Abortion Worldwide: A Decade of Uneven Progress

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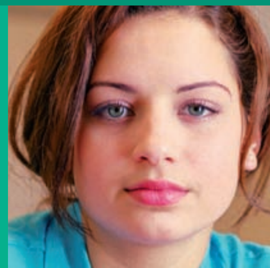

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Executive Summary

This report assesses progress over the past decade regarding the legality, safety and accessibility of abortion services worldwide. It summarizes developments in policy and documents recent trends in abortion incidence, with a focus on unsafe abortion. It also examines the relationship between unintended pregnancy, contraception and abortion, placing abortion within the broader context of women's reproductive lives.

Positive trends have emerged in recent years

Significant global changes that have occurred in the past decade have important implications both for the levels and safety of abortion and for the levels of unintended pregnancy, the root cause of abortion.

- Contraceptive use, which reduces levels of unintended pregnancy, has increased in many parts of the world, particularly Latin America and Asia.
- The use of manual vacuum aspiration (MVA) and of medication abortion to end unwanted pregnancies and to treat unsafe abortion have increased.
- A number of countries in which abortion laws were highly restrictive in the mid-1990s have liberalized their laws.
- In many developing countries in which abortion is legally restricted, access to safe abortion nevertheless appears to be growing, especially for better-off women.

Although some countries have liberalized their laws, abortion remains highly restricted

Since 1997, 22 countries or administrative areas within countries have changed their abortion laws; in 19 cases, the criteria under which abortion is permitted were broadened, and in three cases the criteria were narrowed. Nonetheless, especially in Sub-Saharan Africa and Latin America, abortion remains highly restricted.

- Globally, 40% of women of childbearing age (15–44) live in countries with highly restrictive laws (those that prohibit abortion altogether, or allow the procedure only to save a woman's life, or protect her physical or mental health).
- Virtually all countries with highly restrictive laws are developing countries. Excluding those in China and India (populous countries with liberal abortion laws), 86% of reproductive-age women in the developing world live under highly restrictive abortion laws.
- In some countries (e.g., India and South Africa), abortion is available on broad grounds, but access to services provided by qualified personnel is uneven.

Abortion rates have declined worldwide

The overall abortion rate declined between 1995 and 2003. This is largely due to reductions in levels of safe abortions, particularly in Eastern Europe.

- The number of abortions worldwide fell from an estimated 45.5 million in 1995 to 41.6 million in 2003. The estimated number of unsafe abortions changed little during this period—from 19.9 million to 19.7 million—and almost all occurred in developing countries.
- The rate of safe abortions dropped between 1995 and 2003 from 20 to 15 per 1,000 women aged 15–44, while the unsafe abortion rate declined hardly at all—from 15 to 14 per 1,000. The overall abortion rate declined from 35 to 29 per 1,000.

Women in developing countries with restrictive abortion laws often go to untrained providers

Surveys of knowledgeable health professionals in developing countries with highly restrictive abortions laws have provided information about the circumstances surrounding unsafe abortions.

- Women who seek clandestine abortions most commonly go to traditional practitioners (many of whom employ unsafe techniques), or doctors or nurses (who may have inadequate training). Some women try to self-induce (using highly dangerous methods), or go to pharmacists or other vendors to purchase drugs.
- Rural women and poor women are more likely than better-off and urban women to turn to traditional practitioners and unsafe methods, and therefore to experience health complications. However, they are less likely to receive the postabortion treatment they need.
- The severity of complications from unsafe abortion is probably declining. Contributing factors include the spread of medication abortion (especially the use of misoprostol alone) and increased provision of abortion by trained personnel.

Unsafe abortions impose heavy economic and health burdens on women and society

Access to quality postabortion care remains poor in many less developed countries. Even when such care is available, distance, cost and the stigma often associated with abortion can discourage women from seeking treatment.

- About 70,000 women die each year from the effects of unsafe abortion—an estimate that has hardly changed in 10 years. An estimated eight million women annually experience complications that need medical treatment, but only five million receive care.
- Most postabortion care is provided in government health facilities, exacting a heavy toll on under-resourced public health systems in poor developing countries.

The rate of unintended pregnancy is declining as contraceptive use increases

The major direct factor contributing to unintended pregnancy is the level of effective contraceptive use.

- The global rate of unintended pregnancy declined from 69 per 1,000 women aged 15–44 in 1995 to 55 per 1,000 in 2008. The decline was greatest in the more developed world.
- Globally, the proportion of married women practicing contraception increased from 54% in 1990 to 63% in 2003.
- Contraceptive use also increased among unmarried, sexually active young women in many developing countries.

Some important challenges remain

Many obstacles to safe and legal abortion, and to adequate contraceptive and postabortion care, remain.

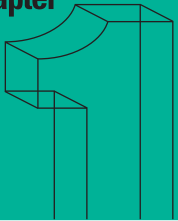
- Legal reform can take many years to achieve. Impediments include the persistence of outmoded laws, opposition from powerful religious authorities, the activities of antichoice groups and reluctance to publicly address sensitive issues of sexuality and reproduction.
- Procedural, economic, informational, cultural and other barriers continue to impede access to legal abortion services in many developing countries.
- Access to contraceptive and postabortion services is often inadequate, partly because of insufficient resources.

What must be done to reduce unsafe abortion and its consequences?

There are three known ways to reduce the prevalence of unsafe abortion and its harmful consequences.

- Expanding access to effective modern methods of contraception and improving the quality of contraceptive information and services may be the strategy that is the most achievable in the near term, and that is most responsive to women's long-term health needs.
- Making abortion legal and ensuring that safe abortion services are accessible to all women in need are urgent health, economic and moral imperatives. Unsafe abortion damages the health of millions of women—the poor, predominantly. The consequences of unsafe abortion are costly to already struggling health systems (and more costly than services to prevent unintended pregnancy or provide safe abortion). And restrictive abortion laws are an unacceptable infringement of women's human rights and of medical ethics.
- Improving the quality and coverage of postabortion care through the increased use of the safest and most cost-effective methods for such care—MVA and medication abortion—at primary-level facilities would allow a higher proportion of cases to be safely treated, and would reduce both maternal mortality and morbidity and the cost of postabortion services.

Reducing levels of unintended pregnancy would lessen women's recourse to unsafe abortion. It would also make significant contributions to the survival and health of women and children, the status of women, and the financial stability of households. Eliminating unsafe abortion and providing access to safe abortion would reduce ill health, death and lost years of productivity among women, and avert the financial burden of treating related health complications. Achieving these goals would lead to enormous individual and societal benefits—for women, their families and countries as a whole.



Abortion Worldwide: What Has Changed?

In 1999, the Guttmacher Institute published a report on the global state of abortion that concluded:

> *[I]nduced abortions occur everywhere, both in countries where the procedure is legal and in those where it is not.…[T]he vast majority of unsafe abortions occur in the developing world, mostly in countries where the procedure is illegal and often among the world's poorest women. This last finding should generate the most concern. Where safe abortion services are not available or are difficult to obtain, women face severe risks of infection, illness, disability and death. And, as in every other aspect of reproductive health, the women most likely to die or suffer life-long disability are the poor.*[1]

In light of that earlier report, a pressing question to ask 10 years later is: Has progress been made since the late 1990s? In particular, have levels of unintended pregnancy and abortion declined? Has access to legal and safe abortion increased, and have mortality and morbidity as a result of unsafe abortion* decreased, especially among poor women in poor countries (who are disproportionately affected)? Have the quality and coverage of postabortion care improved during the past decade? This updated report examines these and other closely related questions.

As this report will show, a number of significant global changes that have important implications for the prevalence and safety of abortion have occurred since the earlier report. Contraceptive use—a key to reducing unwanted pregnancy, which is at the root of most abortions—has increased in many parts of the world, particularly Latin America and Asia. In addition, growth in the use of such techniques as manual vacuum aspiration and medication abortion† to end unwanted pregnancies would be expected to improve the safety of abortion, thereby potentially reducing mortality and morbidity due to unsafe procedures. A number of countries in which abortion laws were highly restrictive in the mid-1990s have since liberalized their laws, further raising expectations that the number of clandestine procedures may be declining in those countries. And in many developing countries‡ in which abortion is legally restricted, access to safe abortion appears to be growing, especially for middle- and upper-class urban women who have the means to pay private doctors. Some of this improved access may also be attributable to the growing use of medication abortion.

Another positive development is that global, international and regional organizations have continued to draw attention to the importance of making safe abortion services widely accessible where they are legal, and of reducing the prevalence of unsafe abortion and its contribution to maternal mortality and morbidity. The landmark 1994 International Conference on Population and Development[2] and a report from its 1999 follow-up evaluation[3] called on governments and organizations to strengthen

*An unsafe abortion is one that is performed by individuals without the necessary skills, in an environment that does not conform to the minimum medical standards, or both (see box, page 7).

†The term medication abortion refers to pregnancy termination by means of medication rather than surgical intervention. Mifepristone (RU 486), a drug that blocks the action of progesterone in the body, and misoprostol, a prostaglandin that causes contractions of the uterus, are used, often in combination, to produce a result very much like a spontaneous abortion or miscarriage (source: reference 76).

‡In this report, "developed" or "more developed" areas of the world are Australia, New Zealand, Europe, United States, Canada and Japan; "developing" or "less developed" areas include Africa, Latin America and the Caribbean, Asia (excluding Japan) and Oceania (excluding Australia and New Zealand).

their commitment to women's health; treat unsafe abortion as a major public health concern; ensure that safe abortion services, when legal, are accessible to all women in need; provide high-quality services to manage abortion complications; and ensure that postabortion counseling, education and contraceptive services are available. The 2006 Maputo Plan of Action on Sexual and Reproductive Health and Rights, promulgated by the African Union Commission, also recognized the importance of these issues; one of the plan's five key strategies is to address high levels of unsafe abortion in the region.[4]

In addition, improving maternal health was one of the eight Millennium Development Goals set by the United Nations in 2000; key targets are to achieve universal access to reproductive health care and reduce maternal mortality by 75% (from its 1990 levels) by 2015.[5] The Millennium Development Goals emphasize that reductions in maternal mortality cannot be achieved without successfully addressing the issue of unsafe abortion. Indeed, the World Health Organization (WHO) estimates that about one in eight maternal deaths are the result of unsafe abortions, and that seven women die every hour somewhere in a developing country because of complications arising from unsafe abortions.[6]

Another important indicator of progress made over the past decade is WHO's publication in 2003 of international standards and guidelines for safe abortion care.[7] And in 2006, the International Federation of Gynecology and Obstetrics stated that women everywhere should have the right to safe, effective and affordable methods of contraception and to safe abortion services, and the organization has undertaken a major initiative on these issues.[8] Also, within the United Nations, European, Inter-American and African human rights systems, developments in the past 10 years have resulted in a striking expansion of international standards and laws supporting women's right to abortion.[9]

Meanwhile, researchers have been steadily building a body of evidence on the causes, circumstances and harmful consequences of unsafe abortion in developing countries. Investigators have also started to look at why, in a number of these countries, some women continue to have unsafe abortions even after the laws have been made less restrictive.

This report summarizes these recent policy and research developments and assesses the current patterns and levels of abortion, unsafe abortion and unintended pregnancy worldwide. It seeks to assess the progress that has been achieved since the late 1990s, and to provide national, regional and international agencies, policymakers, health planners, advocates, the media and the general public with the information and tools they need to help expand the legality of abortion; improve access to safe and legal abortion services and contraception; address the grave health, economic and social consequences of unsafe abortion; and protect and promote women's health and their rights to equality and social justice.

Defining Safe and Unsafe Abortion Is Complex

In this report, abortions are categorized as safe or unsafe using World Health Organization definitions. The organization defines unsafe abortion as a procedure meant to terminate an unintended pregnancy that is performed by individuals without the necessary skills, or in an environment that does not conform to the minimum medical standards, or both.[1]

Whether abortions are performed within or outside of the prevailing legal framework, the medical standards and safety of the procedure vary. When performed within a legal framework—in properly equipped and regulated health facilities, by qualified health professionals with specific training in abortion—the procedure is extremely safe. However, if a country's abortion laws are not implemented equitably and the necessary resources and skilled providers are not equally available to all women, some abortion procedures may be unsafe, even where abortion is legally permitted under broad criteria.

Abortions that occur outside the legal framework are frequently performed by unqualified and unskilled providers, or are self-induced; such abortions often take place in unhygienic conditions and involve dangerous methods or incorrect administration of medications. Even when performed by a medical practitioner, but outside the conditions of the law, a clandestine abortion generally carries additional risk: Medical back-up may not be immediately available in an emergency, the woman may not receive appropriate postabortion attention and care, and if complications occur, the woman may hesitate to seek care. Thus, the risk of unsafe abortion varies not only according to the provider's skills and the method used, but is also linked to the de facto application of the law.[2,3]

An alternative taxonomy to *safe* and *unsafe* is *legal* and *illegal*, and the latter terminology was used in the earlier Guttmacher report on abortion. However, neither taxonomy provides a clear picture of the real situation. The term clandestine is also problematic, because a pregnancy termination can be carried out in secrecy and in violation of the law, but under medically safe conditions. Clandestine is used in this report to denote all abortions that do not conform to a country's abortion law and that are carried out in secrecy—whether under medically safe or unsafe conditions.

In general, where abortion is legally restricted for all but very limited reasons, many women are likely to turn to clandestine and often unsafe practitioners and methods, and where abortion is permitted on broad grounds, most women are likely to have safe pregnancy terminations. However, since the relationship between the law and the overall safety of abortion is not straightforward, the creation of a new classification approach that better reflects the complexities of the situation on the ground would be useful.

Abortion is difficult to document, in many ways

While pregnancy termination in many countries is seen as a basic aspect of comprehensive reproductive health services, and as a key component of a woman's right to make her own childbearing decisions, in some parts of the world abortion has long been a sensitive issue—culturally, socially and politically. As a result, it is often difficult to study this common procedure, sometimes even when the law permits abortion under broad criteria, but especially in places with restrictive abortion laws.

Studies published by WHO,[7,10] other global expert groups[11–14] and researchers in many parts of the developing world[15–18] have consistently shown that most unsafe abortions occur in poor countries, while practically all abortions in wealthier countries are safe. However, it is difficult to obtain detailed, reliable information about the practice of unsafe abortion in the world's poorest countries and to create accurate measures of its extent and harmful consequences. In countries where the procedure is legally restricted, most women who obtain abortions and most providers of the service are reluctant to respond to survey questions concerning abortion. In addition, in many parts of the world, the social and religious stigma that often surrounds pregnancy termination tends to discourage open public discussion about this important public health and human rights issue.

As a result of these difficulties, researchers have had to develop new, indirect methods for estimating the incidence of abortion and to be innovative in finding ways to maximize the quality of data through a variety of survey and questionnaire designs. Despite these efforts, nationally representative information on the women who have clandestine abortions (for example, their age, poverty level, marital status and other life circumstances) is scarce.

Findings in this report come from many sources

This updated report is based on findings from a wide range of sources: data from international institutions, such as WHO; studies by national and international groups whose work focuses on specialized areas, such as abortion legislation and the economic costs of unsafe abortion; and in-depth social and epidemiological research into the determinants, practice and consequences of unsafe abortion. Much of the research has involved collaboration between institutions based in the developed world and scientists based in countries throughout Africa, Asia and Latin America. The Data and Methods Appendix provides detailed information about the quality and limitations of the major data sources used in the report.

This new look at abortion worldwide compiles the best and most up-to-date knowledge available in a number of interrelated areas: the legal status of abortion around the world, and the factors that are likely to have advanced the cause of abortion law reform in some countries during the past decade (Chapter 2); the worldwide incidence of abortion, both safe and unsafe, as well as trends in these data (Chapter 3); guidelines for the provision of safe abortion, and the varying contexts in which safe abortion services are offered, in countries where the procedure is permitted on broad grounds (Chapter 4); conditions under which clandestine abortion is typically practiced in countries with restrictive laws (Chapter 5); and the health and economic consequences of unsafe abortion, as well as the postabortion services that are needed (but often lacking) to care for women with complications (Chapter 6). A major focus of Chapters 5 and 6 is the disproportionate health and financial burdens from unsafe abortion that fall on poor women and those living in rural areas.

The report also includes a global and regional analysis of levels of unintended pregnancy—the underlying cause of induced abortion—and discusses how the incidence of unintended pregnancy can be reduced through the expansion and improvement of contraceptive services (Chapter 7). The eighth and final chapter summarizes the report's main findings and suggests strategies to reduce the number of unplanned pregnancies that result in unsafe abortions, improve postabortion care, expand the legality of abortion, implement safe legal services, and protect and promote the health and human rights of women.

Chapter 2

Women Around the World Live with Widely Varying Abortion Laws and Services

Today, as throughout history, women in every region of the world sometimes choose to end unwanted pregnancies by abortion. They take this step even when pregnancy termination is against the law, and even when an unsafe abortion may threaten their lives.

The wide range of laws governing the practice of induced abortion around the world is shown in Appendix Table 1, which classifies the laws of 197 countries and territories* into six categories. An important caveat to this classification is necessary: A country's written law and the way that law is implemented do not always coincide. In general, most countries with a liberal abortion law observe it in practice, with a few notable exceptions—primarily developing countries where access to safe abortion services is nonexistent or inadequate. But where the grounds for abortion are quite limited, which is the case in large areas of the developing world, countries generally do not provide or facilitate the medical services that would allow women to obtain legal pregnancy terminations, even on the narrow grounds permitted. On the other hand, many countries with restrictive laws do not, for the most part, actively enforce their laws.

Countries with the most restrictive laws ban abortion and allow no explicit exceptions

In 32 countries, abortion is not legally permitted on any grounds.[19] The countries in this most stringent category are home to 6% of all women of childbearing age (15–44) globally (Figure 2.1, page 10)[20]—7% of such women in less developed countries and fewer than 0.1% of those in more developed countries (Andorra, Malta and San Marino).

The wording of the laws in these 32 countries does not include any explicit written exceptions—not even to save the life of the woman, or in cases of rape, incest or fetal impairment. However, in 28 of these countries, the law could be interpreted to permit an abortion on the grounds of "necessity" (i.e., in life-threatening circumstances), as would be recognized under most standards of medical ethics.[19] Virtually no information is available on how often an appeal on these grounds is granted, but most likely it is extremely rare.

Some countries permit abortion to save the life of the pregnant woman

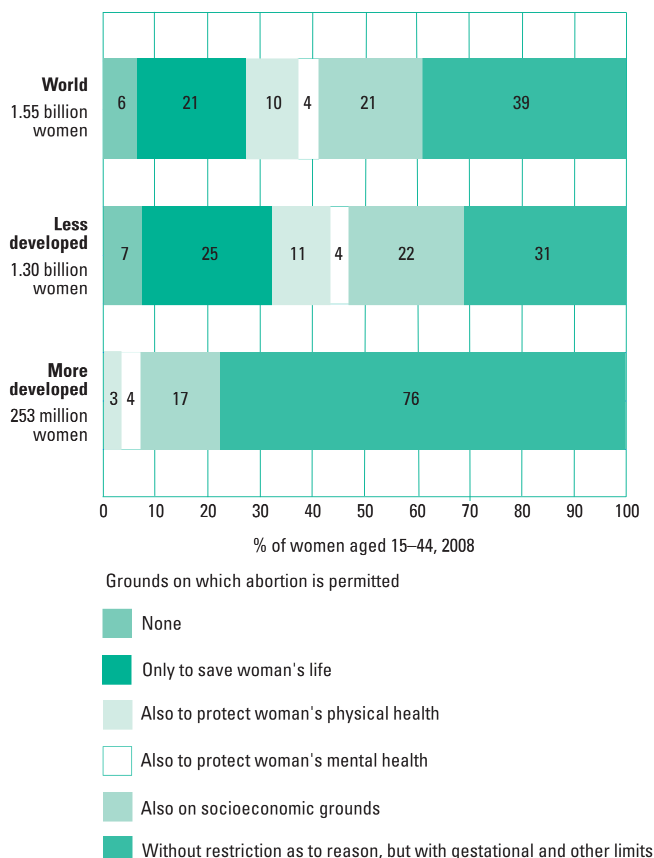
Thirty-six countries permit induced abortion only when the woman's life is threatened (and, in some of these countries, in the case of rape or other extenuating circumstances, discussed below), and their laws include specific language to this effect.[19] Only one of these 36 countries—Ireland—is in a developed region. The countries in this category are home to 21% of all women of childbearing age and to 25% of such women living in less developed regions (Figure 2.1, page 10).[20]

A few countries in this category make exceptions in their laws for cases of rape, incest or fetal impairment; Bhutan and Mali, for example, explicitly permit induced abortion in instances of rape or incest, and some Mexican states and Panama do so in cases of rape or fetal abnormality.[19] Actual implementation of these exceptions, however, appears to be rare.

*Because we use the United Nations classification of regions, the taxonomy in Appendix Table 1 does not exactly coincide with Boland and Katzive's definitive 2008 classification (source: reference 27). The major difference is that Boland and Katzive place the countries of Central Asia, the Middle East and Northern Africa into a separate unified region, whereas the United Nations system allocates those countries into subregions of either Africa or Asia.

FIGURE 2.1

Women in less developed countries are much more likely than those in more developed countries to live under restrictive abortion laws.



Note Percentages may not add up to 100 because of rounding.
Source Reference 20.

Although Mexico falls into this category, its federal system allows individual states to determine their own laws. In 2007, the Federal District—home to the capital, Mexico City—made induced abortion within the first 12 weeks of gestation* legal without restriction as to reason.

Many countries also permit abortion to protect a woman's physical or mental health

A further 59 countries fall into the next two categories: Thirty-six allow abortion to save a woman's life and to preserve her physical health, and 23 more also explicitly permit abortion to protect a woman's mental health.[19] These 59 countries are home to 14% of all women of childbearing age—15% of those in less developed regions and 7% of those in more developed regions.[20] Most countries in these categories are in the developing world, and many make explicit exceptions for cases of fetal impairment, rape or incest. The abortion laws in these 59 countries are subject to very wide variations in interpretation and implementation. For example, despite the existing legal restrictions, abortion is available virtually on request in Hong Kong, Israel, New Zealand, South Korea and Spain.[19]

Some countries also allow abortion on socioeconomic grounds

Fourteen countries, including India,† permit abortion on all three previously mentioned grounds and also for socioeconomic reasons.[19] Because India has a population of more than one billion, the relatively small number of developing countries in this category accounts for a disproportionately large proportion of women of childbearing age living in the less developed world—22%, compared with 17% in the more developed world and 21% globally.[20] However, although India's abortion laws are not especially restrictive, only two in five abortions there are considered safe.[18]

The other seven less developed countries in this category are small by comparison (Barbados, Belize, Cyprus, Fiji, St. Vincent and the Grenadines, Taiwan and Zambia). The remaining six countries are in the more developed world (Australia, Finland, Great Britain, Iceland, Japan and Luxembourg).[19]

Six of the 14 countries in this group explicitly permit abortion if a woman has been raped. Four countries allow it in cases of incest, and 10 countries do so in cases of fetal impairment.[19]

All other countries permit abortion without restriction as to reason

The remaining 56 countries and territories allow abortion without restriction as to reason.[19] Because China is in this group and has a population of more than one billion, countries in this most liberal category are home to 39% of all women of childbearing age, to 31% of those in the less developed world and to 76% of those in the more developed world.[20]

Many of these countries impose gestational limits. The most common requirement is for abortions to be carried out during the first 12 weeks of gestation; where the gestational limit is higher, there are often further requirements before the procedure can take place.[21] Other conditions may also apply: For example, in Bosnia and Herzegovina, Croatia, Cuba, the Czech Republic, Denmark, Greece, Italy, Macedonia, Montenegro, Norway, Portugal, Serbia, the Slovak Republic, Slovenia, Turkey and certain parts of the United States, adolescents may not obtain an abortion without parental consent; in Turkey, married women may need to obtain spousal consent; and China and Nepal ban abortion for purposes of sex selection.[19]

*In this report, weeks of gestation are measured from the first day of the woman's last menstrual period.

†India prohibits abortion for reasons of sex selection. However, that limitation is not written into the language of the abortion law; rather, it is codified under a law banning fetal imaging for reasons of sex selection.

Without China and India, the picture in less developed countries looks very different

Overall, 47% of women of childbearing age in the less developed world live in countries with highly restrictive abortion laws (that is, the procedure is banned altogether or permitted only to save a woman's life, to protect her physical or mental health, or in cases of rape, incest or fetal impairment).[20] However, this picture is misleading because two developing countries, China and India, are the most populous in the world and permit abortion on broad grounds.

When China and India are removed from the analysis, 86% of women of childbearing age in the rest of the less developed world live in countries with highly restrictive abortion legislation (Figure 2.2).[20] The remaining women live in countries or territories where abortion is permitted on broad socioeconomic grounds (1%), or where it can be obtained without restriction as to reason (13%)—including Bahrain, Cambodia, Cape Verde, Cuba, Guyana, Mongolia, Nepal, North Korea, Puerto Rico, Singapore, South Africa, Tunisia, Turkey, Vietnam, and the Central and Western Asian countries of the former Soviet bloc.

Where abortion is permitted on narrow grounds, services should be available for those reasons

In some countries that permit abortion only to save the woman's life, or to protect her physical or mental health, it is likely that relatively few legal abortions are carried out each year. In these countries, government-assisted services that allow eligible women to obtain safe abortions under the existing narrow grounds are probably not offered. Private doctors might fill the gap, but only for women who can afford their services. As a result, in countries that have highly restrictive laws, it is unlikely that most women will be able to obtain legal abortions on the limited grounds permitted.

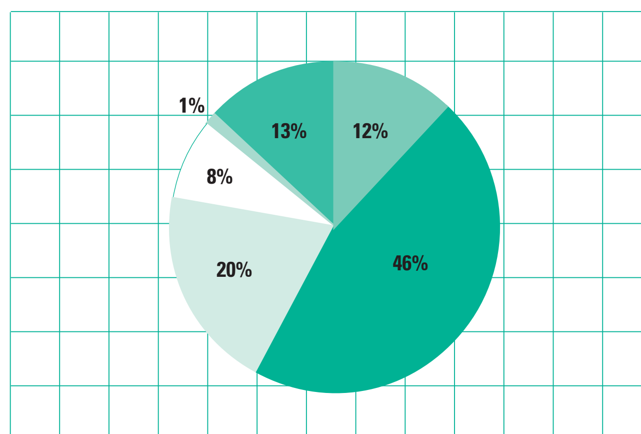
An exception is Uruguay, where although the law is restrictive (abortion is permitted to save a woman's life, to protect her physical health and in cases of rape), the health ministry and advocates for women's right to reproductive health information and services have helped enact an ordinance permitting special abortion counseling in government facilities serving women of childbearing age.[22] The health delivery model places this particular service within a framework based on a woman's right to health, autonomy, full information about health practices and patient-provider confidentiality. The strategy aims to reduce harm associated with unsafe abortion.[23] Once a pregnancy is medically confirmed and a woman declares her intention to seek an abortion, social workers and health professionals advise her of the risks associated with unsafe abortion methods and inform her that misoprostol (a drug increasingly used in the first trimester—see Chapter 4), correctly used, is an effective and safe way to end a pregnancy. Misoprostol is not prescribed, but women are counseled that if they use the drug, they should return to the health facility afterward for confirmation that the pregnancy has been safely terminated.[24]

In some less developed countries, abortion has been legal on broad grounds for many years

In 1957, China became the first large developing country to enact a broadly liberal abortion law (permitting the procedure on socioeconomic grounds or without restriction). The Soviet Union enacted a similar law in the 1950s, and all of the Central and Western Asian republics in its geopolitical bloc followed suit. During the next 40 years, legal reforms were carried out in Cuba (1965), Singapore (1970), India (1971), Zambia (1972), Tunisia (1973), Vietnam (1975), Turkey (1983), Taiwan (1985), Mongolia (1989), South Africa (1996) and Cambodia (1997).[25,26] Legal pregnancy terminations are believed to be widely accessible in all of these countries except Cambodia, India, South Africa and Zambia.

FIGURE 2.2

More than eight in 10 women in developing countries other than China and India live under highly restrictive abortion laws.



709 million women, 2008

Grounds on which abortion is permitted

- None
- Only to save woman's life
- Also to protect woman's physical health
- Also to protect woman's mental health
- Also on socioeconomic grounds
- Without restriction as to reason, but with gestational and other limits

Source Reference 20.

TABLE 2.1

Countries in which the abortion law has changed since 1997.

Region	Reduced restrictions	Increased restrictions
Africa	Benin, Chad, Ethiopia, Guinea, Mali, Niger, Swaziland, Togo	
Asia	Bhutan, Cambodia, Iran, Nepal, Thailand	
Europe	Portugal, Switzerland	Poland
Latin America and the Caribbean	Colombia, Mexico,* St. Lucia	El Salvador, Nicaragua
Oceania	Australia†	

Notes *Only in the Federal District (Mexico City). †Only in Capital Territory, Tasmania, Victoria and Western Australia.
Source Reference 27.

Since 1997, abortion laws have changed in 22 developed or developing countries (Table 2.1).[27] Seventeen countries, and highly populous areas in two others, reduced restrictions in their abortion laws. Four countries (Cambodia, Nepal, Portugal and Switzerland), as well as one area in Mexico (Federal District) and three areas in Australia (Capital Territory, Victoria and Western Australia), enacted legislation permitting abortion without restriction as to reason, but with procedural requirements. The changes were particularly significant in Cambodia, Mexico's Federal District and Nepal, where abortions had been highly restricted (e.g., not allowed under any circumstance or permitted only to save the life of a woman).[27]

In 2005, Swaziland approved a constitution that allows abortion to save the life of the woman, in cases of serious threat to her physical or mental health, and on the grounds of rape, incest or fetal impairment. Colombia also authorized abortion in all of these circumstances in 2006. Previously, abortion was allowed in both countries only to save the life of the woman. St. Lucia amended its law in 2004 to allow abortions to protect a woman's physical or mental health and in cases of rape or incest.[28]

In 10 countries, and one state in Australia, some of the reforms have been less far-reaching but are still substantial relative to prior laws. In Tasmania, Australia, the law was changed in 2001 to permit abortion to protect a woman's physical or mental health. Thailand added the protection of a woman's mental health, including prevention of mental distress due to fetal impairment, as a legitimate ground for abortion in 2005. That same year, Ethiopia expanded its abortion law from narrow criteria (to save the life of a woman or protect physical health) to allow abortion in cases of rape, incest or fetal impairment. It also added one broader social reason: A woman can legally terminate a pregnancy if she, "owing to a physical or mental infirmity or her status as a minor, lacks the capacity to bring up the child." Four countries (Benin, Chad, Niger and Togo) now allow abortion on the grounds of physical health and in cases of fetal impairment, and Benin and Togo also added exceptions for rape and incest. In 2000, Guinea expanded its law, which already permitted abortion to save the life of a woman or to protect her physical health, to include exceptions for rape, incest and fetal impairment. Iran passed legislation in 2005 permitting abortion during the first four months of pregnancy in cases of fetal impairment, as well as "when disease endangers the life of a pregnant woman"—substantial changes from its previous law, which prohibited abortion altogether. Bhutan (in 2004) and Mali (in 2002) authorized abortions to save the life of the pregnant woman and in cases of rape and incest.[27,28]

Since 1997, three countries have made their abortion laws more restrictive. El Salvador and Nicaragua amended their penal codes to eliminate all exceptions to the prohibition of abortion. Under the previous law, abortion was permitted in El Salvador to save a woman's life, and in cases of rape or fetal impairment; in Nicaragua, it was allowed for therapeutic purposes after the approval of three physicians. In 1997, Poland withdrew socioeconomic reasons as a legal ground.[28]

In some developing countries, political activity and debate over legal reform continue. In early 2008, the Uruguayan legislature voted to legalize first-trimester abortion on broad grounds, but the proposal was vetoed by the president.[29] Thirteen* of Mexico's 31 states have recently amended their constitutions to protect the fetus from the moment of conception, which may set the stage for greater restrictions in these states' abortion laws.[30]

In Indonesia, proposed legislation that would expand the criteria for abortion to include "medical emergencies" (a term left open to interpretation) has been presented to the parliament and the president numerous times since 2004.[31] Although the legislation was well received by the political leadership when introduced, various bureaucratic maneuvers have prevented its passage, and the 2009 national elections seem to have delayed its passage once again.

In general, the intensity of debate in any country over abortion reform, at the government level and among the wider public, tends to ebb and flow, depending on the political administration in power, the strength of the

*Baja California, Campeche, Chihuahua, Colima, Durango, Guanajuato, Jalisco, Morelos, Nayarit, Puebla, Quintana Roo, San Luis Potosí and Sonora.

organized opposition, and the breadth and success of the efforts being made by advocates.

The proportion of women living under restrictive abortion laws has changed only slightly

Even though some countries have eased their abortion laws to some extent since 1997—an important and encouraging trend—the change has not been notable from a demographic perspective. The proportion of women of childbearing age who live in countries with the most restrictive abortion laws—those that ban the procedure completely, or permit it only to save the woman's life—has not declined in the past decade. In both 1999 and 2008, this proportion was 26–27% (Figure 2.3).[32] However, the proportion of women of childbearing age living in countries that do not permit abortion even to save the woman's life has declined from 11% to 6%. The proportion living in countries in the two broadest legal categories—those that allow abortion on socioeconomic grounds or without restriction as to reason—has also declined slightly, from 62% in 1999 to 60% in 2008.

The absence of substantial global change in the proportion of women living under either liberal or highly restrictive abortion laws can be explained by several factors. These include the fact that much of the positive legal reform has made extremely restrictive laws less restrictive, but not to the extent of the two most liberal categories; many of the reforms have occurred in very small countries; a few countries have tightened their laws; and the populations of countries with restrictive laws increased more rapidly between 1999 and 2008 than did those of countries with less restrictive laws.

In general, all (or almost all) pregnancy terminations in more developed countries—and those in a small number of less developed countries (China, Cuba, Tunisia, Turkey and Vietnam) that have made abortion legal on broad grounds—are performed by trained medical professionals at almost no risk to the woman. Conversely, most pregnancy terminations in other less developed countries—where abortion laws are largely restrictive—are carried out in risky conditions, although women who can afford it are often able to obtain safe abortions. In some less developed countries, notably Cambodia, Ethiopia, India, Nepal and South Africa, conditions are mixed: Abortion laws are liberal, but many pregnancy terminations do not meet the requirements of the law and are performed in substandard conditions.[16,33–36] Bangladesh is a special case, as its very restrictive abortion law stands in contrast to the widespread availability since 1977 of early menstrual regulation.*[37]

Lessons can be learned from countries that have achieved legal reforms

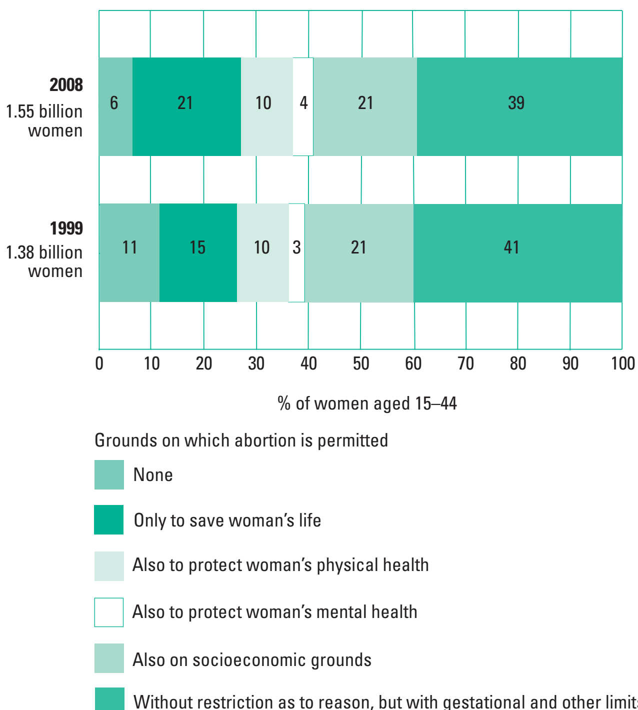
Countries that recently have been successful in eliminating restrictive abortion laws, or broadening the conditions under which abortion can be legally performed, provide useful examples of the common strategies used by lawyers, health researchers and activists to achieve these gains (see box, page 14). These accounts also identify some of the continuing obstacles to law reform.

- Success in achieving legal reform can take many years. For example, in Nepal, the process involved as much as 20 years of research and legal activism. Some evidence suggests that mass media coverage of cases of women jailed for ending their pregnancies was one of the factors that eventually tipped the scales.[38]

- Effective research, coalition-building and communication strategies can help create a receptive context for legal reform. Activists in countries that have recently relaxed their abortion laws have adopted similar approaches in their efforts to convince their national legislatures that laws banning pregnancy termination should be reviewed

FIGURE 2.3

The proportion of women living under highly restrictive abortion laws has changed relatively little in the past decade.



Note Percentages do not add up to 100 because of rounding.
Source Reference 32.

*Menstrual regulation is considered "an interim method for establishing nonpregnancy" in Bangladesh. Procedures are permitted to be carried out by a paramedic (within eight weeks of the woman's last menstrual period) or a physician (within 10 weeks of her last menstrual period).

Advancing Legal Reform Takes Broad-Based Collaboration and Support

Examples from five developing countries illustrate the complex collaborative efforts in research, advocacy, coalition-building and communication strategies—all involving a wide range of constituents and a considerable degree of patience and political tenacity—that were used to successfully bring about abortion law reform. They also point to the continuing roadblocks that sometimes hinder reform and implementation of the law.

SOUTH AFRICA

The 1996 Choice in Termination of Pregnancy Act permits abortions to be performed on request and without medical approval in designated health facilities during the first trimester of pregnancy. The process leading to abortion law reform was complex and multifaceted, involving researchers, activists, community groups, political representatives and religious leaders. After apartheid was dismantled, the election of a new South African government in 1994 formalized the country's growing emphasis on human rights and equality. Women's rights activists developed initiatives that supported a rights-based approach to reproductive health care and personal autonomy, and laid the foundation for the passage of the law.[1]

Researchers from the Medical Research Council of South Africa investigated complications from unsafe abortions and found that more than 400 women died from septic abortions in 1994;[2] another study found that before the abortion law was reformed, women who presented with incomplete abortions constituted almost half of the gynecology and obstetrics caseload of public-sector hospitals in South Africa.[3] Dissemination of such findings helped widen public awareness of the burden that unsafe abortion places on women and families.

NEPAL

In 2004, the revised Nepal Legal Code granted all women the right to terminate a pregnancy on broad grounds. Legal activists laid the groundwork for this new law as early as the mid-1980s. Prominent justices, judicial administrators, legal and administrative authorities, law professionals, social workers and social scientists addressed the abortion issue in a national forum organized by the Nepal Women's Organization. In the 1990s, activists disseminated research showing that hundreds of women were being prosecuted and imprisoned for ending unintended pregnancies.[4]

Relatively little public opposition emerged to the changes in the law, perhaps because resources to support a campaign against reform were limited. Another reason may be that abortion had become relatively acceptable in Nepal because it had already been legal for many years in neighboring India, a country that is a major influence on Nepal culturally and politically.[4]

ETHIOPIA

The 2005 reform of Ethiopia's law governing abortion was brought about by a broad coalition of representatives of the medical and legal professions and of members of nongovernmental organizations involved in promoting women's health and rights, gender equity, family planning and reproductive health.[5]

Strategies to promote reform included building public support, shifting policymakers' perspectives and creating an enabling environment for service providers. Coalition members organized and participated in national and local workshops and discussion forums and in three parliamentary committees. In addition, they sponsored the preparation and presentation of background papers; submitted articles and letters to the editor to newspapers about the impact of unsafe abortion; participated in radio panel discussions; held one-on-one meetings with parliamentarians, regional lawmakers and other influential individuals to discuss evidence of the health and economic impact of unsafe abortion; enlisted local women's associations and other groups to organize public rallies and discussion forums; and supported public-education efforts—notably radio programs and the production of informational materials—carried out by other organizations.[5]

Together, these efforts disseminated the core messages central to reform: Unsafe abortion is a major contributor to maternal deaths in Ethiopia; young and poor women suffer most from unsafe abortion, but all subgroups of women are at risk; restrictive abortion laws do not prevent abortion but only push it underground, increasing risks to women; treating the complications of unsafe abortion places a tremendous burden on the health system and costs more than providing safe abortions; and the unmet need for contraception among married couples in Ethiopia is substantial, contributing to high rates of unwanted pregnancy and, in turn, abortion.[5]

The Ethiopian Orthodox Church and the Catholic Church resisted the reform of the abortion law. However, the National Council of Islam was publicly silent on the issue. The most damaging and vocal opposition came from a group called the Christian Workers Union for Health Care in Ethiopia, which appeared to have been formed solely for the purpose of lobbying against liberalization of the criminal code on abortion.[5]

COLOMBIA

In 2006, Colombia's Constitutional Court ruled that abortion must be permitted when a pregnancy threatens a woman's life or health, and in cases of rape, incest and fetal malformations incompatible with life outside the womb.[6] This change was considered a great victory, because women's groups had made five unsuccessful attempts to promote change through Congress.

A Colombian lawyer challenged the court to review the country's law on abortion. She successfully argued that a total ban on abortion violated the basic health and human rights guaranteed to women under several international treaties ratified by Colombia, including the Convention on the Elimination of All Forms of Discrimination Against Women and the International Covenant on Political and Civil Rights, and that the criminalization of abortion in the Colombian Penal Code was thus inconsistent with international human rights obligations and should be declared unconstitutional.[7] The Colombian Constitution explicitly states that inter-

national human rights treaties ratified by Congress take precedence over national laws and serve as a guide in interpreting the rights established in the Constitution.

This direct appeal to the highest court, combined with massive efforts to inform people about the case and to educate the public by presenting the abortion issue as one of public health, human rights, gender equality and social justice, proved to be an effective strategy. Colombian women's groups that had been working for years on the decriminalization of abortion helped create alliances and networks of supporters; they were joined by international institutions in the field of human rights.[8] After the court ruling, Catholic Church leaders excommunicated the five judges who voted in favor of the verdict, and threatened to do the same to doctors who perform abortions.[9]

MEXICO'S FEDERAL DISTRICT

In Mexico, a 2007 law that applies only to the Federal District (Mexico City) allows abortion on request during the first 12 weeks of gestation. In public hospitals, city residents receive services at no charge, and women from other states or countries pay a moderate fee.[10] According to one analysis, the factors that made this reform possible were the presence of a liberal political party governing at the state level, favorable public opinion and pressure from nongovernmental women's organizations that promote reproductive rights.[11] In addition, there has been a gradual trend toward secularization and the growth of religious diversity in the city. Although the advocacy groups are concentrated in Mexico City, they have succeeded in raising national awareness about unsafe abortion through advocacy, research, training and health education.[10]

Barely a month after the law went into effect, the National Human Rights Commission and the federal attorney general's office filed suits with the Federal Supreme Court attacking the law's constitutionality, asserting that Mexico City's Legislative Assembly overstepped its authority in reforming a health law, and that the constitution gives the federal Congress the sole authority to propose and approve health legislation.[12] The court ruled against the plaintiffs in August 2008 and upheld the abortion law.[13]

and liberalized. These strategies include showing how existing laws are in conflict with international agreements; publicizing the magnitude of unsafe abortion; building coalitions of civil society groups; providing evidence of the deleterious health, social and economic consequences of restrictive abortion laws; and involving the media in disseminating information about these issues.

• Passage of a liberalized law is only the beginning of making abortion accessible and safe. Translating new laws into service programs that make safe abortions available to all women continues to be a daunting challenge in the developing world. Access to legal services is impeded by barriers of many kinds, including obstacles to setting up facilities and to procuring the commodities required to establish safe abortion services; procedural, economic and informational barriers; and stigma. Factors that can seriously hinder the equitable provision of legal abortion services to all women include administrative regulations that are difficult (if not impossible) to meet; lack of awareness in the general population that the law has been changed; shortages of trained personnel, especially in rural areas; and continuing opposition to the law (often including conscientious objection to providing services) on the part of some medical providers.[21]

Among the complex constellation of obstacles to abortion reform in many less developed countries are the persistence of outmoded colonial and customary laws, opposition from powerful religious authorities, traditional emphasis on high fertility, the activities of well-funded antichoice groups and reluctance in many traditional societies to publicly address issues concerning sexual and reproductive behavior.

A number of legal research groups and reproductive health organizations have developed strategies aimed at overcoming such obstacles and at advancing legal reform.[39–42] Many advocates recommend that in countries where abortion is permitted on limited grounds, those grounds should be publicized and used to the fullest extent possible. In this way, women can be helped to obtain safe and legal pregnancy terminations within the limits of the existing law until such time as wider reforms are possible.

Chapter 3

Abortion Rates Have Fallen, but Unsafe Abortion Rates Have Not

Global estimates by the World Health Organization and the Guttmacher Institute indicate that the annual proportion of women of childbearing age who ended a pregnancy declined between 1995 and 2003 (Figure 3.1).[43] The absolute number of abortions also declined, from around 45.5 million in 1995 to around 41.6 million in 2003. Most of the decrease was due to a reduction in the number of safe abortions.

The estimated global abortion rate fell from 35 abortions per 1,000 women aged 15–44 in 1995 to 29 per 1,000 in 2003—a 17% decline in eight years.[44] This trend is attributable not just to a decrease in the number of procedures performed, but also to an increase in the number of women of childbearing age.

Declines in the abortion rate occurred in almost every region of the world, but were greatest in Eastern Europe,* where the rate fell by 51%, from 90 per 1,000 women of childbearing age in 1995 to 44 per 1,000 by 2003. By comparison, there was relatively little change in other subregions of Europe. The abortion rate fell from 37 to 31 per 1,000 (a 16% drop) in Latin America and the Caribbean, and from 33 to 29 (a 12% drop) in both Asia and Africa.[43]

The largest declines in overall abortion rates were in developed regions

Decreases in the abortion rate in former Soviet bloc countries account for much of the global decline that occurred between 1995 and 2003.† Yet in these countries—and in Cuba as well—the abortion rate is still very high. Between 1995 and 2003, the abortion rate fell from 69 to 45 per 1,000 in the Russian Federation, from 56 to 36 in Estonia and from 51 to 22 in Bulgaria. In Cuba, the abortion rate declined from 78 to 57 per 1,000.[45] As couples in these countries gain better access to good-quality contraceptive methods, they are relying less on pregnancy termination to keep their families small.[46] However, the provision of contraceptive services apparently has not yet caught up with the demand for small families in these countries, given their relatively high abortion rates.

Because of the extremely high abortion rates that existed at the time in much of Eastern Europe, the abortion rate in 1995 was higher in the developed world than in the developing world (39 vs. 34 per 1,000 women aged 15–44). By 2003, the reverse was true—26 per 1,000 in the developed world versus 29 per 1,000 in the developing world—as a result of the declines in Eastern Europe.[43]

The decline in the rate of unsafe abortion has been quite small

Worldwide, the rate of unsafe abortion has not decreased at the same pace as that of safe procedures. The estimated global number of safe abortions fell from 25.6 million in 1995 to 21.9 million in 2003, and the rate declined from 20 to 15 per 1,000. In contrast, the estimated number of unsafe abortions changed very little—from 19.9 million in 1995 to 19.7 million in 2003.[43]

The worldwide decline in the unsafe abortion rate during this period, from 15 to 14 per 1,000 women aged 15–44 (Figure 3.1), was mainly due to population growth. This

*The countries that make up this and other subregions are listed at the bottom of Appendix Table 2.

†All of the countries in Eastern Europe were part of the former Soviet bloc. A few former Soviet bloc countries are included in other subregions (Western Asia, South Central Asia, Eastern Asia, Northern Europe and Southern Europe).

was particularly apparent in Africa: Although the number of unsafe abortions increased by about 10% between 1995 and 2003, the unsafe abortion rate declined by 12%, from 33 to 29 per 1,000,[43] because of increases in the number of women aged 15–44.[47] Overall, these findings suggest that the huge gap in access to safe abortion between women in developed countries and those in less developed ones has not narrowed.

We should note that many of the abortion rates calculated for less developed regions (where most countries have restrictive abortion laws) are by necessity estimates, and they should be considered approximate measures. Because women in these countries who terminate their pregnancies, as well as the providers they use, are understandably reluctant to report having had or performed an abortion, and because governments do not generally collect data on clandestine practices, estimates of the incidence of unsafe abortion are difficult to make. However, as indirect methods of estimation improve,* the estimates are becoming more reliable. Nonetheless, new studies are needed to confirm the estimated modest declines in the rates of unsafe abortion in Latin America, Africa and Asia.

Unsafe abortions occur primarily in the developing world

Of the estimated 41.6 million abortions performed worldwide in 2003, about 21.9 million were carried out in safe conditions (Figure 3.2, page 18).[43] The remaining 19.7 million procedures were unsafe abortions, and almost all of them occurred in less developed countries with restrictive abortion laws. These abortions either were performed by unskilled practitioners using traditional methods in unhygienic conditions, were self-induced (that is, carried out by the woman herself using various means, most of them highly dangerous; see box on page 26) or were carried out by health professionals who were inadequately trained, working in an unhygienic environment or both.[44]

Of the 35 million abortions that occurred in less developed countries in 2003, 19.2 million (55%) were unsafe, compared with only 500,000 (8%) of the 6.6 million that occurred in the more developed countries. Virtually all abortions in Africa and in Latin America and the Caribbean were unsafe (Figure 3.1); in Asia, safe procedures outnumbered unsafe ones because of the large number of safe abortions in China. Most abortions in Europe, and almost all in North America, were safe.[43]

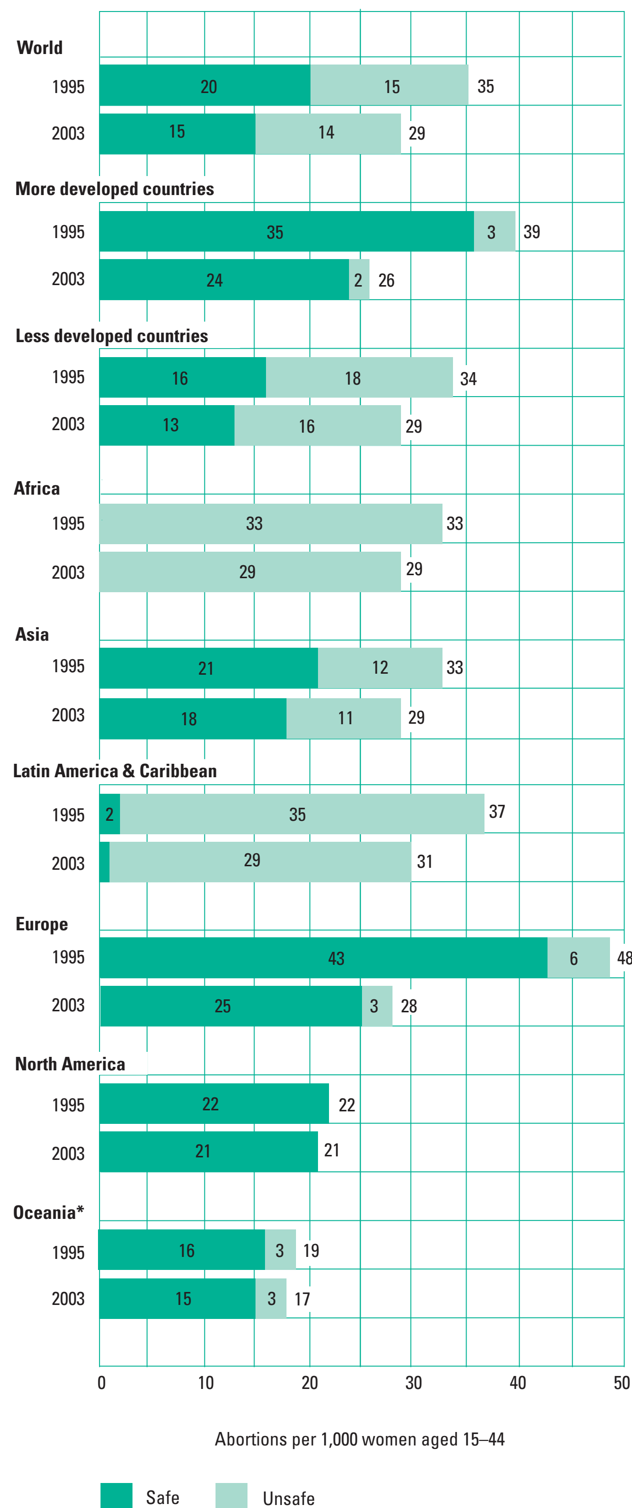
Abortion rates vary relatively little by region or legal status

Regardless of the safety or legality of abortion, the average annual rate at which women terminate unwanted pregnancies is surprisingly similar around the world. The worldwide rate in 2003, the most recent year for

* See Data and Methods Appendix.

FIGURE 3.1

Abortion rates declined between 1995 and 2003, but the reductions were mostly in safe abortions.

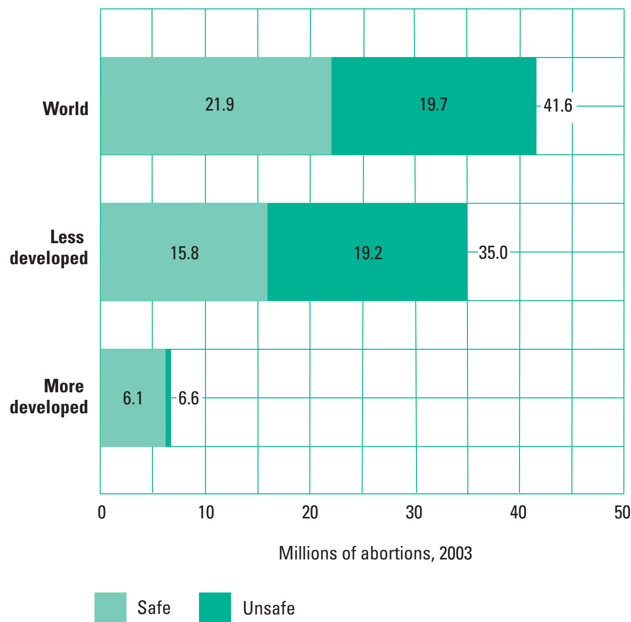


Notes *Because data on the unsafe abortion rate in 1995 are unavailable for Oceania, we assumed the rate was the same as in 2003.
The sum of the safe and unsafe abortion rates may not equal the total rate because of rounding.

Source Reference 43.

FIGURE 3.2

Almost all unsafe abortions occur in the developing world.



Source Reference 43.

which estimates are available, was 29 abortions for every 1,000 women aged 15–44; it was 29 per 1,000 in less developed countries and 26 per 1,000 in more developed countries.[43]

The fact that the abortion rate in the less developed world, where the procedure is legally restricted in many countries, is quite similar to that in the more developed world, where abortion is largely permitted on broad grounds in almost all countries, confirms the lack of an inherent relationship between the prevalence of abortion and its legal status. Abortion rates can be quite low in some countries where the procedure is legal on broad grounds, and quite high in many countries where it is highly restricted. Restricting abortion by law does not guarantee a low abortion rate, nor does permitting it on broad grounds guarantee a high rate. Legal status does, however, affect the safety of abortion.

Average abortion rates are also quite similar in four of the world's six major regions: 31 per 1,000 in Latin America and the Caribbean, 29 per 1,000 in both Africa and Asia, and 28 per 1,000 in Europe. Only in Western Europe does the abortion rate drop below 15 per 1,000, and only in a few other regions (Oceania) and subregions (Northern and Southern Europe) is it between 15 and 20. In North America, the rate is 21 per 1,000 women. Yet, despite the broad similarities in average rates by major region, the level varies greatly among and within subregions (Figure 3.3).[43]

Differentials in abortion rates reflect variations in behavior, policies and programs

Differences in marital and sexual behavior patterns, stigma regarding nonmarital childbearing, government policies on population and on sexual and reproductive health, levels of religious opposition to modern methods of contraception, family-size aspirations and the existence or absence of programs to serve the contraceptive needs of women and couples all help explain the wide variations in abortion rates observed within regions and among countries.

In Africa, for example, the estimated abortion rate is 39 per 1,000 women aged 15–44 in the eastern part of the continent, compared with 22 per 1,000 in Northern Africa. In Asia, the rate ranges from 24 per 1,000 in Western Asia to 39 per 1,000 in Southeast Asia (the latter reflects the high rate in Vietnam). The lowest subregional rate in the world is in Western Europe (12 per 1,000), while the highest is in Eastern Europe (44 per 1,000). In Latin America and the Caribbean, the abortion rate ranges from 25 per 1,000 in Central America to 35 per 1,000 in the Caribbean;[43] the latter is due in part to the high rate in Cuba.

Differing patterns of sexual behavior and contraceptive practice help to explain the wide variation in the abortion rate within Africa. In the mainly Muslim countries of Northern Africa (the African subregion with the lowest abortion rate), adolescent and nonmarital sex are less common than elsewhere on the continent, and contraceptive use is higher than in any other subregion of Africa.[48] These factors almost certainly lead to lower levels of unwanted pregnancy and abortion.

Government policies probably play a greater role in explaining differentials in abortion rates across subregions in Asia than they do in other regions. The estimated abortion rate in Eastern Asia (28 per 1,000 women of childbearing age), where China imposed an urban population policy of one child per family in the 1980s and where abortion is legal on broad grounds, largely determines the average for the entire subregion.[43]

Similarly, the abortion rate in Southeast Asia exceeds the average for Asia as a whole (39 vs. 29 per 1,000) in part because of the high rate estimated for Vietnam. The Vietnamese government enacted a number of laws and regulations in the 1970s and 1980s to promote small families, and in 1988 it set forth an official one-or-two-child policy.[49] Contraceptive options were limited during this period, and abortion services were widely available.[50,51] Government statistics for 1996 indicated that there were 83 abortions per 1,000 women—and this rate was incomplete, as it included only public-sector services.[52] Since that time, estimates have become increasingly unreliable as abortion services have continued to shift to the private sector, which does not report to the government. The estimated abortion incidence is assumed to still be high, because surveys have not shown a decline, but definitive estimates are hard to obtain.

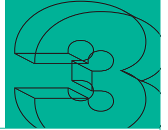
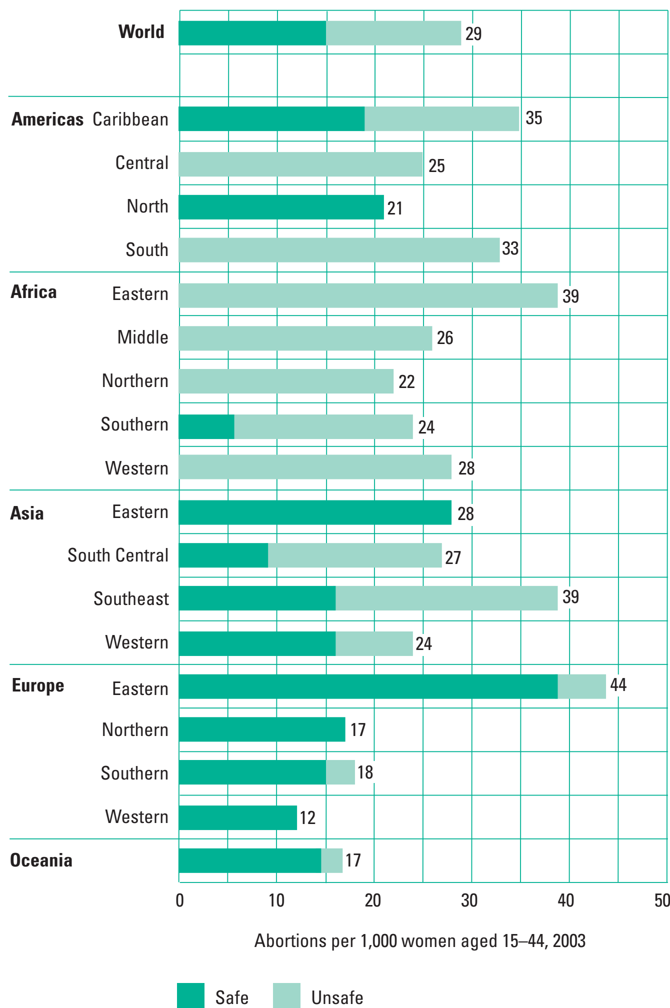


FIGURE 3.3

Rates of safe and unsafe abortion vary widely by subregion.



Note Subregions are defined in Appendix Table 2.

Source Reference 43.

Religious influences also play a part in Southeast Asia. Despite the Philippines' very restrictive abortion law, the estimated abortion rate in Southeast Asia in 2000 was 27 per 1,000,[53] similar to the global average. The strong influence of the Catholic Church has severely limited women's access to modern contraceptive methods,* which in turn has led to very high levels of unintended pregnancy, especially among married Philippine women.[54]

The low abortion rate of 12 per 1,000 in Western Europe—where the procedure is broadly legal and widely available, and where the regular use of effective contraceptive methods is very high[48]—provides an example of what can be achieved with excellent provision of contraceptive services and general health care. In contrast, despite declines in the abortion rate after the fall of the Soviet Union, Eastern Europe continues to have high abortion rates, which raise the average rate for the whole region.

The atypically high abortion rate in Eastern Europe has its origins in the geopolitics of that region after World War II. From the 1950s to the late 1980s, abortion was legal on broad grounds throughout the Eastern European countries that made up the Soviet Union, and abortion became the primary way for couples to limit the size of their families, as abortion services were far easier to obtain than high-quality modern contraceptives. More recently, access to modern contraceptives has increased in these countries—a situation that has led growing numbers of women to use contraceptives to prevent unplanned pregnancies.[46,55–58]

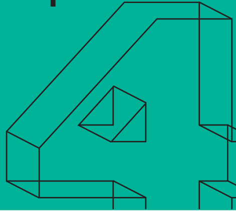
The range in the abortion rate among countries is even wider than that among regions.[59–63] In countries for which official statistics of good quality (those judged to be at least 80% complete) or reliable estimates are available, the rate ranges from seven per 1,000 women of childbearing age in Tunisia in 2000 to 57 per 1,000 in Cuba in 2004.[45] The rate in Cuba does not represent the highest abortion rate known: Surveys in three former Soviet countries in the early-to-mid-2000s revealed very high rates of 81 per 1,000 in Armenia, 103 in Georgia and 116 in Azerbaijan, and the actual rates would be even higher because these data are considered incomplete.[45,64]

Unsafe abortion rates also vary widely by region

Almost all unsafe abortions in 2003 occurred in less developed countries.[44] South Central Asia (6.3 million), Southeast Asia (3.1 million), South America (2.9 million) and Eastern Africa (2.3 million) are the subregions with the highest numbers of such abortions.[6,43]

The rate of unsafe abortion is negligible in Eastern Asia (including China), Western and Northern Europe, Oceania and North America. In Africa, the rate is lowest in the southern subregion (18 per 1,000 women aged 15–44) and highest in Eastern Africa (39 per 1,000). If the Eastern Asia subregion is excluded, the subregional rates in Asia range from eight per 1,000 in Western Asia to 23 per 1,000 in Southeast Asia;[43] the low rate in Western Asia reflects the experiences of women in countries with broad access to safe abortion services (Turkey, Armenia, Azerbaijan).[45] In Latin America and the Caribbean, the rate of unsafe abortion in South America is twice that in the Caribbean subregion (33 vs. 16 per 1,000 women aged 15–44), but because of the high rate of safe, legal abortion in Cuba, the overall abortion rate in the Caribbean is about the same as in South America.[43]

*Methods classified as modern are hormonal methods (including the pill, injectable and patch), the IUD (including those releasing hormones), male and female sterilization, and the condom.



Safe Abortion Services Are Delivered in Many Ways

Of the estimated 21.9 million safe abortions carried out in 2003, more than two-thirds (15.8 million) took place in the less developed world, predominantly in Asia (Figure 4.1).[43] Together, Eastern Asia and South Central Asia accounted for more than half of safe abortions, largely because of China (8.8 million safe abortions) and India (2.4 million).* Elsewhere in Asia, 2.1 million safe abortions occurred in the Southeast region (primarily in Vietnam, Cambodia and Singapore); the former Soviet republics of Central Asia contributed 0.9 million; and an estimated 0.8 million occurred in Western Asia (mainly in Israel, Turkey, Armenia, Azerbaijan, Georgia). Safe abortions in Tunisia, South Africa, Cuba and a number of other smaller countries also contributed to the developing country total. The remaining 6.1 million safe abortions took place in the developed world: 3.9 million in Europe, 1.5 million in the United States and Canada, and an estimated 600,000 in Japan, Australia and New Zealand.[44]

When performed by properly trained doctors and nurses using modern methods in hygienic conditions, induced abortion is a very safe medical procedure,[65] which explains why virtually no maternal deaths in the developed world are due to abortion.[45,66]

The health rationale for legalizing abortion has been demonstrable for many years. In Romania, the criminalization of abortion in 1966 led to a soaring maternal death rate that remained high until the procedure was again made legal in 1990, after which the rate dropped.[67] Maternal mortality also declined in South Africa following legalization of the procedure in 1996: Deaths due to unsafe abortion decreased by an estimated 91% between 1994 and 1998–2001.[68] The severity of health complications associated with unsafe abortion declined in South Africa as well, possibly because of increased use of medication abortion and manual vacuum aspiration (MVA).[69] It is also likely that as safe abortion services became available, postabortion services improved; this would have reduced the death rate among women with complications that required treatment.

Safe abortions occur in a range of settings

In countries where abortion is broadly legal, provider systems vary widely. In developed countries with national health systems, pregnancy termination is often part of the basic services available. In England and Wales, 87% of abortions carried out in 2006 were funded by the National Health Service—39% in public hospitals and 48% in private facilities under contract to the government.[70] In Spain, almost all abortions are performed in private clinics, which receive reimbursements from the state.[71] In Sweden, pregnancy termination up to 18 weeks' gestation is free.[72] In the United States, which has no national health service, pregnancy terminations are performed in specialized abortion clinics, other clinics, hospitals and private doctors' offices; most of these are private-sector facilities.[73] In China, where most pregnancy terminations are carried out using MVA and medication abortion, public-sector facilities provide free abortions in rural areas, but in urban areas some women pay for them.[74] In India, all legal abortions must in principle be performed in facilities registered with and approved by the government.[75]

Most safe abortions today are performed using MVA. However, use of medication abortion—generally involving mifepristone (RU 486), misoprostol, or both—is growing.

*Another four million abortions in India are believed to have been carried out unsafely and were included in the figures for unsafe abortion cited earlier (source: reference 44).

Application of these drugs, often in combination, leads to the expulsion of the products of pregnancy; the result is very much like a spontaneous abortion (miscarriage).[76]

The combination of mifepristone and misoprostol is used in more than half (56%) of abortions performed in France during the first seven weeks of pregnancy, and in similarly high proportions of abortions performed during the first nine weeks in Scotland (61%) and Sweden (51%). Medication abortion is much less commonly used for early abortion in England and Wales, where only 18% of terminations within nine weeks of a woman's last menstrual period are performed using this method.[77] In the United States, an estimated one in five terminations before nine weeks' gestation is performed using medication abortion.[73]

Given the importance of providing contraceptives and, if needed, STI treatment to women who have had an abortion, safe abortion services ideally should be integrated into a comprehensive system of sexual and reproductive health care. A further reason for integrating these services is that setting abortion services apart from other reproductive health programs may reinforce the stigma that continues to surround the procedure, even in developed countries where abortion has been legal for decades.[78] Integration of abortion care with contraceptive and other reproductive health care is desirable in both the public and private sectors, and more information is needed on the extent to which this is occurring. Unfortunately, private-sector abortion providers, who play a large role in some countries, have generally specialized in this service, with little coverage of other services. On the other hand, in countries that have weak public health systems or provide little support for safe abortion services, the role of private doctors is obviously important in making safe abortion services available—so long as women are able to afford them. The combination of limited (or no) government provision of abortion services and reliance on specialized private-sector services may result in particularly poor access for economically disadvantaged and rural women.

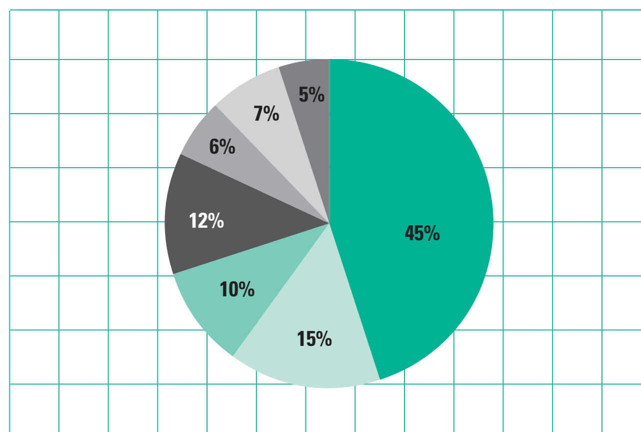
Clinical guidelines for the provision of safe abortions are clear

Protocols for the practice of safe abortion are well established. All first-trimester procedures using MVA or medication abortion can be done in primary-level health facilities by midlevel health professionals, such as midwives and nurses; dilation and evacuation (D&E), dilation and curettage (D&C)[79] and second-trimester medication procedures are more appropriately performed in secondary- or tertiary-level facilities, and usually require the services of a gynecologist or specially trained general physician.*[7] A basic consideration in determining which methods are safest is length of gestation (Table 4.1, page 22).[7,80–82]

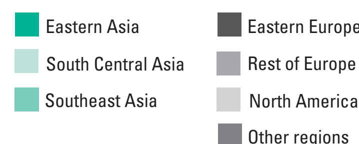
*D&E is a surgical technique for evacuating the uterus using vacuum aspiration. D&C (also known as sharp curettage) is a surgical technique for evacuating the uterus using a plastic or metal curette.

FIGURE 4.1

More than two-thirds of all safe abortions that occurred in 2003 were in Asia.



21.9 million safe abortions, 2003



Note "Other regions" include Oceania, Western Asia, Africa, and Latin America and the Caribbean.

Source Reference 43.

- *First-trimester procedures.* Between five and 12 weeks' gestation, MVA is a highly effective and safe surgical method. Similarly, medication abortion (using mifepristone followed by misoprostol) has been shown to be extremely safe and effective in the first nine weeks of pregnancy.[7,83] The use of medication methods requires the availability of vacuum aspiration technology as back-up, either on site or through referral, in the case of failed or incomplete abortion.[7] For abortions performed at 10–12 weeks' gestation, the safety and effectiveness of mifepristone in combination with misoprostol is still being evaluated, although findings from some recent studies support the use of this method.[80,84] In addition, although less effective than the combination of mifepristone and misoprostol, the use of misoprostol alone is a safe option in the first trimester, especially if mifepristone is not available.[81]

- *After the first trimester.* The recommended surgical method in the second trimester is D&E.[79] Although D&C is also used for second trimester procedures, it is less safe than vacuum aspiration methods (it is associated with greater blood loss) and results in more pain. The recommended medication method after 12 weeks' gestation is mifepristone followed by misoprostol or another prostaglandin.[7] However, some studies indicate that misoprostol alone may be safely used for pregnancies of this duration.[80,82]

TABLE 4.1

Recommendations regarding medical care in the provision of safe abortion procedures

Recommended Standards	Procedure			
	Manual vacuum aspiration (MVA)	Dilation and curettage (D&C) or dilation and evacuation (D&E)	Early medication abortion	
			Misoprostol only	Mifepristone and misoprostol
Appropriate gestational age	5–12 weeks (large body of evidence); >12 weeks (limited evidence)	≥13 weeks	≤9 weeks	5–9 weeks (large body of evidence); 10–12 weeks (limited evidence)
Type of provider	Gynecologist, trained general physician, trained midlevel provider	Gynecologist, trained general physician	Trained midlevel provider	Gynecologist, trained general physician, trained midlevel provider
Type of facility	Primary care facility	District hospital, secondary or tertiary hospital	Primary care facility	Primary care facility
Pain management	Mild sedation, analgesia and/or local anesthesia	Heavy or mild sedation, analgesia and/or local anesthesia	Analgesia	Analgesia
Follow-up care	Observation after procedure; follow-up visit with trained provider 7–10 days after procedure	Observation after procedure; follow-up visit with trained provider 7–10 days after procedure	Clinical observation for 4–6 hours after taking prostaglandin; if complete abortion is not confirmed, if drug is taken at home or if patient leaves before 6 hours, a return visit in 10–15 days is necessary to confirm completed abortion and absence of infection	
Counseling and other	Counsel about all contraceptive methods, and about when to initiate postabortion contraception; provide method; provide emergency contraception, especially if patient is not starting a method right away; counsel about need for STI/HIV protection and condom use; offer STI/HIV testing if possible			

These recommendations, based on clinically tested protocols, are suggestive rather than prescriptive with regard to time limits. For example, most trained providers can safely undertake MVA up to 12 completed weeks of pregnancy, while others, with special training, sufficient experience and appropriate equipment and supplies, can use this procedure safely up to 15 weeks of gestation[85]—and according to some studies, up to 18 weeks.[86] The superior safety and effectiveness of MVA over D&C has long been accepted,[87] and MVA has the added advantages of not requiring an electrical power source and of being suitable for adequately trained midlevel health workers to carry out.

In the 70 countries with liberal abortion laws, abortion is generally permitted in the first trimester without restriction.[19] However, in countries that permit second-trimester procedures, the proportion of abortions carried out after 12 weeks is low. In the United States, this proportion was 11% in 2004;[88] in the United Kingdom, it was 11% in 2006;[70] and in France, it was 6% in 2002.[89] Data are not available on the proportion of abortions carried out after 12 weeks in China and India, the two countries that account for about half of all safe abortions.

Because of its safety and simplicity, the use of medication abortion is likely to increase

In many less developed countries, mifepristone is not legally available, and misoprostol, although generally available, is not approved for use to induce abortion (it was originally developed for the prevention of gastric ulcers). This situation is changing, however, and access to medication abortion is growing around the world. In recent years, there has been increased recognition that medication abortion has the potential to expand access to safe pregnancy termination.[76] Moreover, the body of evidence that supports the safety and cost-effectiveness of training midlevel health care personnel to use this technique is increasing.[7,83]

Protocols governing the use of medication abortion usually require administration of misoprostol 48 hours after administration of mifepristone. Most pregnancies end within 24 hours of misoprostol administration, but the process may take up to two weeks to complete.[76] Thus, this protocol requires at least two provider visits, which may not be feasible for a woman who has to travel a long distance for care. However, in some countries, women are given misoprostol to take with them to complete the process at home, thus avoiding the need for a second visit.

Research into misoprostol-only medication abortion is under way. A recent six-country trial involving more than 2,000 women who were up to nine weeks pregnant found that three 800-mg doses of misoprostol (taken over the course of 9–36 hours) resulted in complete abortions in 85% of cases.[90]

While the wider use of medication abortion may help improve abortion provision in resource-poor countries, it is important to test feasibility and acceptability when the

Later medication abortion
Mifepristone followed by repeated doses of misoprostol or vaginal prostaglandins
≥13 weeks
Gynecologist, trained general physician, trained midlevel provider
District hospital, secondary or tertiary hospital
Analgesia
Clinical observation until fetus and placenta are expelled; return visit in two weeks is recommended to confirm absence of infection

Sources References 7 and 80–82.

medication method (misoprostol alone or in combination with mifepristone) is introduced into new settings. Some studies have tested these methods at various gestational durations in low-resource settings, and have identified workable solutions for problems that may arise.[91,92] For example, in rural areas, the primary care facilities that provide the medication should have a strong referral system in place to treat women who experience a failed induction.[76] When misoprostol is used by itself, the proportion of women who have incomplete abortions rises with length of gestation,[86] and women experiencing a failed termination will need clinic or hospital care to complete the process safely. However, consideration of this possibility, as well as of potential side effects (such as nausea, cramping and diarrhea), must be weighed against the more serious health risks encountered by women who would otherwise resort to highly unsafe abortion methods.

Costs of safe abortions can vary widely

Few estimates are available of the typical cost of a safe abortion. In the United States, the average cost of a first-trimester abortion with anesthesia performed in a clinic was US$413 in 2004.[88] In some countries with national health care, such as Denmark, Germany, Romania and the United Kingdom, an abortion from a public-sector provider is free or available at very low cost. In other countries, a variety of systems exist for reimbursement. For example, in Finland, where the procedure is free under the national health system, women must nevertheless pay hospital fees (US$85–145); in France, where the average cost is US$246–354, insurance covers 80% for most women, but the procedure is free for poor women. The charge for an abortion from a private provider can be quite high—anywhere from US$40 (plus lab costs) in Albania to US$226–305 in Germany, US$388–1,085 (and not covered by insurance) in Austria and US$881–979 in the United Kingdom.[93]

In developing countries with restrictive abortion laws, the need for secrecy often means that providers can charge whatever the market will bear. Surveys in Guatemala, Pakistan and Uganda have found that the cost of a doctor-assisted clandestine abortion varies quite widely, depending not only on the particular country, but also on whether the woman having the procedure lives in a rural or urban area and whether she is well-off or poor.[15,94,95] This suggests that doctors in these countries adjust their fees according to a woman's ability to pay.

In India, where abortion is legally permitted on broad grounds, two studies carried out in 2001–2002 found that the average cost of a first-trimester procedure in a high-quality facility was around US$16–20.[36,96] Little is known about the cost of a safe abortion in other developing countries where abortion is broadly legal. Abortions (like other forms of health care) are presumably free in Cuba. The expansion of abortion services by private doctors in Vietnam most likely would not be occurring unless fees were being charged; however, no information is available on what these fees might be.

Obstacles of many kinds may impede women's access to safe and legal services

A wide range of barriers can make safe abortions difficult or nearly impossible to obtain, even where they are legal. In many countries, particularly those in the developing world, public information about the legal status of abortion and about women's right to a legal abortion are often lacking (see box, page 24). Doctors may refuse to provide abortion services because of conscientious objection. Health care workers may fail to refer women seeking a pregnancy termination to an appropriate facility. Access to safe services might be geographically limited, or compromised by a shortage of trained providers or by requirements that the procedure be performed only by a doctor, or in a hospital or other accredited facility.[28] Gestational limits, the need for spousal or parental consent, and mandatory waiting periods or counseling may deter some women from obtaining services. Financial barriers are also common: If abortion services are expensive, or are excluded from reimbursement under private and public health insurance plans, many adolescents (who usually have few

Safe Abortion Services Are Not Always Accessible

In some countries that have made abortion broadly legal—whether recently or decades ago—administrative barriers of many kinds make it difficult to obtain a safe abortion,[1] or legal abortion services are not widely available. As a result, many women with unwanted pregnancies continue to turn to inadequately trained or traditional providers—whose services are typically accessible and inexpensive, but often risky—and others self-induce.

There are many explanations for this situation. Health providers may be reluctant to comply with the legislation; women and providers are often ignorant of reforms in the law; and administrative regulations (parental or spousal consent laws, waiting periods, requirements that multiple doctors consent to the procedure) can make legal abortion almost impossible to obtain for all but the most persistent and well-informed women.[2] Further contributing to the problem are service limitations, including shortages of facilities ready to provide legal abortions, a lack of health professionals trained in safe techniques like manual vacuum aspiration,[3] and opposition to abortion on the part of some trained health professionals.[4]

Studies in countries such as Zambia, India and South Africa illustrate these barriers. For example, in Zambia, where abortion has been legal on socioeconomic grounds since 1994, three key factors put the procedure well beyond the reach of most women: There is only one doctor per 8,000 individuals, but women who want an abortion must obtain the consent of three physicians; many doctors will not perform abortion on religious or other ethical grounds; and the cost of a legal abortion in the few hospitals that offer the service is prohibitively high.[5]

In India, abortion has been legal for more than three decades, yet a recent analysis estimated that three unsafe abortions are performed for every two safe ones and that many of these safe procedures take place in facilities lacking official certification.[6] One in seven maternal deaths in India are attributable to dangerously performed abortions.[7]

The shortcomings of India's system of abortion provision are many. Most providers are in the private sector and charge high fees. On the other hand, conditions in the public health facilities designated to perform abortions are often poor.[8] There are only 10 abortion centers per one million people, and most are located in urban areas, even though more than 70% of Indian women live in rural areas.[9] Abortion centers often operate under conditions of poor hygiene; many lack water or toilets, and are unable to offer clients privacy or a clean operating table. Shortages of medical equipment, analgesics and antihemorrhagic medications, combined with an irregular power supply, impede the provision of safe, reliable services.[10] Physicians trained to perform abortions are often in short supply, inadequately skilled or not confident about their own abilities.[11] Further impediments include poor understanding that abortion is legal in India and the imposition of high fees.[12] Moreover, some women seek unsafe abortions because of the greater proximity, lower cost and confidentiality of traditional providers (compared with medical professionals).[13]

Yet another obstacle is that authorized abortion facilities in India routinely refuse to perform an abortion if the woman arrives alone, if she is unmarried or if she is married but childless. Although not required by law, consent from the woman's husband and other family members is often a condition for service.[14] As a result of factors such as these, many abortions in India are still performed in inadequate conditions,[12] leading to a situation that one expert has described as the "coexistence of legal services that are unsafe and safe services that are technically illegal."[15]

In South Africa, researchers estimate that for every safe legal abortion, two unsafe ones occur.[16] A government-sponsored survey conducted in 2000, three years after abortion services became available, found that only a third of the 292 facilities designated by the government to offer services were actually functioning.[17] Many South African women do not know that abortion is now legally permitted without restriction as to reason during the first trimester. For example, a study in one province found that 32% of women attending community health clinics did not know abortion is legal; in rural areas, the proportion was 40%. Of women who did know about the law, only half were aware that there is a gestational limit.[18] Adolescents seeking abortions in one South African state are often denied services on the grounds that their age prevents them from making an informed choice,[19] even though a high court has ruled otherwise.[20]

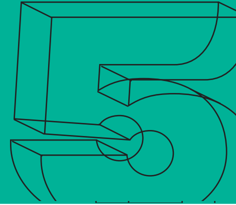
Some South African midwives involved in providing abortion services claim that clinic managers fail to give them the equipment, supplies and supervision they need; that some of their colleagues, as well as members of the community, harass and intimidate them for offering this service; and that many doctors refuse to perform second-trimester abortions.[21]

Various lessons can be drawn from these assessments. Obviously, it is difficult to provide good abortion services in a context where public health care services in general are limited. In addition, it takes time for services to become well-known and accepted. Finally, it is important that safe abortion services be made available not just through public health facilities, but also through private providers; many such providers may be needed in a country like India, where transportation is often unavailable or too expensive for many individuals.

resources of their own) and poor women may not be able to afford the procedure.

Women with HIV, adolescents and those marginalized by poverty, ethnicity, rural residence or unemployment (where health insurance is employment-based) may face other, more subtle obstacles. Health systems may stigmatize women seeking reproductive health care, deny pain medication during an abortion or require the authorization of a spouse or third party (even if not required by law).

Social values that stigmatize providers who offer safe abortion services constitute another barrier, because providers may stop offering the service.[21]



When Abortion Laws Are Restrictive, Women Are at Risk for Unsafe Abortion

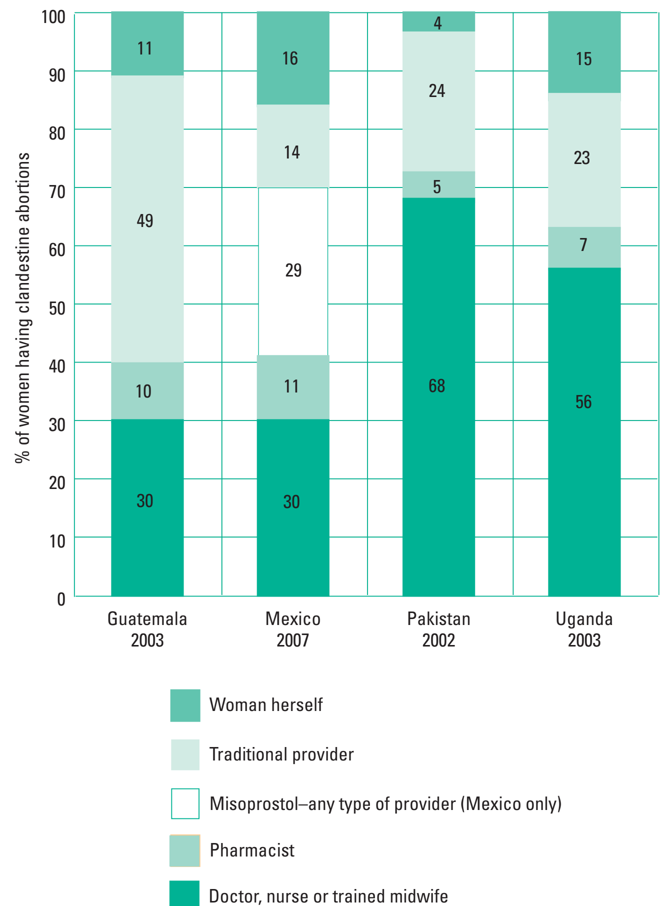
Pregnancy termination is a universal practice: It occurs in all parts of the world—east and west, developed and developing, rich and poor—and among women of all types, single and married, adolescent and older. However, in less developed regions that have restrictive abortion laws, many women—especially those who are poor and cannot pay for safe procedures—end unwanted pregnancies themselves, or at the hands of unskilled personnel using unsafe methods. By doing so, they risk their health and even their lives.

A great deal of essential information about unsafe abortions in developing countries comes from studies of women hospitalized for the treatment of complications. While useful in documenting the health care burden of unsafe abortions, and in providing detailed information about the abortion experiences of women who seek postabortion care, these studies are limited in two important ways: They omit the many women who have abortions in clandestine circumstances but experience no complications, and they do not include women who experience complications but obtain no care.

To get a broader picture of the situation, researchers in a number of developing countries over the past decade have surveyed health professionals knowledgeable about the ways in which clandestine abortions are carried out in their countries, or have conducted community-based surveys of women—including those who have had abortions, and who in some cases have been hospitalized for the treatment of complications from unsafe abortions. The findings in this chapter are drawn largely from Health Professionals Surveys conducted in Guatemala, Mexico, Pakistan, Peru and Uganda, and from cross-sectional studies of women in Burkina Faso, Côte d'Ivoire, Nigeria, the Philippines and Thailand (see Data and Methods Appendix, page 56).

FIGURE 5.1

The providers of clandestine abortion vary widely in a number of less developed countries.



Note Percentages may not total 100 because of rounding.

Sources References 15, 60, 98 and 99.

Conditions surrounding the practice of unsafe abortion vary widely

The circumstances in which women in countries with restrictive abortion laws end their pregnancies, or experience incomplete abortions, differ from one setting to another. A woman's choice of method or provider depends on the traditional methods known and used in her community, the types of untrained providers present in the community, the availability of trained doctors and nurses prepared to perform abortions despite legal restrictions and, in recent years, whether misoprostol can be easily obtained. Another factor, of course, is how much a woman can afford to pay to end a pregnancy.

A woman who seeks a clandestine abortion, or the provider she consults, may try a number of traditional techniques of varying efficacy and harmfulness—herbal potions, forceful manipulation of the abdomen, the insertion of sticks and other objects into the vagina, cervix or uterus, the ingestion of common household products or physical exertion (see box). Many of these techniques pose serious threats to a woman's health, and sometimes even her life. If these methods fail to bring about a complete pregnancy termination, she may then go to pharmacists, nurses or doctors known to provide abortion services.

Women are often desperate enough to try many strategies

Victoria was two months pregnant when she made the decision on her own to end the pregnancy. She first drank some native herbs in her home, but did not get any results. She then consulted a traditional healer, who inserted leaves into her vagina, causing moderate pain and injuries. However, she was still pregnant, so she went to a chemist, who gave her pills. She experienced mild bleeding, and her pain and injuries persisted. Finally, she went to a nurse in a private clinic, where she received a dilation and curettage, which ended her pregnancy.[97]

—Anonymous report from 2002–2003 survey of Nigerian women

In her first attempt to induce abortion, Mary took aspirin but remained pregnant. She then tried drinking locally made liquor, jumping, taking herbal remedies and getting a massage from a traditional healer. None of these methods worked. Mary eventually found a way to pay for hospitalization and a surgical abortion. The six attempts at ending her pregnancy took Mary two weeks.[54]

—Anonymous report from 2004 survey of Philippine women

In many poor countries, particularly in rural areas, residents frequently use the services of indigenous providers, including healers, herbalists, traditional midwives and birth attendants (called *dais* in Pakistan and India, shamans in Peru and *comadronas* in many parts of Latin America), pharmacists and market vendors selling low-cost remedies and over-the-counter drugs, as well as outright quacks and faith healers. Because of their familiarity, accessibility and affordability, these types of providers often play a large role in helping poor and rural families meet health care needs of all kinds. In settings where they also assist in pregnancy terminations, many of these traditional practitioners are likely to recommend or use extremely dangerous and often ineffective methods, for which women nevertheless must pay.

Findings from the Health Professionals Surveys in Guatemala, Mexico, Pakistan and Uganda illustrate the wide variance in the sources of abortions (Figure 5.1, page 25).[15,60,98,99] For example, respondents estimate that the use of traditional providers is low in Mexico (14%), but very high in Guatemala (49%), a much poorer and more rural country. The likelihood that women go to a pharmacist is relatively low in all four countries (5–11%). However, in Mexico, three in 10 women who have an abortion are believed to use misoprostol.* Some women buy this drug in pharmacies, and some obtain it from market vendors or

*Health professionals in Guatemala, Pakistan and Uganda were not asked about misoprostol, because this method was not thought to be widely used in those countries at the time the studies were conducted (2002–2003).

Traditional Abortion Methods Are Often Dangerous

Women and untrained providers use many different types of traditional or nonmedical methods to end unwanted pregnancies. These methods are described below.

Inserting into the vagina or cervix a catheter or other foreign object, such as crushed bottles, branches, knitting needles, pouches containing arsenic, wires, sticks, reeds, cassava plants, raw vermillion powder, clothes hangers, other metal objects, swabs soaked in acids, corrosives, herbal drugs, soaps, potassium permanganate, copper sulphate, aluminum, rock salt, glycerin, acriflavin or the thorn of suidi (a type of cactus in India).

Introducing liquids into the vagina, such as soapy water, detergents, hydrogen peroxide, bleach, tar, herbal infusions, carbonated beverages, gasoline or salty solutions.

Drinking alcohol, massive doses of Alka-Seltzer, castor oil, bleach, gasoline, ashes, tea made from boiled roots or fresh leaves, or a brew made by mixing and boiling droppings from farm animals.

Engaging in traumatic or injurious physical activity, such as jumping, falling, climbing trees, engaging in rough sex, exercising excessively or carrying heavy loads.

Taking pharmaceutical products, including aspirin, sleeping pills, quinine, large doses of chloroquine, oral hormonal medications or veterinary drugs (e.g., Iliren).

Manipulating the abdomen, often by locating the fetal mass through external palpations and then seeking to dislodge it by harsh massage and strong compression of the lower abdomen.

Trying other regionally specific techniques, such as using a rubber tube, ball-point tube or straw to blow air into the uterus to induce labor; rubbing a paste of herbs into a tattoo around the waist; fasting; inhaling steam from foods cooked with certain herbs; smoking cow dung; tying the stomach; washing the womb; wearing herbs; and pressing a heated, cloth-wrapped grinding stone against the abdomen.

other sources. (See box on page 32 for a discussion of the positive implications for abortion safety of the growing use of misoprostol in some countries.) Dependence on doctors, trained nurses and nurse-midwives is thought to be very high in Pakistan and Uganda (56–68%), but much lower in the two Latin American countries (30%). An estimated 4–16% of abortions in the four countries are self-induced.

Poor women and those living in rural areas are most likely to use the services of traditional providers, or to try to induce their own abortions; better-off women and urban women are most likely to go to doctors or nurses. A cross-sectional study in Ouagadougou, the capital city of Burkina Faso, found that about three in five women who had had an abortion had obtained the procedure from a health professional.[100] In Guatemala, Mexico, Pakistan and Uganda, the use of pharmacists, though relatively infrequent, does not differ substantially by wealth or place of residence.[15,60,98,99]

In Guatemala, poor rural women are three times as likely as nonpoor urban women to have an abortion induced by a traditional birth attendant (60% vs. 18%), and they are far less likely than nonpoor urban women to obtain the services of a doctor (4% vs. 55%). Between these two extremes are nonpoor women in rural areas and poor woman in urban areas, of whom 11% and 28%, respectively, go to a doctor.[98] Nonpoor rural women might be able to afford to travel to an urban medical facility, or see a private doctor, while poor urban women may live close to such facilities or trained health providers, but be unable to afford their services.

Doctors and nurses commonly perform abortions, especially in urban areas

In all four countries, doctors and nurses appear to play a larger role in providing services for urban than for rural women—partly, of course, because most doctors work in urban areas, but also because urban women have higher family incomes, on average, than do rural women, making them better able to afford doctor fees. Nevertheless, in Pakistan and Uganda, the involvement of doctors, even in rural areas, is substantially higher than in Mexico and Guatemala (Table 5.1).[15,60,98,99]

The relationship between women's place of residence and wealth and their use of medically trained providers is even greater in Peru: According to estimates from the 2000 Health Professionals Survey, almost all nonpoor urban women who terminated their pregnancies (98%) had obtained abortion services from a professional provider (77% from a physician and 21% from a trained midwife or nurse). In contrast, only 35% of abortions among poor rural women had been performed by trained medical providers.[63]

Similarly, in Nigeria, where dependence on trained health professionals is particularly common, a 2002 national household-based survey found that almost six in 10 nonpoor women having abortions had had a surgical procedure in a clinic or hospital, compared with just three in 10 poor women.[97] And in a 1998 community-based study in Côte d'Ivoire's capital city, six in 10 women who reported having had an abortion had had a surgical procedure.[101]

The spread of relatively simple abortion methods, such as manual vacuum aspiration (MVA) and misoprostol, helps explain the large role played by medical professionals in many countries where abortion laws are restrictive. In addition, a growing demand among poor women for safe abortion services, and increased recognition by physicians and nurses that even poor women are willing to pay for safe procedures, seem to be steadily changing the general landscape of clandestine abortion services in many developing countries.

High costs prevent many poor women from obtaining safe abortions

In general, the less skilled an abortion provider is, the lower the cost of the abortion to the woman—and the greater the likelihood that the techniques the provider uses will be dangerous and will result in complications. In low-income countries with restrictive abortion laws, cost is often a major barrier preventing poor women from being able to end unwanted pregnancies safely. In a very real sense, then, the ability to pay can buy women a greater chance of safety.

In Guatemala, where 37% of the population lives on US$2 a day or less,[102] the estimated cost for an abortion carried out by a private medical doctor, or in a private clinic, ranges between US$128 and US$1,026; for the services of a midwife, the cost ranges between US$38 in rural areas and US$128 in urban areas.[106] In Uganda, where 85% of the population survives on US$1 day or less, and 97% on US$2 a day or less,[102] the cost of a pregnancy termination obtained from a professional source is US$6–58, compared with US$6–18 for the services of an unskilled provider.[107] In Pakistan, where 66% of the population lives on US$2 a day or less,[102] the average fee for a doctor-assisted abortion is US$50–104. Nurse-midwives in rural areas are believed to charge between US$18 and US$26 for their

TABLE 5.1

Estimated percentage of clandestine abortions performed by doctors, by place of residence and country

Country	Urban	Rural
Guatemala	32	8
Mexico	26	9
Pakistan	41	22
Uganda	42	16

Sources References 15, 60, 98 and 99.

services, and dais, between US$11 and US$17.[15] Even at the low end of the price range, the cost of an abortion is substantial for poor women.

Poor women are the most likely to experience complications from unsafe abortion

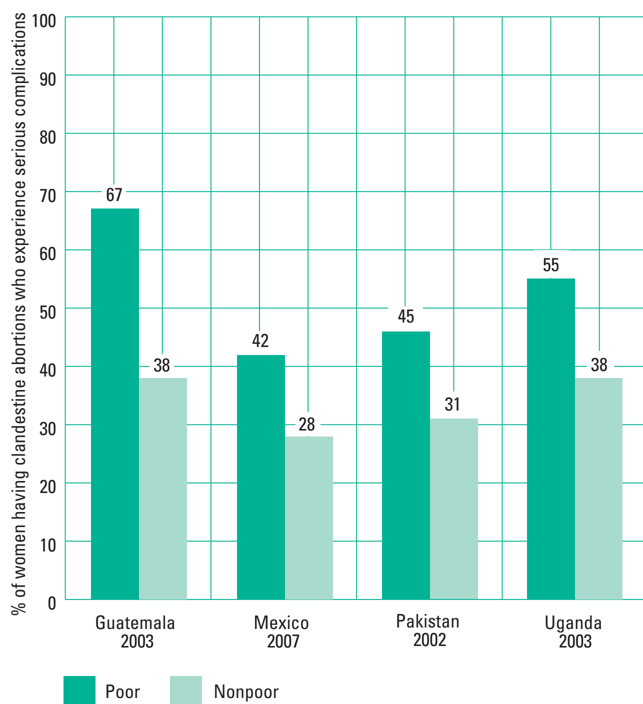
In Guatemala, Mexico, Pakistan and Uganda, informed experts report that the risk of complications requiring treatment following an unsafe abortion is likely to be 45–75% higher for poor than for nonpoor women (Figure 5.2).[15,60,98,99] Estimates suggest that 42–67% of poor women experience such health complications, compared with 28–38% of better-off women. The evident reason for these wide risk differentials by poverty level is the greater likelihood that poor women try to end pregnancies through their own efforts, or through the unsafe services of unskilled providers.

However, not all complications are due to the practices of unskilled traditional providers. Some result from doctor- or nurse-assisted procedures. In the same four countries, between one in seven and one in four women who obtain an abortion from a doctor, and between three and six in 10 of those who obtain one from a nurse, are estimated to experience complications requiring treatment.[15,60,98,99]

These findings are mirrored by other results from studies in developing countries. In a 2002 national household-based survey of women in Nigeria, where the majority of abortions are carried out in clinics and hospitals, one in four women undergoing dilation and curettage (D&C) or MVA reported experiencing complications.[97] In the Philippines, where doctor- or nurse-assisted abortions are less frequent, a national survey found that one in seven women who received an abortion from a trained health professional said that they had experienced complications.[54] A 1999 study in Côte d'Ivoire found that four in 10 women being treated for abortion complications said that they had obtained the procedure from a health professional.[103] In Nepal, where abortion has been legal since 2002, about half of women seeking emergency postabortion care in major hospitals for such serious health complications as septic shock and uterine perforation reported that their abortion had been induced by a doctor.[16] And a recent study in Thailand found that 11% of abortions done by obstetricians and gynecologists resulted in severe complications, as did 27% of those done by general physicians.[17] These findings suggest that some doctor-assisted abortions in developing countries are simply not safe—especially where the law is highly restrictive, but also in countries where the law is liberal but access to properly managed services remains poor.

FIGURE 5.2

Poor women are considered more likely than nonpoor women to experience abortion complications requiring treatment.



Sources References 15, 60, 98 and 99.

Empirical studies on the safety of abortions that are illegal but are carried out with the participation of doctors and nurses are rare. Studies do show that these pregnancy terminations are safer than those that use traditional techniques or are performed by lay health workers or unskilled practitioners. However, health professionals in a range of countries report a more complex reality—that many doctors in developing countries are poorly trained in surgical abortion techniques and still use outmoded methods, such as D&C; or that some doctors and nurses might not operate frequently enough to gain real experience and skill.[104] An in-depth analysis of Nigerian women receiving postabortion care in that country's hospitals concluded that the "large number of women who came to the hospital with complications after having been treated by a physician indicates that many doctors are not well-trained in abortion services."[105] Because few general practitioners or specialists in areas other than obstetrics and gynecology learn how to perform abortions when they are in medical school, many professionals may simply lack the training they need. Others may not be able to obtain the necessary equipment and supplies, and the facilities in which they work may be substandard.

Despite the severe penalties mandated in many countries with highly restrictive abortion laws, doctors and nurses who terminate pregnancies in these countries rarely face criminal charges.[25] Yet these health professionals still run the risk of prosecution and imprisonment, as do their patients in some countries. Moreover, the clandestine nature of doctor-provided abortion services leads to other problems. Because laws restrict the practice of abortion, the enforcement of medical standards of care is difficult, and often not possible. The secret nature of doctor-assisted

procedures probably leads some women to receive and accept low-quality care. And patients who seek clandestine abortions lack any type of legal recourse if malpractice occurs, a particular concern given the inadequate training that most medical professionals have in abortion provision. It is also likely that the demand for clandestine abortions may attract unsuccessful, failed or disgraced doctors.

Not all women with complications receive treatment, especially if they are poor

Many women with complications do not receive the care and treatment they need. For example, 59% of Guatemalan women who terminate their pregnancies and 50% of their counterparts in Uganda are believed likely to have experienced complications requiring treatment.[106,107] Many of these patients do not seek or receive care, so that an estimated 20–22% of all women obtaining abortions in these two countries have complications that go untreated.[108] Even in Mexico, where most women do not develop complications and most complications are treated, health professionals estimate that one in 10 women who obtain abortions are left with untreated complications.[109]

Among those who experience complications, poor women are less likely than better-off women to receive the care they need. In Guatemala, Uganda and Pakistan, the proportion of poor women having an abortion whose complications go untreated is estimated to be three to four times that of non-poor women.[106,107,110] Women in rural areas are also less likely to receive care. Among Guatemalan women who have clandestine abortions, the proportion who have untreated complications is thought to be twice as high among rural women as among urban women (23% vs. 10%).[106]

In Mexico, the estimated proportion of women with complications who receive treatment is higher than in Guatemala, Pakistan, Peru and Uganda, and the proportion of women having abortions who are left with untreated complications is lower (10%) than in those countries (15–22%).[63,106,107,109,110] This is consistent with the high level of use of misoprostol in Mexico. In addition, access to health care, both public and private, is better in Mexico than in the other countries. Interestingly, although Peru appears to have the highest proportion of women who experience no complications (69%)—consistent with the high proportion of women, particularly in urban areas, who obtain their abortions from doctors or nurses—it is the only country of the five where fewer than half of women with complications are thought to receive treatment.[63]

A large-scale, population-based Nigerian survey found that 25% of all women having induced abortions reported experiencing complications that needed care, but only 9% sought treatment. Thus, 16% of all Nigerian women terminating a pregnancy clandestinely had complications and received no care.[97] In the Philippines, a nationally representative survey found that among women having abortions, one-third of those with complications said they had received no care; these women also represented 16% of all those having clandestine abortions.[54]

Women Who Seek an Abortion or Postabortion Care Are Often Stigmatized

In many parts of the world, fear of being discovered breaking the law often drives women to keep their abortions secret. But another common cultural phenomenon—the social stigma attached to those who have clandestine abortions or require care for the treatment of postabortion complications—can also encourage a woman to choose secrecy over her own safety.[1] The shaming and blaming of women who seek or have abortions seems to occur in many societies.

In Cameroon, a woman who has had an abortion may be accused of promiscuity and forced to leave her village.[2] Young women in this situation may be expelled from school, or they may leave on their own to avoid public shaming. In some communities, women publicly sing songs mocking and ridiculing by name a woman who has had an abortion.

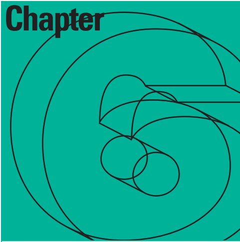
In Guatemala, neighbors might gossip maliciously about women known to have had an abortion, or ostracize them; men tend to be more censuring, insulting and caustic than women.[3] Women attempting to end an unwanted pregnancy might also be condemned by the very health providers to whom they turn for help. Social stigma of this type stems in part from deep-seated traditional values that allow no other role for women than that of mother; those who have an abortion are not conforming to their expected role. Even a woman who has a miscarriage is blamed for not having been sufficiently "careful" about her pregnancy. Similar attitudes have also been found in a rural community in Mexico.[4]

Schoolboys in urban Zambia believe that girls who have had an abortion are capable of "infecting" others.[5] In the Philippines, where the influence of the Catholic Church is strong, women who have terminated an unintended pregnancy not only face social stigma, but also in some cases become guilt-ridden and fixated on doing penance for their perceived "sin."[6]

In Ghana, abortion is traditionally perceived as a shameful act, and the community may shun a woman who has had an abortion and give her and her family a derogatory name.[7]

Adolescents and unmarried women may experience double stigmatization. They are condemned for being pregnant outside of marriage in the first place; then, if they end the pregnancy, they are condemned again.[8] Even in cases of rape or incest, young women are often stigmatized if they seek to end the pregnancy.[9]

The practitioners of abortion may also be stigmatized.[10] In some countries, they may be targeted and threatened by antiabortion groups, shunned by their professional peers and even excommunicated by the Catholic Church.


Chapter 6

Quality Postabortion Care Can Reduce the Harmful Effects of Unsafe Abortion

Aggregated findings from the Health Professional Surveys in Guatemala, Mexico, Pakistan, Peru and Uganda described in the previous chapter suggest that about 40% of women having clandestine abortions experience complications that require treatment (Figure 6.1).[15,60,63,98,99] Approximately three-fifths of these women receive treatment for their complications, but the remaining two-fifths do not. Estimates from 16 developing countries suggest that about seven out of every 1,000 women of childbearing age are hospitalized each year for the treatment of complications from unsafe abortion.[60,111–113]

Extrapolating from available country-specific data, one can estimate that in 2005, about eight million women developed complications from unsafe abortions, but only about five million women received treatment in hospitals and other health facilities—2.3 million in Asia (excepting China), 1.7 million in Africa and 1.0 million in Latin America and the Caribbean.[111] In addition, three million women required treatment but did not receive care.[114]

Postabortion care services are often weak because government spending on health is low

The responsibility for treating complications from unsafe abortion falls largely on government facilities. However, many low-income developing countries do not have the capacity to deliver high-quality postabortion treatment.

Funding for health care of every type is inadequate in almost all poor countries. In the developing world, about 25–50% of health care spending is by governments, and the total annual per capita amount ranges from US$48 in Sub-Saharan Africa, US$53 in Southeast Asia and US$55 in South Central Asia to US$111 in Eastern Asia, US$183 in North Africa and Western Asia and US$329 in Latin America and the Caribbean. For comparison, average health care spending in Western, Northern and Southern Europe is US$3,256 per person.[115]

The proportion of women who receive prenatal and delivery care from trained health professionals is another useful measure of a health care system's adequacy. Findings from Demographic and Health Surveys carried out between 1996 and 2007 in 53 less developed countries show that the proportion of women receiving such care was lowest in Sub-Saharan Africa and South Central Asia. Receipt of care varies substantially by wealth: In Asia (excluding China), only 14% of the poorest one-fifth of women deliver their babies in a health facility, compared with 77% of the richest one-fifth. The pattern is similar in other regions and in all countries where such data is available.[116]

Postabortion services are often inadequate

The quality of postabortion care in developing countries is often poor, for reasons that include the use of outmoded methods, lack of human and financial resources, staff who have not been trained to provide the safest and most cost-effective treatment, judgmental or punitive attitudes among staff toward women who have had a clandestine abortion, and poor linkages to secondary- and tertiary-level health facilities.[117–119]

Researchers have documented numerous examples of substandard postabortion care. Studies of adolescents in Malawi and the Dominican Republic who were being treated for complications from unsafe abortion found that many had been sent from one provider to another before reaching the hospitals in which they finally received

care.[120] Patients studied in Uganda,[107] Pakistan[110] and a number of Latin American countries[121] were treated for incomplete abortion with dilation and curettage (D&C), rather than with manual vacuum aspiration (MVA) or misoprostol—even though the last two are the safest, simplest and most cost-effective techniques. In fact, a study in Mexico found that use of MVA instead of D&C reduced the average cost of postabortion care by 32%;[122] in Burkina Faso, changing to MVA more than halved the average cost per patient, in part because the technique requires less use of anesthesia and less staff time compared with D&C.[123]

Other deficits in the quality of postabortion care have been documented. Inadequate pain control is one common problem: Not all health facilities use anesthesia when performing D&C, and although many women experience pain during MVA, in some facilities few or no women receive pain medication.[107,119,120] In Uganda's lower-level government health facilities, blood transfusions are not available because of shortages of blood supplies.[107] In South Africa, where hemorrhage is a leading cause of maternal mortality,[124] a study found that only two-thirds of women with low hemoglobin levels received blood transfusions while receiving postabortion care in public hospitals.[125]

Contraceptive counseling to help women avoid future unintended pregnancies is an important aspect of high-quality postabortion care, but studies of women who had been treated for complications in the Dominican Republic,[120] Peru[126] and a poor southern state in Mexico[127] found that contraceptive supplies were often not in stock, and many women left without a method.

Even when hospitals and clinics have adequate staff and supplies, providers themselves can be responsible for the existence of barriers to quality postabortion care. In the Philippines, hospital staff have been reported to be judgmental and hostile, handle the patients roughly, deliberately withhold pain relievers and anesthesia, or even deny women treatment.[128] In Guatemala, indigenous women, particularly, fear being treated by health workers who do not understand or speak their language, and they anticipate being subjected to insults; however, women of all ethnic backgrounds are sometimes made to feel ashamed for having sought a procedure that is widely perceived as immoral, and some delay seeking care (in the hope their symptoms will resolve with time) rather than face unsympathetic clinic staff.[94] Women in many countries may also be reluctant to seek care for fear of being stigmatized by family and community members (see box, page 29).

Health care workers may have punitive attitudes toward postabortion patients

I don't treat women with complications from induced abortion. If they have been bleeding for a couple of days, it's best to send them to a hospital....[W]hat I do doesn't hurt them. If they are to be punished, it's better that they go to hospital for a D&C. That really hurts.[94]

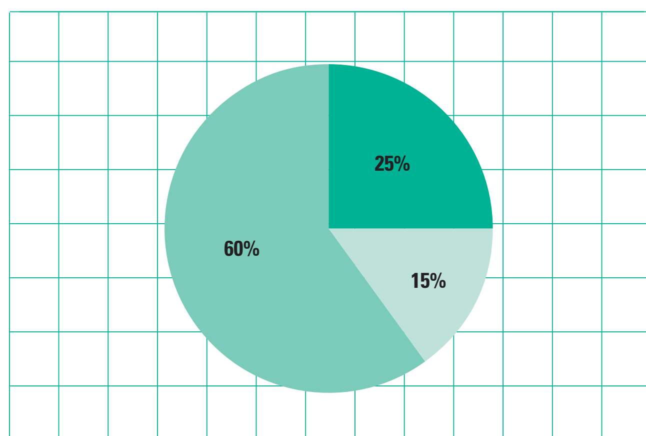
—Traditional birth attendant, periurban area of Guatemala City

Some women are faced not with the prospect of receiving poor-quality care, but of receiving no care at all because of financial constraints. Health care providers and community respondents in Uganda report that a woman's only guarantee of access to government health facilities that offer postabortion care is her ability to pay.[95] A 2004 national survey in the Philippines, where 48% of the population lives on no more than US$2 a day,[102] found that the high fees demanded by hospitals are an obstacle for many women with complications from unsafe abortion. To receive care for simple complications, women would probably have to pay US$20–80 in a government hospital and US$60–300 in a private hospital.[54]

Pilot projects designed to improve conditions of postabortion care have been extremely successful in upgrading professionals' skills, making MVA standard care for abortion complications, reducing waiting times, lessening stigma, and increasing and improving contraceptive counseling services.[119] The sustainability and scaling up of these pilot initiatives has been demonstrated in a wide range of settings: Bolivia,[129] Burkina Faso,[130] Egypt,[131,132] Peru,[133] Senegal,[130,134] Tanzania[135] and Turkey.[136] Government commitment to scaling up postabortion pilot projects is more likely where health planners have been persuaded that the recommended changes reduce, rather than increase, the overall cost of maternal health services.[119]

FIGURE 6.1

Four in 10 women having unsafe abortions are thought to experience complications requiring treatment, and many do not obtain care.



19.2 million unsafe abortions

- Complications treated
- Complications not treated
- No complications

Note Percentages are unweighted averages of data from Health Professional Surveys from Guatemala (2003), Mexico (2006), Pakistan (2002), Peru (2002) and Uganda (2003).

Sources References 15, 60, 63, 98 and 99.

Many women die from no care, or from poor care

Globally, an estimated 70,000 women die every year as a result of unsafe abortions,[137] and millions more experience severe health consequences, some of which are long-lasting.[138] The annual number of deaths may well be an underestimate.[6] The vast majority of these deaths occur in Sub-Saharan Africa (about 38,000) and South Central Asia (about 24,000);[137] the number is negligible in Southern and Western Europe, North America and China—evidence of the high degree of safety possible when abortion is legal and available under broad criteria, and when pregnancy terminations are carried out by skilled health professionals using effective methods in hygienic conditions.

In 2005, there were an estimated 400 maternal deaths per 100,000 live births worldwide, and about one in eight (13%) resulted from unsafe abortion (Figure 6.2).[6,66,137] The maternal mortality ratio in the developing world is 40 times that in the developed world (450 vs. 11 deaths per 100,000 live births), and it is more than 60 times as high in Sub-Saharan Africa as in Europe (820 vs. 13 per 100,000; not shown).[66] Despite large differences in maternal mortality ratios in Africa, Asia, Latin America and the Caribbean, the proportion of maternal deaths that are due to unsafe abortion is remarkably similar (12–14%) in the three regions.[138]

The abortion-related death of a 43-year-old Indian woman

My wife was two months pregnant. Her last child was 12 years old, and since her other children were grown up, she felt embarrassed and thought of abortion. After obtaining an abortion at the government hospital, she experienced severe abdominal pain and died eight days after the abortion. We took her back to the hospital two days after the onset of the pain, where the nurse told us that the patient would not be able to get all right there. The nurse informed us that some instrument wounded the uterus, so she could not be treated there. The abdomen had developed sepsis and [she] had developed swelling in her entire body.[139]

—Husband, Uttar Pradesh, India

Millions of women suffer complications from unsafe abortions

Beyond the estimated 70,000 maternal deaths from unsafe abortion that occur each year, a far larger number of women in developing countries experience short- and long-term health consequences of varying degrees of severity, and many need treatment. The most common

Are the Adverse Health Consequences of Clandestine Abortion Declining?

Some evidence from the World Health Organization suggests that maternal mortality due to unsafe abortion may have declined in the past two decades, as the conditions in which clandestine abortions are performed have improved.[1] A number of factors could be contributing to such a decline, including an increase in the number of doctors and nurses being trained to use MVA for the treatment of abortion complications rather than the less safe method of D&C; a reduction in the interval between when women develop postabortion complications and when they seek the treatment they need; and improvement in the quality of postabortion hospital care.

However, a factor that may be having a particularly beneficial impact is the increased use of misoprostol. Although no studies have clearly demonstrated a causal connection between increased misoprostol use and decreased morbidity, such a link would make sense for several reasons.

When administered in the correct doses under clinical supervision and administered vaginally, misoprostol is highly effective,[2] inducing complete abortion with no further complications in 85–90% of cases.*[3] In addition, easy access to the drug may allow more women to induce abortions at an earlier gestational age, which in itself would reduce the severity of complications and, in the longer-term, the rate of complications as well. Further, the clandestine use of misoprostol to end a pregnancy may diminish the likelihood that women will fear seeking care at a medical facility for treatment of an incomplete abortion, because this method results in symptoms similar to those of a miscarriage.[4]

Since the early 1990s, misoprostol has been widely used in some less developed countries. Evidence from a number of Latin American countries with highly restrictive laws—Brazil,[5] Colombia,[6] Dominican Republic,[4] Ecuador,[6] Jamaica,[5] Mexico[7] and Peru[8]—as well as from southern India (where abortion is legal) and the Philippines,[9] suggests that this trend is continuing.

A study in one large state in Brazil found that between 1988 and 1992—very early in the history of the use of this drug—the incidence of infection among women having pregnancy terminations with misoprostol was one-twelfth of that among women relying on other methods.[10] And a study in the Dominican Republic found that misoprostol appears to have been widely used during a period in which morbidity from unsafe abortion declined.[4]

Misoprostol still represents only one of the modern methods currently available to health professionals in both more and less developed countries. But because misoprostol use is not invasive and requires less medical training and fewer personnel than other methods (it can be safely given by midlevel practitioners in nonspecialist health facilities), the spread of this method has probably led to a decline in the use of the most harmful traditional methods of unsafe abortion, such as the insertion of solid objects into the uterus and the oral or vaginal application of toxic and caustic substances. In time, the increased use of misoprostol is expected to substantially reduce the incidence of health consequences requiring treatment—and thus the incidence of deaths from unsafe abortion.

*When misoprostol is self-administered, the process can be less successful. Cautionary evidence comes from a study in Mexico City, which found that pharmacists were recommending a potentially ineffective misoprostol regimen (source: Lara D et al., Pharmacy provision of medical abortifacients in a Latin American City, *Contraception,* 2006, 74(5):394–399).

complications are incomplete abortion,[140,141] excessive blood loss[140,142] and infection;[105,112] less common but very serious complications are septic shock (a substantial drop in blood pressure due to sepsis),[112,143] perforations of the intestines, and peritonitis (inflammation of the peritoneum).[112,113] In countries where self-induced abortion or the use of untrained traditional health workers is widespread, physical trauma, such as contusions or bruises from vigorous physical manipulation, perforations and genital burning, may also be common.

If treatment is delayed or incorrect, mild infections can turn into septic shock, peritonitis or pelvic abscesses, among other serious conditions. Heavy bleeding can be treated and controlled if it occurs in a safe medical environment; if access to appropriate treatment is lacking, however, such bleeding can be life threatening. In fact, all of the potentially life-threatening conditions resulting from unsafe abortion are treatable if an adequately equipped medical facility is available and if the woman at risk can get to it quickly enough.

The severity of complications from unsafe abortion is difficult to measure. Researchers have made progress in developing a methodology for this purpose, but this effort has yet to be widely applied to produce comparable results for a number of countries. Nevertheless, some findings from South Africa are of special interest. They demonstrate that during the first three years in which legal abortion services were available, the proportion of complications judged to be of low severity* rose from 66% to 72%, and the proportion considered to be of high severity fell from 17% to 10%.[113] In a Kenyan study that used the same methodology, the proportion of high-severity cases was greater than in the South African study, consistent with the fact that abortion is legal in Kenya only to save the woman's life. Overall, 28% of complications in Kenya were judged to be of high severity; 56% were of low severity but still required treatment in a medical facility.[112] A recent study in Cambodia, which used the same methodology, found that about 40% of postabortion patients had complications of high severity; the authors suggest that this high proportion is likely due to poor access to safe services, especially in the second trimester (despite the country's liberal abortion law), as well as the combination of use of highly unsafe methods and delays in obtaining postabortion care.[33]

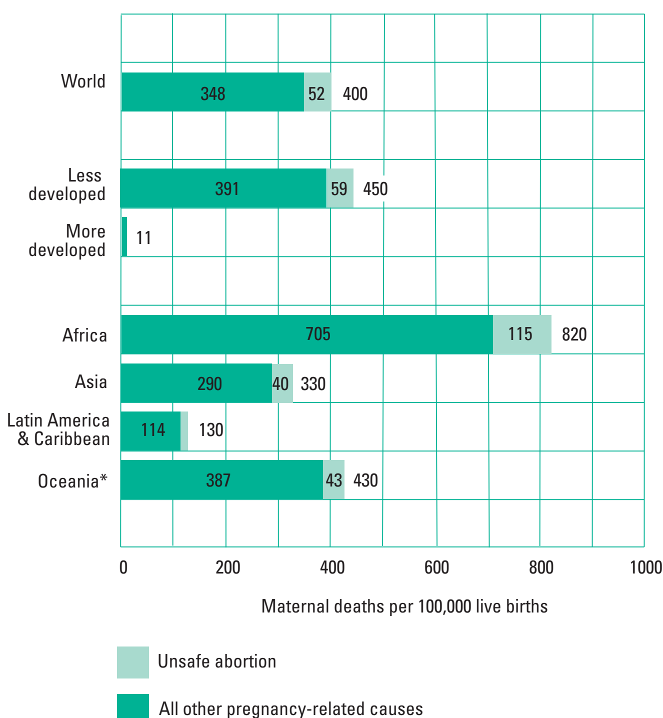
More research on the severity of complications from unsafe abortion is urgently needed. With better data, health planners would be able to estimate the proportion of women whose treatment could be provided safely and effectively at the primary health care level, and the proportion who will need treatment in secondary- or tertiary-level hospitals.

Unsafe abortion can also lead to longer-term health consequences

Long after their complications have occurred, many women continue to suffer serious and sometimes long-lasting health effects. Anemia and prolonged weakness are conditions that may persist long after a woman has had an unsafe abortion.[142,144,145] Chronic pain, inflammation of the reproductive tract and pelvic inflammatory disease are other conditions that may continue indefinitely, severely compromising a woman's health. These conditions, as well as other postabortion complications, may lead to one of the more pernicious of all long-term morbidities: secondary infertility. Estimates based on the limited available data suggest that around 1.7 million women develop secondary infertility each year as a consequence

FIGURE 6.2

Globally, one in eight maternal deaths result from unsafe abortion.



Note *Excluding Australia and New Zealand

Sources References 6, 66 and 137.

*The severity of complications was judged to be low if the woman had a temperature of 37.2°C or less, no clinical signs of infection, no system or organ failure and no suspicious findings on evacuation; moderate if she had a temperature of 37.3–37.9°C, localized peritonitis or offensive discharge; and high if she had a temperature of at least 38°C, a high pulse rate, system or organ failure, generalized peritonitis, shock, or a foreign body or mechanical injury on evacuation, or if she eventually died.

of badly performed abortions, and more than three million women annually experience reproductive tract infections that become chronic conditions.[6]

Unsafe abortions are also economically costly—for individuals, families and society

For the individual woman, the economic consequences of unsafe abortion involve not just the cost of obtaining treatment for complications, but also the loss of family income if she is unable to perform her job, grow food for her family or carry out her household chores. The costs that families incur if young children lose a mother are difficult to quantify, but should not be overlooked.

The type of facility at which women receive treatment largely determines who bears the direct medical costs of postabortion care—the woman herself or the public health system that serves her. If she goes to a private health facility, the woman and her family will probably shoulder all of the costs. If she goes to a public hospital, the cost will be borne by both the government health care system and by the woman and her family. In Nigeria, and probably in some other developing countries with poor health infrastructures, women who receive postabortion treatment must pay a large part of the fee for services out of their own pocket.[146] The estimated average total cost for treatment in a Nigerian hospital, including fees, supplies and drugs, is US$132, according to this analysis, and a separate analysis estimates that the average patient would pay US$95 of this cost[105]—an extremely high charge in a country where many people are living on less than US$1 a day.* Women and their families are also likely to incur some direct nonmedical costs, such as child care, lost income and transportation costs, which can be significant when women and members of their family have to travel long distances to reach the facility.[147,148]

In Uganda, treatment for abortion complications is seen by community members and providers as a heavy burden on the woman, her family and her community. The most harmful economic impacts of morbidity from unsafe abortion are income lost while the woman is unable to work, the time her husband must take off to care for her and the money the couple must spend on treatment. In addition, the woman may be unable to perform her daily activities and chores—such as lifting and fetching water—for an extended period.[95]

Government health systems are overburdened by the high cost of postabortion care

Analyses indicate that the estimated average cost (in 2006 US dollars) that governments incur caring for illness and disability associated with unsafe abortions is US$83 per case in Africa and US$94 in Latin America. However, these results underestimate the total costs to health systems, because they do not include costs for overhead or capital expenditure. If these indirect costs are included, the estimated overall average cost is US$114 for Africa and US$130 for Latin America.[149]

Estimates based on two different methodologies, both of which assume that about five million women are hospitalized each year in developing countries for the treatment of abortion complications,[111] suggest that the health systems of these countries expend US$460–550 million (in 2006 dollars) to treat the serious consequences of unsafe abortion. When overhead and capital costs are included, the total estimated annual cost to health systems increases to US$680 million. If the unmet need for postabortion care were to be fully met, and women who need medical care but do not receive it were to obtain it, the additional annual cost to public health systems would be US$370 million.[149]

Much of the cost of postabortion services in poor countries with highly restrictive laws can be reduced. For example, a study in Nigeria concluded that the cost of contraceptive services that would have enabled women to avoid the unintended pregnancies that ended in unsafe abortions would have been one-fourth that of the postabortion care provided by health facilities.[146]

Some additional economic burdens imposed by unsafe abortion go far beyond the direct costs of postabortion services to a country's health system. Attempts have been made to estimate some of these costs, using a range of methodologies. These estimates (which cover all developing countries unless otherwise indicated) include an annual cost of at least US$23 million to treat minor complications from unsafe abortion at the lowest-level facilities, typically primary health centers or health posts; an annual cost of at least US$6 billion to treat all postabortion infertility cases; US$200 million each year for the out-of-pocket expenses of individuals and households in Sub-Saharan Africa for the treatment of postabortion complications; and an annual cost of US$930 million to society and individuals for lost income from death or long-term disability due to chronic health consequences caused by unsafe abortion.[149]

The global burden of untreated abortion complications is large

Another way of looking at the severe adverse health consequences of unsafe abortion is to apply the World Health Organization's Global Burden of Disease methodology, which calculates disability-adjusted life years (DALYs). This is a standardized method of measuring the total impact of disease on a population's health, allowing comparisons among diseases and illnesses and across regions of the world. The measure quantifies the effects of death and illness as the sum of the number of years of life for-

*The proportion of costs borne by patients was greater than the researchers expected; poor economic conditions likely caused the health care system to seek to recover a high proportion of costs from patients. In addition, the total cost of care may have been underestimated.

TABLE 6.1

Recommendations for the provision of postabortion care

Aspect of care	Diagnosis or complication of induced abortion				
	Incomplete abortion	Complete abortion	Infection/sepsis	Uterine, vaginal or bowel injuries	Shock
Treatment					
If bleeding is light to moderate and gestation is <16 weeks	Remove products of conception protruding through cervix manually or by using forceps	Observe for heavy bleeding; evacuation of uterus is usually not necessary. However, MVA or misoprostol may be used as a precautionary measure	Begin antibiotics immediately; use MVA or other method to evacuate uterus	Perform laparotomy to repair the injury; perform MVA simultaneously	Infuse IV saline rapidly; test for clotting before infusion of fluids; determine cause of shock and provide appropriate treatment†; use MVA or other method to evacuate uterus, as required
If bleeding is heavy and gestation is <16 weeks	Evacuate uterus using MVA; alternatively, use misoprostol alone*				
If gestation is ≥16 weeks	Administer oxytocin or misoprostol; use MVA or other method to evacuate uterus				
Level of provider	Trained midlevel provider, gynecologist, or trained general physician	Trained midlevel provider, gynecologist, trained general physician	Gynecologist, trained general physician	Gynecologist, trained general physician	Gynecologist, trained general physician
Level of facility	Primary care or higher-level facility	For MVA: District, secondary or tertiary hospital; for misoprostol: primary care or higher-level facility	District, secondary or tertiary hospital	District, secondary or tertiary hospital	District, secondary or tertiary hospital
Pain management	Mild sedation, plus analgesia and/or local anesthesia	Heavy or mild sedation, plus analgesia and/or local anesthesia		Heavy or mild sedation, plus analgesia and/or local anesthesia	
Contraceptive counseling and services	• Counsel about health benefits of delaying next pregnancy until complete recovery • Counsel about range of contraceptive methods and help women choose a method; hormonal methods (pill, injections and implants) and condoms may be started immediately; IUDs and tubal ligation may be started immediately unless infection is present or suspected, or if woman is anemic • Provide a method or refer elsewhere for supplies • Provide emergency contraception, especially if woman is not starting a method right away				
STI/HIV care	• Counsel about need for STI/HIV protection and condom use • Offer (or provide a referral for) testing and treatment for STIs • Provide counseling or referral for HIV/AIDS				

Notes MVA=manual vacuum aspiration. *Use 400 mcg orally (repeated once after 4 hours, if necessary). †If heavy bleeding is cause, take steps to stop bleeding (e.g., oxytocins, uterine massage, aortic compression) and begin blood transfusion; if infection, test for microbial culture before administering antibiotics.
Sources **Immediate postabortion care**—Reference 151. **Contraceptive services and STI/HIV care**—References 152 and 153.

feited as a result of premature death, plus the number of healthy years lost due to living with a short-term, longer-term or chronic disability.

In 2004, an estimated 19% of DALYs lost in the developing world because of maternal morbidity and mortality were due to unsafe abortion. If the analysis is limited to women aged 15–29 (the ages at which most maternal mortality occurs), the proportion of all maternal DALYs lost because of unsafe abortion is somewhat higher—23%. The proportion is greatest in Southeast Asia and South Asia (26%), average in Latin America, Northern Africa and Sub-Saharan Africa (23–24%), lower in Western Asia (12%) and very low in Eastern Asia (1%), reflecting wide regional differentials in the legal status of abortion and in the safety of clandestine abortions. In fact, of the more than six million DALYs lost worldwide as a result of postabortion mortality and morbidity, about 45% occurred in Sub-Saharan Africa and another 45% in South Asia; the remaining 10% were lost in the rest of the developing world.[150]

Models for high-quality postabortion care have been developed

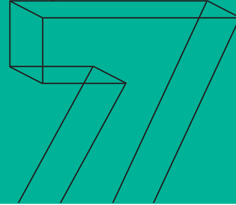
The harmful health consequences of unsafe abortion can be prevented if women receive the right care in a timely manner. What kind of postabortion care, ideally, should women living in countries with highly restrictive abortion laws receive, and who can and should provide it?

In the case of bleeding, infection or pain, basic postpartum treatments can be offered in a primary health care facility by midlevel health professionals. Essential equipment and supplies include vacuum aspiration tools (to perform uterine evacuation), antibiotics and analgesics. The medical requirements for treating the more severe complications from unsafe abortion (Table 6.1, page 35)[151–153] are in many ways similar to those for emergency care of pregnant, intrapartum and postpartum women with complications.[154]

MVA and medication abortion are the recommended techniques during the first trimester for the treatment of incomplete abortion. Later in pregnancy, dilation and evacuation (D&E) under local or general anesthesia might be needed. To treat the most severe complications (bowel injury, tetanus, renal failure, gangrene and severe sepsis), more complex treatments and greater practitioner skill are required. Dependable supplies of antibiotics, analgesics, blood (for transfusions) and oxytocins are crucial components of high-quality care. Essential equipment include vacuum aspiration tools (to perform uterine evacuation) and D&E equipment (for second-trimester procedures).[155] Contraceptive counseling and, ideally, contraceptive supplies are also important components of good postabortion care.[156]

Blood transfusions and surgery to repair possible uterine, vaginal or bowel injuries require skills and equipment typically available only in secondary- and tertiary-level facilities. Health planners need reliable estimates of the proportion of women in various settings likely to experience complications this severe. If, as a small number of studies show, the proportion is quite low, primary care facilities could refer these women to secondary or tertiary-level facilities. The far larger number of women expected to require treatment for pain (analgesics), infection (antibiotics) and incomplete but otherwise uncomplicated abortions (MVA and misoprostol) could all be treated at the primary health care level.

The potential role of misoprostol as a satisfactory substitute for MVA in the treatment of incomplete abortion is considered highly promising by international health experts. Making supplies of this drug available in primary care facilities has the potential to achieve good treatment outcomes and save lives, according to trials of the technique in Burkina Faso,[157] Mozambique,[158] Tanzania[159] and Uganda[160]—all poor countries with a seriously under-resourced health infrastructure.



Preventing Unintended Pregnancy Is Fundamental To Reducing Abortion

Most women want to have children at some point in their lives, but successfully planning when to start childbearing and when to stop can be difficult in the absence of reliable contraceptive methods. Many women become pregnant before they had planned to do so, or at the wrong time in their lives. In fact, the root cause of most abortions is a pregnancy that the woman or the couple did not plan for, or believed would not occur.* Helping women practice contraception to reduce their risk of having unplanned pregnancies can go a long way toward bringing down levels of unsafe abortion, as well as the overall level of abortion.

Many circumstances in women's lives can make pregnancy unwelcome

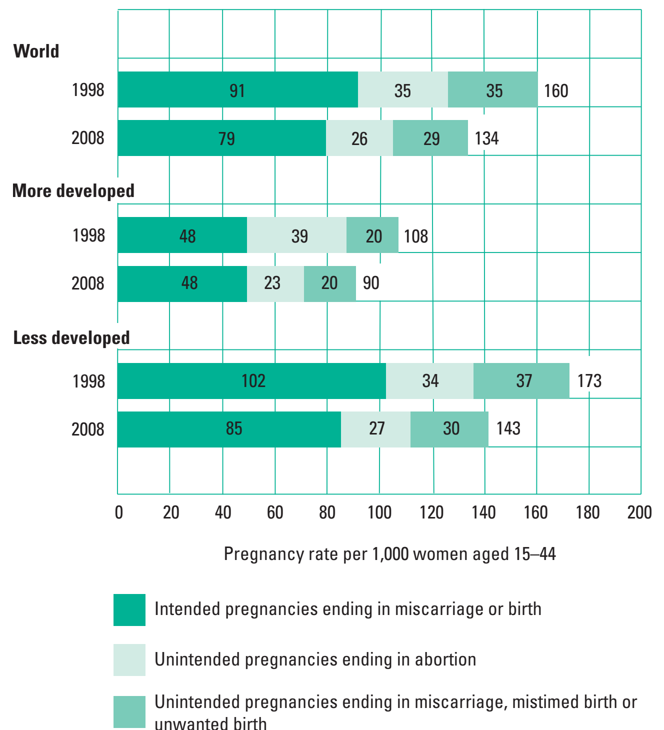
Women who do not greet the news that they are pregnant with pleasure may feel this way for a variety of reasons. The pregnancy may have occurred too soon, or too late. The women may be unmarried, lack the means to raise a child or already have more children than they want or can support. They may fear violent physical or emotional repercussions once their parents or partners learn that they are pregnant, or they may be having sex with a person other than their husband. They may have underestimated their risk of becoming pregnant, or been using a contraceptive method that failed.[161]

For many of the same reasons, some women with an unintended pregnancy might decide not to give birth. They may simply not want to have children, or recognize that they are in no position to have and raise a child. In many coun-

*A very small proportion of pregnancies are intended when conceived but are terminated for health reasons or because of changes in life circumstances after conception.

FIGURE 7.1

Pregnancy rates have declined in both more and less developed regions.

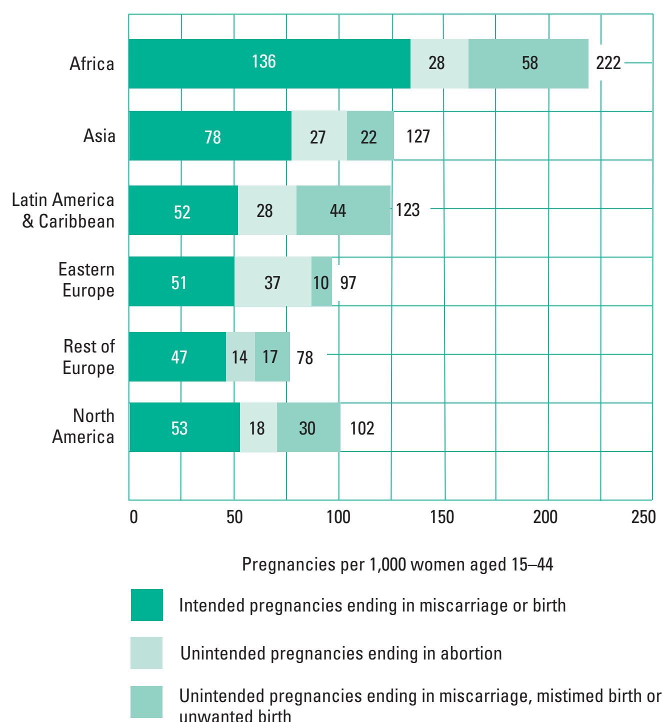


Note Pregnancy rates may not sum to total pregnancy rates because of rounding.

Source Reference 163.

FIGURE 7.2

Pregnancy levels and outcomes varied widely by region in 2008.



Note Pregnancy rates may not sum to total pregnancy rates because of rounding.

Source Reference 165.

tries, economic realities may guide this conclusion. In the Philippines, three-quarters of poor women and six in 10 nonpoor women having abortions report that the major reason for their decision is that it is too expensive to raise a child (or another child).[54] In Pakistan, as well, women with large families who are already living in conditions of poverty are often those most likely to seek abortion.[162] In Nigeria, in contrast, wishing to avoid having to drop out of school, being unmarried and having relationship problems are often women's major reasons for ending an unwanted pregnancy.[97]

Despite declines in unintended pregnancy rates, levels are still high

A comparison of estimated rates for 1995 and projected rates for 2008* shows that levels of pregnancy (and unintended pregnancy) are declining (Figure 7.1, page 37).[163] Pregnancy rates include all pregnancies—those that end in a birth, a miscarriage† or an abortion; unintended pregnancies include those that end in an abortion, those that end in a mistimed or unwanted birth and the proportional number of these outcomes that end in miscarriage.

The number of pregnancies worldwide is estimated to have been 209 million in 1995 and is projected to have been 208 million in 2008. Of the pregnancies that occurred in 2008, 185 million (89%) were among women living in the developing world, and 23 million were among those in the developed world.[164] Although the annual number of pregnancies decreased only slightly between 1995 and 2008, the world's pregnancy rate declined by a much greater margin, since the number of women of childbearing age was rising (because of continuing population growth). In fact, the pregnancy rate fell by 16%, from 160 pregnancies per 1,000 women in 1995 to 134 per 1,000 in 2008.[163]

In the more developed world, the estimated total pregnancy rate fell from 108 to 90 per 1,000 women aged 15–44 between 1995 and 2008, a 17% decline; in the less developed world, it dropped from 173 to 143 per 1,000, also a decline of 17%. In Africa, the region with the highest rate, the estimated number of pregnancies per 1,000 women of childbearing age fell by 15%, from 262 to 222 per 1,000, compared with declines of 19% in Asia (from 156 to 127 per 1,000) and 23% in Latin America and the Caribbean (from 159 to 123 per 1,000).[163]

Worldwide, the rate of unintended pregnancy declined by 20% between 1995 and 2008, from 69 to 55 per 1,000 women aged 15–44. The decline was greater in the more developed world, where the rate fell by 29% (from 59 to 42 per 1,000 women), than in the less developed world, where it fell by 20% (from 71 to 57 per 1,000).[163]

By 2008, the unintended pregnancy rate in the less developed world was one-third higher than that in the more developed world (57 vs. 42 per 1,000 women aged 15–44).[163] When China is excluded, this contrast is even greater—the unintended pregnancy rate in the developing world (without China) was 60% higher than that in the developed world. Roughly half of all unintended pregnancies ended in abortion—53% of those in more developed regions and 48% of those in less developed regions.[164]

Regional variations in the rate of unintended pregnancy in 2008 were large (Figure 7.2).[165] The unintended pregnancy rate in Latin America and the Caribbean was much higher than that in Asia (72 vs. 49 per 1,000), despite similar overall pregnancy rates in the two regions.[163] Moreover, a much lower proportion of unintended pregnancies in Latin America and the Caribbean than in Asia ended in abortion (38% vs. 55%).[164] In Africa, the estimated unintended pregnancy rate in 2008 was 86 per 1,000 women aged 15–44, and 33% of these pregnancies ended in abortion.[163]

The unintended pregnancy rate in North America was similar to that in Eastern Europe (48 and 47 per 1,000 women, respectively), but it was higher in these two

*Projected pregnancy rates for 2008 are based on 2003 abortion estimates (reported in Chapter 3), on 2000–2007 survey-based estimates of the proportion of births that are unplanned and on United Nations estimates of births and population for 2008. See Data and Methods Appendix for details.

†For convenience, in this report we use the term miscarriage to refer to all spontaneous fetal losses, including stillbirths.

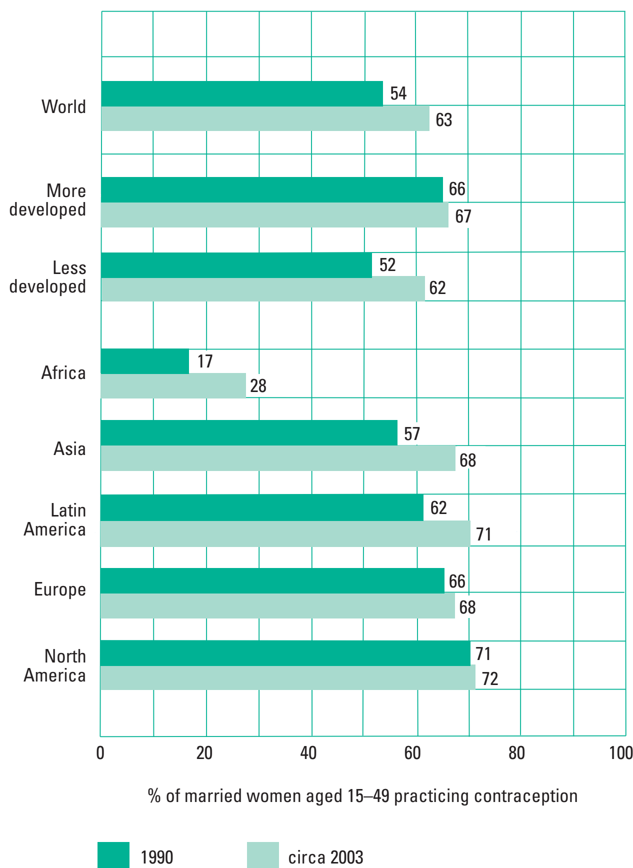
regions than in the rest of Europe (31 per 1,000).[165] Women with unintended pregnancies in North America were far less likely than their Eastern European counterparts to have had an abortion (38% vs. 80%), and much more likely to have had an unplanned birth (48% vs. 10%; not shown). The proportion of unintended pregnancies that ended in unplanned births was also somewhat higher in North America than in the rest of Europe (48% vs. 42%).

In absolute numbers, of the estimated 208 million pregnancies that occurred worldwide in 2008, 102 million resulted in intended births (49%), 41 million ended in induced abortions (20%), 33 million in unintended births (16%) and about 31 million in miscarriages (15%)—some from unintended and some from intended pregnancies (not shown). The proportion of all pregnancies that ended in abortion in 2008 was higher in more developed countries than in less developed ones (25% vs. 19%). Africa is the region with the lowest proportion of pregnancies ending in abortion—one in eight.[164]

A 2003 study estimated that two-thirds of all unintended pregnancies are the result of not using contraceptives, and one in seven are due to the use of traditional methods with high failure rates.[166] Clearly, a sensible way to enable women to have fewer unintended pregnancies is to promote policies and programs that help increase their use of effective contraceptives, so that they can have the number of children they want, when they want them.

FIGURE 7.3

Contraceptive use has risen in every region of the world, but is still extremely low in Africa.



Sources References 48 and 169.

How many children do couples want?

During the past 30 years, as a result of such factors as urbanization, greater economic pressures on families, increased levels of education (and greater parental awareness of the need to educate their children) and the growing importance of women working for pay outside the home, couples worldwide now have different life goals and family building strategies compared with previous generations—and they desire smaller numbers of children.[167]

The average number of children that couples would prefer to have ranges from one child in the Ukraine to almost seven in Niger. On average, women in both Asia and in Latin America and the Caribbean say they would ideally like to have 2–3 children, whereas those in Africa would like 4–5 children.[168] Up-to-date information about family size aspirations is not available for most Western and Northern European countries, but the few studies available show a range between one and two children.

Couples in many countries are having more children, on average, than they ideally want. Recent national survey data indicate that the difference between desired and actual number of children per family is generally 0.3–1.0 in Latin America and the Caribbean, and 0.1–1.1 children in Asia,[168] two regions where the prevalence of modern contraceptive use is around 62–65%.[48] In Sub-Saharan Africa—the region with the lowest level of effective contraceptive use and the largest average desired family size—the gap between desired and actual family size is similar to that of the other developing regions: generally between 0.2 (Chad and Niger) and 1.4 (Ethiopia), although it is higher in a few countries (Rwanda, Swaziland and Uganda).[168]

It is not simply that women are having more children than they want; many also want, but are unable, to time and space their births to fit their life circumstances. Sizeable proportions of women are having children sooner than they would like to, often resulting in very closely spaced births or in premarital births. In fact, in some countries, the proportion of births that women consider to be mistimed (wanted later) is as high as, or higher than, the proportion they consider unwanted. Mistimed births account for 15–43% of all births in Latin America and the Caribbean and 8–41% of those in Africa. Mistimed births are somewhat less common in Asia, representing 2–24% of all births.[168]

Adolescent Women Suffer Disadvantages and Stigma of Many Kinds

Adolescents (women aged 15–19) are estimated to have 2.5 million of the approximately 19 million unsafe abortions that occur annually in the developing world.[1] The events that lead young women to decide to end unwanted pregnancies are often complex and are usually related to powerful social and cultural forces shaping their lives. Although these influences obviously vary widely from one part of the world to another, several common themes are apparent.

The transition from girlhood to sexual maturity and adulthood can be difficult to navigate for young women. In most regions of the developing world, and in many parts of the developed world, widespread social values—including religious and traditional cultural beliefs and codes—promote the idea that young women should not have sex until they marry. This ideal tends to be in direct conflict with the natural biological and emotional impulses of almost all young people to find love and sexual intimacy, often before marriage, and it is also increasingly in conflict with the reality of today's rapidly changing world. As more young women stay in school or aspire to economic independence, marriage is occurring at a later age than in the past in all developing regions except Latin America, where there has been little change. As a result, the gap between age at puberty (which is declining in the developing world) and age at marriage is lengthening worldwide—and now varies between six and 15 years.[2] During these years, many young women become sexually active while still single and are at risk of unintended pregnancy and abortion. Married adolescents may also have unintended pregnancies and seek abortion—some of these women may wish to delay motherhood or postpone a second birth—but this is less common.

Most adolescent women are poor, or lack monetary resources of their own because they are still in school, are not working or can earn only very low wages.[3] In addition, many face societal disapproval and condemnation if they are having sex.[4,5] Thus, the plight of an adolescent woman with an unintended pregnancy resulting from a nonmarital sexual relationship is often even more problematic than that of an older woman with such a pregnancy.[6,7] Whether single or married, adolescents are likely to suffer from particularly high levels of disadvantage and powerlessness. Among the many scenarios likely to create serious disadvantage for adolescents are the following:

- In some parts of the world, adolescents are expected to acquiesce to their parents' decisions regarding marriage and to their husband's wishes regarding sexual intercourse; they may lack the ability or independence to refuse either demand.[8,9]

- Adolescents often lack good, comprehensive sex education, are shy about obtaining contraceptive information and services[10] (particularly in countries where some influential groups believe that such education encourages sexual promiscuity) and have high levels of unmet need for contraception (in Sub-Saharan Africa, half of sexually active unmarried adolescent women do not want to become pregnant but are not practicing contraception[11]).

- Some adolescents have misconceptions about the risk of pregnancy, believing, for example, that they cannot get pregnant because they are too young, or if they have sex only occasionally.[12]

- Adolescents, especially younger girls, are especially vulnerable to sexual violence, rape and sexual abuse by close family members.[2] While these are grounds for legal abortion in many countries,[13] the possibility of obtaining a legal pregnancy termination is usually quite small in these cases, not least because many girls are likely to conceal the circumstances in which they were made pregnant.

- Some younger, unmarried adolescents may not recognize or believe the signs of pregnancy, may seek to conceal the pregnancy from their family and often fear the stigma associated with out-of-wedlock pregnancy.[14] As a consequence, it is possible that a larger proportion of adolescent than of older women are in the second trimester by the time they try to end a pregnancy,[15] leading to greater health risks.[16]

- Since most adolescents have not yet had a child, many of those who want to end an unintended pregnancy may be unfamiliar with the health professionals (such as midwives and gynecologists) who are likely to perform safe abortions. They may thus use traditional, untrained providers, who offer greater confidentiality but are more likely to use unsafe methods.

- Similarly, if adolescents who have had unsafe abortions experience complications requiring treatment, they may be less likely than older women to know where to go for care; in addition, they may be intimidated by the prospect of getting treatment, may not have the money to pay for care, and may fear the double stigma of being pregnant while single[17] and seeking to end the pregnancy.[18]

- Health workers in postabortion clinics sometimes treat women who are young and unmarried more unsympathetically than they do older, married women.[19] These judgmental attitudes are likely to deter some adolescents from seeking the care they need.

Achieving a family size of no more than two children requires a high degree of contraceptive vigilance. By the time she is in her mid-40s, a woman with two children will have spent, on average, only five years trying to become pregnant, actually being pregnant and not being at risk for another pregnancy for a few months following a birth. To successfully avoid becoming pregnant before, after or between those two births, either she will have had to refrain from having sex, or she or her partner will have had to practice contraception effectively for an average of about 25 years—a hard standard of behavior to live up to, even for the most disciplined and highly motivated individuals. It is not surprising, therefore, that most unintended pregnancies occur when couples are not using contraceptives, are using traditional methods with high failure rates (withdrawal or periodic abstinence) or are using effective methods inconsistently, irregularly or incorrectly.[166] This is the case in spite of the fact that contraceptive use levels in developing countries are rising, and even where these levels are high.

Contraceptive use has increased worldwide

In response to the widespread and increasing desire for smaller families, the use of contraceptive methods has risen globally at an annual rate of 1.3%, from 54% in 1990 to 63% in 2003 (Figure 7.3, page 39).[48,169] During this time, the proportion of married women aged 15–49 using a contraceptive method is estimated to have risen from a very low rate of 17% to a still low rate of 28% in Africa, from 57% to 68% in Asia and from 62% to 71% in Latin America and the Caribbean. In contrast, it has changed hardly at all in the more developed world (where it was already high), from 66% to 67%.

Although contraceptive use has increased substantially during the past 20 years or so, national survey data from some large developing countries suggest that the trend has slowed since the late 1990s (Table 7.1).[170–172] Between the early 1990s and the mid-2000s, contraceptive prevalence among married women rose from 40% to 58% in Bangladesh, from 41% to 56% in India, from 27% to 39% in Kenya, from 63% to 71% in Mexico, and from 6% to 13% in Nigeria. However, in each case, most of the growth in method use occurred between 1990 and 2000. Since then, increases in most of these countries have been very small.

In many developing countries, unmarried women who are sexually active, like their married peers, are more likely now than a decade or so ago to be using contraceptive methods; condom use was the method with the largest increase in use during the 1990s.[173]

In poor and rural areas, contraceptive use is low and unplanned childbearing is common

Research covering large areas of the world has established a strong link between poverty and low prevalence of contraceptive use. In many developing countries, women in the top income bracket are twice as likely as the poorest women to be using modern contraceptives.[174] It is hardly surprising, then, that poor women are also more likely than those who are relatively well-off to have unwanted births.[175] This relationship holds true even in one of the world's wealthiest countries, the United States.[176]

Living in a rural area is also strongly associated with not using a contraceptive method. In Pakistan, Burkina Faso, Yemen and Ethiopia, contraceptive prevalence is 3–4 times higher among urban than among rural women.[174] Poor women and those living in rural areas are also the ones most likely to obtain unsafe abortions or go to unsafe abortion providers (see Chapter 5). Thus, among the most disadvantaged women, low rates of contraceptive use result in relatively high levels of unprotected sex, which in turn lead to an elevated risk of unintended pregnancy—and, if they try to end such a pregnancy unsafely, an increased risk of disability and death.

Lower levels of contraceptive use among poorer women and rural women are likely to be related to many factors, including low educational levels among these groups and the influence of social and cultural values favoring high fertility. However, two important factors that are likely to reduce poor or rural women's ability to use contraceptives are their inability to afford them and the lack of health facilities that provide free or low-cost contraceptive information and supplies—in other words, these women's limited access to services.

Poor and rural women are not the only ones who have difficulty obtaining contraceptive services. Young women and single women are more likely than their older or married counterparts to be without economic resources, and many have difficulty paying for contraceptive services (see box, page 40). In some countries, cultural, social and financial factors, and the health system itself, can create barriers that make it particularly difficult for unmarried women to obtain contraceptive services.

In many places, traditional methods of contraception are still popular

Continuing high rates of unintended pregnancy and abortion, even in countries where contraceptive prevalence is rising, may be due in part to the incorrect or irregular use of otherwise effective methods (such as women not taking their pills regularly, or men not always wearing condoms), or to continuing reliance on traditional methods* that have high failure rates (Table 7.2, page 42).[48,170–172]

*Withdrawal and periodic abstinence are the most widely used traditional methods; in addition, use of prolonged breastfeeding and a wide range of folk methods, varying in importance across countries, are classified as traditional methods.

TABLE 7.1

Percentage of married women using any contraceptive method in selected countries, late 1990s–early 2000s

Country	Early 1990s	Circa 2000	Mid-2000s
Bangladesh	40 (1991)	54	58 (2004)
Colombia	66 (1990)	77	78 (2005)
India	41 (1993)	48	56 (2006)
Kenya	27 (1989)	39	39 (2003)
Mexico	63 (1992)	69	71 (2006)
Nigeria	6 (1990)	15	13 (2003)
Pakistan	12 (1991)	28	30 (2007)
United States	74 (1988)	77*	73 (2002)

Note *Percentage is from 1995.

Sources **Mexico**—Reference 170. **United States**—Reference 171. **Other countries**—Reference 172.

TABLE 7.2

Prevalence of the use of modern and traditional contraceptive methods among married women aged 15–44, selected countries, late 1990s–early 2000s

Country	Modern	Traditional	Total
Less developed			
Bangladesh	47	11	58
China	90	0	90
Colombia	67	11	78
Egypt	56	3	59
Ethiopia	14	1	15
India	49	8	57
Kenya	31	8	39
Mexico	66	5	71
Nigeria	7	6	13
Pakistan	22	8	30
Peru	47	24	71
Philippines	33	16	49
More developed			
France	77	5	82
Georgia	26	21	47
Russian Federation	53	20	73
Spain	66	6	72
United Kingdom	82	0*	82
United States	68	5	73

Note *In the UK, 8% of women use traditional methods, but all of them report using these methods in combination with a modern method.

Sources **China, United Kingdom, France, Spain**—Reference 48.
Mexico—Reference 170.
Other less developed countries, Russian Fed., Georgia—Reference 172.
United States—Reference 171.

In fact, the areas in Eastern Europe that still have high abortion rates include many countries in which substantial proportions of women continue to depend on traditional methods of contraception. This suggests that in Eastern Europe—and perhaps in some developing countries—a transition away from the use of traditional methods and toward the use of modern methods will bring unintended pregnancy rates and abortion levels closer to the low levels now seen in Western and Northern Europe.[46,177] In fact, such a series of events occurred between 1988 and 1999 in the Russian Federation,[46] where abortion levels declined steadily as the use of modern contraceptives rose.

Further evidence of the inverse relationship between the abortion rate and the level of modern contraceptive use can be seen in several countries in Eastern Europe and Central Asia, where, as in Russia, substantial increases in the use of modern contraception coincided with declines in the incidence of abortion.[46] In Peru and the Philippines—countries where abortion rates are estimated to be relatively high—about one-third of contraceptive users rely on traditional methods.[48]

Until the 1960s, when the pill and other modern methods became available, and even into the 1970s, some Northern and Western European countries had substantial proportions of women who were still using the traditional methods (particularly withdrawal) that had helped bring about the fertility decline in those two regions.[178] However, today, 90% or more of contraceptive users in these two regions, which have the very lowest abortion rates, are using modern methods.

Many women do not want to become pregnant but are not using contraceptives

Women who want to regulate their childbearing, but do not have the knowledge, the means or the freedom of action to do so through the use of contraceptives, are considered to have an unmet need* for contraceptive information, services and methods. In Africa, even though couples still want quite large families, half of all married women of childbearing age are fertile but do not want a child soon or ever. In a recent period (2002–2007), 22% of married women in Africa were at risk for an unplanned pregnancy, but were not using a contraceptive method—only a small decline from the level a decade earlier (24%; Figure 7.4).[179]

In Asia and in Latin America and the Caribbean—regions with relatively high levels of contraceptive use—13% and 10%, respectively, of women of childbearing age had an unmet need in 2002–2007. These proportions represent declines from the 1990–1995 levels in both Asia (18%) and Latin America and the Caribbean (16%).[179]

Levels of unmet need are higher among women in developing countries who are young, unmarried and sexually active. In most countries in Latin America and the Caribbean, 30–50% of unmarried, sexually active women aged 15–24 are not using any type of contraceptive method. In Sub-Saharan Africa, unmet need among this same group typically ranges from 25% to 60%.[180] Although unmet need appears to be very low in a few Sub-Saharan African countries, dependence on traditional methods is typically high, suggesting that even in these countries young unmarried women are in great need of effective contraceptive methods.[168] (Estimates of unmet need for unmarried women in Asia are not available, since surveys in this region often exclude such women.)

A 2003 study estimated that 137 million women in the developing world would like to delay or stop childbearing but are not using any method of contraception, and an additional 64 million are using traditional methods. This study also estimated that satisfying the unmet demand for modern contraceptive methods could avert 52 million unintended pregnancies and 22 million induced abortions every year.[166]

*Women are considered to have an unmet need for contraception if they are married or are unmarried and sexually active, can become pregnant, do not want a child soon or at all, and are not using any method of contraception.

Some women do not use contraceptives because they believe their pregnancy risk is low

When women in Africa, Asia and Latin America who have an unmet need for family planning are asked why they are not using a contraceptive method, the most common answer (given, on average, by one-third of respondents in Latin America and one-quarter of those in Africa and Asia) is that they have sex too infrequently, or not at all. The next most common response (given by an average of one in four women with unmet need in all three regions) is that they do not like the side effects or perceived health risks associated with modern contraceptives.[181]

Opposition to the use of contraceptives (on their own part, or on the part of family members or respected community leaders and institutions) is cited by only about one in 10 women with unmet need in South and Southeast Asia, Northern Africa, Western Asia and Latin America and the Caribbean.[181] However, this reason is more common in Sub-Saharan Africa (cited by slightly more than one in five women). Some women (13–19%, on average) give breastfeeding as an explanation for not practicing contraception, perhaps wrongly believing that breastfeeding affords them complete protection against pregnancy.[179]

A smaller proportion of women (just under one in 10, on average) in Latin America and the Caribbean and Asia say that they do not know where to obtain contraceptives, cannot afford them, or do not know that contraceptives exist. However, these reasons are of greater importance in Sub-Saharan Africa, where they are cited by more than 20% of married women in 15 of 24 countries.[181] Access issues may be more important than these statistics indicate, however: Currently available data are not sufficient for assessing the relative importance of each reason, because women have a number of interrelated reasons for not practicing contraception.

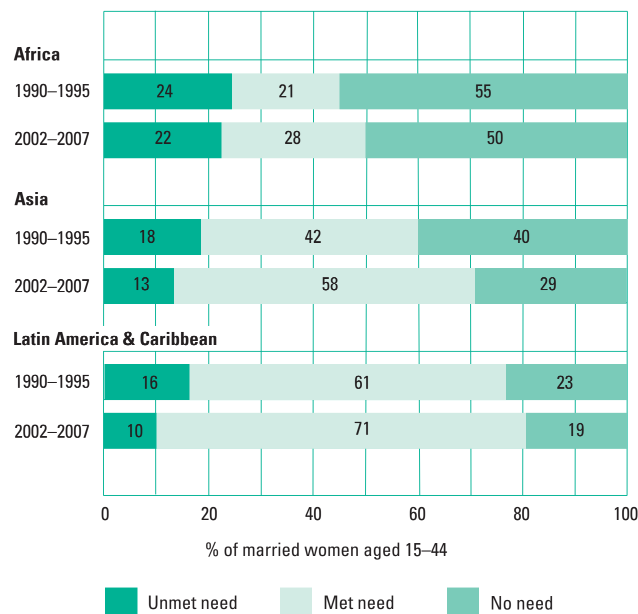
Overall, these findings point to

- the importance of educating women about their chances of becoming pregnant and of helping them assess this likelihood as accurately as possible;
- the need to provide women with full information about contraceptive methods and their possible side effects;
- the importance of improving knowledge of and access to contraceptive services and supplies, especially in Sub-Saharan Africa;
- the importance of increasing public education to strengthen support for contraceptive services;
- the importance of offering women who experience side effects a wide range of methods from which to choose; and
- the need for much more scientific research into new contraceptive methods.

Nevertheless, although the correct and consistent use of effective contraceptive methods by all women at risk would greatly reduce levels of unintended pregnancy, many women will continue to have unintended pregnancies so long as failure rates for some modern methods remain high, and so long as women, for any number of reasons, do not use modern methods but continue to use either traditional ones, or no method at all. Some of these women with unintended pregnancies will continue to resort to abortion to avoid having an unplanned birth.

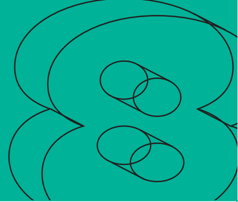
FIGURE 7.4

Unmet need for contraception among married women is declining, but it is still high.



Notes Women with no need either want a child soon or are infecund; women with a met need are currently using a method of contraception (modern or traditional).

Source Reference 179.



Conclusions and Recommendations

At the beginning of this report, we asked whether the global picture of induced abortion has changed since the late 1990s, when a comprehensive report similar to this one was published. Have there been improvements in any part of the picture, and what prospects might there be for further positive change?

In a number of areas, we conclude, there have been some encouraging developments during the past decade. However, much remains to be done if continuing reductions in unintended pregnancy are to be achieved and if abortion is to be made legal, safe and accessible to women worldwide.

The situation has improved in recent years

The positive developments that have taken place in recent years include legal reforms and changes in the global and regional rates of unintended pregnancy and contraceptive use.

• Since 1997, abortion laws have been made less restrictive in 19 countries or smaller entities around the world. Cambodia, Colombia, Ethiopia and Nepal are among the countries that have seen the broadest changes. However, in three countries (El Salvador, Nicaragua and Poland), legal restrictions have actually grown more stringent. Although the positive changes in abortion laws have been relatively small, they arguably represent a greater level of reform than occurred in the previous decade.[27]

• The worldwide rate of unintended pregnancy (whether resulting in birth, abortion or miscarriage) has declined in recent years, from 69 per 1,000 women aged 15–44 in 1995 to a projected rate of 55 per 1,000 in 2008.[163]

• An important and encouraging trend underlying the decline in the incidence of unintended pregnancy is an increase in the use of contraception. Globally, the proportion of married women using a method of contraception increased at an annual rate of 1.3% between 1990 and 2003, from 54% to 63%.[48,169] A similar trend occurred in a number of developing countries in the 1990s among unmarried, sexually active young women.[173]

• Preliminary indications suggest that the severity of complications from clandestine abortion may be declining, even if the rate of abortion complications requiring hospitalization has not yet dropped noticeably. Two factors that are probably related to any decline in severity are the spread of medication abortion (especially the use of misoprostol alone, which growing numbers of women seem to be adopting, independently of service providers) and the increased provision of abortion by properly trained doctors and midlevel medical staff using manual vacuum aspiration (MVA).

However, many challenges remain

While the developments cited above are encouraging, much work remains to be done, both in the legal arena and in provision of contraceptive and abortion services. The following points underscore the need for continued efforts.

• Despite reforms of the abortion laws in 19 countries, little change has occurred in the proportion of reproductive-age women who live in countries that permit abortion under broad criteria (on socioeconomic grounds or without requiring a reason).[32]

• In some countries where abortion is broadly legal, access to abortion services provided by qualified personnel is highly uneven. India and South Africa are examples of less developed countries in which safe abortions are hard for some women to obtain, even though the proce-

dure is permitted on broad grounds. As a result, many women in these countries, especially poor and rural women, continue to have unsafe abortions.

• The estimated number and rate of unsafe abortions—with their capacity to harm women's health and threaten their survival—changed very little between 1995 and 2003.[43]

• Access to high-quality postabortion care remains poor for women in many less developed countries. Even when services are available, their poor accessibility and the strong cultural stigma often associated with abortion can discourage their wider use, even among women with very severe complications. As a result, an estimated 70,000 women die each year from the consequences of unsafe abortion—a figure that has hardly changed in the past decade.[137] Many millions more women continue to suffer short- and long-term health consequences.

• Increases in contraceptive use appear to be leveling off in some countries (e.g., Kenya, Pakistan), and use of less reliable traditional methods is still high in some parts of the world (e.g., Eastern Europe, the Philippines).

• As desired family size in many places declines to no more than two children, couples will increasingly have a strong motivation to prevent births in excess of that number. At least in the short run, this may lead to higher, not lower, levels of abortion, including unsafe abortion.

Access to safe abortion services and to adequate postabortion care varies broadly by world region

The relevance or applicability of these conclusions is by no means consistent for all parts of the world. Each of the three major factors that underlie unsafe abortion and its adverse consequences—laws that restrict the availability of safe pregnancy terminations; the insufficiency or unavailability of postabortion care; and low levels of contraceptive use, as well as inconsistent or incorrect use—carries more weight in some regions and countries than in others. In addition, two overarching and closely interrelated factors that decisively affect all three contributing elements also differ greatly by region: the capacity of national health care systems to provide adequate services (contraceptive information and supplies, safe abortion programs and postabortion care, including emergency care) and the extent of poverty at the country and individual levels.

When these different elements are combined, a more nuanced picture emerges. We categorized regions (and exceptional countries) according to their current status regarding the three main types of services needed to reduce unsafe abortion and its harmful consequences: access to safe abortion services, as defined by the legal status of abortion and access to abortion services provided by trained personnel; availability of postabortion care, a measure estimated on the basis of the proportion of

TABLE 8.1

Women's access to safe abortion services, postabortion care and contraceptive services, by region

Type of service	Adequacy of access		
	ADEQUATE	MEDIUM	POOR
Access to safe abortion	Developed world (except Ireland and Poland), Eastern Asia, Central Asian Republics, Cuba, Tunisia, Turkey, Vietnam	Cambodia, Ethiopia, India, Mexico (Federal District only), Nepal, South Africa and a number of small countries	Rest of less developed world, Ireland, Poland and some city states of Europe
Availability of postabortion care	Developed world, Eastern Asia, Central Asian Republics, Cuba, Tunisia, Turkey, Vietnam	North Africa, Latin America and Caribbean, Southeast Asia, Western Asia, South Africa	Sub-Saharan Africa (except South Africa), South Asia
Access to contraceptive services	North America, South America, Central America, Eastern Asia, Western Europe, Northern Europe, Australia, New Zealand	Northern Africa, Southern Africa, Asia (except Eastern), Caribbean, Eastern Europe, Southern Europe	Africa (except Northern and Southern regions), Oceania (except Australia and New Zealand)

Notes *Access to safe abortion* is considered adequate if abortion is legal on broad grounds (for all reasons or for socioeconomic reasons) and safe services are widely available and accessible; medium if abortion is legal on broad grounds but safe services are lacking for a large proportion of women; and poor if abortion is legally restricted, services are clandestine, or safe services are available only to women who can afford them. *Availability of postabortion* care is considered adequate if the health care system has the capacity to provide postabortion care, regardless of whether there is need for such care; medium if there is moderate need for care and at least 60% of births are attended by a skilled professional; and poor if the need for postabortion care is high and fewer than 60% of births are attended by a skilled professional. *Access to contraceptive services* is considered adequate if the proportion of women using any contraceptive method is more than 66%; medium if the proportion is 34%–66%; and poor if the proportion is less than 34%.

Sources **Access to safe abortion**—Reference 19. **Skilled attendance at delivery**—Reference 182. **Contraceptive prevalence**—Reference 48.

women attended by a health professional when they give birth (an indicator of the overall capacity of health care systems); and access to contraceptive services, estimated on the basis of contraceptive prevalence (Table 8.1).[19,48,182] This schematic categorization illustrates the complex interweaving of the differing legal, economic, health-system and cultural conditions that create the overall context in which women risk experiencing an unintended pregnancy—and in which those who have such pregnancies may seek an induced abortion.

With only a few exceptions, the world's more developed countries and regions fall into the adequate category for all three major factors. In countries where safe and legal abortion is widely available, the need for postabortion care will be minimal, if not nonexistent. In contrast, in most African and Asian countries, access to safe abortion is low, levels and standards of postabortion care are low, and levels of contraceptive use are low to medium. In Latin America and the Caribbean, the situation is mixed: Access to safe abortion is poor, but availability of postabortion care is adequate in many parts of the region, and levels of contraceptive use are higher than in Asia and Africa.

Nevertheless, certain important variations emerge within these broad categories. In some industrialized countries (the United States, for example), access to safe abortion can be difficult for poor women and adolescents. In addition, the prevalence of contraceptive use among women of childbearing age in more developed regions is highly variable, ranging from less than 50% in Bulgaria, Latvia, Lithuania and Poland to more than 75% in most of Western Europe and the United States.[48]

A further source of variation is the extent to which traditional methods with higher failure rates are used. In the Philippines—a medium-income developing country with a moderately high abortion rate (27 per 1,000 women)—overall contraceptive use is at a medium level (49% in 2003), but use of traditional methods is high (one-third of all users), thus affecting the level of unintended pregnancy and the extent of need for abortion. Contraceptive discontinuation rates and the degree to which women use methods incorrectly or inconsistently also affect levels of unintended pregnancy and abortion, and these behaviors vary by country.

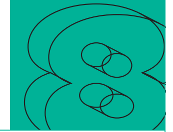
Actions Required to Improve Contraceptive Access and Use

- Develop and promote information, education and communication materials and programs about contraception. These materials should be made available in health facilities, schools and other public places, and be designed to dispel myths about contraceptive methods while making their health benefits known.
- Establish policies requiring that formal training for doctors, nurses and primary health care workers include adequate instruction on contraceptive methods and pregnancy risk, as well as information about the strong links between effective contraceptive use and improved maternal and infant health and survival.
- Make available information about contraception, and provide access to as wide a range of methods as possible (condom, pill, patch, implant, injectable, IUD, ring, male and female sterilization, emergency contraception), in all primary health centers, in hospitals where women deliver and as a basic component of all postabortion services.
- Ensure an adequate and continuous supply of a wide variety of contraceptive commodities at the national level.
- Establish protocols that require health personnel to provide correct information about the health benefits and possible side effects of contraception, to offer alternative method choices and to inform women about factors that influence pregnancy risk.
- Encourage health providers to treat all those who request contraceptive information and services with respect, whether they are married or single, young or old, wealthy or poor, or male or female.
- Create public messages that counteract the feelings of isolation and stigma that often prevent never-married, sexually active young women from seeking contraceptive services.
- Make information about the benefits of child spacing and small families available to family and community members likely to oppose the practice of family planning.
- Effectively address organized opposition to contraception, particularly on the part of influential religious groups, by providing policymakers (preferably those at the highest levels of the government and the medical establishment) with evidence of the strong benefits of family planning for families and society.

What needs to be done to reduce the practice and consequences of unsafe abortion?

There are three known ways to reduce the health and human burden of unsafe abortion: Increase the prevalence of contraceptive use to reduce overall levels of unintended pregnancy; broaden the legal criteria under which abortion is permitted and establish services for the provision of safe, legal abortions within the terms of existing laws; and provide women who experience complications from unsafe abortion with the medical treatment they need. However, specific recommendations must take into account the widely varying legal contexts of abortion around the world and the differences in the capacity of developing countries to provide safe abortion and other basic reproductive health services for women, including high-quality postpartum services.

In countries where the major determinants of morbidity and mortality from unsafe abortion are low levels of effective contraceptive use, stringent legal limitations on pregnancy termination and poor access to postabortion care, program and policy change is urgently needed in all three problem areas. But countries where access to services and availability of care are moderate are also in need of improvements in their health policies and standards of



service provision. Whatever the level and type of need, these efforts will require the involvement of both the public and the private health sectors.

• *Improve the level and effectiveness of contraceptive use.* While improvements are crucial in all three areas known to contribute to unsafe abortion and its potentially harsh consequences, expanding access to effective modern methods of contraception and improving the quality of services to help women prevent unintended pregnancies in the first place may be the strategy that is the most achievable in the near term and is also responsive to women's long-term needs.

In every region and country of the world, behind almost every abortion is an unintended pregnancy. Therefore, giving women and couples the information and services they need to time and space their pregnancies—so that they can have the children they want, when they want them—is the most practical and cost-effective way of meaningfully reducing the incidence of abortion, including illegal and dangerous abortion. Many years of experience in the design and management of family planning and reproductive health programs around the world have highlighted the range of efforts needed to increase effective use of contraceptive methods (see box, page 46).

• *Make abortion legal and ensure that safe abortion services are provided under the terms of existing laws.* The need for reform of abortion laws in large areas of the less developed world is pressing. Apart from women in China and India, more than eight in 10 women of childbearing age in developing countries live under highly restrictive abortion laws. In Chapter 2 we noted some developing countries that have been successful in achieving reform. The major lessons to be learned from these countries are that the process of effecting reform can be lengthy and calls for persistence; that it requires the active collaboration of many key stakeholders (e.g., health professionals, researchers, legal experts, women's organizations, the media); and that all participants must have the concrete evidence required to convince policymakers and the public at large. The case comes down to three major points: Unsafe abortion damages the health of millions of women, predominantly the poor; unsafe abortion is costly to already struggling health systems (and more costly than services to prevent unintended pregnancy or provide safe abortion); and it represents an unacceptable infringement of women's human rights and of medical ethics.

But beyond the reform of abortion laws, in some countries that do permit abortion on broad grounds, the next crucial step—implementation of the law at the program level—often lags behind, leaving safe abortion services mostly inaccessible, especially to poor, rural and young women. In some countries that have achieved legal reform, a high proportion of the general public, and even members of the medical profession, may be unaware that the law has changed. To prevent this situation, once abortion reform has occurred, the law's provisions should be disseminated widely to ensure public awareness of the change, and evidence-based administrative guidelines and systems for service provision should be put in place to ensure that services are readily available and conform to best medical practice. Quantitative indicators designed to help authorities monitor basic access to safe abortion services would be extremely useful, and some attention is being given to developing such indicators.[183,184] Another valuable step would be to develop indicators of the quality of safe abortion services (including both ethical[185] and medical guidelines). Clearly, there are many steps to be taken, of varying levels of difficulty, and the process will take longer in some areas than others (see box).

• *Improve the quality and coverage of postabortion care.* The responsibility for postabortion care usually rests largely upon government health facilities. However, some of the requirements for the provision of high-quality postabortion care are similar to those for safe abortion services, and in countries where abortion is legal but unsafe abortion remains common, many of the same public and private health professionals and facilities will be involved in both programs.

Actions Required to Implement Abortion Laws That Have Been Liberalized

- Implement information campaigns aimed at both the medical profession and the public to publicize passage of the new law and its provisions, and to advise women on how to obtain abortion services.
- Develop written guidelines specifying the manner in which services are to be provided, the types of providers allowed to perform abortions and the level of the health care system at which services may be provided.
- Design administrative processes to insure that the equipment and drugs required for safe abortions are in place in all designated health facilities, and that they are continuously available.
- Introduce a fee structure that makes safe abortions affordable to poor women.
- Ensure that health professionals who are permitted to provide abortions receive training in appropriate, cost-effective methods, such as MVA and medication abortion.
- Provide educational courses to train health professionals involved in abortion provision to overcome judgmental attitudes and avoid stigmatizing behavior.
- Develop strategies to respond to health professionals who request exemptions from abortion provision on the grounds of conscientious objection.

Actions Required to Improve Postabortion Services

- Develop written guidelines and public health protocols to ensure that high-quality postabortion care be made a basic service at all primary and secondary health care facilities. The guidelines and protocols should designate the specific system levels at which such services should be provided and the categories of health professionals authorized to carry them out.
- Provide training for doctors and midlevel health care professionals in MVA and medication abortion for treatment of incomplete abortions.
- Implement efforts at the national, regional and local levels to inform women of the dangers of clandestine, unsafe abortion and about where they can obtain services for the treatment of abortion-related complications.
- Establish policies and provide funding to ensure that supplies of equipment and drugs needed for basic postabortion care are maintained without interruption.
- Create fee structures that do not place postabortion care services beyond the reach of poor women.
- Put in place and maintain rapid referral mechanisms and transportation systems to carry postabortion patients in need of complex surgery or blood transfusions to higher-level hospital facilities.
- Develop protocols to ensure that postabortion care patients receive in-depth contraceptive counseling and, if possible, are provided with either a three-month supply of contraceptives or a follow-up appointment; and that long-acting methods (injectable, IUD and sterilization) are available and offered.
- Support educational efforts at every level of the health system to promote the status and rights of women, and to counter judgmental attitudes toward, and the possible stigmatization and shaming of, women in need of postabortion care, especially on the part of health professionals themselves.

One important consideration is that all postabortion complications need immediate attention, and a small number require more highly skilled medical treatment than is typically available in primary health care clinics. With increasing registration of misoprostol in developing countries for the treatment of postpartum hemorrhage, this drug is likely to become more widely stocked in primary health centers for treatment of abortion complications. In addition, such facilities are increasingly likely to have personnel trained in determining when it is appropriate to use this method, and when patients must be referred to higher-level facilities (because of more severe complications). If this becomes the case, a higher proportion of postabortion cases can be safely treated at primary-level facilities. But if referral of more severe cases is required, transportation services will be needed to take patients to secondary- or tertiary-level hospitals. As a result, compared with the provision of safe abortion services, postabortion services can cost more and require greater logistical support, similar to that needed for emergency obstetrical care (see box).

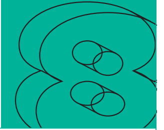
In low-income countries, all maternal health services, and especially postabortion care, are likely to be seriously underfunded. Because of this, health planners might view postabortion care as competing with the equally pressing need for prenatal and delivery services. The cost-effectiveness of postabortion care can be demonstrated with evidence that it—like skilled medical attention for women when they give birth—prevents severe morbidity and death, and can help avert the higher future costs of treating long-term illness or disability. In addition, a number of studies show that the use of MVA or misoprostol for the treatment of incomplete abortion is less expensive than the use of dilation and curettage (D&C), and that, for less serious complications, trained midlevel health workers can safely replace the costlier services of physicians and nurses. These strategies would be particularly cost-effective in rural areas, where MVA equipment and misoprostol can be obtained inexpensively, and where shortages of doctors and trained nurses are common.

The health and development challenges facing the world are of the utmost urgency

The year 2015—the date by which important United Nations Millennium Development Goals are theoretically to have been achieved—is only six years away. One of the goals, to reduce maternal mortality, is closely linked to realizing large reductions in levels of unsafe abortion and unintended pregnancy. While there is cause for some optimism that significant progress toward these related goals can be achieved by 2015, initiatives must be developed in a number of areas if the desired progress is to be made.

Reasons for some optimism include the broadening of abortion laws in a number of countries during the past 10 years; the availability of new and safer technologies, such as medication abortion; increased efforts on the part of couples to prevent unintended pregnancy (seen in increased levels of contraceptive use); the growth of public advocacy to increase awareness of the adverse consequences of dangerous abortion for women's health and survival; and a high level of commitment on the part of international agencies—combined with a likelihood of increased support from the new administration in the United States—to help strengthen the delivery of pregnancy-related and contraceptive services.

However, several formidable barriers stand in the way of significant progress. Most immediately, the worldwide economic crisis has the potential to limit the ability of donor agencies and countries to provide the resources necessary to improve access to health services in general. Other constraints include the long time frame generally needed to achieve changes in a country's abortion law, the continuing risk of the reversal of abortion law reforms, barriers



that delay full implementation of such reforms once they are adopted and the stigma associated with abortion in many parts of the world.

Realistically, because they can be adopted rapidly and do not require changing laws and basic social values and attitudes, the steps most likely to achieve measurable results are improvements in contraceptive services; increased training of providers to perform MVA to substitute for D&C; enhanced efforts to implement existing abortion laws to the fullest extent possible; and improvements in access to misoprostol and knowledge of the correct protocols for its use to treat incomplete abortions and as a method of safe abortion.

The prevention of unsafe abortion brings with it enormous individual and societal benefits—for women, their families and countries as a whole. It reduces ill health, death and lost years of productivity among women, and it helps avert the otherwise crippling financial costs of treating related health complications. Moreover, prevention of unintended pregnancy not only reduces the need for recourse to unsafe abortions, it also contributes to the health and improved status of women, the survival and better health of children and the greater financial stability of households.

No single argument for reducing unsafe abortion is likely to be sufficient to convince all stakeholders. Advocacy on many issues and for many audiences must be developed to achieve significant progress. One approach is to appeal to a more well-defined global sense of moral responsibility for, and commitment to, preventing unnecessary death and disability among predominantly poor women. An important complementary strategy is to marshal and disseminate research evidence (and this report is a step in that direction) demonstrating that restrictive laws fail to prevent abortion, that broadening the legal criteria for abortion reduces maternal mortality and morbidity, that preventing unsafe abortion is cost-effective and that providing safe abortion services is feasible even in low-resource settings.

Making abortion more broadly legal in more countries, providing access to safe and legal abortion and to high-quality postabortion services, and facilitating improved contraceptive practice everywhere are achievable goals. They are also strong imperatives grounded in the rights of all women, everywhere, to maintain their health, avoid harm and make their own decisions about childbearing. But a broad-based effort will be required. The active collaboration of governments, health system planners, national and international medical associations, donor agencies, research and advocacy groups, and the media is essential if these profoundly important goals are to be accomplished within the next decade.

APPENDIX TABLE 1 Countries and territories by region and reasons for which abortion is legally permitted, 2008

Reasons	Developed world	Developing world		
		Africa	Asia & Oceania	Latin America & Caribbean
Prohibited altogether, or no explicit legal exception to save the life of a woman	Andorra Malta San Marino	Angola Central African Rep. Congo (Brazzaville) Dem. Rep of Congo Egypt Gabon Guinea-Bissau Lesotho Madagascar Mauritania Mauritius São Tomé and Príncipe Senegal Somalia	Iraq Laos Marshall Islands Micronesia Oman Palau Philippines Tonga	Chile Dominican Republic El Salvador Haiti Honduras Nicaragua Suriname
To save the life of a woman	Ireland	Côte d'Ivoire Kenya Libya (f) Malawi (g) Mali (a,c) Nigeria Sudan (a) Tanzania Uganda	Afghanistan Bangladesh Bhutan (a,c,e) Brunei Darussalum East Timor (d) Indonesia Iran (d) Kiribati Lebanon Myanmar Papua New Guinea Soloman Islands Sri Lanka Syria (f,g) Tuvalu U.A.E. (f,g) West Bank and Gaza Yemen	Antigua and Barbuda Brazil (a) Dominica Guatemala Mexico (a,d,h) Panama (a,d,f) Paraguay Venezuela
To preserve physical health (and to save a woman's life)*	Liechtenstein (e) Monaco (f) Poland (a,c,d,f)	Benin (a,c,d) Burkina Faso (a,c,d) Burundi Cameroon (a) Chad (d) Comoros Djibouti Equatorial Guinea (f,g) Eritrea (a,c) Ethiopia (a,c,d,e) Guinea (a,c,d) Morocco (g) Mozambique Niger (d) Rwanda Togo (a,c,d) Zimbabwe (a,c,d)	Jordan Kuwait (d,f,g) Maldives (g) Pakistan Qatar (d) Saudi Arabia (f,g) South Korea (a,c,d,g) Vanuatu	Argentina (b) Bahamas Bolivia (a,c) Costa Rica Ecuador (a) Grenada Peru Uruguay (a)
To preserve mental health (and all of the above reasons)	New Zealand (c,d) Northern Ireland Spain (a,d)	Algeria Botswana (a,c,d) Gambia Ghana (a,c,d) Liberia (a,c,d) Namibia (a,c,d) Seychelles (a,c,d) Sierra Leone Swaziland (a,c,d)	Hong Kong (a,c,d) Israel (a,c,d,e) Malaysia Nauru Samoa Thailand (a,d)	Colombia (a,c,d) Jamaica (f) Saint Kitts and Nevis Saint Lucia (a,c) Trinidad and Tobago
Socioeconomic grounds (and all of the above reasons)	Australia (h) Finland (a,d,e) Great Britain (d) Iceland (a,c,d,e) Japan (g) Luxembourg (a,d,f)	Zambia (d)	Cyprus (a,d) Fiji India (a,d,f,j) Taiwan (c,d,f,g)	Barbados (a,c,d,f) Belize (d) St. Vincent and Grenadines (a,c,d)
Without restriction as to reason, but with gestational and other limits	Albania Austria Belarus Belgium Bosnia and Herzegovina (f) Bulgaria Canada (k) Croatia (f) Czech Republic (f) Denmark (f)) Estonia France Germany Greece (f) Hungary Italy (f) Latvia (f) Lithuania Macedonia (f) Moldova Montenegro (f) Netherlands Norway (f) Portugal (f) Romania Russian Federation Serbia (f) Slovak Republic (f) Slovenia (f) Sweden Switzerland Ukraine United States (f)	Cape Verde South Africa Tunisia	Armenia Azerbaijan Bahrain Cambodia China (i,k) Georgia (f) Kazakhstan Kyrgyzstan Mongolia Nepal (i) North Korea (k) Singapore Tajikistan Turkey (f,g) Turkmenistan Uzbekistan Vietnam (k)	Cuba (f) Guyana Puerto Rico

*Includes countries with laws that refer simply to "health" or "therapeutic" indications, which may be interpreted more broadly than physical health. *Notes:* Additional exceptions and restrictions are noted in parentheses next to each country's name. Some countries allow abortion in cases of (a) rape, (b) rape of a mentally disabled woman, (c) incest, (d) fetal impairment or (e) other grounds. Some restrict abortion by requiring (f) parental authorization or (g) spousal authorization. A few countries (h) determine the legality of abortion at the state level, and the legal categorization listed here reflects the status for the majority of women. Two countries (i) have abortion laws that prohibit sex-selective abortions, and one (j) bans sex-selective abortion as part of a separate fetal imaging law. Countries that allow abortion on socioeconomic grounds have gestational age limits. The same is true for countries that permit abortion without restriction as to reason, most of which limit abortion to the first trimester; abortions are still permissible after the specified gestational age, but only on prescribed grounds. Some countries (k) do not specify gestational limits, and regulatory mechanisms vary. Because their abortion laws differ from those of China, Hong Kong and Taiwan are included as separate entities in this report. U.A.E. = United Arab Emirates.

Sources Reference 27 and Center for Reproductive Rights (CRR), The world's abortion laws, fact sheet, New York: CRR, 2008.

APPENDIX TABLE 2 Global and regional estimates of the number of abortions and abortion rates, 1995 and 2003

Region and subregion	Number of abortions (millions)						Abortion rate					
	Total		Safe		Unsafe		Total		Safe		Unsafe	
	2003	1995	2003	1995	2003	1995	2003	1995	2003	1995	2003	1995
World	**41.6**	**45.5**	**21.9**	**25.6**	**19.7**	**19.9**	**29**	**35**	**15**	**20**	**14**	**15**
More developed countries	6.6	10.0	6.1	9.1	0.5	0.9	26	39	24	35	2	3
Less developed countries	35.0	35.5	15.8	16.5	19.2	19.0	29	34	13	16	16	18
Africa	**5.6**	**5.0**	**0.1**	*****	**5.5**	**5.0**	**29**	**33**	**†**	**†**	**29**	**33**
Eastern Africa	2.3	1.9	*	*	2.3	1.9	39	41	†	†	39	41
Middle Africa	0.6	0.6	*	*	0.6	0.6	26	35	†	†	26	35
Northern Africa	1.0	0.6	*	*	1.0	0.6	22	17	†	†	22	17
Southern Africa	0.3	0.2	0.1	*	0.2	0.2	24	19	5	†	18	19
Western Africa	1.5	1.6	*	*	1.5	1.6	28	37	†	†	28	37
Asia	**25.9**	**26.8**	**16.2**	**16.9**	**9.8**	**9.9**	**29**	**33**	**18**	**21**	**11**	**12**
Eastern Asia	10.0	12.5	10.0	12.5	*	*	28	36	28	36	†	†
South Central Asia	9.6	8.4	3.3	1.9	6.3	6.5	27	28	9	6	18	22
Southeast Asia	5.2	4.7	2.1	1.9	3.1	2.8	39	40	16	16	23	24
Western Asia	1.2	1.2	0.8	0.7	0.4	0.5	24	32	16	19	8	13
Latin America & Caribbean	**4.1**	**4.2**	**0.2**	**0.2**	**3.9**	**4.0**	**31**	**37**	**1**	**2**	**29**	**35**
Caribbean	0.3	0.4	0.2	0.2	0.1	0.2	35	50	19	25	16	25
Central America	0.9	0.9	*	*	0.9	0.9	25	30	†	†	25	30
South America	2.9	3.0	*	*	2.9	3.0	33	39	†	†	33	39
Europe	**4.3**	**7.7**	**3.9**	**6.8**	**0.5**	**0.9**	**28**	**48**	**25**	**43**	**3**	**6**
Eastern Europe	3.0	6.2	2.7	5.4	0.4	0.8	44	90	39	78	5	12
Northern Europe	0.3	0.4	0.3	0.3	*	*	17	18	17	15	†	†
Southern Europe	0.6	0.8	0.5	0.7	0.1	0.1	18	24	15	22	3	3
Western Europe	0.4	0.4	0.4	0.4	*	*	12	11	12	10	†	†
Oceania	**0.1**	**0.1**	**0.1**	**0.1**	**0.02**	*****	**17**	**21**	**15**	**16**	**3**	**†**
North America	**1.5**	**1.5**	**1.5**	**1.5**	*****	*****	**21**	**22**	**21**	**22**	**†**	**†**

*Fewer than 50,000 abortions annually. †Rate is less than 0.5. *Notes:* Abortion rate is the number of abortions per 1,000 women aged 15–44. Because of rounding, subregional estimates of the number of abortions may not sum to regional estimates, and regional estimates may not sum to world estimates. Subregions are defined, as per United Nations listings, as follows:
More developed regions—Australia, Europe, Japan, New Zealand, North America.
Less developed regions—Africa, Asia (excluding Japan), Central America, Oceania (excluding Australia and New Zealand), South America.
Eastern Africa—Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Réunion, Rwanda, Somalia, Tanzania, Uganda, Zambia, Zimbabwe.
Middle Africa—Angola, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of the Congo, Equatorial Guinea, Gabon, São Tomé and Príncipe.
Northern Africa—Algeria, Egypt, Libya, Morocco, Sudan, Tunisia, Western Sahara.
Southern Africa—Botswana, Lesotho, Namibia, South Africa, Swaziland.
Western Africa—Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Togo.
Eastern Asia—China, Hong Kong, Japan, Macau, Mongolia, North Korea, South Korea.
South Central Asia—Afghanistan, Bangladesh, Bhutan, India, Iran, Kazakhstan, Kyrgyzstan, Maldives, Nepal, Pakistan, Sri Lanka, Tajikistan, Turkmenistan, Uzbekistan.
Southeast Asia—Brunei, Burma, Cambodia, East Timor, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, Vietnam.
Western Asia—Armenia, Azerbaijan, Bahrain, Cyprus, Georgia, Iraq, Israel, Jordan, Kuwait, Lebanon, Occupied Palestinian Territory, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Turkey, United Arab Emirates, Yemen.
Caribbean—Bahamas, Barbados, Cuba, Dominica, Dominican Republic, Guadeloupe, Haiti, Jamaica, Martinique, Netherlands Antilles, Puerto Rico, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, United States Virgin Islands.
Central America—Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama.
South America—Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, French Guinea, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela.
Eastern Europe—Belarus, Bulgaria, Czech Republic, Hungary, Moldova, Poland, Romania, Russia, Slovakia, Ukraine.
Northern Europe—Channel Islands, Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Lithuania, Norway, Sweden, United Kingdom.
Southern Europe—Albania, Bosnia and Herzegovina, Croatia, Greece, Italy, Macedonia, Malta, Portugal, Serbia and Montenegro, Slovenia, Spain.
Western Europe—Austria, Belgium, France, Germany, Luxembourg, Netherlands, Switzerland.
Oceania—Australia, Fiji, French Polynesia, Guam, Micronesia, New Caledonia, New Zealand, Papua New Guinea, Samoa, Solomon Islands, Tonga, Vanuatu.
North America—Canada, United States.

Sources References 1 (Appendix Table 3) and 44 (Tables 1 and 2).

APPENDIX TABLE 3

3a. Number of pregnancies and percentage distribution of pregnancies by outcome in major world regions, 1995 and projected 2008

Region	1995	% distribution				
	No. of pregnancies* (000s)	Intended pregnancies†	Unintended pregnancies‡			
			All	Births	Abortions	Miscarriages§
World	209,475	57	43	16	22	5
More developed world**	27,932	45	55	13	36	6
Less developed world††	181,544	59	41	16	20	5
Less developed world (excluding China)	141,682	60	40	18	17	5
Africa	40,237	65	35	18	12	5
Asia‡‡	122,794	59	41	15	21	5
Latin America & Caribbean	18,292	40	60	29	23	8

3b. Pregnancy rates by planning status and outcome in major world regions, 1995 and projected 2008

Region	1995	Rate per 1,000 women 15–44				
	All pregnancies*	Intended pregnancies†	Unintended pregnancies‡			
			All	Births	Abortions	Miscarriages§
World	160	91	69	26	35	9
More developed world**	108	49	59	14	39	7
Less developed world††	173	102	71	28	34	9
Less developed world (excluding China)	195	117	78	36	32	10
Africa	262	170	92	47	33	13
Asia‡‡	156	92	64	23	33	8
Latin America & Caribbean	159	63	96	46	37	13

3c. Pregnancy rates, and percentage distribution of pregnancies, by planning status and outcome in major world regions and subregions, 2008

Region and subregion	Pregnancy rates					
	All pregnancies*	Intended pregnancies†	Unintended pregnancies‡			
			All	Births	Abortions	Miscarriages§
World	134	79	55	22	26	7
More developed world**	90	48	42	15	23	5
Less developed world††	143	85	57	23	27	7
Less developed world (excluding China)	160	93	67	30	29	9
Africa	222	136	86	46	28	12
Eastern	258	140	118	64	37	17
Middle	263	169	94	58	22	14
Northern	147	91	56	22	26	7
Southern	140	57	83	44	28	12
Western	243	171	72	39	23	10
Asia‡‡	127	78	49	16	27	6
Eastern‡‡	93	63	30	4	24	3
South Central	150	94	56	22	27	7
Southeast	136	70	66	20	38	8
Western	143	80	64	34	21	9
Latin America & Caribbean	123	52	72	34	28	10
Caribbean	127	48	80	40	29	11
Central America	125	71	54	25	22	7
South America	122	45	78	37	30	10
Europe	86	49	38	10	24	4
Eastern	97	51	47	5	37	5
Rest of Europe	78	47	31	13	14	4
Oceania	117	74	44	19	19	6
Australia and New Zealand	99	48	51	22	23	7
Rest of Oceania	161	135	26	13	10	4
North America	102	53	48	23	18	7

2008 No. of pregnancies* (000s)	% distribution Intended pregnancies†	Unintended pregnancies‡ All	Births	Abortions	Miscarriages§
208,233	59	41	16	20	5
22,827	53	47	16	25	6
185,406	60	40	16	19	5
153,699	58	42	18	18	5
49,130	61	39	21	13	5
118,823	62	38	12	21	5
17,098	42	58	28	22	8

2008 All pregnancies*	Rate per 1,000 women 15–44 Intended pregnancies†	Unintended pregnancies‡ All	Births	Abortions	Miscarriages§
134	79	55	22	26	7
90	48	42	15	23	5
143	85	57	23	27	7
160	93	67	30	29	9
222	136	86	46	28	12
127	78	49	16	27	6
123	52	72	34	28	10

% distribution of pregnancies Intended pregnancies†	Unintended pregnancies‡ All	Births	Abortions	Miscarriages§
59	41	16	20	5
53	47	16	25	6
60	40	16	19	5
58	42	19	18	5
61	39	21	13	5
54	46	25	14	6
64	36	22	8	5
62	38	15	18	5
41	59	32	20	8
70	30	16	10	4
62	38	12	21	5
67	33	4	25	3
62	38	15	18	5
52	48	14	28	6
56	44	24	15	6
42	58	28	22	8
37	63	31	23	9
57	43	20	17	6
36	64	31	24	9
56	44	11	28	5
52	48	5	38	5
60	40	17	18	5
63	37	16	16	5
49	51	22	23	7
84	16	8	6	2
52	48	23	18	6

Sources for Tables 3a and 3b: 2008 data are projected values by the Guttmacher Institute (see Data and Methods Appendix); 1995 data are from Alan Guttmacher Institute (AGI), *Readings on Induced Abortion, Volume 2: A World Review 2000,* New York: AGI, 2001, p. 65, and from unpublished analyses of data from same source.

Source for Table 3c: Projected values by the Guttmacher Institute (see Data and Methods Appendix).

Notes *Includes all planned and unplanned births, abortions and miscarriages. †Includes planned births and miscarriages resulting from intended pregnancies. ‡Includes unplanned births, abortions and miscarriages of unintended pregnancies. §Miscarriages of unintended pregnancies only. **Includes Australia, Europe, Japan, New Zealand and North America. ††Includes Africa, Asia (except Japan), Latin America and Caribbean, and Oceania (except Australia and New Zealand). ‡‡Excludes Japan. *Note:* Rates and percentages may not sum to totals because of rounding.

APPENDIX TABLE 4

Fertility rates, wantedness of births and selected measures of contraceptive behavior for countries in Africa, Asia, Latin America and the Caribbean, and Eastern Europe

Country	Survey year	Total fertility rate	Wanted total fertility rate	% of births unplanned*	% of births mistimed*	% of births unwanted*	% of women using any contraceptive method†	% of women using a modern method†	% of women using a traditional method†	% of women with unmet need†
Africa										
Benin	2006	5.7	4.8	20	16	4	17	6	11	30
Burkina Faso	2003	5.9	5.1	25	22	3	14	9	5	29
Cameroon	2004	5.0	4.5	24	19	5	26	13	14	20
Chad	2004	6.3	6.1	19	18	1	3	2	1	21
Congo	2005	4.8	4.4	37	31	5	44	13	32	16
Côte d'Ivoire	1998–1999	5.2	4.5	31	26	5	15	7	8	28
Dem. Rep. of Congo	2007	6.3	5.6	32	22	10	21	6	15	24
Egypt	2005	3.1	2.3	19	8	12	59	57	3	10
Eritrea	2002	4.8	4.4	25	20	6	8	5	3	27
Ethiopia	2005	5.4	4.0	37	20	17	15	14	1	34
Gabon	2000	4.2	3.5	48	41	7	33	12	21	28
Ghana	2003	4.4	3.7	44	25	18	25	18	7	34
Guinea	2005	5.7	5.1	16	12	4	9	4	5	21
Kenya	2003	4.9	3.6	47	26	20	39	32	8	25
Lesotho	2004	3.5	2.5	53	13	41	37	35	2	31
Liberia	2006	5.2	4.6	31	27	5	11	10	1	25
Madagascar	2003–2004	5.2	4.7	16	10	6	27	17	10	24
Malawi	2004	6.0	4.9	43	22	21	32	28	4	28
Mali	2006	6.6	6.0	18	14	4	8	6	2	31
Mauritania	2000–2001	4.5	4.1	30	23	6	8	5	3	32
Morocco	2003–2004	2.5	1.8	31	16	15	63	52	11	10
Mozambique	2003	5.5	4.9	22	18	4	26	12	14	18
Namibia	2006–2007	3.6	2.7	55	27	28	55	53	2	7
Niger	2006	7.1	6.9	11	11	1	11	5	6	16
Nigeria	2003	5.7	5.3	16	10	5	13	7	6	17
Rwanda	2005	6.1	4.6	42	25	17	17	10	8	38
Senegal	2005	5.3	4.5	31	26	5	12	10	2	32
South Africa	2003	2.1	1.6	47	24	23	60	60	0	14
Swaziland	2006–2007	3.8	2.1	67	28	39	51	47	4	13
Tanzania	2004–2005	5.7	4.9	25	19	6	26	20	7	22
Togo	1998	5.2	4.2	42	34	8	24	7	17	32
Uganda	2006	6.7	5.1	49	35	14	24	18	6	41
Zambia	2001–2002	5.9	4.9	44	23	21	34	23	12	27
Zimbabwe	2005–2006	3.8	3.3	34	22	13	60	58	2	13
Asia										
Armenia	2005	1.7	1.6	17	11	6	53	19	34	13
Azerbaijan	2006	2.1	1.8	18	10	8	51	13	38	12
Bangladesh	2004	3.0	1.9	30	17	14	58	47	11	11
Cambodia	2005	3.4	2.8	29	9	20	40	27	13	25
Georgia‡	2005	1.6	na	5	3	2	47	27	21	16
India	2005–2006	2.7	1.9	21	10	11	56	49	8	13
Indonesia	2002–2003	2.6	2.2	17	10	7	60	57	4	9
Kazakhstan	1999	2.0	1.9	19	9	10	67	54	13	9
Kyrgyzstan	1997	3.4	3.1	13	7	6	60	49	11	12
Jordan	2007	3.6	2.8	28	16	12	57	41	17	12
Nepal	2006	3.1	2.0	32	15	17	48	44	4	25
Pakistan	2006–2007	4.1	3.1	26	15	11	30	22	8	25
Philippines	2003	3.5	2.5	47	24	22	49	33	16	17
Turkey	2003	2.2	1.6	34	13	20	70	41	29	7
Turkmenistan	2000	2.9	2.7	3	2	1	62	45	17	10
Uzbekistan	1996	3.3	3.1	5	2	2	56	51	4	14
Vietnam	2002	1.9	1.6	24	14	10	79	57	22	5
Yemen	1997	6.5	4.6	45	23	22	21	10	11	39

Country	Survey year	Total fertility rate	Wanted total fertility rate	% of births unplanned*	% of births mistimed*	% of births unwanted*	% of women using any contraceptive method†	% of women using a modern method†	% of women using a traditional method†	% of women with unmet need†
Latin America & Caribbean										
Bolivia	2003	3.8	3.1	63	23	40	58	32	26	23
Brazil	1996	2.6	1.8	49	26	23	77	70	7	7
Colombia	2005	2.4	1.7	54	27	28	78	67	11	6
Dominican Rep.	2007	2.4	1.9	47	33	15	73	70	3	11
Ecuador	2004	3.3	2.6	36	18	19	73	58	15	7
El Salvador	2002–2003	3.0	2.2	42	18	24	67	61	6	9
Guatemala	2002	4.4	3.7	32	17	15	43	34	9	28
Haiti	2005–2006	4.0	2.4	50	21	28	32	24	8	38
Honduras	2005–2006	3.3	2.3	49	25	24	65	56	9	17
Jamaica§	2002–2003	2.5	na	61	43	18	69	66	3	14
Mexico**	2006	2.2	na	27	15	12	71	66	5	12
Nicaragua	2001	3.2	2.3	49	22	27	69	64	4	15
Paraguay	2004	2.9	2.6	28	19	9	73	61	12	7
Peru	2004	2.4	1.5	57	29	27	71	47	24	8
Eastern Europe										
Albania‡	2002	2.6	na	8	5	3	75	8	67	1
Moldova	2005	1.7	na	21	12	9	68	44	24	7
Romania‡	1999	1.3	na	12	8	4	64	30	34	6
Russia††	1999	1.3	na	8	7	1	73	53	20	12

*Refers to all births in the three years preceding the survey for most countries; exceptions are Ecuador, El Salvador, Eritrea, Jamaica, Paraguay, South Africa, Turkmenistan and Yemen, for which data are for all births in the five years preceding the survey. †Among married women. ‡Data on unplanned, mistimed and unwanted births refer only to last birth. §Data for unplanned, mistimed and unwanted births, and for unmet need, are from 1997. **Data on unplanned, mistimed and unwanted births refer to the planning status of the woman's current pregnancy at the time of conception. ††Data for unplanned, mistimed and unwanted births are from 1996. *Note:* na=not available.

Sources Unless otherwise noted, all data are from Measure DHS, Statcompiler, no date, <http://www.statcompiler.com>, accessed Nov. 6, 2008; and special tabulations of data from Demographic and Health Surveys in all but the following countries: **Ecuador**—Centro de Estudios de Población y Desarrollo Social (CEPAR), *Encuesta Demográfica y de Salud Materna e Infantil,* Quito, Ecuador: CEPAR, 2005. **El Salvador**—Asociación Demográfica Salvadorena (ADS), *Encuesta Nacional de Salud Familiar 2002/03, Informe Final,* San Salvador, El Salvador: ADS, 2004. **Guatemala**—Ministerio de Salud Pública y Asistencia Social (MSPAS), *Encuesta Nacional de Salud Materno Infantil 2002,* Guatemala City, Guatemala: MSPAS, 2003. **Jamaica**—McFarlane CP et al., *Reproductive Health Survey, Jamaica 1997, Final Report,* Atlanta, GA, USA: Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), 1998; and CDC, Highlights from the Jamaica Reproductive Health Survey 2002–2003, 2008, <http://www.cdc.gov/Reproductivehealth/Surveys/Jamaica.htm>, accessed Nov. 6, 2008. **Mexico**—Consejo Nacional de Población (CONAPO), *Encuesta Nacional de Dinámica Demográfica, 2006,* Mexico City: CONAPO, 2006; and Juarez F et al., Estimates of induced abortion in Mexico: what's changed between 1990 and 2006? *International Family Planning Perspectives,* 2008, 34(4):158–168. **Paraguay**—Centro Paraguayo de Estudios de Población (CEPEP), *Encuesta Nacional de Demografía y Salud Sexual y Reproductiva, 2004, Informe Final,* Asunción, Paraguay: CEPEP, 2005. **Albania, Georgia, Romania and Russia**—CDC and ORC Macro, *Reproductive, Maternal and Child Health in Eastern Europe and Eurasia: A Comparative Report (Revised 2005),* Atlanta, GA, USA: CDC; and Calverton, MD, USA: ORC Macro, 2003.

Data and Methods Appendix

Estimates of Induced Abortion Incidence

Regional and worldwide estimates for 2003

This report draws from the most recent available worldwide estimates of the incidence of induced abortion, both safe and unsafe.*[44] These estimates are for 2003, and are available only for major regions and subregions, not for specific countries. They are based on two sources of information. The first is World Health Organization estimates of the incidence of unsafe abortion for all of the world's regions and subregions.[6] These include abortions in countries with highly restrictive abortion laws, as well as abortions that do not meet legal requirements in countries where pregnancy termination is permitted under broad criteria (that is, for socioeconomic reasons or without restriction as to reason; highly restrictive laws are those with narrower criteria; see Chapter 2 for more details). The second main source of information are estimates made by the Guttmacher Institute of the number of abortions that take place in countries where the procedure is legal under broad criteria, and that meet legal requirements.[45] Details of the methodology used for these two components are available elsewhere.[6,44,45] Both sources provide comprehensive estimates that take into account incidence for all countries in the world.

We used published estimates, based on the above two sources, of the abortion rate (the number of abortions per 1,000 women aged 15–44) and the abortion ratio (the number of abortions occurring for every 100 live births) for safe, unsafe and all abortions in 2003.[44]

Country-specific estimates for 2003

We discuss published estimates for specific countries in which abortion is legal under broad criteria and official reporting is considered to be reasonably complete. Hence, we differentiate between countries with relatively complete data (those in which at least 80% of abortions were considered to be officially reported) and countries with less complete data (fewer than 80% of procedures were reported). Some countries may collect and report information on abortions, but these data are considered to be incomplete if fewer than 80% of the estimated number of procedures were reported. Such underreporting may occur even in countries where abortion is legal under broad criteria. For example, providers do not always report all of the abortions they perform, even if legally required to do so. In some countries, only abortions performed at public facilities are reported, whereas large proportions are performed at private facilities. In some cases, medication abortions or early surgical procedures are underreported.

In addition, we discuss results from recent studies that estimated abortion incidence for a small number of developing countries where abortion is highly restricted by law. Because sources such as government statistics or surveys do not provide adequate abortion data in these countries, special studies using indirect estimation methods were conducted.†

Estimates of abortion incidence for 1995

The estimates for 1995 are taken from an earlier publication[52] and were created using a methodology and sources similar to those described above for 2003.

Estimates of Pregnancy Incidence

Estimates by planning status and outcome, 2008

• *Pregnancies.* Estimates of the number of pregnancies comprise the numbers of births, induced abortions and miscarriages.‡ For 2008, we used several data sources. Estimates of the number of births are interpolated from United Nations estimates for 2005 and 2010.[14] For miscarriages, we used a model-based approach (derived from clinical studies) in which the number of miscarriages is estimated to be approximately 20% of the number of births plus 10% of the number of induced abortions. Finally, the number of induced abortions in 2008 was estimated by projecting forward the trend in the abortion rate between 1995 and 2003, and applying the projected 2008 rate to the estimated number of women aged 15 to 44 in 2008. One important exception is that we assumed that the rapid decrease in the abortion rate in Eastern Europe (an annual decline of 6.4% between 1995 and 2003) had slowed, given that the region's abortion rate had declined from an extremely high level (90 per 1,000 women in 1995) to a much lower one (44 per 1,000 in 2003). Lacking more recent reliable data on abortion incidence in this region, we assumed that the rate of decline between 2003 and 2008 was half that of the earlier period (that is, a still-rapid decline of 3.2% annually).

Using these data, we estimated pregnancy rates (pregnancies per 1,000 women aged 15–44) and the rates for each component (live births, induced abortions and miscarriages), as well as the percentage distribution of pregnancies by outcome.

• *Intention status of pregnancies.* Unintended pregnancies are defined to include unplanned births (that is, births that occurred two or more years sooner than desired, or that were not wanted at all), induced abortions and the prorated proportion of miscarriages. We calculated rates of unintended and intended pregnancies, as well as of each of their components (births, induced abortions and miscarriages).

• *Planning status of births.* Data on the proportions of births that were unplanned were obtained from nationally representative surveys—Demographic and Health Surveys (DHS) conducted in 62 developing countries by Macro International (with United States government support, and in cooperation with national governments and organizations)—as well as eight similar surveys carried out by the U.S. Centers for Disease Control and

*Unsafe abortion is defined by the World Health Organization as any procedure to terminate an unintended pregnancy that is done by people lacking the necessary skills, in an environment that does not conform to minimum medical standards or both.

†Singh S et al., The incidence of induced abortion in Uganda, *International Family Planning Perspectives,* 2005, 31(4):183–191; and references 53, 59, 60, 62 and 63.

‡In this report, for convenience, we use the term miscarriage to refer to all spontaneous fetal losses, including stillbirths. In general, miscarriages are defined as fetal losses that occur before the 28th week of gestation, and stillbirths as those that occur from week 28 onward. Clinical studies generally document miscarriages starting from the fourth, fifth or sixth week of gestation, depending on the study; miscarriages before the fourth week have generally not been included in existing studies and are not part of the pregnancy estimates.

Prevention (CDC) in a number of Latin American, Caribbean, Central Asian and Eastern European countries, supplemented by data from independent surveys for China, Mexico and some developed countries (see box, page 58).

These country-specific data were used to obtain regional and subregional weighted averages of the proportions of births that were unplanned. These proportions were applied to the estimated number of births for 2008 for each region and subregion to obtain the number of unplanned births.

Estimates by planning status and outcome, 1995

The estimates for 1995 were published previously, and were based on a methodology and sources similar to those described above for 2008.[1]

Morbidity Due to Unsafe Abortion, and Aspects of Postabortion Care

Health Professionals Surveys: opinions of key informants

Surveys of health professionals in developing countries are an important data source for this report. These Health Professionals Surveys have been carried out in five countries since 2000 (Guatemala, Mexico, Pakistan, Peru and Uganda).* Respondents were selected because of their expertise in and experience with abortion issues in their country. In general, about two-thirds of survey respondents had a medical provider background (nurses, midwives and physicians), and about one-third were other experts with informed perspectives (policy advisers, researchers, advocates and public health specialists). Respondents were interviewed in person about their perceptions concerning the types of providers from whom women get abortions and the methods these providers use, women's risk of experiencing health complications with each type of provider, the likelihood that women will obtain treatment in a facility if complications occur and the costs of obtaining abortions. Questions about these issues were asked separately for each of four key population groups (poor or nonpoor women living in urban or rural areas). Poor was generally defined as living in a household with an income below the national average (it was also defined in terms of minimum salary, in countries where this concept is commonly recognized), as having difficulties paying for basic necessities and as having low educational attainment. Results were averaged across all respondents to provide an approximate profile of abortion conditions for each of the four population groups and for the country as a whole (by weighting results by the population size of the four groups).

Facility-based studies of morbidity and postabortion care

Facility-based studies of postabortion patients are one of the more common approaches to documenting and understanding unsafe abortion. These studies have the potential to provide detailed information on the conditions and consequences of unsafe abortion, and are particularly appropriate for assessing the nature and severity of abortion-related morbidity and its treatment. However, studies of this type have the disadvantage that they omit two groups of women: those who have abortions but do not experience complications, and those who do develop complications but do not obtain treatment in a health facility. A further limitation is that many of the studies of postabortion patients, quantitative as well as qualitative, are small-scale and not nationally representative. Nonetheless, these studies provide valuable documentation of various aspects of unsafe abortion, including the demographic, social and economic profile of patients, the reasons women seek such abortions, the decision-making process, women's contraceptive use (and barriers to use), and symptoms and treatment of abortion complications. A few facility-based studies have been larger in scale, in some cases having nationally representative samples, allowing them to provide nationwide information on the severity of abortion-related morbidity and on the number of complication cases treated in health facilities. Some of these large-scale studies have focused, more specifically, on prospectively documenting abortion-related morbidity, and they have provided a range of perspectives, sometimes by including multiple sources (the women themselves, health providers and medical records).† Researchers participating in these studies have developed—and are continuing to improve—a standardized measure of the severity of morbidity, thus enabling comparison across countries and over time.

One useful source for this report was a review article that summarized nationally representative data from 13 developing countries on the number and annual rate of women admitted to hospitals for complications of induced abortion.[111] The national estimates in the review article included complications treated in both the public and the private sectors, with two exceptions: The Egyptian data included only the public sector, and the Pakistani data included the public sector and private teaching hospitals, but excluded other types of private facilities. The article also provided an estimate of the number and rate of hospitalizations due to unsafe abortion in the developing world as a whole.

Numerous studies have assessed the quality of postabortion care, evaluated various approaches to providing it and assessed its cost-effectiveness.‡ One topic of particular relevance, and one on which there is also a substantial body of work, is the provision of contraceptive services to women receiving postabortion care.[117,119]

Characteristics, Decision-Making and Actions of Women Who Obtain Abortions

The characteristics of women who obtain abortions, their reasons for doing so, their decision-making process, the steps they take to obtain an abortion and their delays in getting the procedure are among the topics that have been examined by community-based studies—both qualitative, in-depth studies, as well as large-scale, quantitative, nationally representative surveys of women and providers. An important advantage of these studies is that, compared with facility-based studies, they provide evidence that is more representative of all women having abortions, safe and unsafe. Community-based studies provide information on the same range of topics as facility-based studies of postabortion patients (see above)—all reported by the woman herself. Because these studies generally use extensive, household-based interviews, the information obtained can be very rich and detailed. However, an important disadvantage of community-based studies is that underreporting of abortions is likely to be very high. In the absence of reliable external data,

*Special tabulations of data from Health Professionals Survey data files; and references 63, 98, 107 and 110.

†Huntington D et al., The postabortion caseload in Egyptian hospitals: a descriptive study, *International Family Planning Perspectives*, 1998, 24(1):25–31; and references 33, 105, 112 and 113.

‡Billings DL and Benson J, Postabortion care in Latin America: policy and service recommendations from a decade of operations research, *Health Policy and Planning*, 2005, 20(3):158–166; and reference 118.

the precise extent of underreporting is difficult to assess and may differ according to women's perception of the legality of the procedure and their own characteristics (for example, married women may be less likely than unmarried women to underreport their abortions).*

Cost Of Unsafe Abortion and Postabortion Care

The cost of health care following an unsafe abortion—especially assessments of the cost-effectiveness of manual vacuum aspiration versus dilation and curettage—has been the subject of a number of studies in the past few decades.[118,119,146,149] However, relatively little work has measured the full cost of unsafe abortion and its treatment. Recently, efforts have been made to adapt existing costing tools and incorporate inputs from available empirical evidence to estimate the full cost of postabortion care—both the direct costs (including supplies, drugs, personnel time and hospital stay) and indirect costs (including overhead and capital costs).† In addition, other work has created estimates for hypothetical scenarios that combine various legal environments with different medical standards and provider mixes.‡ Another useful approach is to compare the cost of postabortion care with the cost of contraception that would have prevented the unintended pregnancy.[146] These studies generally focus on quantifying the cost to health systems of providing necessary medical care; the facility- and community-based studies discussed above are also a potential source of information on the costs paid out of pocket by women and households. Qualitative research has begun to address the issue of the social costs of unsafe abortion,[94,95] but this is a very understudied topic.

*Jones RK and Kost K, Underreporting of induced and spontaneous abortion in the United States: an analysis of the 2002 National Survey of Family Growth, *Studies in Family Planning*, 2007, 38(3):187–197; and Rossier C, Estimating induced abortion rates: a review, *Studies in Family Planning*, 2003, 34(2):87–102.

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Sexual and Reproductive Health Indicators

Nationally representative surveys that focused on sexual and reproductive health were our main source of data on these topics. Total fertility rates and wanted total fertility rates were obtained from the most recent DHS and CDC surveys for each country. To examine unmet need, we drew upon and updated results presented in a recent synthesis report[181] that analyzed DHS data from more than 50 developing countries, adding data from more recent surveys when available. Information on regional and subregional measures of contraceptive use comes from the 2007 United Nations wall chart,[48] which drew upon data from DHS, CDC and other independent surveys and sources.

COUNTRY-SPECIFIC DATA SOURCES

For most countries, data on fertility rates and the planning status of births were obtained from the most recent available Demographic and Health Survey. For the remaining countries, data were obtained from the surveys conducted in collaboration with the U.S. Centers for Disease Control and Prevention (CDC) or by independent sources:

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