributed to this shift. In addition, women under the age of 18 have faced increasing challenges to their autonomy and access to confidential abortion services with more states mandating parental involvement. The impact of parental involvement laws on abortion rates is difficult to estimate. Teen pregnancy rates have fallen overall in recent years, so declines in abortion rates for this age group do not necessarily reflect reduced access to services. Comparisons of abortion rates in

states with parental consent laws and states without parental consent laws are also difficult to interpret since some women cross state lines to obtain abortions.

FUTURE

Interpreting the 30 years of trend data on legal abortion incidence is challenging but important because the sources of change in abortion rates have very different public health implications. Increased use of more effective contraceptives, for example, would support a positive interpretation of a downward trend. A decline due to decreased access to abortion, however, could have detrimental effects on the health of women and children. Similarly, if legal restrictions were responsible, women might be unable to gain access to safe abortion and rely on unsafe, clandestine sources. As more effective long-acting contraceptives are utilized, there is potential for the abortion rate to decline. Access to health services and contraception, however, is not evenly distributed in the United States, and it is likely that reductions in the need for abortion will occur among the most privileged segments of the population. Such a demographic shift may further undermine support for access to safe and legal abortion.

The reasons women unintentionally become pregnant are many, and pregnancy is not always avoidable. Therefore, abortion will continue to be an important component of women's health care even with the advent of better methods of contraception. New developments in abortion technology and practice are encouraging because they have the potential to increase access to earlier (and hence safer) abortion. Integrating abortion care into settings where it has not been available and increasing the number of providers may be more possible with medical abortion than it has been in the past with surgical abortion.

The public health implications of legal and safe access to abortion are clear. Women's lives are saved when they are able to terminate unwanted pregnancies as early as possible and in safe medical conditions. Legalizing abortion in the United States has allowed women to get abortions earlier and has dramatically decreased the rate of complications and deaths related to induced abortion. Furthermore, the legality of abortion has allowed researchers to develop and improve the technologies and procedures that make abortion safer than it has ever been (12). Unfortunately, abortion remains highly contested in U.S. society and politics and is also stigmatized within medicine.

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