

# ABORTION IN THE MIDDLE EAST AND NORTH AFRICA

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Unsafe abortion is one of the most neglected public health challenges in the Middle East and North Africa (MENA) region,<sup>1</sup> where an estimated one in four pregnancies are unintended—wanting to have a child later or wanting no more children.<sup>2</sup> Many women with unintended pregnancies resort to clandestine abortions that are not safe. According to the World Health Organization (WHO), around 1.5 million abortions in MENA in 2003 were performed in unsanitary settings, by unskilled providers, or both. Complications from those abortions accounted for 11 percent of maternal deaths in the region.<sup>3</sup>

Abortion is one of the oldest medical practices, evidence of which dates back to ancient Egypt, Greece, and Rome. Abortion techniques used by Egyptian pharaohs were documented in the ancient Ebers Papyrus (1550 B.C.). It is believed that during the Middle Ages, abortion techniques were adopted and accepted by Western Europe and later diffused across the globe.<sup>4</sup>

Today, medical and scientific advances have made abortion a safe procedure when offered under medical supervision and with high standards of care. Yet each year, thousands of women in the developing world die and millions more are left with temporary or permanent disabilities because of unsafe abortion.<sup>5</sup> This policy brief explores the public health concerns surrounding abortion in MENA and discusses ways to make it both rarer and safer.

## The Global Perspective

Ideally, unwanted pregnancies and abortions would be rare or nonexistent. In reality, however, millions of women around the world experience unintended pregnancies each year and many seek abortions. According to a recent WHO study, an estimated one-fifth of pregnancies—42 million out of 210 million—each year are voluntarily aborted (see Figure 1). Of these, 22 million occur within a formal health care system and 20 million outside of the legal system.

Nearly all unsafe abortions (98 percent) occur in developing countries, where abortion laws are for the most part restrictive. Worldwide, over 5 million women (or approximately one in four) having an unsafe abortion are likely to face life-threatening complications and may seek medical care, putting heavy demands on scarce health resources. Many women may not seek medical care at all or seek it very late because they are not aware of the need or where to go for care, or they may fear abuse, ill treatment, or legal reprisals.<sup>6</sup>

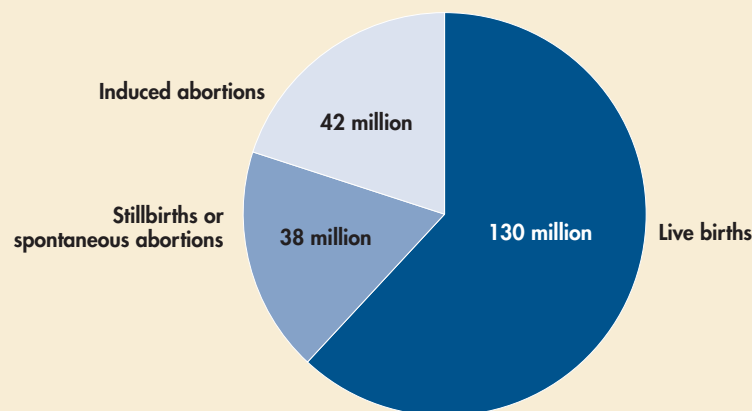
Despite the magnitude of the problem of unsafe abortion, it is one of the most easily preventable causes of maternal death and ill health. Where abortion services are legal, safe, and accessible, complications of abortion are rare (see Box 1, page 2). In the United States, for example, where 22 percent of all pregnancies (excluding miscarriages) end in abortion, fewer than 0.3 percent of abortion patients experience a complication that requires hospitalization.<sup>7</sup>

In the developing world, access to abortion services is generally limited and weak health systems are not equipped to deal with complications of

Figure 1

### Worldwide, One in Five Pregnancies Is Aborted Voluntarily

Each year, approximately 210 million women become pregnant, with the following outcomes:



SOURCE: World Health Organization, *Unsafe Abortion: Global and Regional Estimates of the Incidence of Unsafe Abortion and Associated Mortality in 2003* (Geneva: WHO, 2007): 1

Box 1

### Early Abortion Procedures

The term “abortion” generally refers to induced abortion, although technically it includes spontaneous abortion (miscarriage) as well. Induced abortion has traditionally been synonymous with surgical abortion procedures until recently, when medical (nonsurgical) abortion became available.

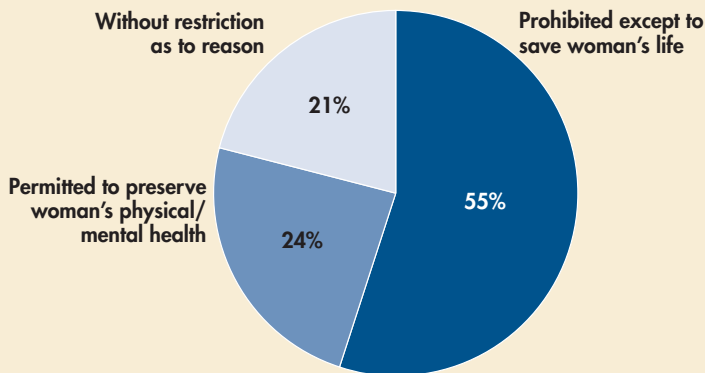
Abortion is a safe procedure when performed by trained providers in hygienic conditions. It is safest when performed early in pregnancy. Safe methods of abortion used during the first trimester (12 weeks) of pregnancy can be either surgical or medical. There are several types of surgical methods, including dilation and curettage (D&C) and manual vacuum aspiration (MVA). Surgical methods require anesthesia, trained providers, and sterilized equipment. MVA is safer than D&C, easy to perform by a range of trained providers, and can be offered with local anesthesia.

Medical abortion (also referred to as medication abortion) uses one or more drugs to induce an abortion and can be performed outside a clinical setting, allowing women to avoid invasive surgical procedures. Medical abortion, using the drugs mifepristone and misoprostol, has been used by millions of women globally for terminating early pregnancy. Medical abortion is safe and highly effective.

**SOURCES:** World Health Organization, *Frequently Asked Clinical Questions About Medical Abortions* (Geneva: WHO, 2006); *Consensus Statement: Instructions for Use—Abortion Induction with Misoprostol in Pregnancies up to 9 weeks LMP*, expert meeting on misoprostol sponsored by Reproductive Health Technologies Project and Gynuity Health Projects, July 28, 2003, Washington, D.C.

Figure 2:

### Distribution of Women Ages 15-49 Living in the MENA Region, by Their Countries' Abortion Laws



**NOTES:** Prohibited except to save woman's life: Egypt, Iran, Iraq, Lebanon, Libya, Oman, Palestinian Territory, Syria, United Arab Emirates, and Yemen. Permitted to preserve woman's physical/mental health: Algeria, Bahrain, Jordan, Kuwait, Morocco, Qatar, and Saudi Arabia.

Without restriction as to reason: Tunisia and Turkey.

**SOURCE:** Center for Reproductive Rights, *The World's Abortion Laws 2007 Poster* (New York: Center for Reproductive Rights, 2007).

unsafe abortions. Unsafe abortion accounts for 13 percent of deaths related to pregnancy and child-birth in the developing world.<sup>8</sup> International agreements on women's health recognize that the prevention and treatment of unsafe abortion are an essential element of women's health care (see Box 2).

### The Regional Perspective

The majority of women in MENA face legal barriers to abortion. Nearly 80 percent live in countries where abortion laws are restricted: 55 percent live in countries where abortion is prohibited except to save the mother's life and 24 percent live in countries where abortion is permitted only to preserve women's physical or mental health (see Figure 2). About 20 percent of MENA's population lives in Turkey and Tunisia, the only two countries in the MENA region where abortion is legal on request during the first trimester of pregnancy.

Data from Tunisia and Turkey suggest that abortions haven't only become safer as a result of legalization but that abortion rates have also declined as their family planning programs have expanded. In Turkey, the rate of abortion dropped from 18 percent of pregnancies in 1993 to 11 percent in 2003. Also during that period, the percentage of married women using modern contraception increased from 34 percent to 42 percent.<sup>9</sup>

Syria is the only country in the region with restrictive abortion laws that has conducted a nationally representative survey (in 2006) asking women whether they had an abortion. The survey (described on page 4) found that 4 percent of married women ages 15 to 49 had at least one abortion, though this figure is likely to be under-reported because abortion is prohibited.

In 1992, Syria hosted the first regional conference on unsafe abortion and sexual health, organized by the Syrian Family Planning Association and the International Planned Parenthood Federation's Arab World Regional Office. Bringing together health professionals, religious leaders, and women's health advocates, the conference raised awareness among health and family planning service providers about the dangers of unsafe abortion and the need to promote preventive measures. The participants concluded that unsafe abortion was a major public health problem in almost all countries in the region. They called on

their governments and family planning associations to review existing laws and provide better contraceptive services and treatment for women who seek post-abortion care.

### Reducing Unintended Pregnancy

An important part of the strategy to reduce the burden of unsafe abortion is to work toward preventing the incidence of unintended pregnancy. Unintended pregnancies can result from not using contraception, from using a method incorrectly, or from using a less effective method more prone to failure (such as withdrawal).

Having access to family planning—living reasonably close to a facility that provides convenient and affordable services—is one factor in preventing unintended pregnancies. Other factors include people’s willingness to seek available services, whether the methods are used consistently and correctly, and the quality of services offered—an area where many MENA countries are challenged. Health providers play a critical role in informing women and couples about the methods that could be most appropriate for their particular circumstances (for example, whether a woman is breastfeeding or wants no more children); how to use the methods correctly; and the possible side effects of modern methods and what to do about them.

Despite the expansion of family planning programs and increased use of modern contraception, unmet need for family planning persists globally and in the MENA region to varying degrees (see Figure 3, page 4). Unmet need for family planning is defined as the proportion of married women who prefer to avoid a pregnancy but are not using contraception. Unmet need ranges from around 50 percent in Yemen to 6 percent in Turkey. Yemen has a relatively weak health system and contraceptive use is the lowest in the region. As a result, Yemeni women still give birth to around six children, on average, and have a 1-in-39 lifetime chance of dying due to pregnancy-related causes—the highest in the region.<sup>10</sup>

Overall, fertility in the MENA region is around three births per woman. In Lebanon, Iran, Tunisia, and Turkey, fertility is at replacement level of about two children per woman—the number of children needed to replace their parents. Yet, unintended pregnancies remain high.

#### Box 2

### ICPD Consensus on Abortion

A number of United Nations agreements have highlighted the public health impact of unsafe abortion, calling on governments to reduce the need for abortion and protect women’s health in the event abortions do occur.

The 1994 International Conference on Population and Development (ICPD), held in Cairo, was the first UN meeting to forge a global consensus on abortion. The ICPD Programme of Action states that:

In no case should abortion be promoted as a method of family planning. All Governments and relevant intergovernmental and non-governmental organizations are urged to strengthen their commitment to women’s health, to deal with the health impact of unsafe abortion as a major public health concern and to reduce the recourse to abortion through expanded and improved family planning services.

Prevention of unwanted pregnancies must always be given the highest priority and all attempts should be made to eliminate the need for abortion. Women who have unwanted pregnancies should have ready access to reliable information and compassionate counseling. Any measure or changes related to abortion within the health system can only be determined at the national or local level according to the national legislative process.

In circumstances in which abortion is not against the law, such abortion should be safe. In all cases women should have access to quality services for the management of complications arising from abortion. Post-abortion counseling, education and family planning services should be offered promptly, which will also help to avoid repeat abortions. (United Nations, *Programme of Action of the International Conference on Population and Development*, para. 8.25).

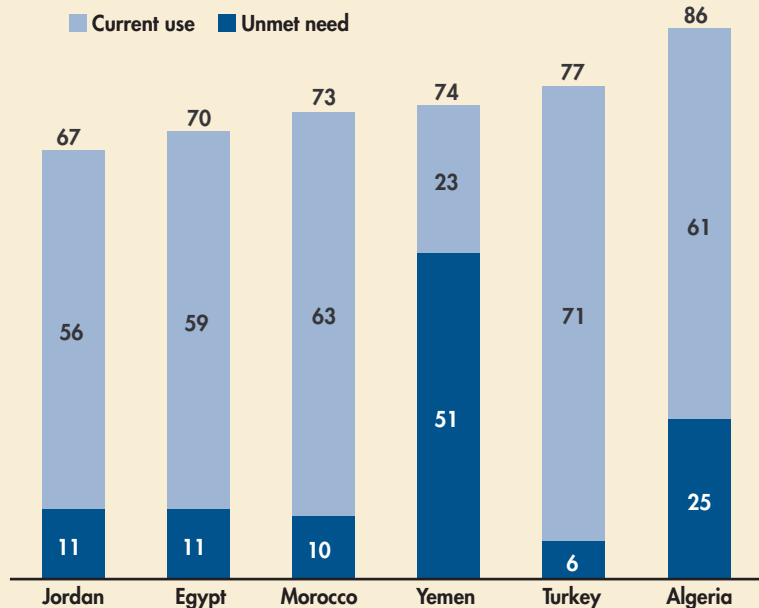
This commitment was reiterated in 1999, at the five-year review of the implementation of the ICPD Programme of Action, by the UN General Assembly in New York. The assembly further agreed that, “in circumstances where abortion is not against the law, health systems should train and equip health-service providers and should take other measures to ensure that such abortion is safe and accessible.”

According to Iran’s 2000 Demographic and Health Survey, one-third of pregnancies in Iran are unintended: 16 percent of married women who were pregnant at the time of the survey reported their pregnancy as unwanted and another 18 percent as mistimed. An analysis of the survey data suggests that 26 percent of married women in the country have an abortion in their lifetimes, and the abortion rates are higher in provinces where modern contraceptive use is lower. Iran has the highest rate of contraceptive use among countries in the region. In the 2000 survey, more than 70

Figure 3

### Total Demand for Family Planning

Percent of married women ages 15-49

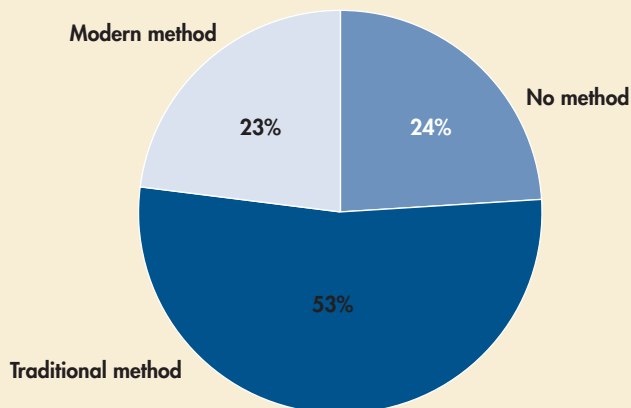


**NOTE:** Total demand for family planning includes women who are currently using contraception plus women who prefer to avoid a pregnancy but are not using a contraceptive method. The latter women are referred to as having an “unmet need” for family planning.

**SOURCE:** Donna Clifton, Toshiko Kaneda, and Lori Ashford, *Family Planning Worldwide 2008* (Washington, DC: Population Reference Bureau, 2008).

Figure 4

### Abortions by Contraceptive Method Used in Month Before Pregnancy: Turkey, 1999-2003



**SOURCE:** Hacettepe University Institute of Population Studies, Turkey Demographic and Health Survey, 2003: table 6.5.

percent of married women reported using contraception (56 percent using a modern method); and the rate has since increased to nearly 80 percent of married women using contraception (60 percent using modern methods).<sup>11</sup>

Egypt’s 2005 Demographic and Health Survey showed that 56 percent of married women use modern contraception, and yet one in five births are reported as unintended. Among women who reported their last birth as unintended, one-third wanted to have at least one more child at a later time, and two-thirds wanted no more children. As expected, the more children a woman has, the more likely she is to report her latest birth as unintended.<sup>12</sup>

In Syria in 2006, a team from Damascus University and the Ministry of Health conducted a national survey of ever-married women ages 15 to 49 to assess unmet need for family planning and unintended pregnancies. The survey revealed that half of the women who had an unintended pregnancy had been using a family planning method when they became pregnant. Of the family planning users, 45 percent were relying on traditional methods, which are prone to failure, and another 25 percent were using oral contraception (the pill).<sup>13</sup> In Turkey, a 2003 national survey showed that in three-fourths of abortions, women had been practicing family planning when they became pregnant, and half were using a traditional method (see Figure 4).

Regardless of the degree of legal restriction on abortion, the experience of all these countries demonstrates that effective family planning use is a critical part of efforts to reduce unintended pregnancies and the need for abortion. But high rates of contraceptive use alone do not eliminate unintended pregnancies.

### Making Abortion Safer

In MENA, as in other parts of the world, women’s health advocates promote liberalizing abortion laws and ensuring that laws are implemented to the fullest extent possible. Advocates cite local and international evidence of the potential impact on reducing maternal deaths and disabilities, and the resulting psychological and financial burdens that unsafe abortions pose for women, their families, and health care systems. Restrictive abortion laws

are viewed as disproportionately affecting poor and disfranchised women, because wealthier, more-educated, and urban women tend to have greater knowledge and resources to seek a safe abortion when they need it.

Around the world, with a few exceptions, governments are moving toward liberalizing their abortion laws. Where abortion laws have become more liberal, unsafe abortion and related maternal deaths have generally declined. Following the legalization of abortion in South Africa, for example, deaths due to unsafe abortion decreased by 90 percent from 1994 to 2001.<sup>14</sup>

### Tackling Programmatic Challenges

To reduce the incidence of unsafe abortions, health systems need to meet people's needs for quality family planning services, and to ensure that safe abortion services are accessible to women to the fullest extent of the law. Where access is limited due to legal or programmatic reasons, post-abortion care is necessary to address the complications of unsafe abortions and avert maternal deaths and disabilities.

MENA countries face diverse programmatic challenges in meeting the demand for abortion, not only because their abortion laws differ but also because their health systems differ in dealing with abortion-related care.

### Where Abortion Is Permitted

In both Turkey and Tunisia, abortion services are legal and provided free of charge in public health facilities. The main programmatic challenge facing these two countries is to make the services universally accessible and consistently of high quality.

In Turkey, abortion has been legal on request since 1983, but the services are not yet uniformly available across the country. The 2003 Turkish Demographic and Health Survey showed that most abortions take place in the private sector, where the services are more costly. Only about one in five abortions takes place in a public health clinic.

To efficiently use doctors' time and expand the availability of abortion services in public health clinics, the Turkish government has collaborated with WHO to train and authorize general practitioners to perform abortions using manual vacuum

### Box 3

#### Access to Safe Abortion in Tunisia

Tunisia has always been at the forefront of women's rights in the region. Under President Habib Bourguiba, Tunisia became the first Arab country to adopt a national population policy in the mid-1950s, outlawing polygamy and raising the marriage age to 17 for women and 20 for men. Today, access to safe abortion is one of women's legal rights, along with the right to work, vote, and divorce.

Established in 1965, the *Office Nationale de la Famille et de la Population* (ONFP) has successfully promoted a strong family planning program while simultaneously creating access to safe abortion and other reproductive health services. In 1965, Tunisia became the first Muslim country to legalize abortion, as part of an effort to end unsafe abortion and improve women's health. However, the right to have an abortion was limited to women who already had at least five children. In 1973, the law was further modified to allow abortion for all women, regardless of their marital status or number of children.

Since that time, cases of unsafe abortion have almost disappeared and the maternal death rate has fallen, because abortions are regulated and generally performed under high medical standards. In addition, the abortion rate has declined from 11 abortions per 1,000 women of reproductive age in 1990 to approximately 7 abortions per 1,000 women in 2003.

Tunisia was also the first country in the MENA region to authorize the use of medical abortion as an alternative to surgical methods in 2001, after conducting a series of clinical studies that demonstrated its effectiveness, safety, and acceptability. Through ongoing research, collaboration, and innovation, ONFP continues to focus on improving family planning services while simultaneously ensuring that abortion services are safe and accessible to women.

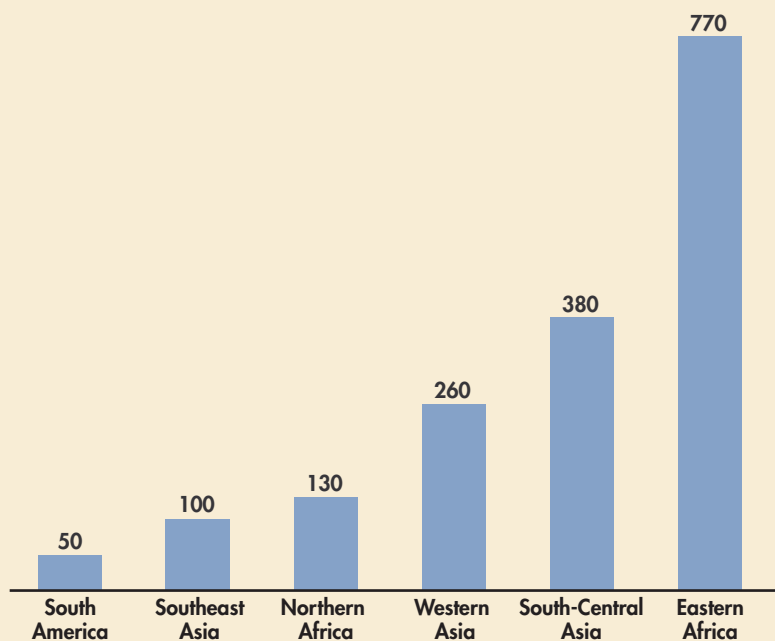
**SOURCES:** Wm. Robert Johnston, "Historical Abortion Statistics, Tunisia" accessed online at [www.johnstonsarchive.net/policy/abortion/ab-tunisia.html](http://www.johnstonsarchive.net/policy/abortion/ab-tunisia.html), on July 18, 2008; Gilda Sedgh et al., "Legal Abortion Worldwide: Incidence and Recent Trends," *International Family Planning Perspectives* 33, no. 3 (2007): 106-16; Jennifer Blum et al., "The Medical Abortion Experiences of Married and Unmarried Women in Tunis, Tunisia," *Contraception* 69, no. 1 (2004): 63-69; and Selma Hajri et al., "Expanding Medical Abortion in Tunisia: Women's Experiences From a Multi-Site Expansion Study," *Contraception* 70, no. 6 (2004): 487-91.

aspiration (MVA—see Box 1).<sup>15</sup> More recently, Turkey has introduced medical abortion in introductory clinical trials but has yet to integrate the method into health services, partly due to the lack of commercial availability of mifepristone.

In Tunisia, the use of medical abortion is more widespread than in Turkey. Increasingly, medical abortion is becoming the standard of care in many facilities in Tunisia (see Box 3). Where offered, medical abortion is selected by more than 60 percent of women seeking abortion.<sup>16</sup>

Figure 5

**Number of Deaths Due to Unsafe Abortion per 100,000 Unsafe Abortions in Selected World Sub-Regions, 2003**



**NOTE:** Western Asia and Northern Africa together make up the MENA region.  
**SOURCE:** World Health Organization, *Unsafe Abortion: Global and Regional Estimates of the Incidence of Unsafe Abortion and Associated Mortality in 2003* (Geneva: WHO, 2007): figure 7.

Both Turkey and Tunisia face challenges in integrating abortion services fully into their health care systems, giving all women who need an abortion access to quality services without stigma, and improving their counseling on modern contraceptive methods. In Turkey, the 2003 Demographic Health and Survey showed that among women who had an abortion, more than one-half were not using a modern contraceptive method one month later—31 percent were not using any method and 26 percent were using withdrawal.<sup>17</sup>

**Where Abortion Is Restricted**

Restrictive abortion laws impact women in different ways. For example:

- Abortion may be permitted to preserve a woman's physical or mental health, but the laws may require the authorization of several doctors or require the husband's approval.

- The legal system and health providers may interpret the laws narrowly and the psychological and mental well-being of women may not be recognized to the extent that the law calls for.<sup>18</sup>
- Physicians may lack knowledge of the law because it is unclear.
- Women may have to work their way through bureaucracy or unclear guidelines.
- Women may also be unaware of their rights, or unable to find a provider who is willing and able to perform an abortion.

To help alleviate the burden of unsafe abortion on women's health and lives, laws need to be interpreted to the broadest extent possible by the legal and health systems. The outcome of unsafe abortion also depends on women's willingness to use medical services and the readiness of medical staff to deal promptly with any complications. Young women are affected most by restrictive abortion laws and complications of unsafe abortions.

**Post-Abortion Care**

Post-abortion care is particularly important in countries with restrictive laws, making it an essential element of reproductive health services. A study in Egypt—where abortion is highly restricted—found that treatment of complications of unsafe abortion consumed a large share of resources in a nationally representative sample of hospitals. Almost one in five obstetrical and gynecological hospital admissions in Egypt were for post-abortion care.<sup>19</sup>

Several MENA countries, including Egypt, Iran, and Yemen, have introduced post-abortion care programs that allow for training of health care providers in handling complications of unsafe abortion (see Box 4). Post-abortion care includes:

- Emergency treatment for complications of abortion or miscarriage.
- Counseling to identify and respond to a woman's emotional and physical health needs and other concerns.
- Family planning services to help prevent another unintended pregnancy.
- Reproductive or other health services provided on site or through referral to other facilities.

According to a WHO report, in Northern Africa and Western Asia (sub-regions that together make up the MENA region), 160 and 260 women die per 100,000 unsafe abortions, respectively (see Figure 5). These death rates are two to five times higher, respectively, than the rate in South America. Women in certain parts of Africa have the highest chance of dying due to unsafe abortion in the world. In 2006, African ministers of health gathered in Maputo, Mozambique, and adopted an action plan to ensure universal access to comprehensive sexual and reproductive health, including abortion care.<sup>20</sup>

Restrictive laws make it difficult for researchers to collect data or study the incidence, circumstances, and impact of abortion on women and societies in the region. Lack of data is a major challenge in developing post-abortion services. In countries where abortion is restricted, no one knows whether abortion rates are increasing or declining, or where the need is greatest for post-abortion care. We do know that in all these countries, women resort to clandestine abortions when they need to. In the 2006 Syrian survey, more than half of the respondents who reported having an abortion said that they would be willing to have another abortion if they needed to.

## Conclusions

Unsafe abortion is a major public health concern because it can lead to individual suffering and place a large burden on health care systems. Well-articulated and coordinated public policies and programs are needed to ensure:

- Universal access to quality family planning information and services.
- Women's access to abortion services to the fullest extent of the law.
- Women's access to post-abortion care for complications of unsafe abortion.
- Post-abortion care linked to family planning counseling and other reproductive health services.

An informed and objective discourse is urgently needed in MENA countries to develop interventions that would help reduce unintended pregnancies and prevent unsafe abortion and its consequences for women, families, and societies.

## Box 4

### Expanding Post-Abortion Care in Egypt

Since 1994, Egypt has been at the forefront in the region in giving women access to post-abortion care, including the use of manual vacuum aspiration (MVA), and training health care providers to counsel women who have had abortions and refer them to family planning services.

There are no reliable national data on the incidence of abortion in Egypt. Small local studies, however, suggest that abortion is just as common in Egypt as in countries where abortion is legal, but it is more clandestine and unsafe. One study of 1,300 Egyptian women by the Cairo Demographic Center showed that one-third had tried to terminate a pregnancy—a rate comparable with some developed countries.

Similarly, a small study in Upper Egypt found that 41 percent of women in one rural area had at least one abortion, and that 25 percent had more than one. The vast majority of these women (92 percent) did so without the help of a medical professional, instead seeking the help of a traditional midwife, a relative or neighbor, or a traditional practitioner.

In 2007, Gyunity Health Projects, in collaboration with two large research hospitals (El Galaa Teaching Hospital in Cairo and Shatby Maternity Hospital in Alexandria), began to assess the feasibility of using two tablets of misoprostol—an inexpensive, easy to use, locally available drug that has been shown to be very effective (about 95 percent) for treating incomplete abortions. Expanding the use of misoprostol for post-abortion care could potentially reduce the burden of complications of unsafe abortions on health care facilities, whose resources could be freed up for treating other urgent health problems.

The Egyptian health care system would also benefit from reducing repeated abortions by linking post-abortion care more closely with family planning services. A feasibility study on linking these services showed that only 3 percent of women receiving post-abortion care received a family planning method when they were discharged, even though health facilities were equipped and the providers were trained to make family planning available. The study concluded that educational activities, health provider training, and service standards needed to improve to help women avoid repeated unintended pregnancies.

**SOURCES:** Population Council, "Lessons From Introducing Post-Abortion Care in Egypt," *Population Briefs* 10, no. 3 (2004); Jennifer Blum et al., "Treatment of Incomplete Abortion and Miscarriage With Misoprostol," *International Journal of Gynecology and Obstetrics* 99, Supplement 2 (2007): S186-89; K.M. Yassin, "Incidence and Socioeconomic Determinants of Abortion in Rural Upper Egypt," *Public Health* 4, no. 114 (2000): 269-72; Kristina Gemzell-Danielsson, Christian Fiala, and Andrew Weeks, "Misoprostol: First-Line Therapy for Incomplete Miscarriage in the Developing World," *British Journal of Obstetrics and Gynecology* 114, no. 11 (2007): 1337-39; and Hala Youssef et al., *Linking Family Planning With Post-Abortion Services in Egypt* (Cairo: Population Council, Frontiers in Reproductive Health, 2007).

## REFERENCES

<sup>1</sup> The Middle East and North Africa region as defined here includes Algeria, Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, the Palestinian Territory, Qatar, Saudi Arabia, Syria, Tunisia, Turkey, the United Arab Emirates, and Yemen.

<sup>2</sup> Nils Daulaire et al., *Promises to Keep: The Toll of Unintended Pregnancies on Women's Lives in the Developing World* (Washington, DC: Global Health Council, 2000).

<sup>3</sup> World Health Organization, *Unsafe Abortion: Global and Regional Estimates of the Incidence of Unsafe Abortion and Associated Mortality in 2003* (Geneva: WHO, 2007): table 2.

<sup>4</sup> Malcolm Potts and Martha Campbell, "History of Contraception," in *Gynecology and Obstetrics* 6, CD-ROM, ed. John J. Sciarra (Philadelphia: Lippincott, Williams & Wilkins, 2003): vol. 6, chapter 8. Found in Egypt in the 1870s, the *Ebers Papyrus* contains prescriptions written in hieroglyphics for over 700 remedies.

<sup>5</sup> David A. Grimes et al., "Unsafe Abortion: The Preventable Pandemic," *The Lancet* 368, no. 9550 (2006): 1908-19.

<sup>6</sup> WHO, *Unsafe Abortion: Global and Regional Estimates of the Incidence of Unsafe Abortion and Associated Mortality in 2003*: 1.

<sup>7</sup> Guttmacher Institute, "Facts on Induced Abortion in the United States," *In Brief* (January 2008), accessed online at [www.guttmacher.org](http://www.guttmacher.org), on July 10, 2008.

<sup>8</sup> WHO, *Unsafe Abortion: Global and Regional Estimates of the Incidence of Unsafe Abortion and Associated Mortality in 2003*.

<sup>9</sup> Hacettepe University Institute of Population Studies, *Turkey Demographic and Health Survey 2003* (Ankara, Turkey: Hacettepe University Institute of Population Studies, Ministry of Health General Directorate of Mother and Child Health and Family Planning, State Planning Organization and European Union, 2004): tables 5.6 and 6.4.

<sup>10</sup> World Health Organization, *Maternal Mortality in 2005: Estimates Developed by WHO, UNICEF, UNFPA, and the World Bank* (Geneva: WHO, 2007): annex 3.

<sup>11</sup> Farzaneh Roudi-Fahimi, *Iran's Family Planning Program: Responding to a Nation's Needs* (Washington, DC: Population Reference Bureau, 2002); Amir Erfani and Kevin McQuillan, "Rates of Induced Abortion in Iran: The Role of Contraceptive Use and Religiosity," *Studies in Family Planning* 39, no. 2 (2008): 111-22; and personal communication with the Iranian ministry of health, July 7, 2008.

<sup>12</sup> Fatma El-Zanty and Ann Way, *Egypt Demographic and Health Survey 2005* (Calverton, MD: ORC Macro, 2006).

<sup>13</sup> Special tabulation of a national survey conducted by Damascus University and Ministry of Health.

<sup>14</sup> House of Commons, International Development Committee, *Maternal Health, Fifth Report of Session 2007-08*, Volume 1: paragraph 51, accessed online at [www.publications.parliament.uk/pa/cm200708/cmselect/cmintdev/66/66i.pdf](http://www.publications.parliament.uk/pa/cm200708/cmselect/cmintdev/66/66i.pdf), March 23, 2008.

<sup>15</sup> Ayse Akin, Gonca Oktay Kacoglu, and Levant Akin, "Study Supports the Introduction of Early Medical Abortion in Turkey," *Reproductive Health Matters* 13, no. 26 (2005): 101-09.

<sup>16</sup> Selma Hajri et al., "Expanding Medical Abortion in Tunisia: Women's Experiences From a Multi-Site Expansion Study," *Contraception* 70, no. 6 (2004): 487-91.

<sup>17</sup> Hacettepe University Institute of Population Studies, *Turkey Demographic and Health Survey 2003*: table 6.6.

## PRB's Middle East and North Africa Program

The goal of the Population Reference Bureau's Middle East and North Africa (MENA) Program is to respond to regional needs for timely and objective information and analysis on population, socioeconomic, and reproductive health issues. The program raises awareness of these issues among decision-makers in the region and in the international community in hopes of influencing policies and improving the lives of people living in the MENA region.

The Population Reference Bureau informs people around the world about population, health, and the environment, and empowers them to use that information to advance the well-being of current and future generations.

## Gynuity Health Projects

Gynuity Health Projects is a research and technical assistance organization dedicated to the idea that all people should have access to the fruits of medical science and technology development. Gynuity's work in MENA includes clinical and operational research on low cost, easy to use reproductive health technologies.

Gynuity is also the founder of the Arabic Reproductive Health Information Initiative at [www.ArabicRHInfo.org](http://www.ArabicRHInfo.org). For additional information about Gynuity please visit [www.gynuity.org](http://www.gynuity.org).

<sup>18</sup> Leila Hessini, "Abortion and Islam: Policies and Practice in the Middle East and North Africa," *Reproductive Health Matters* 15, no. 29 (2007): 1-10.

<sup>19</sup> Dale Huntington et al., "The Postabortion Caseload in Egyptian Hospitals: A Descriptive Study," *International Family Planning Perspectives* 24, no. 1 (1998): 25-31.

<sup>20</sup> The African Union Commission, *Plan of Action on Sexual and Reproductive Health and Rights* (Addis Ababa, Ethiopia: African Union, 2006), accessed online at [www.unfpa.org/africa/newdocs/maputo\\_eng.pdf](http://www.unfpa.org/africa/newdocs/maputo_eng.pdf), on Sept. 15, 2008.

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