Legal Barriers to Second-Trimester Abortion Provision and Public Health Consequences

Bonnie Scott Jones, JD, and Tracy A. Weitz, PhD, MPA

Many women need access to abortion care in the second trimester. Most of this care is provided by a small number of specialty clinics, which are increasingly targeted by regulations including bans on so-called partial birth abortion and requirements that the clinic qualify as an ambulatory surgical center. These regulations cause physicians to change their clinical practices or reduce the maximum gestational age at which they perform abortions to avoid legal risks. Ambulatory surgical center requirements significantly increase abortion costs and reduce the availability of abortion services despite the lack of any evidence that using those facilities positively affects health outcomes. Both types of laws threaten to further reduce access to and quality of second-trimester abortion care. (*Am J Public Health.* 2009;99:623–630. doi:10.2105/AJPH.2007.127530)

The 1992 US Supreme Court decision *Planned Parenthood of Southeastern Pennsylvania v Casey* set a new standard for the regulation of abortion, making restrictions allowable as long as they do not place an "undue burden" on women.[1] In response to this decision, states have passed more than 500 laws restricting access to abortions. Some of these laws, such as waiting periods, biased-counseling requirements, and parental involvement mandates, target women's decision-making, seeking to dissuade them from having abortions. These laws may also impose criminal penalties on providers for failure to comply. A second set of laws directly target abortion providers, make the provision of abortion more difficult and costly, and provide strong incentives for physicians not to offer abortion services. We addresses this second set of laws, which have a significant capacity to reduce access to and quality of abortion care in the United States.

We chose to focus on regulations that specifically affect second-trimester abortion, because, despite the ongoing need for second-trimester abortion services, public support for these abortions is low.[2] This lack of public support makes second-trimester abortion extremely vulnerable to political efforts to restrict access. We examined two types of restrictions that affect second-trimester abortions: bans on so-called partial birth abortion and requirements that these later-term abortions take place in a setting that qualifies as an ambulatory surgical center (ASC). Both types of laws threaten to further reduce access to and quality of second-trimester abortion care.

BACKGROUND AND CONTEXT

The Institute of Medicine defines health care quality as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."[3] This call for evidence-based practice seeks to limit discrepancies in care, promote the use of treatment protocols that are known to be effective, and eliminate the use of ineffective treatments.[4,5] Access to quality health care is a priority indicator in the national public health goals outlined in *Healthy People 2010*,[6] which recognizes the substantial body of literature linking access to care with improved health outcomes.[5] We grounded our analysis of abortion regulations within the recognized need for improved access to quality health care defined by adherence to evidence-based practice and a desire for improved health outcomes.

Provision of Second-Trimester Abortions

Methods for abortion depend on the stage in pregnancy in which an abortion is performed. In the second trimester of pregnancy, surgical abortion requires additional dilation of the cervix by osmotic dilators, medication, or both. The most common procedure performed in the second trimester is dilation and evacuation,[7] in which a combination of instrumentation and aspiration is used to remove the fetus. After 20 weeks, physicians usually initiate dilation at least one day prior to the procedure.[8] Two variants of dilation and evacuation are recognized, although there is no bright line between them: intact dilation and evacuation (sometimes also called dilation and extraction), in which the fetus is removed largely intact and instruments are used to compress the fetal skull to allow for safe removal through the cervix, and nonintact dilation and evacuation (sometimes called disarticulation or dismemberment dilation and evacuation), in which the fetus is removed in pieces with forceps. A smaller number of abortions use drugs to induce labor to expel the fetus.

These classifications, however, can be misleading, because multiple techniques may be used in the performance of a single abortion. Abortion care is best understood as a continuum of techniques—from induction to dilation and evacuation and from intact to removal in multiple pieces—rather than as comprising distinct categories. Given these overlapping techniques, it is impossible to determine the absolute number of dilation and evacuation abortions that are completely intact or completely disarticulated. Such data are highly unreliable and inconsistent with clinician practice.

Abortion is very safe in both the first and second trimesters. Mortality risk is approximately 0.6 deaths per 100 000 abortions, and the risk of major complications is less than 1%.[9] The risk associated with abortion increases with the weeks of pregnancy: one study of abortion complications from 1988 to 1997 found that the risk of death increased by 38% for each additional week of gestation, throughout the pregnancy.[10] Second-trimester abortion, however, is still a very safe procedure.[11]

The Need for Second-Trimester Abortion

Although the majority of abortions occur in the first trimester of pregnancy, many women need access to abortion care in the second

trimester. In 2004, 12% of reported legal induced abortions occurred after 13 weeks of gestation, or almost 150 000 procedures.[7] The proportion of abortions performed after 13 weeks of pregnancy has varied minimally since 1992.[7] Several studies indicate that the factors causing women to delay abortions until the second trimester include cost and access barriers, late detection of pregnancy, and difficulty deciding whether to continue the pregnancy.[12–14] In part because of their increased vulnerability to these barriers, low-income women and women of color are more likely than are other women to have second-trimester abortions.[7,13] In addition, women who seek abortions for fetal or maternal health indications often do not obtain an abortion until the second trimester[15–17] because many genetic and health conditions in the fetus are not diagnosed until after the twelfth week of pregnancy. Similarly, health conditions in the pregnant woman may not arise or may only become complicated in the second trimester.

The geographic distribution of second-trimester abortion services in this country is uneven, and the limited available data suggest that many women lack access to needed services. According to the 2005 survey of abortion providers conducted by the Guttmacher Institute, the majority of abortions between 17 and 24 weeks are performed in a few freestanding abortion clinics.[18] Only 20% of the freestanding clinics providing abortions offered abortions after 20 weeks (approximately 350 facilities), down from 24% in 2001. Although the majority of facilities identified as abortion providers that had gestational limits between 17 and 24 weeks were hospitals, most of these facilities provided only a few abortions every year, usually only in cases of fetal abnormality or health risks to the woman.[18] Case reports document the failure of some hospitals to provide care even in these latter circumstances.[19,20]

The abortion surveillance report issued by the Centers for Disease Control and Prevention in 2006 reports data collected in 2003 on abortion for 47 states (excluding California, New Hampshire, and West Virginia).[21] These data allow identification of states with limited abortion availability at each gestational limit, defined as those states with less than one third the national average for abortions performed at each gestational limit. We applied this formula for a rough estimate that 5 states had extremely limited availability of services in the second trimester, nine states had extremely limited availability of services after 15 weeks of pregnancy, and 19 states had extremely limited availability of services after 20 weeks.[21(Table 6)] Consequently, access to abortion care was severely limited for women living in those states (Figure 1). Newer restrictions have further reduced access to care in some states that were previously served.

Access to Second-Trimester Abortion

The cost of abortion is an important factor in access to care because abortions increase in price with weeks of pregnancy and are therefore more expensive later in the second trimester. When associated expenses, such as transportation, overnight lodging (because later second-trimester abortions require more than one day to perform), and child care are added, the price of abortion in the later second trimester rises dramatically.

The Hyde Amendment (first passed in 1976 and reapproved every year thereafter) prohibits the use of federal funds to pay for abortions except for cases of rape, incest, or life endangerment, and only 17 states allow the use of state funds for abortions outside of these 3 narrow circumstances. In addition, 12 states restrict abortion coverage in insurance plans for public employees, and 5 states restrict insurance coverage of abortion in private insurance plans.[22] Combined with the public controversy over abortion, confusion over insurance coverage prompts many women to pay out of pocket rather than seek coverage clarification.[23] Women who choose to pay for their abortions themselves also cite concerns about confidentiality and privacy.[23] Finally, some abortion clinics do not accept third-party payers.

Together, these factors cause three quarters of women receiving outpatient abortions to pay for the procedure with their own funds.[24] Women with limited financial resources can find themselves in an vicious cycle: by the time they have secured the money for an abortion performed at one gestational limit, their pregnancy has advanced into the next.[25] Studies continue to demonstrate that lack of financial support for abortion results in delays that push the procedure into the second trimester.[12–14]

REGULATIONS THAT REDUCE ACCESS

Access to second-trimester abortion care is already severely limited in the United States by geographic maldistribution and cost. Two types of regulation of abortion services further exacerbate this access crisis: bans on partial birth abortion and ASC requirements. Bans on partial birth abortion target the specific surgical steps used by physicians in the provision of abortion care in the second trimester. To comply with these requirements, physicians may feel compelled to choose between ceasing their provision of surgical second-trimester abortion care altogether and altering their clinical practices in ways driven not by medical evidence or professional judgment but by the need to avoid criminal liability.

The second type of regulation unnecessarily requires abortions to be performed in ASC facilities set up for more sophisticated and intrusive surgical procedures. These costly requirements may force many providers to stop offering services or to raise their prices to levels prohibitive for some women seeking care. Both regulations require the practice of abortion care to change without regard to evidence or clinical judgment and reduce access to quality second-trimester abortion care.

Bans on Partial Birth Abortion

Abortion method bans and their enforceability. At various times since the legalization of abortion, individual states have sought to ban particular abortion methods. This trend reached new heights in the early 1990s when abortion rights opponents, fueled by a presentation at a national abortion conference on the post–20-week intact dilation and evacuation abortion technique, invented the term *partial birth abortion*[26,27] and convinced legislatures in more than half the states to ban the procedure.[22,28]

Partial birth abortion, however, is not the name of any known medical procedure, and the bans defined the term with sweeping language that encompassed most abortion methods: the laws made it a crime for a physician to take further steps to remove a previable fetus (i.e., a fetus that has not developed sufficiently to sustain life outside of the woman's body) from a woman's body if the physician has drawn a "substantial portion" [29]

FIGURE 1—Availability of abortion services in the second trimester: United States, 2003.

of the fetus into the vagina prior to fetal demise (that is, when there is no longer a fetal heart beat). Because abortion virtually always involves vaginal removal of the fetus, these bans exposed all abortion providers, and particularly providers of second-trimester surgical procedures, to criminal liability for performing previability abortions on a "living" fetus.[30,31]

These bans attempted to sharply curtail abortion rights by shifting the defining characteristic of legal abortion away from gestational development. Under *Roe v Wade*,[32] a woman's right to abortion continued until fetal viability (and past that point if the woman faced life or health risks); under this first wave of bans, the woman's right to abortion ended, regardless of viability, once a substantial portion of the living fetus passed into her vagina, an event that inevitably occurs during virtually all abortion procedures unless the physician takes measures to cause fetal demise in utero.

Many of the laws in this first wave of partial birth abortion bans were quickly challenged and were struck down by the lower federal courts.[22,8] In 2000, Nebraska's ban reached the US Supreme Court, which held the law unconstitutional both because it criminalized commonly used previability abortion methods and because it lacked an exception for abortions needed to protect the pregnant woman's health. The Supreme Court's decision in *Carhart v Stenberg*[33] rendered all comparable laws unenforceable, nullifying this first wave of partial birth abortion bans.

In response to the *Carhart* decision, Congress (and some state legislatures) sought to pass newly crafted abortion bans, and Congress ultimately enacted the Federal Partial Birth Abortion Ban Act of 2003.[34] That law prohibits an abortion provider from intentionally drawing the fetal trunk or fetal head outside the woman's body prior to fetal demise and then taking an action, other than delivering the fetus, which

causes fetal demise. The law does not apply if fetal demise occurs in utero before the relevant fetal part is removed. The federal ban, like the earlier incarnations, applies to previability abortions and has no exception for abortions needed to protect the woman's health.

The federal ban was challenged in three separate court actions, and the federal courts in all three actions struck the law down.[35–40] Nonetheless, in 2007, the Supreme Court, composed of a different set of justices than in 2000, upheld the law in *Gonzales v Carhart* (*Carhart II*).[41] The Court generally construed the ban to apply only to "intact" procedures and not to dilation and evacuations which were performed by removing the fetus in multiple pieces which the Court referred to as standard second-trimester abortions.

The lack of any bright line between legal, standard dilation and evacuations and illegal, intact dilation and evacuations is evident from the Court's acknowledgment that the ban "excludes most dilation and evacuations in which the fetus is removed in pieces."[41(p1629)] It then held that legislatures can ban such intact procedures, requiring doctors to change their abortion technique to promote "respect for the dignity of human life," even if that means the abortion method used will be some degree less safe for the woman.[41(pp1633,1636)] In addition, the Court held that such bans need not contain a health exception, because the medical community holds differing opinions about the medical benefits of the banned technique and safe alternative techniques exist.[41(pp1636,1637)] *Carhart II* was the first Supreme Court case to uphold a ban on how abortion is performed, as well as the first case to hold that an abortion restriction may be valid without an exception for the health of the pregnant woman.

Following the *Carhart II* decision, abortion providers throughout the country all became subject to at least one criminal ban on the techniques they use—namely, the federal ban. In addition, five states (Louisiana, Missouri, North Dakota, Ohio, and Utah) have enforceable state statutes that apply to previable abortions and criminalize abortion techniques falling within their definitions of partial birth abortion,[42–46] and other states may well pass further bans in the coming legislative sessions. These new laws are likely to include both bans that mirror the language of the federal ban (and thus permit both state and federal enforcement) and bans that expand on the federal law to prohibit additional forms of surgical abortion, particularly in the second trimester.

Effect of the bans on second-trimester abortion care. Individual clinicians differ on what techniques they prefer to use in the performance of second-trimester abortion. Data on the relative safety of various techniques do not exist, so physicians must rely on their clinical judgment to determine the best course of care for their patients. Experts in the *Carhart II* trials testified that intact dilation and evacuation may be the safest abortion technique for some women with medical conditions such as uterine scars, bleeding disorders, heart disease, or compromised immune systems, as well as for women with pregnancy-related conditions such as placenta previa and accreta (placental growth over the cervix or embedded in the uterine muscle) and for women carrying fetuses with abnormalities such as severe hydrocephaly. In addition, experts testified that intact dilation and evacuation may be generally a safer technique than disarticulation dilation and evacuation later in the second trimester because it involves less instrumentation in the uterus and therefore less risk of uterine perforation.[47] Data from a small research study that examined differences in outcomes between techniques support this claim.[48] The Court nonetheless upheld the ban.

Immediately after the Court's decision upholding the ban, experts in second-trimester abortion raised concerns about how physicians might alter the care they provide in an effort to continue offering second-trimester abortions without running afoul of the law, while continuing to provide safe care.[49–52] These changes include decreasing the amount of cervical dilation and using medications to cause fetal demise prior to initiation of the abortion. Changes to the amount of cervical dilation are considered a possibility, because during the course of the Supreme Court oral argument, justices questioned whether the amount of dilation a physician was seeking could be seen as intent to perform an intact procedure.[53] Reduced dilation is clinically important because adequate dilation is a critical factor in dilation and evacuation safety,[54–57] and inadequate cervical dilation can increase the discomfort of the procedure and the risk to the woman of potential cervical injury.[8] It is unknown, however, to what extent physicians have altered their practice in this way.

There is more evidence of the second modification to practice: the use of a medication to cause fetal demise. Because the law only applies to a living fetus, inducing fetal demise prior to initiating the abortion shields the physician from violating the law. Reflecting this potential, within weeks of the Court's decision, the National Abortion Federation, the professional organization for abortion providers, and Planned Parenthood Federation of America released new clinical guidelines on digoxin administration. Digoxin, a heart medication approved for other uses, can be injected through the abdomen into the amniotic fluid or the fetus for the purpose of inducing fetal demise. Other medications, such as potassium chloride, can also be used. Use of both digoxin and potassium chloride for fetal demise appear safe in practice.[58,59]

It is important to note that some physicians articulate clinical justifications for the use of agents to induce fetal demise prior to the initiation of any abortion in the later second trimester beyond seeking to avoid violating the Federal Partial Birth Abortion Ban Act. These include the belief that fetal demise prior to initiation of the abortion makes the procedure easier because the fetus is softer[60] and the desire to avoid the delivery of a live but nonviable fetus.[61] Only one blinded, randomized controlled trial, however, has explored the issue, and that study (of 126 procedures) found no differences in blood loss, pain scores, procedure difficulty, or complications between procedures preceded by administration of digoxin or a placebo.[62] Thus when physicians implement these new practices only to avoid prosecution under the bans, their decisions are not based on scientific evidence or their own best clinical judgment, and overall quality of care is therefore compromised.

To avoid adopting an undesirable change in practice, or simply to eliminate their risk of prosecution, some providers may choose instead either to stop performing dilation and evacuation procedures altogether or to substantially reduce the gestational limit to which they perform abortions. Their actions could exacerbate the shortage of second-trimester abortion services in the United States. Because there are so few late second-trimester abortion providers, any reduction in the number of providers could have a significant effect on access to care.

The bans may also have a significant chilling effect on training. Physicians concerned that their actions in the operating room will be misinterpreted or questioned may refuse to allow medical students, nursing students, and residents to observe their second-trimester abortions. This reduced exposure has implications for the future of abortion provision: research has demonstrated that exposure to abortion during training increases both support for colleagues who perform abortions and trainees' willingness to provide abortions after residency.[63–65]

Ambulatory Surgical Center Requirements

ASCs are a class of health care facilities significantly more sophisticated than outpatient clinics and physicians' offices and used for a broad range of surgical procedures not requiring an overnight hospital stay. Procedures performed in ASCs may be quite invasive and complex; commonly performed procedures include opening of the esophagus; removal of breast, lymph node, and bladder tumors; and scopes of the colon, stomach, and intestines.[66] Numerous more-minor surgical procedures may be performed in physicians' offices and outpatient clinical settings, rather than ASCs, for reasons of cost, convenience, and patient comfort.[67(p241–244)]

Several states have enacted laws limiting the performance of abortions to licensed ASC settings. These targeted laws do not require the use of ASCs for the performance of other procedures of comparable complexity and risk. Procedures that are comparable to abortions in the first or second trimester and that are often performed in outpatient clinics or physicians' offices rather than ASCs include hysteroscopy, surgical completion of miscarriage, vasectomy, sigmoidoscopy, and minor neck and throat surgeries.[68] (A few states have abortion-neutral surgical facility laws, which are not discussed here.)

Although the state laws limiting abortion provision to ASC settings occasionally apply to providers of abortions at any stage of pregnancy, they more often apply only to providers of second-trimester abortions. In these states, physicians wishing to perform second-trimester abortions must bring their offices into compliance with the state's ASC regulatory scheme or else gain access to an existing ASC. The latter option has proven illusory for many abortion providers, however, because existing ASCs often will not permit the performance of abortions for political, philosophical, or security reasons. At this writing, 6 states required that second-trimester abortions, but not other comparable procedures, be performed in facilities that meet the states' standards for ambulatory surgical facilities: Georgia, Indiana, Mississippi, Missouri, New Jersey, and Virginia.[69–74] Four states required that abortions after a particular gestational age in the second trimester be performed in ASCs: Illinois and South Carolina (18 weeks), Rhode Island (19 weeks), and Texas (16 weeks).[75-79]

ASC regulations are generally quite extensive, encompassing standards for the facility's physical plant, staffing, administration, quality improvement, and so on.[80] Consequently, ASC regulations are often extremely costly for abortion providers to comply with. These costs are particularly onerous in states that apply the physical plant requirements of their ASC regulations to existing abortion facilities, rather than grandfathering those facilities for purposes of construction standards until such time as the facilities move or undertake substantial renovations.

The costs and burdens stemming from the imposition of ASC requirements have hindered or prevented physicians in some states from providing abortions. For pregnant women, the corresponding effect of the laws and physicians' response to them has been to hinder (and possibly preclude) timely access to safe and legal abortion services. Nonetheless, no data exist to show that providing abortions in ASCs positively affects complication rates or patient health outcomes or that physicians' offices and outpatient clinics are inadequate or unsafe facilities for the performance of abortions. ASC regulations also go far beyond the guidelines for abortion provision issued by professional organizations such as the American College of Obstetricians and Gynecologists[67(p382–384)] and the National Abortion Federation.[81]

Only a couple of court challenges have thus far been brought against second-trimester ASC requirements, and they have met with limited or no success.[82] The courts generally view the requirements as reasonable means of protecting patient health,[83] and they quite readily accept the states' asserted authority to regulate abortion differently than comparable medical procedures.[1(pp873,874)] Thus ASC requirements for second-trimester abortion providers are unlikely to be struck down by courts absent strong proof that they prevent identifiable groups of women from obtaining timely abortions.

We undertook 2 case studies to illustrate the profound effect that ASC laws can have on women's access to abortion services.

Mississippi. The Jackson Women's Health Organization (JWHO) is the only outpatient abortion provider in Mississippi. In 2004, JWHO provided abortions up to 16 weeks' gestation and complied with existing health facility regulations applicable to providers of outpatient abortions for pregnancies of that length.[71] During 2004, approximately 375 second-trimester abortions were performed in the state.[84] That year, the state passed a new law requiring that abortions after the first trimester be performed in a hospital or ASC.[85] This law actually amounted to a total ban on second-trimester abortions, because abortions are virtually unavailable in Mississippi hospitals, no existing ASC in the state provides abortions, and in Mississippi, abortion clinics are not eligible to become licensed as ASCs. JWHO challenged the 2004 law in a case brought by the Center for Reproductive Rights, which succeeded in invalidating the law before it took effect.[86]

While JWHO's lawsuit was in progress, however, the legislature revised its approach and in 2005 enacted a new law requiring that second-trimester abortion providers comply with all ASC regulations, even though those providers' facilities remained ineligible to become licensed as ASCs.[87] The Mississippi ASC regulations are comprehensive and costly. For example, an ASC must have 1 registered nurse (RN) to supervise nursing staff and an additional RN for every 6 patients in the facility, and every physician in the facility must have admitting privileges at a local hospital.[88,89] Both of these requirements created unnecessary and daunting obstacles for JWHO. For example, if 8 clinical patients were being served in the facility, 3 RNs would be required; neither the guidelines for the American College of Obstetricians and Gynecologists nor those for the National Abortion Federation recommend such staffing levels.[67–81]

The RN requirement in particular created a large hurdle for JWHO because of both the high cost of hiring multiple RNs and the current shortage of RNs in this country. The local admitting privilege requirement was

unnecessary because JWHO already had a transfer agreement with a local hospital, which agreed to provide care for JWHO's patients in any emergency. The requirement was impossible for JWHO to fulfill because it relies on doctors who travel from out of state. The use of these distance physicians is common in many parts of the United States that have a shortage of willing local physicians.[90] Physicians are generally not eligible for admitting privileges in areas in which they do not reside or at hospitals in which they do not routinely provide care.

JWHO did not challenge the 2005 law in court, but instead attempted to come into compliance with the ASC regulations. According to Susan Hill, president and JWHO chief executive officer (telephone and facsimile communications, August 2007), the facility was unable to do so for more than 18 months, during which time the clinic was unable to provide abortions after 12 weeks' gestation. During this period, JWHO had to turn away approximately 600 to 700 women who visited or contacted the clinic for abortions but who were already beyond the 12-week limit. Some of these women went out of state for abortions, but many women told the clinic that they lacked the resources to travel to another provider. No data exist on how many of these women obtained illegal abortions or carried unwanted pregnancies to term because of the obstacles they faced in trying to obtain legal abortion care in Mississippi.

Finally, in August 2007, the Mississippi Department of Health approved JWHO's license to provide second-trimester abortions after the facility was able to hire additional nursing staff and to obtain a waiver of the requirement that all of its physicians have local admitting privileges. JWHO obtained the waiver only after proving not only that the facility had a transfer agreement with the local hospital, but also that one of its staff physicians had local admitting privileges and would admit the facility's patients in emergencies and that the other physicians on staff had been informed in writing by local hospitals that they were not eligible to apply for privileges.

In August 2007, JWHO once more began providing abortions up to 16 weeks' gestation. Given the difficulties it faced in obtaining the necessary waivers and license to provide those services, JWHO appeared unlikely to attempt to extend its gestational limit beyond 16 weeks at the time of this writing. Consequently, women in need of abortion after 16 weeks cannot access professional-quality abortion care in Mississippi. For these women, abortion is legal but unavailable.

Texas. In 2003, more than 20 providers in Texas were publicly known to perform abortions beyond 16 weeks' gestation (Linda Rosenthal, JD, former staff attorney, Center for Reproductive Rights, internal memorandum to the Center for Reproductive Rights, January 2004), and 3066 such abortions were performed in the state that year.[91] State regulations allowed Texas abortion providers to perform second-trimester abortions in abortion clinics and physicians' offices.[92]

In 2004, a state law went into effect requiring that abortions after 16 weeks' gestation be performed in ASCs or hospitals.[93] Accordingly, existing abortion providers had to meet the state ASC regulations and become licensed as ASCs to continue providing abortions after 16 weeks. Compliance with the state's ASC requirements was difficult, particularly with respect to the physical plant, and existing facilities could not meet the standards without undertaking major renovations or moving into new buildings. For example, the physical renovations alone at one facility would cost $750 000 (administrator of a Texas abortion clinic, on the condition of confidentiality, oral communication, August 2007). Some of the providers began the work to come into compliance with the ASC requirements, and others decided to simply cease performing abortions later than 16 weeks.

When the 2004 law took effect, no existing abortion provider was able to comply, and all of the outpatient abortion providers stopped performing abortions after 16 weeks' gestation. As a result, the number of abortion performed after 16 weeks in the state dropped to 403 in 2004, a decrease of more than 85% from the previous year.[94] No data are available on how many of the approximately 2600 women who did not receive abortions in Texas in 2004 managed to reach out-of-state abortion providers, sought illegal procedures, or simply carried unwanted pregnancies to term.

During 2005, a couple of the Texas abortion providers managed to become certified as ASCs. The vast majority of abortion providers, however, had still not qualified at the time of writing, and by 2007, there were still only 4 abortion facilities in the state that advertised abortion services beyond 16 weeks. Because the number of providers of these services was so small and the state so big, women seeking abortion after 16 weeks' gestation had to travel much farther than they did in 2003. In addition, the provisions of the 2004 law caused a sharp increase in the price of abortions performed after 16 weeks. At 1 facility that became licensed as an ASC, the price of abortions increased by between $200 and $1000 per procedure, depending on the length of gestation: for example, the price for an abortion at 16 weeks went from $495 to $695 and at 17 weeks, from $595 to $895 (an administrator of a Texas abortion clinic, on the condition of confidentiality, oral communication, August 2007).

In 2006, the number of abortions performed later than 16 weeks in Texas was still less than half the number performed in 2003, and virtually all of these procedures were performed in ASCs (with the others performed in hospitals).[95] Table 1 presents these dramatic changes. The full effects of these changes in abortion pricing and abortion access on women's health and lives have yet to be adequately measured.

CONCLUSION

Although only 12% of all abortions occur after the first trimester of pregnancy, more than 150 000 women a year need abortion care in the second trimester. Access to quality abortion care in the second trimester is, therefore, an important public health goal. Currently the vast majority of this abortion care is provided in specialty clinics, even as the number of clinics continues to decline. Many states lack providers who offer abortion care through the end of the second trimester.

In addition to the small number of facilities offering second-trimester abortion care, cost for such care is a limiting factor for women seeking services. The cost of abortion increases with the number of weeks a woman is pregnant, and most women pay out of pocket for those costs. Federal funds cannot be used to pay for the abortions of Medicaid-eligible women, and only 17 states use state funds to pay for such care. Prohibitions on insurance coverage for abortion care increase the number of women without financial coverage for abortion. The effect of regulations that increase the cost of abortion is felt most acutely

TABLE 1—Incidence of Abortion in Texas: 2003–2006

	2003, No.	2004, No.	Change From 2003 to 2004, No. (%)	2006, No.	Change From 2003 to 2006, No. (%)
All abortions	79 166	75 053	−4 113 (−5.20)	82 056	2 890 (3.65)
Abortions after 16 weeks' gestation	3 066	403	−2 663 (−86.86)	1414	−1 652 (−53.88)
Location					
Abortion facility	2 857	33	−2 824 (−98.84)	0	−2 857 (−100)
Ambulatory surgical center	6	64	58 (966.67)	1225	1 219 (20 316.67)
Hospital	176	190	14 (7.95)	141	−35 (−19.89)
Other/unknown	27	116	89 (329.63)	48	21 (77.78)

Source. Texas Department of State Health Services.[91,94,95]

by low-income women, who already lack the resources to pay for abortions.

Public support for abortion in the second trimester is weak, which renders this care vulnerable to regulations promulgated for ideological or political reasons. Since the recent Supreme Court decision in *Carhart II*, a ban on certain abortion techniques in the second trimester is federally enforceable. To comply with the ban, some physicians may be changing their clinical protocols, potentially increasing the cost of the procedure. These changes are prompted not by scientific evidence or the physicians' best clinical judgment about how best to care for their patients, but by fear of prosecution. Other physicians may choose to limit their provision of abortion care, in some cases completely eliminating access to later second-trimester abortion as well as exposure to such care for trainees. Although abortion remains safe and legal throughout the country, access may be curtailed.

Similarly, ASC laws are forcing some facilities out of the market by imposing requirements for which compliance is extremely difficult and costly. The lack of public financing of abortion care and restrictions on insurance coverage mean that even small changes in the price of abortion can have devastating effects on access to care for low-income women. Increases in cost disproportionately affect low-income women, who disproportionately need these services.

The coming years are expected to bring even greater levels of regulation for providers of second-trimester abortion care. Those physicians and clinics have already been easy targets for lawmakers opposed to abortion rights, and the *Carhart II* decision will undoubtedly serve to embolden those efforts. Second-trimester abortion providers are likely to face more onerous abortion method bans and facilities requirements, as well as other legislation dictating how they provide abortion care (e.g., more detailed and extensive biased-counseling provisions). Because legal challenges to second-trimester abortion restrictions are difficult to mount and have met with only limited success, many of those new requirements may take effect, becoming part of legal landscape for second-trimester abortion provision in this country.

The availability of second-trimester abortion is already very limited, and further reductions will be disproportionately experienced by traditionally marginalized populations. The corresponding effects of that decreased availability on women's health, and the public health more generally, remain to be studied. ■

About the Authors

Bonnie Scott Jones is with the Center for Reproductive Rights, New York, NY. Tracy A. Weitz is with the Department of Obstetrics, Gynecology, and Reproductive Sciences and Advancing New Standards in Reproductive Health, Bixby Center for Global Reproductive Health, University of California, San Francisco.

Requests for reprints should be sent to Tracy Weitz, PhD, MPA, 1330 Broadway St, Ste 1100, Oakland, CA 94612 (e-mail: weitzt@obgyn.ucsf.edu).

This article was accepted August 11, 2008.

Contributors

B.S. Jones conducted the legal analysis and the assessment of the changes in service delivery as a result of ASC requirements. T.A. Weitz conceptualized the project, provided the context and background, and conducted the assessment of changes in clinical practice.

Acknowledgments

This project was supported in part by the David and Lucile Packard Foundation (#2007-31148).

We acknowledge Dana Sussman for her research assistance.

Human Participant Protection

No protocol approval was necessary because the study did not require human participation.

References

1. *Planned Parenthood of Southeastern Pennsylvania v Casey*, 505 US 833 (1992).

2. Gallup Poll News Service. *Gallup's Pulse of Democracy: Abortion.* Washington, DC: Gallup World Headquarters; 2007.

3. Institute of Medicine. Crossing the quality chasm: the IOM Health Care Quality Initiative. Available at: http://www.iom.edu/CMS/8089.aspx. Accessed September 1, 2007.

4. Clancy CM, Cronin K. Evidence-based decision making: global evidence, local decisions. *Health Aff.* 2005;24(1):151–162.

5. Committee on Quality of Health Care in America, Institute of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century.* Washington, DC: National Academies Press; 2001.

6. *Healthy People 2010: Understanding and Improving Health.* Washington, DC: US Dept of Health and Human Services; 2000.

7. Strauss LT, Gamble SB, Parker WY, Cook DA, Zane SB, Hamdan S. Abortion surveillance–United States, 2004. *MMWR Surveill Summ.* 2007;56(9):1–33.

8. Newmann S, Dalve-Endres A, Drey EA, Society of Family Planning. Clinical guidelines. Cervical preparation for surgical abortion from 20 to 24 weeks' gestation. *Contraception.* 2008;77(4):308–314.

9. Grimes DA. Estimation of pregnancy-related mortality risk by pregnancy outcome, United States, 1991 to 1999. *Am J Obstet Gynecol.* 2006;194(1):92–94.

10. Bartlett LA, Berg CJ, Shulman HB, et al. Risk factors for legal induced abortion-related mortality in the United States. *Obstet Gynecol.* 2004;103(4):729–737.

11. Jacot FR, Poulin C, Bilodeau AP, et al. A five-year experience with second-trimester induced abortions: no increase in complication rate as compared to the first trimester. *Am J Obstet Gynecol.* 1993;168(2):633–637.

12. Drey EA, Foster DG, Jackson RA, Lee SJ, Cardenas LH, Darney PD. Risk factors associated with presenting for abortion in the second trimester. *Obstet Gynecol.* 2006;107(1):128–135.

13. Finer LB, Frohwirth LF, Dauphinee LA, Singh S, Moore AM. Timing of steps and reasons for delays in obtaining abortions in the United States. *Contraception.* 2006;74(4):334–344.

14. Foster DG, Jackson RA, Cosby K, Weitz TA, Darney PD, Drey EA. Predictors of delay in each step leading to an abortion. *Contraception.* 2008;77(4):289–293.

15. Bowers CH, Chervenak JL, Chervenak FA. Late-second-trimester pregnancy termination with dilation and evacuation in critically ill women. *J Reprod Med.* 1989;34(11):880–883.

16. Burgoine GA, Van Kirk SD, Romm J, Edelman AB, Jacobson SL, Jensen JT. Comparison of perinatal grief after dilation and evacuation or labor induction in second trimester terminations for fetal anomalies. *Am J Obstet Gynecol.* 2005;192(6):1928–1932.

17. Hern WM. Cervical treatment with Dilapan prior to second trimester dilation and evacuation abortion: a pilot study of 64 patients. *Am J Gynecol Health.* 1993; 7(1):23–26.

18. Jones RK, Zolna MRS, Henshaw SK, Finer LB. Abortion in the United States: incidence and access to services, 2005. *Perspect Sex Reprod Health. 2008*;40(1):6–16.

19. Raghavan R. A piece of my mind. A question of faith. *JAMA.* 2007;297(13):1412.

20. Freedman L, Landy U, Steinauer J. When there's a heartbeat: miscarriage management in Catholic-owned hospitals. *Am J Public Health.* 2008;98:1774–1778.

21. Strauss LT, Gamble SB, Parker WY, Cook DA, Zane SB, Hamdan S. Abortion surveillance—United States, 2003. *MMWR Surveill Summ.* 2006;55(11):1–32.

22. Guttmacher Institute. *State Policies in Brief: Restricting Insurance Coverage of Abortion.* New York, NY: Guttmacher Institute; 2008.

23. Van Bebber SL, Phillips KA, Weitz TA, Gould H, Stewart F. Patient costs for medication abortion: results from a study of five clinical practices. *Womens Health Issues.* 2006;16(1):4–13.

24. Henshaw SK, Finer LB. The accessibility of abortion services in the United States, 2001. *Perspect Sex Reprod Health.* 2003;35(1):16–24.

25. Towey S, Poggi S, Roth R. *Abortion Funding: A Matter of Justice.* Boston, MA: National Network of Abortion Funds; 2005.

26. Esacove AW. Dialogic framing: the framing/counterframing of "partial-birth" abortion. *Sociol Inq.* 2004; 74(1):70–101.

27. Gorney C. Gambling with abortion: why both sides think they have everything to lose. *Harpers Magazine.* 2004;309(1854):33–46.

28. *So-Called "Partial-Birth Abortion" Ban Legislation: By State.* New York, NY: Center for Reproductive Rights; 2004.

29. Neb Rev Stat Ann §28-326(9)(2007).

30. *Carhart v Stenberg*, 11 FSupp 2d 1099 (D Neb 1998).

31. *Carhart v Stenberg*, 192 F3d 1142 (8th Cir 1999).

32. *Roe v Wade*, 410 US 113 (1973).

33. *Carhart v Stenberg*, 530 US 914 (2000).

34. Partial-Birth Abortion Ban Act. 18 USC §1531 (2007).

35. *Carhart v Ashcroft*, 331 FSupp 2d 805 (D Neb 2004), aff'd, 413 F3d 791 (8th Cir 2005).

36. *Carhart v Gonzales*, 413 F3d 791 (8th Cir 2005), rev'd, 550 US 124 (2007).

37. *National Abortion Fed'n v Ashcroft*, 330 FSupp 2d 436 (SDNY 2004), *aff'd sub nom*, 437 F3d 278 (2d Cir 2006).

38. *National Abortion Fed'n v Gonzales*, 437 F 3d 278 (2d Cir 2006), *vacated*, 224 Fed Appx 88 (2d Cir 2007).

39. *Planned Parenthood Fed'n of America v Ashcroft*, 320 FSupp. 2d 957 (ND Cal 2004), *aff'd sub nom.*

40. *Planned Parenthood Fed'n of America v Gonzales*, 435 F3d 1163 (9th Cir 2006), *rev'd.*

41. *Gonzales v Carhart*, 127 S.Ct. 1610 (2007).

42. La Rev Stat 14:32.11 (2007).

43. Mo Ann Stat §565.300 (2008).

44. ND Cent Code §14-02.6 (2008).

45. Ohio Rev Code Ann §2919.151 (2007).

46. Utah Code Ann §76-7-326 (2007).

47. *Planned Parenthood v Ashcroft.* 320 FSupp 2d 957 (ND Cal 2004).

48. Chasen ST, Kalish RB, Gupta M, Kaufman JE, Rashbaum WK, Chervenak FA. Dilation and evacuation at ≥20 weeks: comparison of operative techniques. *Am J Obstet Gynecol.* 2004;190(5):1180–1183.

49. Darney PD, Rosenfield A. The Supreme Court joins the multispecialty group practice of the Congress and the President. *Obstet Gynecol.* 2007;110(2 pt 1):226–227.

50. Greene MF. The intimidation of American physicians—banning partial-birth abortion. *N Engl J Med.* 2007;356(21):2128–2129.

51. Vesely R. Courts force new abortion methods: legal second-trimester procedures could be harmful to women. *Inside Bay Area.* June 4, 2007.

52. *ACOG Statement on the US Supreme Court Decision Upholding the Partial-Birth Abortion Ban Act of 2003.* Washington, DC: American College of Obstetricians and Gynecologist; 2007.

53. *Alberto R. Gonzales, Attorney General, Petitioner v Leroy Carhart*, et al.: Oral Argument. Supreme Court. Washington, DC, 2006.

54. Autry AM, Hayes EC, Jacobson GF, Kirby RS. A comparison of medical induction and dilation and evacuation for second-trimester abortion. *Am J Obstet Gynecol.* 2002;187(2):393–397.

55. Darney PD, Atkinson E, Hirabayashi K. Uterine perforation during second-trimester abortion by cervical dilation and instrumental extraction: a review of 15 cases. *Obstet Gynecol.* 1990;75(3 pt 1):441–444.

56. Halperin R, Zimmerman A, Langer R, Bukovsky I, Schneider D. Laminaria dilatation and evacuation for pregnancies with mid-trimester premature rupture of membranes: a retrospective cohort study. *Eur J Obstet Gynecol Reprod Biol.* 2002;100(2):181–184.

57. Hogue CJ. Impact of abortion on subsequent fecundity. *Clin Obstet Gynaecol.* 1986;13(1):95–103.

58. Molaei M, Jones HE, Weiselberg T, McManama M, Bassell J, Westhoff CL. Effectiveness and safety of digoxin to induce fetal demise prior to second-trimester abortion. *Contraception.* 2008;77(3):223–225.

59. Pasquini L, Pontello V, Kumar S. Intracardiac injection of potassium chloride as method for feticide: experience from a single UK tertiary centre. *BJOG.* 2008;115(4):528–531.

60. Hern WM. Laminaria, induced fetal demise and misoprostol in late abortion. *Int J Gynaecol Obstet.* 2001;75(3):279–286.

61. Blumenthal PD, Castleman LD, Jain JK. Abortion by labor induction. In: Paul M, Lichtenberg ES, Borgatta L, Grimes DA, Stubblefield PG, eds. *A Clinician's Guide to Medical and Surgical Abortion.* New York, NY: Churchill Livingstone; 1999:150–151.

62. Jackson RA, Teplin VL, Drey EA, Thomas LJ, Darney PD. Digoxin to facilitate late second-trimester abortion: a randomized, masked, placebo-controlled trial. *Obstet Gynecol.* 2001;97(3):471–476.

63. Eastwood KL, Kacmar JE, Steinauer J, Weitzen S, Boardman LA. Abortion training in United States obstetrics and gynecology residency programs. *Obstet Gynecol.* 2006;108(2):303–308.

64. Steinauer JE, DePineres T, Robert AM, Westfall J, Darney P. Training family practice residents in abortion and other reproductive health care: a nationwide survey. *Fam Plann Perspect.* 1997;29(5):222–227.

65. Steinauer JE, Landy U, Jackson RA, Darney PD. The effect of training on the provision of elective abortion: a survey of five residency programs. *Am J Obstet Gynecol.* 2003;188(5):1161–1163.

66. Centers for Medicare and Medicaid Services. *Commonly Performed Procedures in ASCs, 2006 Data and Other Commonly Performed Procedures in ASCs, 2006 Data.* Baltimore, MD: US Dept of Health and Human Services; 2008.

67. *Guidelines for Women's Health Care.* 6th ed. Atlanta, GA: American College of Obstetricians and Gynecologists; 2002.

68. Court Declarations of David Grimes, MD, Robert Stephens, MD, Jeffrey Taffett, MD, Robert Tamis, MD, filed with district court in *Tuscon Woman's Clinic v Eden*, No. CV00-141-TUC-RCC, 2002 WL 32595282 (D Ariz 2002).

69. Ga Comp R & Regs §§290-5-32-.01(g), -02(1) (2007).

70. Ind Code Ann §16-34-2-1(a)(2) (2007).

71. Miss Code Ann §41-75-1(e)-(h) (2007).

72. Mo Code Ann §197.200(1) (2007).

73. NJ Admin Code §13:35–4.2(e),(f) (2007).

74. Va Code Ann 18.2-73; 12 VA ADMIN CODE §5-410-10 (2007).

75. 210 Ill Comp Stat 5/3(A) (2007).

76. Ill Admin Code tit 77, §205.710 (2007).

77. 14-000–009 RI Code R §2.4 (2007).

78. SC Code Ann Regs 61-12 §302(A) (2007).

79. Tex Health & Safety Code §171.004 (2007).

80. 25 Tex Admin Code §135.1 (2007) et seq.

81. *Clinical Policy Guidelines.* Washington, DC: National Abortion Federation; 2008.

82. *Ragsdale v Turnock*, 734 FSupp 1457 (ND Ill 1990).

83. *Simopoulos v Virginia*, 462 US 506 (1983).

84. Court declaration by Stanley Henshaw, PhD, filed with district court in *Jackson Women's Health Organization v Amy,* No. CivA 3:04 CV 495 LN, 2005. WL 1412125 (SD Miss 2005).

85. Miss Code Ann §41-75-1 (*amended* 2004).

86. *Jackson Women's Health Org v Amy*, No CivA 3:04CV495LN, 2005 WL 1412125 (SDMiss 2005).

87. Miss Code Ann §41-75-1 (2004) (amended 2005).

88. 12-000-034 Miss Code R §§102.9, 204.2 (2007).

89. 12-000-035 Miss Code R §§204.7, 301.1 (2007).

90. Wicklund S, Kesselheim AS. *This Common Secret: My Journey as an Abortion Doctor.* New York, NY: Public Affairs; 2007.

91. *Table 37: Induced Terminations of Pregnancy by Facility and Length of Gestation, Texas, 2003.* Austin: Texas Dept of State Health Services; 2005.

92. Tex Health & Safety Code §245.001 (2007) et seq.

93. Tex Health & Safety Code §171.004 (2008).

94. *Table 37: Induced Terminations of Pregnancy by Facility and Length of Gestation—2004.* Austin: Texas Dept of State Health Services; 2006.

95. *Preliminary Table 37: Induced Terminations of Pregnancy by Facility and Length of Gestation—2006-Preliminary.* Austin: Texas Dept of State Health Services; 2007.