Preventing Unsafe Abortion and its Consequences

Priorities for Research and Action

Editors
Ina K. Warriner
Iqbal H. Shah

GUTTMACHER INSTITUTE

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120 Wall Street
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Telephone: 1-212-248-1111
Fax: 1-212-248-1951
E-mail: info@guttmacher.org

1301 Connecticut Avenue NW, Suite 700
Washington, DC 20036, USA

www.guttmacher.org

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Foreword

This volume speaks to the global burden of unsafe abortion. The cost is largely borne by those who are most vulnerable and least able to access safe services: millions of poor women, young women, rural women and their families bear the lasting consequences of unsafe abortion. It is a cost that gets swept up in the debate about abortion; a debate that sometimes misses the day-to-day impact unsafe abortion has on women's lives. This is a story of desperation. This is a story of women's use of abortion under the most horrific circumstances. This is a story of the burdens on medical systems that can barely meet the most basic of needs, much less provide care for women suffering from entirely preventable injuries.

This book may be read in different ways. For some, the distinction between unsafe and safe abortions is meaningless because for them abortion is unacceptable regardless of safety. For others, it will re-dedicate their commitment to improving the quality of health care for women. It will rekindle their commitment to the provision of family planning services to reduce unwanted pregnancies and their commitment to replacing unsafe abortion with safe abortion services. But all must confront the lengths to which women will go and the risks they face when a pregnancy is unintended. Women bear those costs, their families bear those costs, and ultimately society bears those costs.

Tales of unsafe abortion lead to several observations, observations that have been important for me in my own career. Unsafe abortion is widespread; it does not know national boundaries. Research on abortion and contraception must therefore be global. We all have an obligation not only to improve our understanding of unsafe abortion and its impact on women, but to share it widely. Advances in research that take place in resource-rich countries must be available to others who can less well afford to invest in such research. The challenge is global even when the particular circumstances are very local. That says to me that researchers – and the agencies that fund researchers – must ensure that their work derives from the community, involves the community, and can be used by the community.

Another observation is the resolve with which women seek to end unwanted pregnancies. Unsafe abortion poses a risk across the lifespan. Adolescents facing an unintended pregnancy before finishing school or finding a stable partner are most

likely to seek an end to the pregnancy. Adolescents are also at high risk of forced intercourse, perhaps the worst path to an unwanted pregnancy. These are young women who are likely to have fewer financial resources and a poor understanding of an often punitive health care system; hence the risks and potential complications they face are great. Consequences may include a lifetime of infertility; a condition that can affect their ability to marry and achieve full adult status in some settings.

But unsafe abortion knows no age boundaries – many an older woman has believed her reproductive time had passed only to be surprised by a pregnancy! Contraceptive vigilance may decline along with the perceived risk of pregnancy, but that is a calculus that is easy to get wrong. The years a woman may be anticipating as a grandmother may be taken from her – and her family – if she faces death or infection from an unsafe abortion. The woman, who would be a source of support for her children and grandchildren, suddenly faces an imperiled future.

The risks of unsafe abortion are not just to the woman involved. Of course, risks to her health jeopardize her family, but the costs of unsafe abortion are carried by the whole of the society. How many other lives could be saved if fewer medical resources were applied to safe abortion rather than to redressing the ravages of unsafe abortion? What message might we take from this call to prevent unsafe abortion? I urge the readers of this book to continually remind themselves of the basic message of unsafe abortion: look at the lengths women will go to end an unwanted pregnancy. Let our commitment be as great to ensure that women do not face unwanted pregnancies and that when they do, they do not have to put their very lives in jeopardy.

Wendy Baldwin

Preface

Unsafe abortion is a commonly neglected reproductive health care problem in developing countries, yet it poses a serious threat to the health of millions of women during their reproductive lives. Until unsafe abortion and its consequences are eliminated, complications from unsafe abortion will remain a major cause of maternal mortality and morbidity.

Defined by the World Health Organization (WHO) as the termination of an unintended pregnancy either by persons lacking the necessary skills or in an environment lacking the minimal medical standards, or both, unsafe abortion remains a frequently unacknowledged public health burden of substantial proportions. The brunt of unsafe abortions occurs primarily in the developing world. Although most women seeking abortions are married or in stable unions and already have several children, an increasing proportion of those seeking abortions are unmarried adolescents, particularly in urban areas. However, throughout the developing world, countless women are barred from access to safe abortion services due to a combination of social, economic, religious, and policy factors.

The 1994 International Conference on Population and Development (ICPD) highlighted the pressing need for work on unsafe abortion, and, in its Programme of Action, it urged governments and other relevant organizations "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" (Paragraph 8.25 of the Programme of Action). It further declared: "In circumstances where abortion is not against the law, such abortion should be safe." (Paragraph 63i). Although a number of developing countries have liberalized abortion laws, much work remains to be done to ensure that unsafe abortion becomes a public health concern of the past.

Relatively few studies have examined unsafe abortion and its consequences in the wake of ICPD's call for action. Consequently, there is a clear and pressing need to define a research agenda and identify advocacy strategies to reduce unsafe abortion. To achieve the overall goal of eliminating unsafe abortion, it is necessary to understand the factors behind the persistence of unsafe abortion and the opportunities and barriers to preventing unsafe abortion.

With this goal in mind, the UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development, and Research Training in Human Reproduction under the leadership of its Director, Dr Paul F.A. Van Look, convened a consultation on "Priorities and Needs in the Area of Unsafe Abortion" in Geneva, Switzerland, in August 2000, to bring together internationally prominent researchers from a variety of disciplines to assess the global status of unsafe abortion and to identify a research and action agenda to reduce unsafe abortion and its burden on women, their families, and public health systems.

Presentations at the meeting addressed many facets of unsafe abortion, from an evidence-based global overview to medical advances in treating complications to regional perspectives and priorities. Participants documented the gravity and global reach of unsafe abortion and called for action to reduce unsafe abortion and its consequences for women and society. Until unsafe abortion is eliminated, women will continue to suffer the consequences of abortions performed under unsafe conditions. It is hoped that this collection of papers, with their calls for research and action, will stimulate the international public health community to address unsafe abortion and reduce the suffering experienced by millions of women who are not able to access safe abortion services.

This volume is being published by the Guttmacher Institute, the leading independent think tank on sexual and reproductive health. Guttmacher conducts research and engages in public education on unsafe abortion, and is currently collaborating with WHO and the World Bank to estimate and disseminate information on the incidence of abortion worldwide. It believes the papers included in this report advance understanding of the toll of unsafe abortion and provide valuable insight into the research and action needed to effectively address this problem.

Ina K. Warriner and Iqbal H. Shah

Acknowledgements

This volume brings together the many contributions of the participants attending the meeting on "Priorities and Needs in the Area of Unsafe Abortion", organized by the UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction (HRP) in August 2000. We are indebted to the participants, including members of HRP's Specialist Panel on Social Science and Operations Research in Reproductive Health, who brought with them their commitment to eliminating unsafe abortion, their passion for improving women's health, and their expertise and ideas for addressing the problem of unsafe abortion. It is their dedication to reducing the burden of unsafe abortion on women's lives and their calls for action that are reflected in these pages. Thanks are also due to Dr Wendy Baldwin who so ably chaired the meeting and expertly guided discussions on the many facets and complexities surrounding abortion.

We owe a significant debt of gratitude to the Ford Foundation for generously supporting the publication of this volume through a grant to the Guttmacher Institute. We would also like to acknowledge the contribution of Mr Mauro Bernardi who designed the cover and layout of the volume.

Ina K. Warriner and Iqbal H. Shah

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Unsafe abortion: an overview of priorities and needs

Ina K. Warriner [1]

ABSTRACT

Unsafe abortion is a significant yet preventable cause of maternal mortality and morbidity in developing countries. This report contains the papers submitted to an interdisciplinary consultation convened by WHO to assess the problem of unsafe abortion globally and to identify a research agenda aimed at reducing unintended pregnancy, unsafe abortion, and the resultant burden on women, their families, and public health systems. Experts at the consultation reviewed the available evidence on unsafe abortion, examined the factors that perpetuate the problem, and identified both opportunities for preventing unsafe abortion and constraints on prevention. Participants addressed the theoretical and medical issues relating to research on unsafe abortion and outlined regional priorities for the prevention of unsafe abortion. Both long-standing and emerging issues relating to research on unsafe abortion were discussed.

[1] UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction, World Health Organization, 1211 Geneva 27, Switzerland.

Background

Each year, an estimated 210 million women throughout the world become pregnant and about one in five of them resort to abortion. Out of 46 million abortions performed annually, 19 million are estimated to be unsafe (*1*). WHO defines unsafe abortion as a procedure for terminating an unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking the minimal medical standards, or both (*2*). The burden of unsafe abortion lies primarily in the developing world; the highest rates are in Africa and in Latin America and the Caribbean, followed closely by South and South-East Asia. At the opposite extreme, the rate of unsafe abortion in Europe and North America is negligible.

Where access to safe abortion is restricted, complications from unsafe abortion lead to morbidity and are a major cause of maternal deaths. Globally, it has been estimated that some 68 000 women die each year as a consequence of unsafe abortion, and 5.3 million suffer temporary or permanent disability (*3*). The public health burden is greatest in the developing world.

The root cause of women seeking an abortion is the persistence of unintended pregnancies, which in turn reflects the failure of family planning programmes to meet the contraceptive needs of all women at risk of an unintended pregnancy. For the growing number of women and men of reproductive age who wish to regulate their fertility and have fewer children, there is a need for correct and consistent use of effective contraceptive methods. However, problems such as difficulties in access to preferred methods of contraception, incorrect or inconsistent use of contraceptive methods, and potential contraceptive method failure are not easily resolved and may lead to unintended pregnancies. Other reasons for unwanted pregnancies include forced or unwanted sexual intercourse and a lack of women's empowerment over sexual and reproductive matters. Societal norms, economic conditions, legal obstacles and other systemic factors are likely to have a profound impact on women's recourse to abortion and especially unsafe abortion. Poverty, for example, is an important determinant in the decision to seek an abortion when women consider the financial consequences of an unintended pregnancy.

Broadly speaking, where there is no legal restriction, abortion services are likely to be safe. In these settings, the abortion is performed in a regulated medical setting and the providers are properly trained. In contrast, where abortion laws are highly restrictive, women turn to clandestine providers with a high risk of incurring a serious or life-threatening complication.

However, there are significant exceptions to this generalization and the relationship between the legality of abortions and the safety of service provision is not always straightforward. Illegal abortions are not necessarily unsafe, legal abortions are not necessarily safe, and clandestine abortions occur in countries where abortion is legal and free of charge. Clandestine providers may be skilled in abortion provision and provide high quality abortion care in some cases, while government certified providers may offer poor service and quality of care so that women turn to untrained abortion providers who may be more respectful of confidentiality and privacy. An example of the latter situation is India, where abortion is legal and provided free of charge in government authorized clinics but significant numbers of abortions continue to take place in uncertified settings, a large proportion of which are unsafe. Additional factors related to quality of care and access to services contribute to high levels of unsafe abortion in India, including a limited number of government certified abortion clinics in rural areas, compelling women to seek out other providers (*4*). In regions where abortion is highly restricted, the private sector plays an important role in provision of safe abortions for women who can afford it. Although costly and therefore only accessible to women with the means to pay, clandestine abortion providers (such as well-trained doctors and midwives) may offer a safe abortion service, including postabortion care if there should be complications.

The 1994 International Conference on Population and Development (ICPD) outlined the issues and challenges for work in the area of unsafe abortion. In its Programme of Action, it urged governments and other relevant organizations *"...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"* (Paragraph 63i of the Programme of Action). It further states: *"Prevention of unwanted pregnancies must always be given the highest priority and every attempt should be made to eliminate the need for abortion. Women who have unwanted pregnancies should have ready access to reliable information and compassionate counselling. In circumstances where 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 counselling, education and family planning services should be offered promptly, which will also help to avoid repeat abortions"* (Paragraph 63i). Subsequent conferences, including the Fourth World Conference on Women (FWCW) in 1995, the ICPD + 5 meeting in 1999, and the Beijing + 5 meeting in 2000 continued to call for the provision of safe abortion services where they are not against the law.

The Special Programme on Research, Development and Research Training in Human Reproduction was established by the World Health Organization in 1972 and has maintained an important role in research on preventing unsafe abortion and its consequences for maternal mortality. The work on preventing unsafe abortion at WHO is directed at ensuring that, where abortion is legal, the procedure should be safe. Despite a global trend toward the liberalization of abortion laws, unsafe abortion remains an important unresolved reproductive health concern and the need to identify priority research areas continues. Interventions such as the Safe Motherhood Initiative have been successful at reducing maternal mortality in some countries; however, until unsafe abortion is eliminated, complications from unsafe abortion remain a major cause of maternal mortality. To achieve the overall goal of eliminating unsafe abortion by improving the safety of abortions, it is necessary to understand the factors behind the persistence of unsafe abortion and the opportunities and barriers to preventing unsafe abortion.

A consultation on "Priorities and Needs in the Area of Unsafe Abortion" was convened in Geneva, Switzerland, in August 2000, to bring together internationally prominent researchers from a variety of disciplines to assess the global status of unsafe abortion and to identify a research and advocacy agenda to reduce unsafe abortion and its burden on women, their families, and public health systems. A number of emerging and long-standing issues related to research on unsafe abortion formed the background discussion to the chapters in this volume. A few of these topics are discussed in this chapter.

Medical abortion

Medical termination of pregnancy can be achieved through the use of mifepristone in combination with a suitable prostaglandin, such as misoprostol, or a prostaglandin analogue. Medical abortion is increasingly available worldwide and is likely to have a substantial impact on the service provision of both safe and unsafe abortions. In countries where abortion is legal, misoprostol may improve abortion services where skilled providers are not accessible and sterile surgical equipment is not available. Misoprostol is inexpensive, simple to administer, easy to store and is therefore particularly appealing to providers in developing countries and to women seeking covert abortions.

When provided under supervised medical care, medical abortion has a success rate of approximately 95 per cent (*5*). However, questions remain about the introduction of medical abortion in settings lacking appropriate medical supervision,

particularly where women depend on social networks for dosage information and where access to follow-up medical care is limited. To what extent does the unsupervised self-administration of medical abortion provoke complications and how serious are these complications, compared to those from unsafe surgical abortions? The consensus thus far is that medical abortion is most likely safer than other means of self-induced abortion using physical objects or caustic substances and is likely to reduce morbidity and mortality related to unsafe abortion (*6*, *7*). However, women who take incorrect dosages may risk potentially serious complications such as prolonged bleeding if they do not receive prompt medical attention.

A case study of the covert use of medical abortion is Brazil, where misoprostol has been available through women's networks and complicit pharmacists for over a decade. A study of medical abortion in Brazil, Jamaica and the USA (*7*) found that in the absence of standard or labelled regimens for abortion, providers relied upon networks of colleagues and the medical literature to develop their own regimens which were substantially higher or lower than those recommended by professional organizations. Despite fluctuating regimens and their corresponding efficacy, when misoprostol was removed from the Brazilian market in 1998, the number of septic surgically-induced abortions rose in several major hospitals and clinics.

India is an emerging market for medical abortion and it is likely that both unsupervised and supervised medical abortion will rapidly gain ground. The cost of a self-administered medical abortion is approximately the same as a surgical abortion performed by a private sector physician. However, there is no need for a visit to the physician, confidentiality is assured, and the intrusion of surgery is avoided, all of which may lead women who can afford it to favour medical abortion.

Abortion, postabortion care and contraception

The relationship between contraception and abortion may, at first glance, appear paradoxical. For every country where the incidence of abortion declined as contraceptive use increased, another experienced simultaneous increases in levels of abortion and contraceptive use. Marston & Cleland (*8*) reviewed the available country data and demonstrated that where fertility remains constant, abortion declines as contraception rises. However, where fertility is in the process of declining, an increase in contraceptive use alone may be insufficient to meet the demand for fertility regulation, and an increase in abortion incidence may result until fertility levels have stabilized. Singh & Sedgh (*9*) examined the role of contraceptive use on abortion incidence over several decades in Brazil, Colombia, and Mexico. The

results of their analyses, which found substantial variation in the pace and timing of decreases in abortion, broadly support the hypothesis that where fertility rates are changing, abortion rates may increase in conjunction with contraceptive use but ultimately stabilize and then decline. Improved understanding of the relationship between abortion and contraception would provide policy-makers with a clearer picture of the factors influencing fertility change, including the relative impact of abortion, whether safe or unsafe, and the need for family planning policies and programmes.

More studies are needed to rigorously assess the long-term effects of postabortion contraception on subsequent unplanned pregnancies. In one of few such studies, Johnson et al. (*10*) found that women who were offered contraception and counselling following treatment for complications from abortion were significantly more likely to use highly effective methods of contraception and experienced fewer unplanned pregnancies and repeat abortion during a 12-month follow-up than women who were not provided with counselling and contraceptives. These evidence-based results are encouraging and demonstrate the need for the implementation of postabortion care policies and programmes.

Differential access to safe abortion services

In countries were abortion is highly restricted, large numbers of beds in obstetric wards are often occupied by women who have experienced complications from unsafe abortion, attesting to the fact that women seek abortions regardless of laws prohibiting abortion services. Access to safe abortion services where these are prohibited by law is primarily a function of the ability to pay and having access to networks of safe, clandestine abortion providers. Poor women and rural women are therefore more likely to receive poor quality abortion care than urban and wealthier women. This differential access to safe abortion care places a disproportionate burden on poor women who are seeking an abortion and on the public health services which divert scarce health care resources to care for them.

Social inequalities are an important determinant of access to safe abortion care, regardless of the legality of the procedure. However, few studies have documented the causes and consequences of differential access to safe abortion. A study of women's health care providers in Nigeria (*11*), where abortion is highly restricted, found that women of all socioeconomic levels sought abortions but that approximately half of the women obtained abortions from traditional providers with no formal training or self-induced the abortion using a variety of

substances. Urban women and wealthier women had better access to safe abortion services. Likewise, a study of health providers in South and South-East Asia (*12*) revealed that approximately one third to one half of poor women in both rural and urban areas resort to uncertified providers of abortion or induce the abortion themselves.

Unsafe abortion among adolescents

In many countries, adolescents comprise a significant proportion of abortion-seekers. Where abortion is against the law, adolescents are most likely to experience unsafe abortion and its consequences. For example, 59 % of all unsafe abortions in Africa are estimated to occur to women aged less than 25 years (*3*). Mortality is frequently highest among adolescents since they are slow to recognise the pregnancy, are least able to afford appropriate care, and are most vulnerable to receiving poor quality care and using ineffective methods. The longer it takes for an adolescent to identify and access an abortion provider, the later the gestational age of the pregnancy and the greater likelihood of complications.

A number of studies report consistently high levels of unsafe abortion among adolescents in Africa (*13*,*14*,*15*). Studies among different populations of adolescents in Cameroon and Nigeria found that approximately 20 % of adolescents report having had at least one abortion, usually performed by a physician or nurse, and complications were common (*13*,*15*,*16*,*17*). A study in Uganda (*14*) estimated that 55% of abortions in one health centre occurred in adolescents aged 17 to 20 years. Of these abortions, 23% resulted in complications and the capacity to manage complications was limited. The increasing gap between menarche and marriage in Africa and increasing levels of sexual activity among youth combined with insufficient family planning services for adolescents contribute to rising levels of unwanted pregnancies. Many questions about adolescent abortion-seekers remain poorly understood. What do we know about the social networks of adolescent girls and about the ways young women choose an abortion provider where abortion services are highly restricted? Where do young women with complications turn to for help?

Research priorities: thematic and regional

The programme of the consultation encompassed two broad categories of papers: those that address theoretical and medical issues related to research on

preventing unsafe abortion and those that examine regional priorities for unsafe abortion. All contributors were asked to provide priority topics for future research on unsafe abortion and for advocacy efforts to reduce unsafe abortion.

Research on unsafe abortion is a multi-faceted challenge. Two articles highlight the need for careful analysis of the dimensions of unsafe abortion, both in terms of documenting the magnitude of unsafe abortion and its consequences and in terms of understanding the trajectories women follow when they resort to terminating an unwanted pregnancy under unsafe conditions. Documentation of the incidence of highly restricted and unsafe abortion provides evidence of the scope of the problem and the gravity of its consequences. Reliable data on abortion also delineates the role of abortion in changes in fertility rates, which may otherwise be incorrectly attributed to contraceptive use or other determinants of fertility.

Singh's article presents key reasons for developing estimates of unsafe abortion and provides an overview of current estimates of the numbers and rates of induced abortion worldwide, for developed and developing countries, and for all major world regions. Countries are divided into two broad categories: those in which abortion is legal under a broad array of conditions and those where the procedure is highly legally restricted. Singh demonstrates that although the practice of abortion is universal, there are substantial global variations in the levels and incidence of abortion, based on the limited data available. There are also wide variations across countries in the legal status of abortion, access to safe abortion services, acceptance of abortion, and moral and ethical views about its practice. The bulk of unsafe abortions, however, occur in the developing world. Singh concludes by noting the challenges to the collection of data on unsafe abortion, including the predicted rise in the clandestine use of medical abortion, which will require changes in estimation procedures.

To better understand the factors and conditions that lead women to choose abortion even when the conditions are unsafe, Mundigo's article explores the main determinants of unsafe induced abortion in the developing world using a framework of two categories of determinants. Proximate determinants are individual-level factors directly affecting contraceptive behaviour and the decision to terminate an unwanted pregnancy. Systemic determinants of unsafe abortion encompass the legal, social, economic, and religious factors affecting the abortion decision-making process and access to safe abortion care. Mundigo considers the impact of policies and legislation on women's choices when confronted with an unwanted pregnancy by analysing data from case studies conducted as part of a WHO research initiative on the determinants of abortion in areas where access

to safe services is restricted by law. In much of the developing world, systemic determinants prohibit women who desire an abortion from accessing safe abortion services, leading to unsafe abortion and its consequences. The article recommends more research on the causes and consequences of unsafe abortion in the developing world and bringing these findings to the attention of policy-makers.

Legal obstacles to the provision of safe abortion services give women little choice but to resort to unsafe abortion when faced with an unintended pregnancy. Cook's article addresses the problem of unsafe abortion using a human rights framework that would reduce unsafe abortion and its harmful consequences for women and their families. The application of human rights to reduce unsafe abortion includes the right to be free from inhuman and degrading treatment, and the rights to equal protection of the law, to liberty and security of the person, to health, and to non-discrimination on grounds of sex and race. Cook argues that countries interested in reducing unsafe abortion should conduct a human rights needs assessment to identify the ways laws, policies or practices facilitate or inhibit the availability of and access to services at the clinical and health system levels. Such an assessment should also address the underlying social or economic conditions that inhibit access to safe abortion care. Where laws, policies or practices directly or indirectly obstruct the availability of or access to preventive family planning services or to abortion services, they need to be reformed to comply with human rights principles.

From a medical standpoint, women undergoing abortions performed under unsafe conditions are at greater risk of serious and life-threatening complications. Two articles address medical and clinical practices that reduce complications from unsafe abortion and their burden on health systems. Grimes addresses complications from unsafe abortion that remain endemic in developing countries and may be worsening in both Africa and Latin America. From a preventive medicine viewpoint, strategies at three different levels can reduce the frequency and severity of complications from unsafe abortion. Primary prevention includes improving the skills of providers in countries where induced abortion is legal. Secondary prevention includes prompt evacuation of incomplete abortions by either misoprostol or manual vacuum aspiration. Prompt empiric antibiotic therapy and rapid emptying of the uterus can reduce the morbidity related to infection. Tertiary prevention includes management of life-threatening complications. Grimes also discusses the emerging role of medical abortion. Women who, after a medical abortion, have excessive bleeding or retained products of conception and do not seek necessary treatment should be of particular concern to the medical community.

The article by Huntington examines the role of postabortion care as part of women's reproductive health care. Postabortion care (PAC) encompasses emergency treatment for complications from an incomplete abortion, the provision of family planning services and counselling, and referral for other reproductive health care needs. In many regions of the world, women who seek emergency treatment for abortion complications, such as bleeding, infection and injuries to the reproductive tract system, often receive services of poor quality with outdated equipment that do not address their multiple health needs. They may be discharged without counselling on postoperative recuperation, family planning, or other reproductive health issues. Women who have had an induced abortion for an unintended pregnancy may have a repeat abortion unless they receive appropriate family planning counselling and services. Five strategies for improving the quality of postabortion care have emerged from the operations research literature: upgrading clinical care, providing family planning information and services, expanding access to postabortion care, planning for comprehensive postabortion services, and involving male partners. Huntington reviews the evidence supporting these five strategies and concludes with a discussion of future research priorities in the field of postabortion care operations research, where, amongst other improvements to ensure safe and humane services for women requiring postabortion care, programmes to scale up postabortion services in the context of decentralization are urgently needed.

Regional needs and priorities on unsafe abortion

Unsafe abortion is of particular concern in regions where abortion is highly restricted or where the implementation of safe abortion services is weak. The consultation focused on the three regions of the world where the level of unsafe abortion is particularly high and the effect of unsafe abortion on health systems is acute: Africa, South Asia and South-East Asia, and Latin America and the Caribbean. In addition, although abortion is provided without restriction in Eastern Europe, the high level of abortion and relatively poor quality of abortion care pose public health concerns.

In Africa, unsafe abortion is a health issue of enormous proportions. Each year, over 30 000 African women die from an unsafe abortion. Hord and her co-authors review the evidence for unsafe abortion in Africa and identify four priority areas for action to reduce the health burden posed by unsafe abortion. A number of factors contribute to high levels of unsafe abortion in Africa, including low levels of contraceptive use, poor-quality reproductive health services,

and restrictive abortion laws that limit the availability of safe abortion services and postabortion care. Ways to reduce unsafe abortion in the region include significant improvements in access to services through the implementation of existing abortion laws and policies, decentralization of services, and the involvement of the private health care sector. Badly needed are improvements in the poor quality of abortion and postabortion services, and an increase in the availability of services for adolescent girls who make up a significant proportion of abortion-seekers in Africa. Finally, reforming restrictive and punitive abortion laws would reduce maternal mortality and morbidity from unsafe abortion in Africa.

Access to abortion in the Asian region varies and reflects diverse laws and policies, ranging from extremely liberal to extremely restrictive, although the overall trend is towards liberalization, as reflected in the recent change in abortion laws in Nepal. Unsafe abortion is considered rare in China, where abortion is legal, but because of the large number of women of reproductive age in other countries in the region, Asia is home to over one half of the world's unsafe abortions (*1*). Over three fourths of the abortions in South Asia and nearly two thirds of the abortions in South-East Asia are highly restricted and most of these are unsafe. Morbidity and mortality from medically unsafe abortions remain unacceptably high in South and South-East Asia. Ganatra's article reviews the status of unsafe abortion in the South and South-East Asian region, focusing on access to services, characteristics and motivations of abortion-seekers, decision-making and pathways to abortion, morbidity and mortality, postabortion care (PAC), and concepts of safe abortion amongst abortion-seekers. The paper defines a key research agenda to address the complexities of unsafe abortion in the region, as well as areas of priority action for programming and advocacy efforts. In many countries of the region, abortion is legal and services are available, yet both providers and clients are often unaware of the abortion laws and policies. Ganatra calls for efforts to increase awareness of abortion policies among providers and clients and to ensure that policies ensuring safe abortion services are fully implemented.

Unsafe abortion rates are highest in the Latin American and Caribbean region, where there are an estimated 26 unsafe abortions per 1000 women of reproductive age. The high rate of unsafe abortion is not surprising, since access to legal abortion is highly restricted throughout the region and abortions are performed, in many cases, unsafely. Palma and her co-authors review the incidence of abortion and policies towards abortion in the Latin American and Caribbean region. The chapter also explores the relationship between contraception and abortion, issues

specifically related to adolescents and unsafe abortion, the increasing spread of medical abortion in the region, and the quality of postabortion care practices. The paper proposes a number of areas for further research to better understand unsafe abortion in the region, including investigative research into abortion ideologies and public attitudes towards abortion and the determinants of induced abortion.

Abortion is provided without restriction throughout Eastern Europe and Central Asia, with the exception of Poland, where the provision of abortion is extremely restricted. Levels of abortion in this region are among the highest in the world (for example, there are 68 abortions per 1 000 women in the Russian Federation). Horga's article presents data on abortion levels in the region, assesses explanations for the high levels of abortion, including the unmet need for family planning, and examines the consequences of abortion. The determinants of unsafe abortion in Eastern Europe remain poorly understood; some women seek out illegal abortions even though abortions are legal and are provided free of charge. Horga provides strategies for decreasing the number of unwanted pregnancies and the subsequent demand for abortion in the region and identifies obstacles to their implementation. Among other constraints, few Eastern European countries have implemented sex education programmes so it is likely that young women beginning their sexual lives will continue to depend on abortion to control their fertility as their mothers did under the former regimes. It is also likely that economic incentives for providers are behind the continued emphasis on abortions rather than contraception, suggesting that alternative economic incentives should be explored for health care providers.

Until unsafe abortion is eliminated, women and public health systems will continue to suffer the consequences of abortions performed under unsafe conditions. Unfortunately, safe motherhood programmes generally do not address the causes and consequences of unsafe abortion. Consequently, as the other causes of maternal mortality decrease, deaths from complications of abortion increase as a proportion of all deaths. A 13-year retrospective study of the Safe Motherhood Initiative in Ghana *(18)* found that as the relative contributions of other causes of maternal mortality decreased, complications of abortion increased significantly. It is hoped that the contributions in this book will contribute to reducing unsafe abortion by identifying priority areas for research and action. These recommendations are listed in the final chapter and provide both a stimulus and blueprint for action.

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Abortion, human rights and the International Conference on Population and Development (ICPD)

Rebecca J. Cook [1]

ABSTRACT

This paper explores ways in which human rights have been and could be applied to reduce the causes and harmful consequences of unsafe abortion to women and their families. It addresses abortion as a major public health concern, as was urged at the 1994 International Conference on Population and Development, held in Cairo (Egypt). It analyses how the right to be free from inhuman and degrading treatment, and the rights to equal protection of the law, to liberty and security of the person, to health, and to non-discrimination on grounds of sex and race are being applied to reduce unsafe abortion. It suggests that it is necessary to conduct a human rights needs assessment that identifies how laws, policies or practices facilitate or inhibit the availability of and access to services at the clinical and health system levels, and that addresses underlying inhibiting social or economic conditions. Where laws, policies or practices directly or indirectly obstruct the availability of or access to family planning services or, where women find them necessary, to abortion services, they need to be reformed to comply with human rights principles.

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[1] Faculty of Law, University of Toronto, Toronto, Ontario M5S 2C5, Canada.
Website : www.law-lib.utoronto.ca/diana

Introduction

The focus of this paper is to address the ways human rights have been and can be applied to reduce the causes and consequences of unsafe abortion. The framework draws on the International Conference on Population and Development (ICPD), which was held in Cairo (Egypt) in 1994. The Conference and the resulting Programme of Action *(1)* went beyond traditional identification of the problem and controversy of abortion, and lifted it out of the rhetoric that contrasts women's rights to autonomy with fetal rights to life. Taking into account the reality of frequent abortions in the many communities where legal and safe services are not available and the conflicting views on morality, the Conference proposed the development of policies directed at making abortion considerably less frequent, and considerably more safe for women who choose it. In short, it proposed that unsafe abortion be addressed as a public health concern. The explicit resolution for governments pledging themselves to the Cairo Programme of Action was:

> *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.*

Human rights principles acknowledge all of the many interests that pertain to the abortion dilemma. The evolution of modern human rights in international law, particularly since the Universal Declaration of Human Rights of 1948, goes beyond the exclusively national focus of the historic "Law of Nations" to place the individual at the centre of international legal concern. The individual enjoys rights to protection through his or her nation state, but also to protection against his or her own nation state when that state engages in assaults against the individual's bodily integrity, and against the nation's neglect of provision of services upon which the safety and dignity of the individual depends.

The 1948 statement was labeled a "Declaration" because it declared human rights that were already recognized in the national laws of countries, often in their constitutions, which are the highest level of national legislation expressing the most profound principles to which countries commit themselves. To protect their human rights, individuals have primary resort to the laws of their own countries, including laws that express the purposes for which countries claim they were legally constituted, namely the welfare of their residents. However, experience before the middle of the twentieth century, particularly in Nazi-occupied Europe, showed that governments violated the human rights of certain of their residents, depriving them of their livelihoods, property, liberty, and life itself. Accordingly, the 1948 Declaration set in motion the modern

human rights movement which reinforces the claims that individuals have to the protection of their national governments, and the duties that nations owe to protect the human rights of individuals.

The synergy between public health and human rights was elaborated in a celebrated essay by the late Jonathan Mann. He observed not only that "human rights thinking and action have become much more closely allied to, and even integrated with, public health work" and that "the skills and expertise needed in public health include epidemiology, biostatistics, policy analysis, economics, sociology, and other behavioral sciences", but also that "in the modern world, public health officials have… two fundamental responsibilities to the public: to protect and promote public health, and to protect and promote human rights" (*2*).

Individual human rights to freedom of religious conscience and observance are important elements of human autonomy and dignity. Abortion is an important part of many religious convictions and, based on individual human rights, each person should be accorded the freedom of personal conscience regarding abortion. The historical conditioning of many laws was often through religious beliefs and institutions, particularly before laws were created by processes that are considered democratic in the modern sense. The Cairo Programme of Action, reinforced by the Beijing Fourth International Conference on Women in 1995, recognized the definition and approach to reproductive health that was rooted in the principles of individual liberty, though not necessarily in historical laws that satisfied religious, institutional, and national demographic agendas.

In proposing that the health impact of unsafe abortion be dealt with "as a major public health concern", the Cairo Programme of Action did not dwell upon repressive laws that deny women the ability to seek abortion through trained and qualified practitioners in medically hygienic and safe circumstances. The Programme reflected the realization that women's choice to terminate pregnancies, whether originating from their free acceptance of sexual relations or imposed by rape and similar forces they lacked the power to resist, results from their individual moral reflection on their circumstances and the duties they owe to their families, to their communities, and to their own health and welfare. That is, the Cairo Programme of Action recognized the authenticity of each woman as the central decision-maker in her own life and future, including her reproductive future. It called for an individual right of access to sound family planning services to prevent unplanned pregnancy. The Programme recognized the reality of resort to abortion in every community, including those where, because of legal barriers or lack of services, women's only practical access is through unqualified practitioners and/or unsafe medical environments.

In identifying the issue of "the health impact of unsafe abortion as a major public health concern", the Cairo Programme of Action transcended public moral debate and urged that the pragmatic strategies of public health protection and promotion be brought to bear. The modern operation of public health services acknowledges that the needs of public health protection of communities in general cannot always be reconciled with tolerance of every person's individual autonomy, but also acknowledges the claims to individual human rights. Human rights values rather than religious morality provide the core around which pragmatically determined public health sciences and services are centred.

Identification of unsafe abortion as a public health concern requires that the same human rights considerations that apply to other facets of public health be applied to abortion. That is, that individuals be empowered to a maximum extent to achieve safely what they have been doing unsafely, that members of the public be engaged voluntarily in public health strategies, and that legal restraints and punishments be employed only as a means of last resort, after good faith attempts at lesser alternatives have been exhausted. In the context of abortion, this means that avoidance of unplanned pregnancy be minimized by, as the Cairo Programme envisaged, "improved family-planning services", and that women and health care providers be facilitated to collaborate voluntarily in abortion choices. This may be done, for instance, by reform or liberal interpretation of restrictive laws, and by using legal restraints only against untrained abortion providers when safe legal services are adequately accessible.

The spirit of the 1994 Cairo Programme of Action was accurately captured when Guyana enacted its Medical Termination of Pregnancy Act 1995. In its full title, the legislation was described as:

> *An Act to reform the law relating to medical terminations of pregnancies, to enhance the dignity and sanctity of life by reducing the incidence of induced abortion, to enhance the attainment of safe motherhood by eliminating deaths and complications due to unsafe abortion, [and] to prescribe those circumstances in which any woman who voluntarily and in good faith wishes to terminate her pregnancy may lawfully do so…*

The application of human rights to reduce the causes and consequences of unsafe abortion

Human rights are being increasingly used to require governments to address the causes and consequences of unsafe abortion. This section will explain how human

rights have been applied, particularly in the developing countries, to the advantage of women's health in the context of abortion. It addresses how these rights have been applied both by national courts and by international human rights treaty bodies. Human rights treaty committees have been vigilant in their monitoring of country reports on what countries have done to bring their laws, policies and practices into compliance with their respective treaty obligations with respect to unsafe abortion. The Concluding Observations of these human rights monitoring committees are beginning to apply human rights in creative ways to governmental laws and policies that exacerbate the problem of unsafe abortion. Further research into how these laws have been applied by different courts is needed to determine how other national courts and human rights monitoring committees have applied human rights to the many different dimensions of abortion laws and policies.

Key human rights that will be addressed are:

- The right to equal protection of the law.
- The right to liberty and security of the person.
- The right to be free from inhuman and degrading treatment.
- The right to health.
- The right to nondiscrimination, on grounds including sex and race.

The right to equal protection of the law

In failing to put into effective operation the legal indications for providing health services that only women need, a government might well be in violation of the right of women to equal protection of the law. Failure of a government to provide abortion services for the indications for which it is legally permitted is unfair to those who are entitled to the benefit of the law, and thus a denial of the right to equal protection.

For instance, in the Mexican states where abortion is permitted in cases of rape, the governments of those states have generally not provided services to the approximately one in five victims of rape who become pregnant as a consequence *(3)*. Despite many criticisms of the lack of access to lawful abortion in such cases, Mexico has not established procedures to enable pregnant rape victims to obtain safe abortions for this legal indication, leaving women at risk of involuntary pregnancy and motherhood of rapists' children, or to preserve their personal integrity by resorting to unqualified and often unskilled services *(4)*.

In contrast to Mexico, important work has been done in Brazil to operationalize the legal indication for abortion in cases of rape, such as the work in some public hospitals in Rio de Janeiro *(5)*. Women's health advocates there recognized that women were not able to have access to legally permitted abortion in cases of rape. Health systems research led to better understanding of how women's health groups, the police, hospitals and health care providers could be better informed about the law, and could work together to ensure women's access to legal services. They also recognized that norms and standards had to be clarified to bind those responsible for implementation of these legal services. This led to successful collaboration of women's health advocacy groups and the Brazilian Federation of Gynecologists and Obstetricians with the Ministry of Health, which resulted in the development of a Protocol of the National Ministry of Health for the Certification of Sexual Violence leading to Unwanted Pregnancy *(6)*.

The development and application of such a protocol is an important means of clarifying the terms and conditions under which services can legally be provided to institutions that provide abortion services, those who provide the services, those who are seeking the services, and all women who are at risk of needing the services. By applying the protocol in health service institutions, and training health care providers in its use, the legal standards by which abortion services can be provided become clear, and therefore are less apt to be interpreted arbitrarily and unfairly. The protocol also ensures transparency and fairness for women in clarifying the conditions that would entitle them to lawful, safe abortion services.

Operationalization of other legal indications for abortion, such as for the preservation of life and health, is also necessary to ensure that women have access to services for purposes for which abortion is legal. For example, operationalizing a legal indication for health reasons might necessitate the development of a protocol that clarifies the general health conditions that would satisfy the health indication. It might clarify, for instance, that pregnant women who have malaria or who are HIV-positive are entitled to abortion for health reasons. Such a list of health indications should not be exhaustive, but only suggestive of the health reasons that would justify an abortion. Experience in several countries shows that where the lists are exhaustive, health care providers are reluctant to provide abortions for analogous health reasons that would clearly come within a health indication. Moreover, health situations can change over time and according to each woman's particular circumstances. Health care providers should be able to exercise their professional clinical judgment of what is in the best health interests of their adult and adolescent patients.

The right to liberty and security of the person, including fairness in the operation of abortion laws

In 1977, social science research was used to demonstrate the inequitable operation of the restrictive abortion law in Canada. The government failed to address this inequity, but, ten years later in 1988, the Supreme Court of Canada invoked this evidence to rule that the restrictive law violated women's right to security of the person, and was therefore unconstitutional.

Recognizing that juries in the 1970s would not convict a doctor who did not comply with the then restrictive abortion law, the Canadian government appointed a Committee, chaired by Professor Robin Badgley, a social scientist, to look into the operation of the abortion law *(7)*. The general terms of reference were "to conduct a study to determine whether the procedure provided in the Criminal Code for obtaining therapeutic abortions is operating equitably across Canada." (*7*, p. 27)

The more specific terms of reference included:

- The determination of the availability of the procedure by location and type of institution.
- The timeliness of the procedure in light of what is desirable for the safety of the applicant.
- The views of the health care providers and those members of the hospital abortion committees.
- Patient pathways to obtaining abortions within Canada and outside of Canada.
- The cost of abortion and related services.

The criminal abortion law that prevailed at the time in Canada allowed abortion if, in the opinion of a majority of members of a therapeutic abortion committee, "the continuation of the pregnancy would or would be likely to endanger the life or health of the female person" *(8)*.

The findings of the Badgley Committee were extensive and found that:

> *There was no uniformity across the nation involving the standards of medical care relating to the quality of services of the requisite facilities required to undertake the abortion procedures in general hospitals* (7, p. 28).

Furthermore:

> *On average women took 2.8 weeks after they first suspected they had become pregnant to visit a physician. After this contact had been made there was an average interval of 8.0 weeks until the induced abortion operation was done (7,* p. 146*).*

The Committee's overall conclusion was that the law operated inequitably, and itself caused unnecessary hazards to women's health. These and other findings were invoked by the Supreme Court of Canada in declaring that the Criminal Code provisions violate women's security of the person protected by the Canadian Charter of Rights and Freedoms, and therefore to be of no legal effect. In the words of the then Chief Justice, the Court found that:

> *[f] orcing a woman, by threat of criminal sanction, to carry a foetus to term unless she meets certain criteria unrelated to her own priorities and aspirations, is a profound interference with a woman's body and thus a violation of security of the person (9).*

As a result of the work of the Badgley Committee and its use by the Supreme Court of Canada in 1988, abortion is now decriminalized and regulated in Canada like any other medical procedure.

Like the Supreme Court of Canada, other courts and regional and international human rights committees are importing notions of health into the meaning of the right to security of the person, and, for example, the right to be free from inhuman and degrading treatment. The Inter-American Commission on Human Rights envisions a right to the satisfaction of basic health needs as part of a right to personal security. The Commission has explained that:

> *the essence of the legal obligation incurred by any government… is to strive to attain the economic and social aspirations of its people by following an order that assigns priority to the basic needs of health, nutrition and education. The priority of the "right to survival" and "basic needs" is a natural consequence of the right to personal security (10).*

Data on persistently high levels of maternal mortality and morbidity, or of abortion-related mortality and morbidity, put states on notice that they may be in breach of their obligations to take effective measures to protect women's right to security.

Other human rights that are closely associated with the right to liberty and security of the person include the right to private and family life, which some con-

stitutions explicitly refer to as the right to decide on the number and spacing of one's children. National courts have applied these rights to require governments to reform restrictive abortion laws or to remove barriers to access to abortion services, such as partner authorization requirements.

The right to be free from inhuman and degrading treatment

Courts and commissions are beginning to apply the right to be free from inhuman and degrading treatment in the health context generally, and with regard to the abortion services specifically. Courts are moving beyond the traditional application of the right, which only required states to treat prisoners in humane ways, to ensure that the inherent dignity of women is respected, protected and fulfilled.

The Human Rights Committee, established to monitor compliance with the International Covenant on Civil and Political Rights (the Political Covenant) addressed the inhuman and degrading nature of denial of abortion in cases of rape in considering a report submitted by the Government of Peru. When examining what the country had done to bring its laws, policies and practices into compliance with the Covenant, the Committee addressed the human rights of women, including the rights denied them by Peru's restrictive criminal abortion law. In its Concluding Observations, the Committee expressed its concern "that abortion gives rise to a criminal penalty even if a woman is pregnant as a result of rape and that clandestine abortions are the main cause of maternal mortality" *(11)*. The Committee found that the restrictions of the criminal law subjected women to inhuman treatment. Moreover, the Committee explained that this aspect of the criminal law was possibly incompatible with the rights of men and women to enjoyment of other rights set forth in the Covenant. The Committee said this would include women's right to life, since men could request medical care of a life-endangering condition or for their subjection to violence without fear that they or their care-providers would face criminal investigation and prosecution.

The Committee recommended that "necessary legal measures should be taken to ensure compliance with the obligations to respect and guarantee the rights recognised in the Covenant" *(12)*. Moreover, the Committee explained that the "provisions of the Civil and Penal Codes [of Peru] should be revised in light of the obligations laid down in the Covenant, " particularly the right of women to humane treatment and to equal enjoyment of the rights under the Covenant *(13)*. The requirement that a country conform to human rights standards, if necessary by

amending national laws, shows that governments can be expected to comply with the duties they have assumed to protect rights relating to reproductive and sexual health.

A state is responsible, at a minimum, to require its health care providers and facilities to ensure women's freedom from inhuman and degrading treatment by reasonable access to safe abortion and related health services, as its law permits. Moreover, where a national law that strictly penalises abortion is shown to result in inhuman treatment of women and undue maternal mortality by enforced continuation of hazardous pregnancy, the state is obliged to consider legal reform so that its law complies with human rights standards for women's health and dignity. A new national policy could be expressed in law that more adequately balances limitations on abortion with women's several rights to protect their lives and dignity, their security in health, and their freedom from inhuman and degrading treatment.

The right to health

A landmark achievement of the Cairo Programme of Action was its development of the WHO concept of health into an internationally adopted concept of reproductive health. The World Health Organization describes "health" as a state of physical, mental and social well-being. On this basis, the Cairo Programme states that reproductive health is:

> *a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health therefore implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. Implicit in this last condition are the right of men and women to be informed and to have access to safe, effective, affordable and acceptable methods of family planning of their choice, as well as other methods of their choice for regulation of fertility which are not against the law, and the right of access to appropriate health-care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant (14).*

The monitoring committee under the Convention on the Elimination of All Forms of Discrimination against Women (the Women's Convention), the Committee on the Elimination of Discrimination against Women (CEDAW), has further identified the critical elements of women's health in its 1999 General Recommendation 24: Women and Health *(15)*. It requires that states periodically reporting

under the Women's Convention address distinctive features of health and life that differ for women in contrast with men, taking into account biological factors such as differing reproductive functions, socioeconomic factors including unequal power relations, psychosocial factors such as postpartum depression, and health system factors such as the protection of confidentiality, especially for the treatment of stigmatizing conditions such as unwanted pregnancy.

The International Covenant on Economic, Social and Cultural Rights (the Economic Covenant) in Article 12 protects the human right to the highest attainable standard of health. In monitoring the Covenant, the Committee on Economic, Social, and Cultural Rights has developed General Comment 14 on the Right to Health, which explains that the right requires the following interrelated features *(16)*:

- Availability (health care services have to be available in sufficient quantity).
- Accessibility (services, including information, have to be physically and economically accessible to everyone without discrimination).
- Acceptability (services have to be culturally appropriate, that is, respectful of the cultures of individuals, minorities and communities, and sensitive to gender and life-cycle requirements).
- Adequate quality (services have to be scientifically appropriate and of adequate quality).

Laws and policies that unreasonably restrict safe abortion services would not comply with this performance standard. For instance, a law or policy requiring unnecessarily high qualifications for health service providers will limit the availability of safe abortion services that contribute to women's health and later safe motherhood. Examples are policies that require excessive qualifications for health service providers to perform abortion. Such policies may be proposed in good faith in order to ensure excellence in health care. However, it is poor public health policy and may be a human rights violation to jeopardize health care.

The right to nondiscrimination, on grounds including sex and race

The greatest threat to women's reproductive health is the inability to exercise women's rights to sexual nondiscrimination. The transcending human rights violation that explains the unduly high prevalence of abortion mortality and morbidity is that women do not enjoy the same status and significance in their communities as men. As a result, there is lack of attention to risk factors for unsafe abortion such as lack of availability of contraceptives to reduce unplanned pregnancy, sexual

abuse that denies women control over their sexual relations with men, and, in many communities, lack of safe abortion services.

Often, sex discrimination is aggravated by discrimination on grounds of women's race, and age, usually leaving young women of a minority racial group and of lower socioeconomic status the most vulnerable to the risk of maternal death, from both unsafe pregnancy and unsafe abortion. The South African example illustrates the relationship between abortion and racial discrimination. South Africa changed its restrictive Abortion and Sterilization Act, 1975, to the Choice of Termination of Pregnancy Act, 1996, because of its disproportionately harmful impact on the morbidity and mortality of black South African women. Excessive certification procedures for women seeking abortion for specific indications under the 1975 Act confined access to only socioeconomically advantaged, meaning white, women. A study conducted by the Medical Research Council explained that an average of 800 to 1 200 women per year qualified for abortion under the old law. Of these, 66% were white and from urban middle-class backgrounds, at a time when whites constituted only 16% of the general population. According to official estimates:

> *Annually, upwards of 44 000 mainly black women had recourse to backstreet abortion, with the consequent toll on health and mortality. About 33 000 such women would require surgery to treat the residue of septic abortion.*

Abortion-related deaths amounted to over 400 a year *(17)*. Other countries that have abortion laws that disproportionately affect women of distinct racial or ethnic status could well be challenged on grounds of sex and race discrimination.

Nondiscrimination serves the ethic of justice, half of which requires that we treat the same interests equally, without discrimination – for example, in access of people of both sexes to education. The other half requires that we treat different interests in ways that adequately respect those differences, particularly in women's distinct interests in safety in abortion services. Rights to equitable protection of different interests are violated when governments fail to address the fundamental biological difference between men and women through which, year after year worldwide, many hundreds of thousands of women die unnecessarily. Men and women are equal, codependent partners in human societies, and the biological difference between them should not be invoked as immutably destining women for pregnancy-related or abortion-related death or disability.

The CEDAW General Recommendation 24 on Women and Health requires that states should eliminate all forms of discrimination against women in the context of

health and health care, and should ensure that women can exercise and enjoy human rights and fundamental freedoms on the basis of equality with men. The Recommendation makes clear that discrimination occurs against women when health systems refuse or neglect to provide health services that only women need, such as safe abortion services. The Recommendation further argues that states are obligated to remedy this situation.

Human rights needs assessment

A necessary step towards applying human rights to advance women's health in the context of abortion is an assessment of the scope, causes and consequences of unsafe abortion in a particular community and culture, based on available data sources, or on the collection of relevant new data. Local assessment should identify laws, including the language of enacted laws and the decisions of courts, and the policies of governments, health care facilities and other influential agencies, which facilitate or obstruct availability of and access to abortion services. The extent to which laws that would facilitate access are actually implemented or how they might be, if they are not adequately implemented, should be determined. Laws and policies that obstruct women's autonomy and choice in decisions regarding their health generally and abortion specifically, and the availability of and access to services, should also be identified, along with laws that facilitate women's empowerment, and laws that obstruct such empowerment.

Assessment is needed of what must be done to foster compliance with human rights at different levels including clinical care, health systems, and underlying social, economic and legal conditions. These levels are not necessarily distinct and often overlap. Failure to respect women's human rights at one level can exacerbate problems at another level. Examples of the ways a human rights needs assessment might be applied in the contexts of clinical care, health systems, and social, economic, and legal conditions are explored below. This is not the only approach to human rights needs assessment in a public health context. Work has been done on developing a human rights impact assessment in the context of HIV/AIDS *(18)*. Indeed, careful thought, perhaps through the use of operations research, is needed to determine how best to apply it in the context of abortion services.

Clinical care

An assessment of the degree to which women's human rights are respected in the context of clinical care might find that providers show a lack of respect for women's

dignity and may be judgemental toward abortion clients. However, even in countries where abortion is legal on extended grounds, women's rights to privacy in abortion care are often ignored. Health care providers should be trained in the importance of maintaining confidentiality of women seeking services. Breaches of confidentiality are not only violations of the service providers' professional ethical duties, but also of the laws on patient confidentiality *(19)*.

One approach to ensuring respect for women's human rights in the context of clinical care might be to examine treatment protocols for women seeking safe abortion services, or seeking treatment for incomplete or spontaneous abortion. Where such treatment protocols do not exist, steps might be taken to develop and apply them, first on a pilot basis and then, after appropriate evaluation and amendments, on a wider scale.

There is need to examine the ways clinical care for abortion incorporates attention to diseases or conditions specific to or more prevalent among certain subgroups of pregnant women, such as malaria, sickle-cell trait, hepatitis and HIV/AIDS. Steps need to be taken to ensure that abortion services are provided to such women, but also to ensure that these underlying conditions are treated and that affected women are referred for appropriate treatment. A challenge is to address such health problems among women in a nondiscriminatory, constructive way. There is also a need to examine conditions with clinical manifestations specific to certain subgroups of women, such as cases of domestic violence resulting in unwanted pregnancy that leads to unsafe abortion. Emphasis should be given to finding ways to reduce the stigma in the clinical care context by ensuring respectful treatment of all women seeking services, irrespective of their reasons, circumstances or socioeconomic status.

Health systems

An assessment of the degree to which women's rights are respected throughout the health system might be approached through an examination of barriers to the availability of care and of laws, policies and practices that might deter women from seeking care.

There is need to examine the barriers to availability of abortion and abortion-related services, such as:

- Lack of implementation of laws and policies that are beneficial to women's health, such as failure to operationalize the rape indication for abortion.

- Lack of skilled health personnel, due to legal prohibition or restriction of procedures or, for example, abuse of conscientious objection to participation in lawful services by health personnel.
- Lack of safe health care conditions, due to legal prohibition or restrictive indications for abortion or, for example, low priority of services in health facilities or in allocation of necessary budgetary resources.
- Gender barriers, such as lack of availability of services at times when it is convenient for women to attend, and lack of facilities to care for their young children while they receive counselling and treatment.
- Health laws and policies that require excessive qualifications for health care providers to perform abortion services.

There is need to examine the deterrents to access to abortion services for women or certain subgroups of women. These include:

- Lack of protection of confidentiality, or perceived lack of protection.
- Poor quality of care, including providers' disrespectful or punitive attitudes.
- Third-party authorization requirements, such as spousal authorization requirements (*20*).
- Failure to treat adolescent girls according to their "evolving capacity" to exercise mature choice in abortion care *(21)*.
- Payment or co-payment requirements, particularly for adolescent girls.

Social, economic and legal conditions

Barriers to improving women's health and access to safe abortion services are often rooted in social, economic, cultural and legal conditions that infringe upon women's human rights. A human rights needs assessment might reveal that social factors, including lack of literacy and of educational or employment opportunities, deny young women alternatives to early unwanted or repeated pregnancy and deny them economic and other means of access to contraception. Women's vulnerability to sexual and other abuses, in and out of marriage, increases the risks of unsafe pregnancy and mental illness *(22)*. Social, religious and economic customs become embedded in the law and historically have been used to provide justification for discrimination against women. A gender-sensitive approach to social science and legal research can help to identify the ways underlying socio-legal conditions pos-

itively or negatively affect advances in women's independence and access to safe abortion services.

A human rights needs assessment would be able to examine the underlying conditions that increase risk factors for unwanted pregnancy and unsafe abortion that are common to women or certain subgroups of women. These include violence against women, sexual abuse, poverty, different forms of discrimination against women, and different social conditioning of women's powerlessness.

Several comparative studies provide information on laws in respective countries *(23)* and regions *(24,25,26)*.* Legal research can help identify how laws advance or compromise women's interests in their personal, family and public lives, with indirect effects on women's health. Family law frequently expresses the basic cultural values of a community, such as the rights of inheritance of land. Cultures resistant to women's equality with men have unself-consciously perpetuated women's subordination and powerlessness as a "natural" condition of family life and social order so profoundly as to often render women's disadvantage invisible. Where subordination and powerlessness are perceived, they are considered not just a feature but a necessary requirement of social order and stability.

Laws that entrench women's inferior status to men and interfere with women's access to health services seriously jeopardize efforts to improve women's health. These laws take a variety of forms, such as those that obstruct economic independence by impairing women's education, inheritance, employment or acquisition of commercial loans or credit, but they all infringe on women's ability to make their own choices about their lives and health *(27)*. Account should be taken of criminal laws that condone or neglect violence against women, and, for instance, of inequitable family, education and employment laws that deny adolescent and adult women alternatives in life to marriage, or that condition women's self-realization on marriage and motherhood.

Investigation should determine, for instance, whether laws adequately protect girls and women from sexual coercion, including sexual abuse. Studies show that forced first intercourse is prevalent in many communities, affecting as many as 32% of girls and women *(28)*. Laws that inadequately protect girls and women from coercion in sexual relations undermine women's independence and ability to protect

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* See also references at the Women's Human Rights Resources website at: www.law-lib.utoronto.ca/diana.

themselves from unwanted pregnancies. Laws must be identified and enforced that allow women effective defence against unwanted sexual relations to control the timing and number of their births.

Conclusion

Historically, laws on abortion have been influenced by religious attitudes that consider abortion a sin. Women seeking and obtaining abortion were considered perpetrators of a wrong. The modern human rights perspective, however, shows that women who bear intolerable pregnancies are sometimes the victims of rape and incest. Abortion is never a cause for celebration; it usually represents a social or personal failure and, when obtained, there is frequently relief. The failure of women's access to contraceptive and other family planning methods frequently results in an unplanned pregnancy. The failure of respect and discipline within social, military and similar agencies of male dominance frequently denies women protection against rape and sexual molestation. The failure to obtain access to obstetric care frequently makes women's pregnancies hazardous to their continuing health and very survival, particularly in resource-poor settings. Abortion is a rational response to these and other failures of women's right to protection and means of self-protection, each of which represents a human rights violation.

The 1994 Cairo Programme of Action successfully promoted the concept of reproductive health, which was reinforced at the Fourth International Conference on Women in Beijing a year later. The concept of reproductive health skillfully integrates respect for human rights with respect for women's entitlement to health, dignity and reproductive integrity. The remaining abuse is resistance to legal and social reforms that would make resorting to unlawful, unskilful and unsafe abortion unnecessary. Individuals with objections to the procedure, on religious or other grounds, retain their rights consciously to object to performing or having abortions, but the legal influence of the objecting institutions to deny women a different conscience is increasingly recognized as a violation of human rights. Democratic governments accountable for the consequences of the laws, policies and practices that obstruct or deny access to reproductive health services are increasingly confronted with the misfortune of unwanted pregnancy, and the tragedy of unsafe abortions that result. The Cairo Programme of Action affords them a responsible resolution through public health policies to reduce "the recourse to abortion through expanded and improved family-planning services", and to ensure women's access to safe abortion services under laws respectful of women's conscientious choice.

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3

The incidence of unsafe abortion: a global review

Susheela Singh [1]

ABSTRACT

This paper presents arguments for documenting the incidence of abortion and demonstrates the usefulness of such data for policy-makers and service providers. The paper also provides an overview of the numbers of abortions and abortion rates worldwide in both developed and developing countries and for major regions and subregions, differentiating between abortions in countries where the procedure is legal and generally implemented using medically safe procedures, and countries where it is available on restricted grounds or is prohibited or unsafe. The paper also presents estimates of unintended pregnancy and briefly discusses the safety of abortion provision and its consequences for maternal mortality and morbidity. It concludes by highlighting priorities for future research and discussing policy changes to reduce unsafe abortion.

[1] Guttmacher Institute, 120 Wall Street, New York, NY 1005, USA.

Introduction

Women throughout the world, both in the distant past and in contemporary societies, have always turned to abortion as a last resort to prevent unwanted births. Moreover, they do so even when abortion is a dangerous procedure or where it is against the law. Despite the universality of the practice of abortion, however, there are wide variations across countries in the legal status of abortion, in women's access to safe abortion services, and the prevailing moral and ethical views about abortion and its acceptance by society. According to the limited data now available, there are also substantial global differences in the actual level or incidence of abortion.

This chapter provides an overview of current estimates of the numbers and rates of induced abortion worldwide for developed and developing countries, and for all major world regions. It presents information on the incidence of abortion for two categories of countries: those in which abortion is legal under a broad array of conditions, and those where the procedure is highly restricted by law. Factors associated with the safety of abortion provision and the morbidity levels due to unsafe abortion, as reflected in the number of women who are hospitalized for complications, are also discussed. Finally, we suggest priority topics for future research on induced abortion.

Why are estimates of the incidence of illegal and unsafe abortion important?

Before turning to data on the incidence of unsafe abortion, it is important to note why it is worthwhile to make an effort to develop estimates of the incidence of unsafe abortion. Several key reasons are presented here.

Data on the incidence of abortion provide important material for advocacy. The policy debate on the legal status of abortion is more likely to move forward if there are reasonable estimates of the size of the problem of unsafe abortion. Information on the incidence of unsafe abortion is also an effective means of maintaining pressure on governments to change the conditions of abortion service provision. Abortion data are also essential for policy-makers and health planners to address public health needs. Thus, good estimates of the numbers of women affected by unsafe abortion will help to plan for and provide the services needed to improve the conditions under which women can obtain an abortion, or to improve the conditions for the treatment of complications or other consequences of an unsafe abortion.

Another application of abortion data is towards the prevention of unintended pregnancies. Information on the level of safe and unsafe abortions highlights the extent to which unintended pregnancies are occurring; depending on how many of these pregnancies are due to non-use of contraception or method failure, a strong case can be made for improving the provision of contraceptive services. Finally, abortion data are important for understanding the prevailing situation of women's health and rights. Research on unsafe induced abortions will help countries and societies to reach the goal of improving women's health and establishing their reproductive rights.

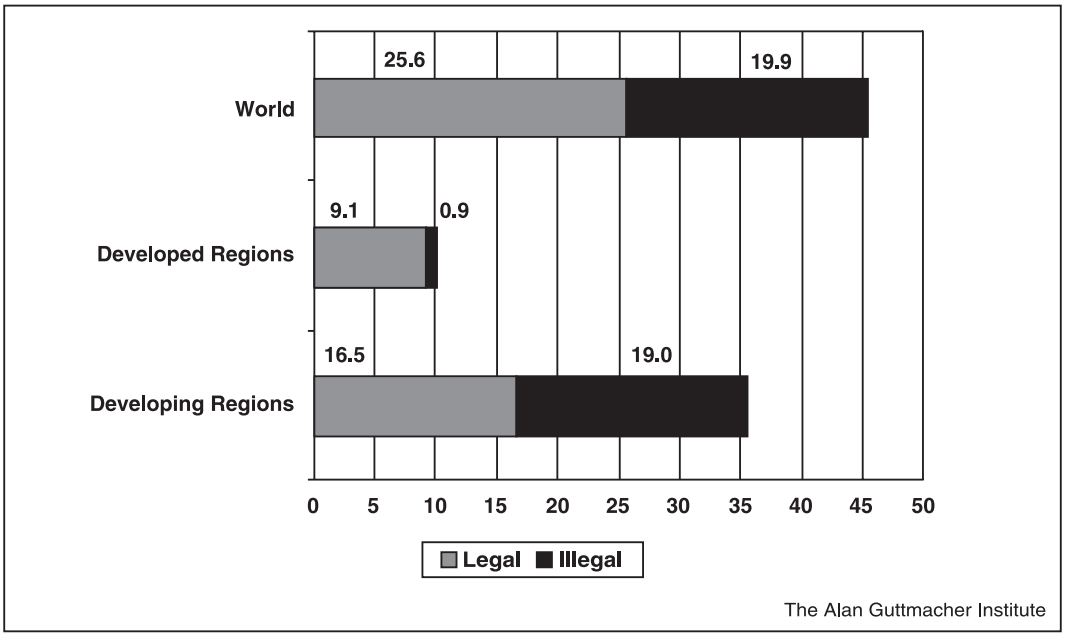
Sources of data

Global and regional estimates of the number of abortions come from two sources. Firstly, WHO has spearheaded data collection of estimates of the number of unsafe or illegal abortions (*1*). Secondly, the Guttmacher Institute has periodically collected official statistics of the number of abortions in countries where the procedure is legal under broad conditions (*2*). For this paper, abortion rates in different regions and for the world were calculated by combining these numbers and using United Nations estimates of the number of women of reproductive age (*2*). Estimates of the national incidence of abortion in ten individual countries where abortion is highly legally restricted are also presented (*3-6*). Finally, the findings relating to abortion morbidity and abortion service provision are summarized here, drawn from small-scale opinion surveys of health professionals in several developing countries (*7-10*).

Worldwide and regional estimates of unsafe abortion

Worldwide in 1995, there were approximately 45.5 million abortions. Of these, 19.9 million were unsafe or clandestine abortions and about 25.6 million abortions took place in countries where the procedure is legal under a broad range of conditions (Figure 1) (*2*). It is likely that abortion rates for large heterogeneous areas – such as world regions and subregions – will change relatively slowly because this measure depends on other factors that themselves change slowly. These include sexual behaviour patterns, contraceptive use, and fertility preferences. In addition, while even a constant abortion rate would be expected to result in a larger number of abortions, given that the number of women aged 15–49 years is increasing with population growth, this predicted increase is balanced by changes in other factors

Figure 1.
Number (in millions) of illegal and legal abortions worldwide, 1995.



– for example, slow growth in contraceptive use, and increased desire to have a small family and control over the timing of births.

The worldwide annual total of 45.5 million induced abortions constitutes just over one-fifth of the approximately 210 million pregnancies that occurred worldwide in 1995. These aggregate numbers translate into a pregnancy rate worldwide of 160 pregnancies per 1000 women aged 15–44 per year (Figure 2) (*11*).

About half of the almost 20 million illegal or unsafe abortions that occur worldwide each year take place in South, West and South-East Asia. An estimated 5 million occur in the region of Africa, and about 4 million unsafe abortions take place in Latin America (Figure 3) (*11*).

The terms "illegal" and "unsafe" require clarification. The distinction is drawn because even in settings where the procedure is highly restricted by law (termed "illegal" here for convenience), some abortions are provided by safe medical procedures, or under safe conditions. Nevertheless, it is also true that all abortions that occur where the procedure is highly restricted by law, are to some extent "unsafe" – even those that are performed by a medically trained professional are clandestine

Figure 2.

Proportion of induced abortions in the world and in the more developed and less developed regions.

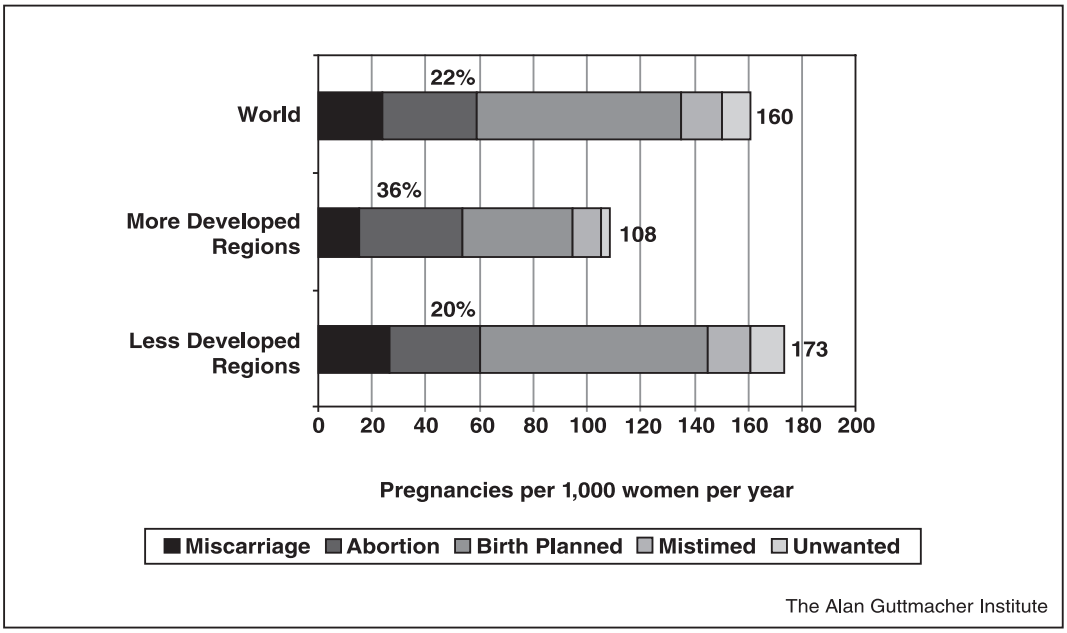
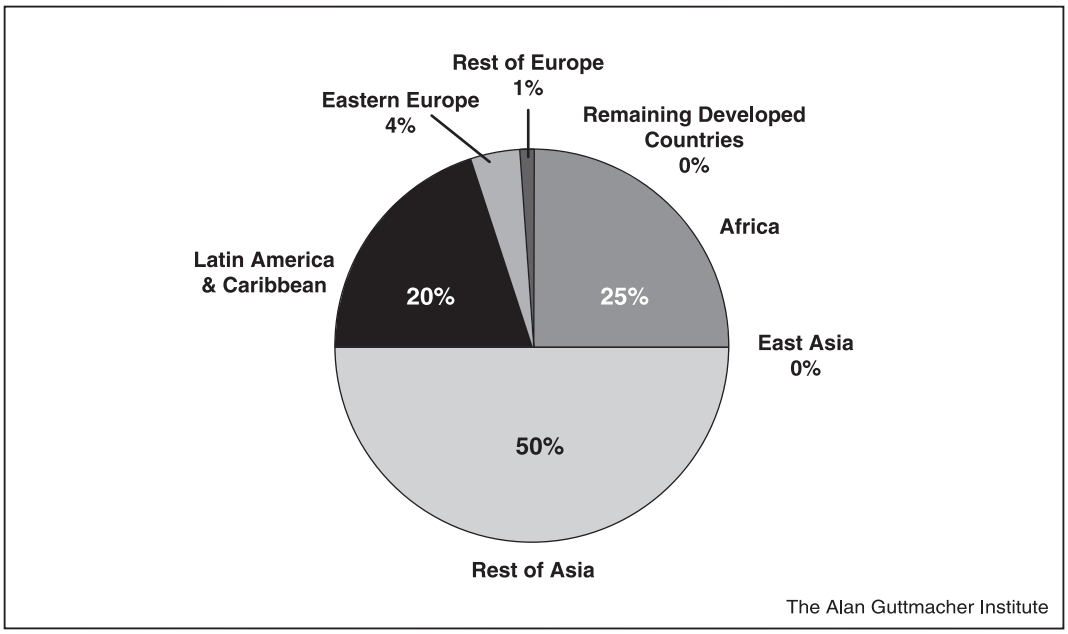


Figure 3.

Per cent distribution of illegal abortions, by region, 1995.



and unregulated; for example, should there be any medical problem or malpractice, a woman would have little or no chance of recourse.

In the mid 1990s, the abortion rate worldwide was 35 per 1000 women aged 15 – 44 and the rate of unsafe abortions was 15 per 1000. However, in developing countries, where most of the world's unsafe abortions occur, the rate of unsafe abortions is higher, a rate of 18 per 1000 (Figure 4) (*2*). Regional estimates indicate that in Africa and Latin America, where almost all abortions are illegal, the rate of illegal abortions is much higher, about 33-35 per 1000 women aged 15 – 44 (Figure 5) (*2*). In comparison with the extremely high overall rate in Eastern Europe, the rate of abortion in the developing world is relatively moderate; nevertheless, the rate in the developing regions is about twice as high as that in Western Europe, the region with the lowest rate of abortion in the world.

Significant variations in the developing world are found both in the overall level of abortion and in the proportion of all abortions that is unsafe (Figure 6) (*2*). Intraregional variation in the developing world is also striking. Eastern, Central and West Africa, where practically all abortions are unsafe, have notably higher

Figure 4.
Rates of legal and illegal abortions in the world and in developed and developing countries, 1995.

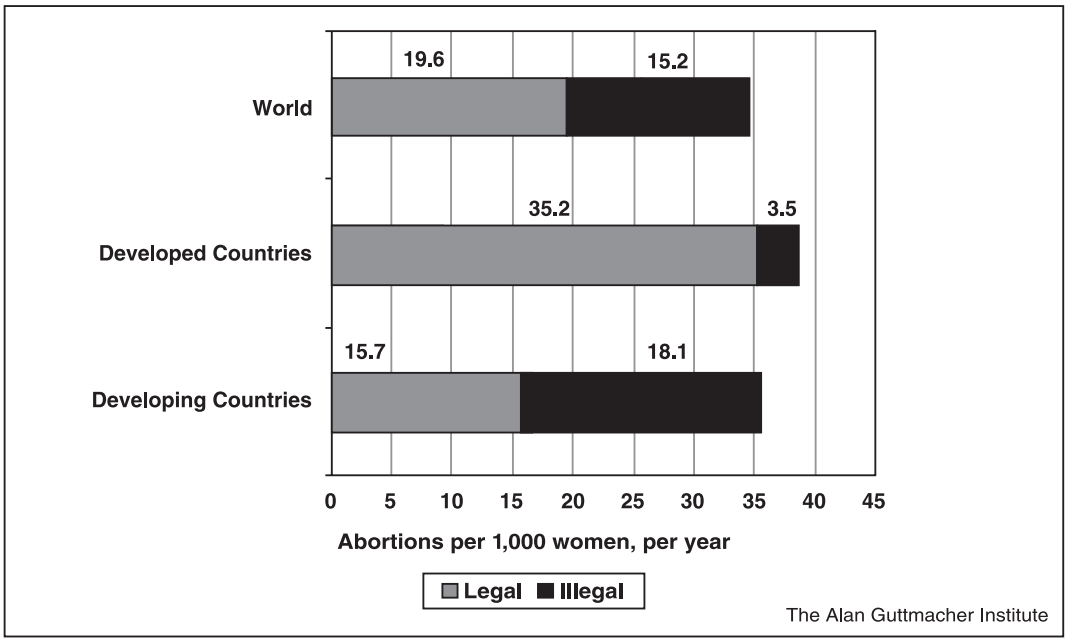


Figure 5.

Rates of legal and illegal abortions in the major regions of Africa, Asia, Europe and Latin America / Caribbean.

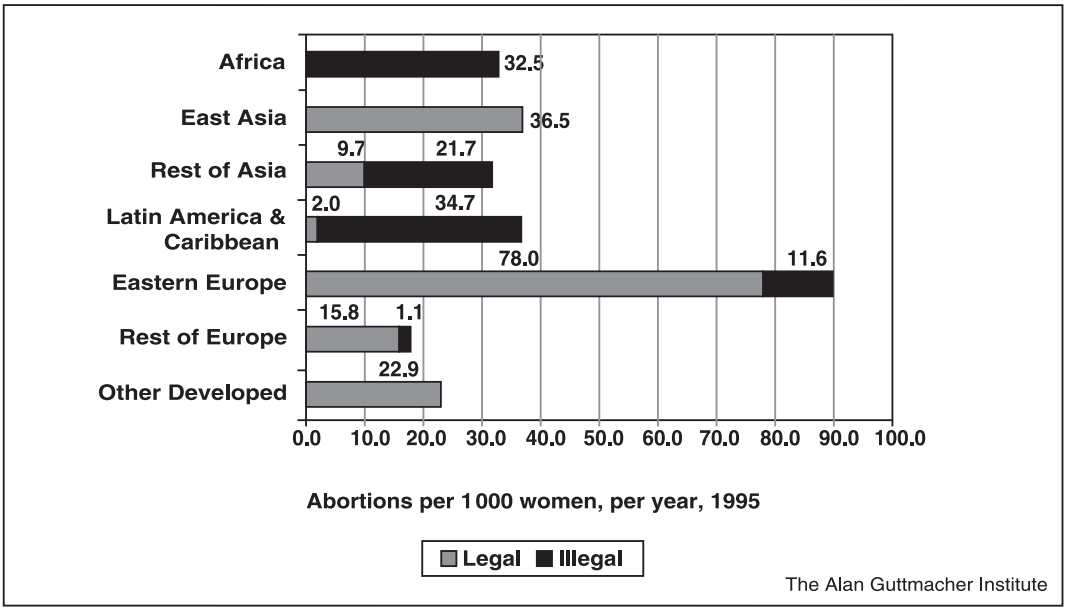
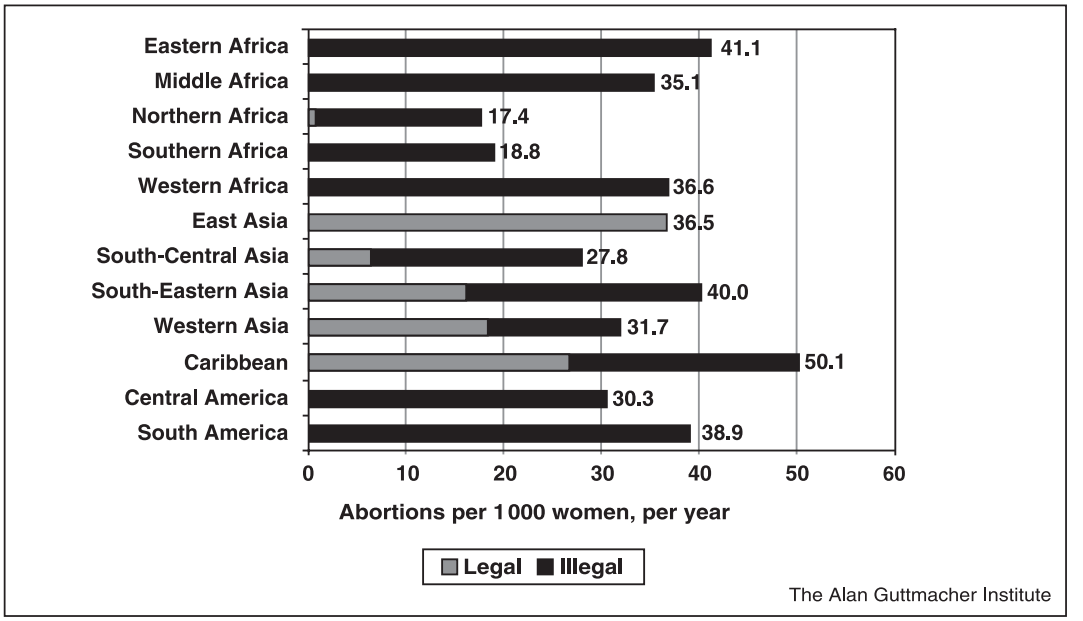


Figure 6.

Rates of legal and illegal abortions, by subregions, in Africa, Asia and Latin America 1995.



estimated abortion rates than northern or southern Africa. There is some variation across the subregions of Asia as well, with rates ranging from 28 to 40 per 1000 women aged 15 – 44. However, although the overall abortion rate is much lower in South-Central Asia than in South-East Asia, the prevalence of unsafe abortion is approximately the same in these two subregions, i.e. 22-24 per 1000 women. In Latin America, the Central American region has a somewhat lower rate than South America (30 compared to 39 per 1000 women), although almost all abortions in these regions take place under unsafe and/or clandestine conditions. Although the Caribbean subregion has a higher abortion rate than other subregions, its level of unsafe abortion is lower because of the contribution of Cuba – the only country in the region where abortions are legal – to the safe abortion category.

National level estimates for countries where abortion is highly restricted

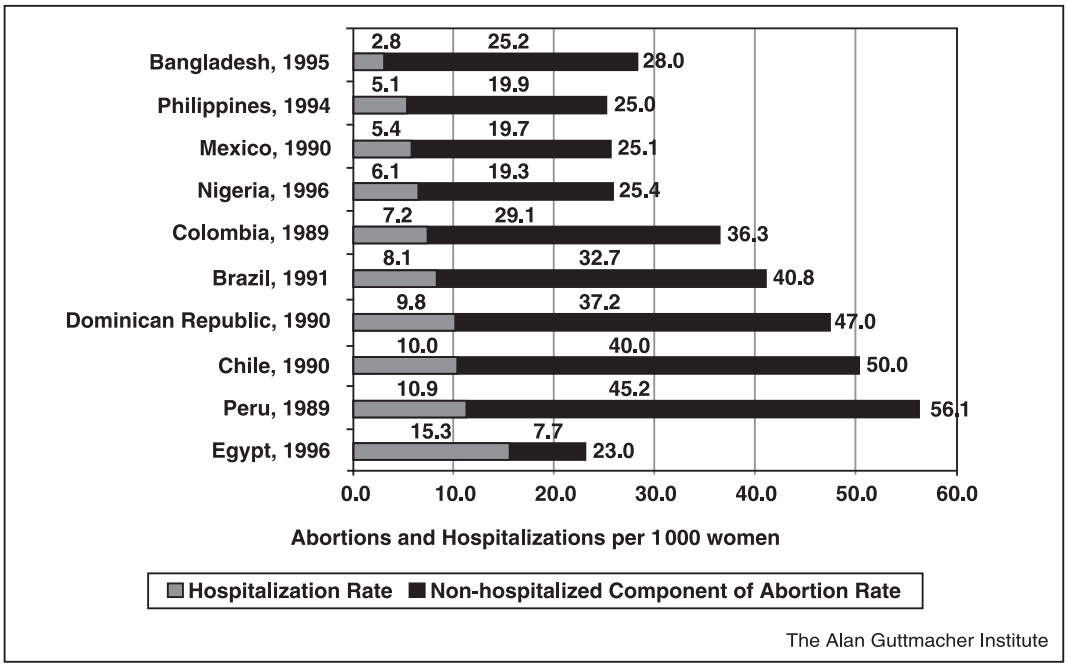
Estimates for individual countries, as opposed to subregions or regions, are very useful for policy-makers. Policy is developed and implemented at the country level; therefore, activities to alter the legal status of abortion or service provision tend to be most effective when they are country-specific. However, creating national-level estimates for countries where abortion is illegal and official statistics are completely lacking or of poor quality is a time-consuming and difficult task. As a consequence, such estimates have been calculated for only a small number of countries. Estimates for ten countries are shown here (Figure 7) (*2,12*). The abortion rate (per 1000 women aged 15 – 44) ranges from a moderate level of 23 for Egypt to a high of 56 for Peru (*2*).

These national estimates are based on the number of women hospitalized for abortion complications, building in adjustments for misreporting, under-reporting, and other factors, as well as adjustments to exclude spontaneous abortions. These estimates also include women who had a safely performed procedure, as well as those who needed hospital care and did not manage to obtain it, based on the probability that women who had an induced abortion would be hospitalized. In the case of Bangladesh and Nigeria, the estimates include data on the number of procedures performed by trained medical personnel. These were obtained separately from menstrual regulation procedures in the case of Bangladesh and abortions in the case of Nigeria.

Community surveys of women provide another methodology for estimating the prevalence of abortion in settings where the procedure is highly legally restricted. A promising variation on the approach was developed in Colombia where a survey of women in urban areas was conducted using a simple one-page self-administered questionnaire (*13*). The study employed special confidentiality precautions and the

Figure 7.

Proportion of hospitalizations due to complications among abortion-seeking women in ten countries.



questionnaire was put confidentially and anonymously into a box (the "secret ballot" approach). More recently, pilot studies applying this methodology are being conducted in Mexico. These studies are testing and comparing different data-collection approaches, including the Audio-CASI (Audio Computer Assisted Self-Interviewing) as well as the "secret ballot" self-administered questionnaire (*14*).

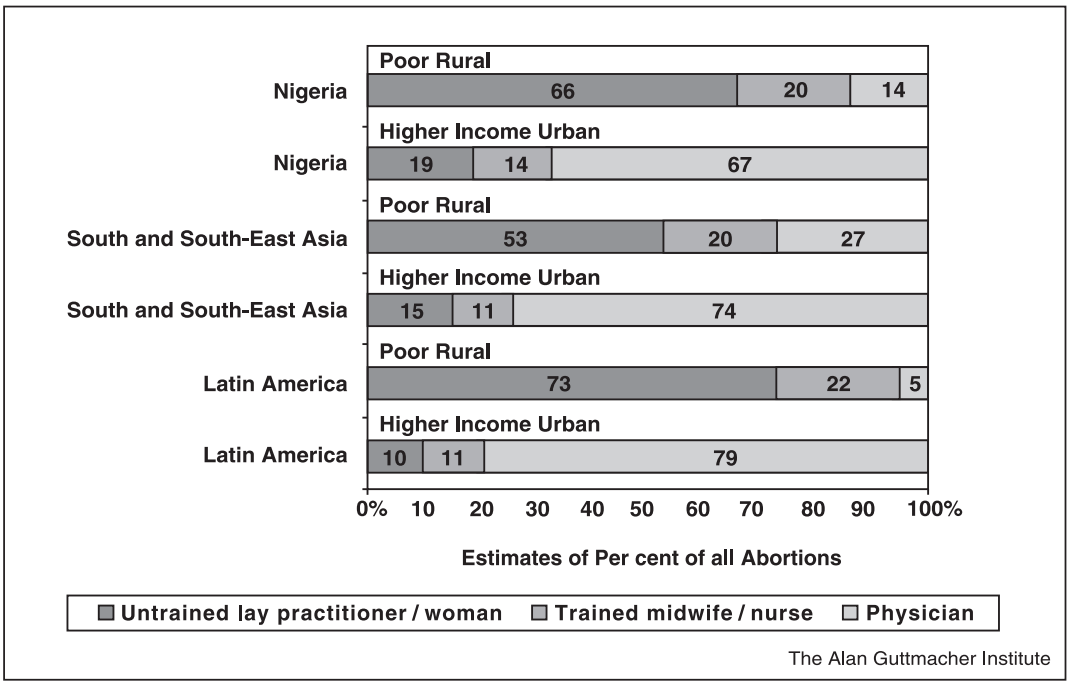
Unsafe abortion: morbidity and mortality

Unsafe abortion can have negative consequences for the health and survival of women. Estimates of the rate of hospitalization due to induced abortion per 1000 women per year are shown in Figure 7 in the first segment of the bar for each country. The abortion hospitalization rate is lowest in Bangladesh where a substantial proportion of all abortions are conducted using safe menstrual regulation procedures, and where access to a hospital is extremely limited. The rate is considerably higher in several countries – an estimated 10 to 15 women in every 1000 were hospitalized each year as a result of abortion complications in the Dominican Republic, Chile, Peru and Egypt.

There is some evidence that the rate of complications resulting from unsafe abortion may be declining in some parts of the world as a result of increased use of non-invasive abortion methods such as, for example, Cytotec in Brazil, and due to growing use of antibiotics. About 345 000 women were hospitalized due to induced abortion in Brazil in 1992, and this number fell by about 30% by 1997 (*15*). However, we do not know how widespread this trend is, and there is likely to be great variation across countries and regions.

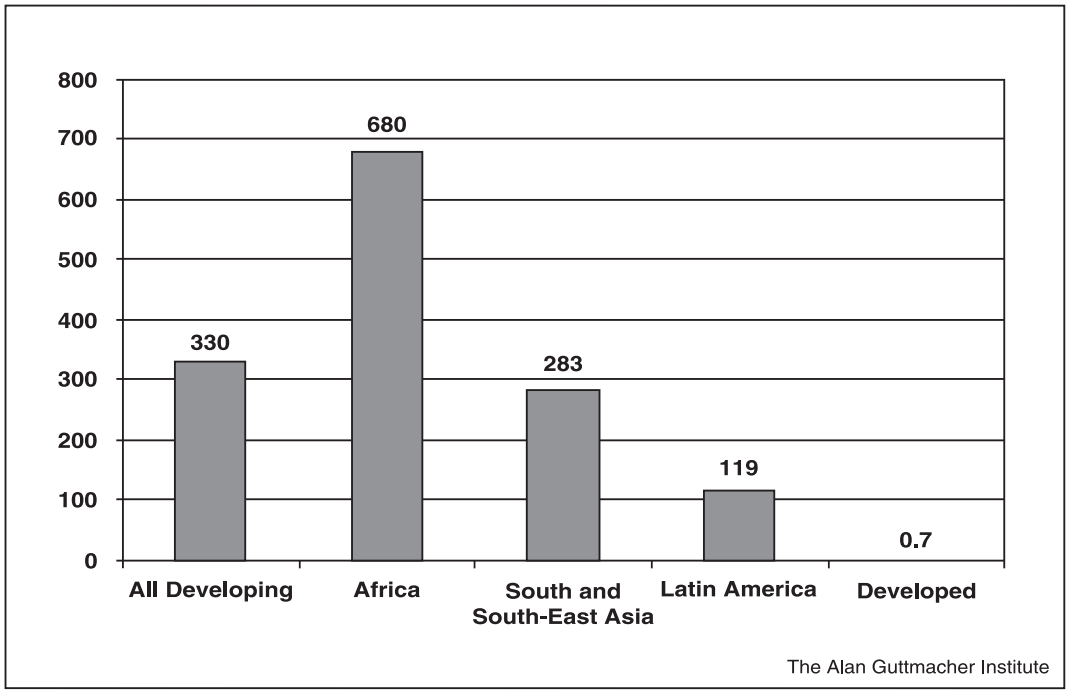
Clearly, the likelihood of experiencing a complication depends on the training of the abortion provider and the conditions under which the procedure is performed. Based on opinion surveys of health professionals, we estimated the distribution of women according to three categories of abortion providers. While these are rough estimates, they suggest that a woman's residence and her income are strongly related to her chances of obtaining a safe or an unsafe abortion, a conclusion that is supported by in-depth, small-scale studies. Rural and low-income women are much more likely to obtain an abortion from untrained providers in all three areas for which these data are available (Figure 8) (*7,8,10*).

Figure 8.
Abortions in Nigeria, South and South-East Asia and Latin America, by rural/urban locations, income, and the level of training of the abortion provider.



WHO estimates that about 13% of all pregnancy-related deaths are due to complications of unsafe abortion, totalling approximately 78 000 women each year (*1*). We used these data to calculate the ratio of abortion deaths per 100 000 abortions and estimate that, in the developing world as a whole, there are an estimated 330 abortion-related deaths per 100 000 abortions. However, the level of abortion mortality in Africa is double the average for the developing world – a ratio of 680 versus 330 per 100 000 – and is much lower in Latin America, 119 per 100 000 (Figure 9) (*16*).

Figure 9.
Number of deaths per 100 000 abortions in developing regions compared with developed countries, 1995.



Priority areas for future research on abortion incidence

Priority areas in which more information on the incidence of abortion would be helpful for advocacy, public health and service provision reasons include documentation of worldwide and national estimates of abortion, abortion among sub-groups of women, the provision of abortion services, the health consequences of unsafe abortion and the economic costs of unsafe abortion.

These six areas are elaborated in Table 1 and are discussed below.

Table 1.
Priority areas for future research on abortion incidence.

1. Continue WHO's worldwide and regional estimates of unsafe abortions, maternal mortality, and abortion-related deaths.
2. Further develop national estimates of abortion levels using different approaches, improved data collection approaches, and improved estimation techniques.
3. Document the situation for subgroups of women including adolescents, unmarried women, poor women, rural women, and HIV + women.
4. Document the provision of abortion services.
   - Who are the service providers?
   - What methods do they provide?
   - What constitutes their training?
   - Quality of facilities and materials.
   - Safety of services.
   - Access, cost and availability of services.
5. Document the health consequences of unsafe abortion.
   - Numbers of women hospitalized.
   - Characteristics of hospitalized women.
   - Numbers of women who need but do not get care.
   - Types of complications.
   - Medical consequences, both short and long term.
6. Document the economic costs of unsafe abortion.
   - Societal cost of lost productivity.
   - Cost to family including lost income and direct expenses.
   - Use of scarce health resources.

WHO continues to periodically update its worldwide and regional estimates of the numbers of unsafe abortions, and of maternal mortality and abortion-related deaths. Maintaining comparable estimates of the incidence of unsafe abortion at the global and regional level and of how they are changing, using the same or a similar methodology, is essential. However, changes in access to abortion and service provision must be taken into account and may mean changing how we measure the incidence of abortion. For example, if medical abortion begins to be more widely used, current approaches to estimating unsafe abortions will have to take this into account and be adapted. Reporting on abortion statistics in countries where it is legal must also take into account procedures for registration of medical abortions, should they differ from approaches used for surgical abortion procedures.

There is also a pressing need to develop national estimates of the level of abortion for countries where abortion is highly legally restricted for all the reasons discussed earlier. There are now a number of approaches for developing such estimates. These methodologies vary in terms of resources and the technical expertise required to implement them, and in feasibility depending on the situation and data that already exist in a country. These methods also produce estimates that vary in exactness or in margins of error. Researchers need to continue pursuing improvements in data-collection approaches and in testing and evaluating the methods of estimation. Because it is so difficult to measure abortion, especially where it is illegal, there is great value in replicating approaches that have been shown to work, and in experimenting with new approaches as well.

Information on the incidence of abortion among subgroups of women, including unmarried, poor, rural women and adolescents, is also greatly needed. Small-scale hospital-based studies in many sub-Saharan African countries suggest that the incidence of unsafe abortion is higher among adolescents and unmarried women than among older and married women. However, national or representative data are mostly unavailable and it is thus impossible to calculate the rate of abortion among adolescents or other subgroups. A new issue of importance is the potential demand for abortion among HIV-positive women, and whether any steps are being taken to make the option of safe abortion available to this group of women, given that abortion is a highly legally restricted procedure in many of the countries with a high HIV prevalence. In sum, research is needed to document the differential impact of unsafe abortions on those groups in the population who have poor access to safe abortion in order to help target resources towards these disadvantaged women and to increase awareness of existing societal inequities – this is a powerful argument for the advocates of safe abortion.

Abortion service provision in settings where the procedure is highly legally restricted is one of the least documented aspects and, not coincidentally, is very difficult to document. Aspects on which we need to know more include: (a) more information about service providers, the methods they use, and their training; (b) the quality of the facilities in which they provide abortion services, and the efficacy of the materials and products they use; and (c) most importantly, the safety of their services, their accessibility and affordability, and the ways access differs among groups of women.

More quantitative information, at the national level where possible, is needed on the health consequences of unsafe abortion. Areas in which we need to know more include: (a) the numbers and characteristics of women who are hospitalized, (b) the numbers who need but do not get medical care, (c) the types of complications, and (d) the medical consequences of unsafe abortion, both those that are immediate and those that affect reproductive health over a period of time. These types of information are essential for planning and providing health care services that are needed to treat women and to improve the availability of contraceptive services, both in the context of postabortion care and in general.

Research that assesses and documents the economic costs of unsafe abortion and its consequences on the use of scarce health resources is also needed. Areas in which we need to know more include: (a) the costs of hospital care, in terms of both staff and supplies, i.e. the societal cost of lost productivity; (b) the cost to the woman and her family in terms of lost income and the expenses incurred in seeking care for abortion complications; and (c) the use of scarce health resources for treating unsafe abortion complications which could be prevented, so that these resources could be directed towards other health care needs.

This is a long, but by no means complete, list of the many areas for which research is needed to provide better and more up-to-date information on unsafe abortion, and to increase awareness and understanding of the problem of unsafe abortion. Such information is essential if we are to succeed in preventing unintended pregnancies, reducing the consequences of unsafe abortion, and speeding up the transition towards safe, accessible and legal abortion. There is also a need to prioritize these many areas of further research. In doing this, we need to take into account what stakeholders in countries and regions consider to be the most essential areas and highest priority needs. We must also remember that the priority needs may differ according to global and regional perspectives, compared to country or local community perspectives. Other factors that also need to be taken into account include the legality, accessibility and safety of induced abortion services, the extent of unsafe abortion and its impact on women's health and survival, and public opinion on the issue of induced abortion.

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4

Determinants of unsafe induced abortion in developing countries

Axel I. Mundigo [1]

ABSTRACT

This paper reviews two types of determinants of induced abortion: proximate and systemic determinants. Proximate determinants are those individual-level factors that lead to unintended pregnancy and termination of an unwanted pregnancy. These relate directly to a woman's use of contraception and the immediate circumstances that lead to the decision to terminate an unwanted pregnancy. Systemic determinants more generally influence the decision-making process leading to a safe or unsafe pregnancy termination. They include access to health services as well as social, economic, religious, and policy factors. In many developing countries, systemic determinants work against a woman's intention to terminate an unwanted pregnancy safely and serious health complications may result. Findings from case studies conducted under a World Health Organization research initiative on induced abortion in the developing world are used to examine the varying conditions under which women undergo abortions. The role of service factors in Indonesia and Chile, the use of traditional herbal preparations in Mexico, and the increased use of misoprostol in Brazil are explored. The influence of social factors is analyzed in a variety of national contexts, including China, Tanzania, the Dominican Republic, and Turkey. The impact of adverse economic circumstances

[1] International Programs, Center for Health and Social Policy, Manchester, VT 05254, USA.

on the abortion decision-making process is underscored in case studies from Mexico and the Republic of Korea. The way in which religious beliefs influence reproductive attitudes is discussed in several Latin American contexts. The paper ends with recommendations for further research on this much neglected topic.

Introduction

As developing countries increasingly move towards the adoption of smaller family size ideals and proceed along the path of their fertility transitions, the number of childbearing years for women will decrease. Consequently, the number of years of exposure to a potential unintended pregnancy will increase. This, in turn, may increase a woman's recourse to abortion if she decides not to continue with an unwanted pregnancy. Spacing preferences will also have an effect on unwanted pregnancies and abortion (*1*). The projected increase in use of family planning will also bring about a higher risk of contraceptive failure and, consequently, recourse to abortion when the resulting pregnancy is unwanted. The type of abortion women undergo will depend upon the legal restrictions governments place upon the procedure. In most of the developing world, induced abortion remains an illegal practice. Clandestine abortion is therefore the only option for most women. Clandestine abortion is frequently unsafe, involving health risks as well as economic hardships for the woman and her family. Furthermore, public health systems are faced with providing costly services to treat cases of incomplete abortions (e.g. with haemorrhage and/or infection), which are seldom budgeted for by clinics or hospitals.

Restrictive legislation, which penalizes both the woman who seeks an abortion and the practitioner who offers abortion services, is the main determinant of unsafe abortion. Restrictive abortion laws limit a woman's choice and access to safe reproductive health services. The clandestine conditions for abortion created by these laws present a major public health problem, and a challenge to policy-makers and legislators. In many developing countries with restrictive abortion legislation, between one fifth and one third of maternal deaths are the result of unsafe abortions. Even in countries where abortion is legal, unsafe abortions continue to occur where services are not made widely accessible. Such is the case in India where abortion has been legal since 1972, but where 90% of an estimated 5 million yearly abortions take place outside government clinics which offer safe and legal services (*2*).

In addition to legal strictures on abortion, religious influence has placed abortion outside the realm of what is "morally" correct or acceptable in the collective consciousness of many societies. Pressure from organized religions is often exer-

cised at the highest level of government. Macro-level policies may be influenced by religious demands, making it difficult for legislative bodies to modify existing laws, regardless of their origin or validity for contemporary society. In Latin America, known for its Catholic Church hegemony, strong opposition by the Vatican to modifications in health legislation date back to the nineteenth century. This opposition to change has resulted in the long-term status quo of current policies. In some Latin American countries, abortion is considered a criminal act but in many it is allowed to save the woman's life, although few women and even fewer medical practitioners are aware of this option. Only in Chile and El Salvador is abortion prohibited altogether (*3*).

International organizations and women's health advocates continue to document the extent of the practice of unsafe induced abortion. However, mobilizing political forces for action in national congresses and high-level policy groups has proven a much more difficult task despite statements and agreements reached at key international gatherings, including the re-affirmation of reproductive rights at the 1995 Fourth World Conference on Women in Beijing (*4*). A recommendation of the 1994 Cairo International Conference on Population and Development (ICPD), which was a pivotal meeting for reproductive rights, states:

> *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 recourse to abortion through expanded and improved family-planning services.* (*5*: Programme of Action, para 8.25, p. 44)

Determinants of induced abortion

There are two types of determinants of induced abortion: proximate and systemic determinants. Proximate determinants relate directly to a woman's fertility behaviour, such as contraceptive choice and practice, and are the factors that cause unintended pregnancy and termination of unwanted pregnancy. Unwanted pregnancy can occur for numerous reasons. It may be the consequence of non-use of contraception, contraceptive failure, or misuse of a method. Poor use of contraception may be based on the assumption (often erroneous) that the risk of pregnancy is low because the woman is too young, or because one sexual encounter is insufficient to cause a pregnancy (a notion common among young adolescents), or because the woman is older and the onset of menopause is believed to be near. Unwanted pregnancy can also result from sexual violence, including rape. The pro-

portion of unintended pregnancies that end in abortion has been estimated at 58% worldwide. This proportion is much higher in the developing world, 73%, where the majority of abortions are performed in unsafe conditions (*6*).

Systemic determinants are less directly related to the cause of unwanted pregnancy but influence the decision-making process leading to pregnancy termination. Systemic determinants establish the conditions that allow a woman to have a safe or an unsafe abortion, an important element in a woman's decision-making process. Of the 40 countries where abortion is available without restrictions, 20 are developed nations and several of the others are socialist nations – such as China, People's Democratic Republic of Korea, Viet Nam and Cuba – or former members of the Soviet Union. Of the 107 countries that either prohibit or strongly restrict access to safe abortion services, the only industrialized countries are Poland and Republic of Ireland (*3*). By and large, women in the developing world are prevented from exercising the same reproductive rights as their counterparts in the developed world.

Systemic determinants include:

- Service factors. Access to safe abortion services, quality of services, appropriate procedures, cost, training of providers, and accurate information are key elements influencing the decision to terminate a pregnancy. Lack of these options exacerbates psychological anxiety and tension and increases exposure to the risk of morbidity and mortality outcomes.
- Social factors. Partner opposition to a pregnancy, union stability, and other household and community circumstances often influence the decision to terminate an unintended pregnancy. Societal norms that define the acceptability or rejection of abortion influence the outcomes of unwanted pregnancy. In some contexts, notably in Asia, sex-selective abortion is the result of societal values that favour male offspring.
- Economic factors. Income level, employment status, inability to feed or bring up another child, and lack of welfare assistance or day-care services, all affect the decision process and often overrule the cost of the procedure itself.
- Religious factors. The degree of religiosity and adherence to religious views affect fertility and abortion behaviour.
- Policy factors. The provision, availability and access to abortion services are determined by the legal status of abortion.

A woman's decision to terminate an unwanted pregnancy is influenced by her personal circumstances and by dynamic systemic forces that ultimately determine the outcome: how, when and where to go for the procedure. Utilizing data from WHO sponsored case-studies[1], this paper next explores how these determinants operate in the developing world, with a view to understanding actual situations and the reality facing women who undergo unsafe abortions (see *7*).

Service factors

The prevailing laws and health norms are what determine the accessibility and quality of abortion services in a country. In contexts where abortion is illegal, and therefore punishable, any research to explore the determinants of abortion will face challenges and will require innovative methodologies to protect both the clandestine provider and the vulnerable client. Thus, many of the studies included in the WHO initiative for research on abortion developed alternative ways, perhaps not always fully satisfactory, to examine the factors involved in the supply of illicit abortion services.

For example, in Indonesia, although menstrual regulation techniques have been approved by the Ministry of Health and are available in large cities, they are often not accessed by women in need for a number of reasons. While safe abortion techniques are available, an important barrier to these services is providers' attitudes. For young unmarried Indonesian women facing an unintended pregnancy, provider resistance to make available menstrual regulation services in hospitals and clinics is common, often because of the women's unmarried status. Six of fourteen gynaecologists who were interviewed said they would perform an abortion, provided the pregnancy was no more than two months; another four said they would refer the woman to a specialized service, and the remaining four would not even agree to

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[1] The Special Programme of Research, Development, and Research Training in Human Reproduction at the World Health Organization, aware that induced abortion was a major reproductive health problem and the cause of unnecessary morbidity and mortality for many women around the world, supported research to explore the determinants that explain why women resort to abortion in various cultural, social and service availability contexts. To this effect, through its Task Force for Social Science Research on Reproductive Health, the Special Programme launched in 1989 a research initiative on the determinants and consequences of induced abortion aimed at developing countries. The book *Abortion in the Developing World*, edited by A. Mundigo and C. Indriso, contains the results of 22 case-studies that were conducted as part of this initiative (*7*).

refer the woman to another specialist (*8*, p. 282). If an unmarried woman is able to secure clinic or private abortion services, she is often asked to pay four times as much as married women. Consequently, many resort to unqualified practitioners or to traditional birth attendants to terminate their pregnancy. The methods used by these traditional practitioners include abdominal massage, drinking jamu pelantur (a tea made of leaves and roots), ingestion of quinine, or the insertion of instruments into the uterus by the attendant.

The Indonesian case-study also reveals the lack of training and knowledge concerning abortion techniques among general practitioners and midwives. While new techniques are made available, adequate training and information dissemination about their use and availability is lacking. It is not surprising then that medical personnel expressed very negative views with respect to abortion, including referral of women to specialized services.

Abortion is illegal in Mexico, but some 850 000 induced abortions (mostly unsafe) occur each year, although some estimates are as high as 1.5 million annually (*9*, p. 152). Complications from unsafe abortion represent the fifth most important cause of maternal deaths, and this cause of death is estimated to be under-registered by 50-75% (*9,10*). How these large numbers of abortions are performed, given that safe services are not available to the majority of the population, is not well understood. For the minority who can afford a private clandestine medical service or to travel abroad, safe abortion is not so difficult to obtain.

But how do women of lower socioeconomic status or rural women terminate their pregnancy? Pick and colleagues (*10*) addressed the puzzle by approaching pharmacists, already a major source of medical care for women and men in Latin America, to understand their role in the provision of information as well as the means to have an abortion. The use of the drug misoprostol (or Cytotec, its brand name) for abortion purposes has been documented by Misago & Fonseca (*11*) and by several other studies in Brazil, but it did not appear to be common in Mexico (see below). Pick and colleagues also interviewed herbal market vendors to determine the extent of their abortion services. A majority of both pharmacists and market vendors reported being asked by women about abortifacients. Pharmacy workers reported that the method most often sought by women was an injection, and herbal vendors were most frequently asked for "tea" preparations. During role-playing visits on the part of the investigators, about half of the pharmacists who were questioned recommended specific methods, often Metrigen, an injectable drug that is used to restore the menstrual cycle in women who lack estrogen or

progesterone (*10*). Metrigen should not be taken by pregnant women and does not cause abortion. Interestingly, pharmacists were aware they were recommending a drug that was an ineffective abortifacient. The other method most commonly recommended was quinine, most often used for malaria treatment, and thus easily obtainable. However, the amount of quinine necessary to provoke an abortion can also cause death. Quinine has a number of toxic effects, but despite these it was prescribed frequently as an effective abortion method. Market vendors often refused to provide the names of their herbs, but the most common among them was quinine.

The Mexican case-study illustrates how methods available in contexts where abortion is illegal may not only be dangerous but also ineffective, causing women to move to more dangerous procedures in their effort to terminate their pregnancy, such as the insertion of wires or roots into the uterus. The study recommends that abortion be legalized in Mexico and "regulated so that women can receive safe, inexpensive procedures from qualified personnel in clinics and hospitals" (*10*, p. 308).

The Brazilian case-study, mentioned previously (*11*), illustrates women's grassroots demands for Cytotec to end a pregnancy. In Brazil, as in most of Latin America, abortion is a criminal offence except when the pregnancy endangers the life of the woman or in case of rape. A woman who has an illegal abortion can be imprisoned for up to ten years, and efforts to change the situation have been largely ineffective. Despite these legal restrictions, some estimates are as high as 3 million illegal abortions per year, but a more realistic number seems to be 1.4 million per year.

The WHO-sponsored case-study was conducted in the North-East of Brazil, in the city of Fortaleza in the State of Ceará. Local hospitals had noted a substantial increase in the number of cases of incomplete abortions from 1991 to 1992. In one large public maternity hospital these cases represented 23% of obstetric admissions. The increase was attributed to the rapid increase in the use of Cytotec, which was sold over the counter by local pharmacists. A study indicated that, out of 190 visits to pharmacies by women requesting help to terminate an unwanted pregnancy, 121 were offered an abortifacient and in 82% of these cases the abortifacient provided was Cytotec. The WHO case-study recruited 2 074 women who, having had an induced abortion, were registered at two large hospitals with complications. Of these, 66% had induced their abortion using Cytotec. The other 34% had used a "cocktail" that included a mixture of several hormonal preparations.

Why had these women opted for this approach to end an unwanted pregnancy? First, because other services were unavailable and, secondly, because they had

found a solution that was easy and available. Some 61% of these women had not been using contraception at the time they got pregnant. The study concludes: "In many areas of Brazil, women with unwanted pregnancies face not only the illegality of abortion, but also poor access to medical care. Improved access to family planning and health care, including surgical abortion by vacuum aspiration, as well as a more efficient oral abortifacient regimen, would be expected to have a great impact on reducing morbidity and mortality associated with induced abortion" (*11*, p. 226).

Lastly, a case-study in Chile shows that the importance of services cannot be underestimated. We have seen in the above discussion that lack of services leads women down a number of paths, few of them satisfactory and most of them dangerous, in their search to obtain an abortion. The positive impact of improved family planning services in reducing abortion rates among low-income women was demonstrated by a study conducted in three low-income communities in the northern part of Santiago by Molina and colleagues (*12*). The team developed a simple statistical instrument to identify women at risk of having an abortion. The study was conducted in communities that were known for their high rates of unsafe abortion, based on information derived from nearby hospitals where women were treated for abortion complications. The study demonstrated that an intervention to improve the quality of family planning care, involving personalized approaches and better outreach services, not only increased the prevalence of contraceptive use but also considerably reduced the incidence of unsafe abortions. The authors conclude: "the cost of implementing a programme of this type more widely could be recovered from savings obtained from eliminating hospitalizations due to abortion complications" (*12*, p. 76).

Social factors

Abortion is not always seen as a negative act. Some societies censure abortion based on traditional and religious values, but others see abortion as a better option than carrying an unwanted pregnancy to term. In many Asian societies, e.g. Korean and Chinese, there is strong social stigma against single or unwed motherhood. In fact, abortion is much more acceptable from a societal perspective in Asia than it is in Latin America or the USA. This explains, in part, the growth of sex-selective abortion in some Asian countries where couples abort a female fetus hoping that the next pregnancy will be a boy. The law condemns this practice, but it is still pervasive in several countries, including India. Chandrasekhar (*2*, p. 128), for example, refers to growing female feticide as the result "of the desire for sons which has assumed monstrous proportions in India".

In China, as it is made clear by Luo Lin and colleagues (*13*, p. 337), "sexual relations among unmarried people have always been taboo. Even today, such activity carries strong societal disapproval." While China has put into effect a large and effective programme to make contraception available to married couples, it has done little to supply services to younger unmarried couples. The authors of the case-study also note, "the government continued to assume that [adolescents] would have no sexual life at all until the later age at marriage called for by the new 1980 policy" (*13*, p. 338). That adolescents do have sexual relations and face enormous social pressure if pregnancy results became clear in the case-study conducted in six rural counties in Sichuan Province. Women seeking an abortion during the first trimester of their pregnancy were screened from family planning clinics and hospital records; 457 unmarried women, mostly young, were selected for the study. These young women decided to abort rather than face immense societal disapproval against unmarried, pregnant women in their communities. As Luo Lin et al. (*13*, p. 341) remark: "The social stigma against such behaviour is so strong that it also prevents them from securing a method of contraception, so that if they do have premarital sexual relations and get pregnant, abortion becomes their only way out."

A different social context emerges from the Tanzanian case-study; here, sexual activity begins early, casual sex is common, and the social stigma that unwed mothers experience is high. The study interviewed 455 women, mostly adolescents, admitted to four public hospitals for abortion complications in Dar-es-Salaam. Many of these girls had long-term boyfriends and, by the age of 17, most of them were sexually active. Half of these girls had minimal or nonexistent knowledge about contraception. A very interesting finding was that one third of the younger adolescents in the study reported having male partners aged 45 years or more. Among older girls, who were mainly students, this proportion remained fairly high at almost one fourth. Overall, few teenagers who had an abortion had become pregnant by boyfriends of their same age. These findings reflect the widespread "sugar-daddy" phenomenon in African cities. As a result of increased awareness of HIV/AIDS, older men seek younger women who are "safer" and are attracted to them by promises of protection and financial help. These young women – if they become pregnant by their sugar-daddies – are more likely to seek an abortion as having a child with them would preclude their marrying, later on, someone of their own age and ethnic group. As the study authors remark (*14*, p. 400), "the high rate of adolescent sexual relations seems to be associated with the high level of permissiveness in society, combined with a lack of sex education in the schools".

Prevailing social norms common in the Caribbean encourage early marriage and early motherhood, while at the same time modernization and economic circumstances are compelling couples to have smaller families. In the Dominican Republic, for example, the average family size is now about 3 children per woman of reproductive age, half what it was three decades ago. But a fatalistic outlook among lower socioeconomic groups often leaves fertility matters to fate, a situation aggravated by poor services and an extreme lack of contraceptive information that ultimately creates an environment favourable to induced abortion. By exploring cultural values and social norms, including the importance of legal restrictions, the WHO-sponsored case-study in the Dominican Republic (*15*) further illustrates the importance of social determinants in the decision to terminate a pregnancy.

Although the Dominican Republic has a high prevalence of contraceptive use (56% for married women), the estimated number of abortions (from 65 000 to 80 000 annually) is relatively high for a population of 8 million. The Dominican Penal Code (in Article 317), dating back to the nineteenth century, punishes induced abortion in all cases. Nevertheless, as in many other countries, legal actions are rare against women who undergo clandestine abortions. But the social cost of these abortions is very high. It is estimated that women with complications from unsafe abortion regularly utilize 10% of the available maternity beds. The case-study focused on women who sought treatment for postabortion complications at two major maternity hospitals in Santo Domingo, most of whom became pregnant while not using contraception. Yet in both hospital samples, 75% of the women had used contraception at some point in the past.

As the Dominican Republic is experiencing rapid fertility transition, the duration of childbearing is now shorter and the number of children desired is smaller. Thus, once the desired family size is attained, women opt for sterilization. In the interim, if contraceptive use fails, abortion is the solution. Among women using modern reversible methods, a small proportion usually resort to the pill but there is also a tendency to move towards less effective traditional methods such as withdrawal and periodic abstinence. The author explains (*15*, p. 147) that these women: "begin their reproductive lives in a socio-cultural environment that fosters childbirth immediately after early marriage, short pregnancy intervals, and surgical sterilization at an early age." As "the day-to-day reality of their lives – economic difficulties, marital problems, the demands of a small child – clash with more abstract cultural values and expectations when an unwanted pregnancy occurs", the result is abortion (*15,* p. 147).

The importance of social norms on fertility behaviour, and thus on pregnancy outcomes, cannot be stressed enough. Even in circumstances where family planning services are well developed and accessible – and generally thought to be good – abortion continues to take place. For some women, there is a strong motivation to end an unwanted pregnancy that will have a negative social impact on their lives, as for instance among unmarried adolescents being ostracized by the family, expelled from school, or fired from a job. But abortions are sought also by married women who have completed their desired family size and for whom another child may mean less care for the children they already have. In many cases, unintended pregnancies result from the use of less effective methods, e.g. withdrawal (coitus interruptus), which require a greater degree of user self-control.

Among populations that have a strong preference for traditional methods, there is often a certain degree of indifference with respect to the adoption of more effective modern contraception, a situation commonly found in Turkey. Withdrawal is the most commonly utilized method by married couples, and abortion is sought when the method fails (*16*). In another WHO-sponsored case-study conducted in Turkey by Akin (*17*), the objective was to understand the cultural and psychosocial determinants of abortion. The study, utilizing a representative sample of households, included two study areas: one in Ankara, the capital city, and another in a rural setting in the province of Van. As in other studies, Akin concluded that the primary determinant of abortion was withdrawal, which surpassed modern methods in both areas. In Ankara, 33% of the women declared using withdrawal, followed by 30% using the IUD; in Van province, the corresponding figures were 21% and 15%. Finding out why withdrawal was such a dominant method became an important objective of the case-study. The explanation focused on the role of men in Turkish society and their involvement in fertility decision-making, a role that remained unaffected by either urban or local circumstances. It was found that, culturally, women expected men to make the decisions concerning family size and thought the man should choose the contraceptive method. The strong patriarchal authority of men in this culture also leads to their using a male controlled method that is thought to be efficient and inexpensive. A minority of women in both settings declared that they, i.e. the women, should be the ones to choose the couple's method. Men were found to be very uninformed about modern, female-centred methods of contraception. The irony is that while men control contraceptive behaviour, women experience unwanted pregnancies or induced abortion when withdrawal fails. Fortunately for Turkish women, abortion is legal, safe and easily available.

Economic factors

Poverty, including uncertainties in economic circumstances, is an important determinant of abortion when women face an unintended pregnancy. This is demonstrated by the Mexican case-study conducted by Elu (*18*) in Mexico City. The study included 300 women admitted to the Hospital de la Mujer (Women's Hospital) for abortion complications. The study found that the major determinants affecting the decision to abort included economic, social, and family-related circumstances. However, these factors, at a personal level, tended to be interrelated, with economic problems playing a very central role in the decision to abort. As Elu (*18*, p. 248) remarks: "For all women we interviewed, economic circumstances were an ever-present factor in the decision-making process of whether or not to have an abortion. In some cases extreme poverty was the primary reason to choose abortion". The following case illustrates how poverty acts to influence reproductive decisions:

> *Doña Esperanza was born in a small town, a journey of 2 hours from the capital city. At the age of 14, she came to Mexico City to work as a housemaid. Now she lives with her husband, and her two children, a 19-year-old daughter and a 17-year-old son, from a previous relationship that ended when that husband died in an accident. She had her first abortion just after she arrived in Mexico City. She had a second one after the birth of her eldest daughter. In both cases, the reason for the abortion was her unstable economic situation, which made it difficult even to get proper nourishment (18, p. 248).*

Another case from the women interviewed by Elu shows, once more, the critical role of economic circumstances in the decision to seek an abortion:

> *Doña Minerva and her husband were both born in a rural village, but they moved to the capital city 16 years ago. They both have worked very hard to survive. With great sacrifice they saved enough money to make a down payment on a small house, which will be paid for in four years. After having their first son, Minerva had to abort a second pregnancy because they could not support themselves financially. Since then, they have used the "rhythm method", but it has failed repeatedly and four more children have been born (18, p. 250).*

The importance of the cost of an abortion is examined in another case-study focused on the decision-making process for adolescent girls who had an induced abortion in Mexico (*19*). Illegal abortions conducted by reputable physicians are available at high cost (up to US$ 1000), which is beyond the reach of lower-income women whose total yearly income may not be sufficient to pay such fees. An abortionist who would use a catheter or rubber tube to induce the abortion costs around

US$ 300, still a very hefty price. Given these high costs, many women opt for an infusion using traditional herbs (xoapactle) which costs about US$ 130.

By contrast, in more favourable economic environments, economic aspirations can also act as a determinant in the decision to end a pregnancy. This was clearly demonstrated in the study by Kwon and colleagues (*20*) of young women working in three export-oriented industrial zones in the Republic of Korea. The study attributes the growth in numbers of young women postponing marriage, while seeking employment opportunities to improve their own and their parents' economic well-being, to the rapid pace of industrialization. These changes have inevitably led to an increase in premarital sexual activity. In a society that strongly condemns out-of-wedlock pregnancy, this has also brought about a rapid increase in the number of abortions among adolescents and young adults. As in other societies, reproductive health services have ignored the needs of younger women and men, another factor leading to abortion. Furthermore, "the social practice of viewing sexuality as a commodity to be bought and sold entraps many young girls in a world of sexual impulses rather than allowing them to mature sexually in a compassionate and psychologically supportive way" (*20*, p. 564).

Overall, for a woman facing an unintended pregnancy, unstable economic circumstances and the threat to her family's financial stability, if the pregnancy is carried to term, are very powerful factors influencing the decision to seek an abortion. Economic factors also dictate the path to an affordable abortion. Unfortunately, when abortion complications do occur the economic cost shifts heavily onto the public health system, which must deal with them when the woman appears for care.

Religious factors

Among organized religions the most vocal in opposing abortion is the Roman Catholic Church. The Vatican's opposition to abortion at the 1994 International Conference on Population and Development (ICPD) made it one of the central topics in international media reporting of this event. As Cohen & Richards (*21*, p. 150), in their report of the Cairo Conference commented, "Press coverage, however was dominated by an abortion debate that, admittedly, occupied a disproportionate amount of time. The protracted negotiations over the final document's abortion language was historic…". Following the 1993 Ottawa Roundtable on Women's Perspectives on Family Planning, Reproductive Rights and Reproductive Health (a preparatory meeting for the ICPD which basically recommended liberalized policies that respect women's choices and their reproductive rights),

the Vatican campaigns intensified, denouncing the Conference documents as promoting abortion. The Vatican argued that "references to unsafe abortion should be deleted because all abortions are unsafe for the fetus." Scholars representing other religions also sided with some of the Vatican positions, especially Muslim leaders supported by Islamic States (*21*, p. 151). Although Catholics do not necessarily share the official position of the Vatican, and many Catholic women the world over undergo abortions, the Catholic Church's ban on abortion remains absolute: abortion is forbidden even in cases of rape or to save the woman's life. The Church affirms that life must be unconditionally respected from the moment of conception.

With such a strong religious condemnation, Catholic women are subjected to heavy moral and psychological pressures if they admit to having an abortion. However, it is interesting that in the many case-studies conducted in Latin American contexts, a region known for its Catholic Church hegemony, the religious dimension to abortion seems to be less important than social and economic factors. Nonetheless, the importance of the Catholic Church on policy positions and on maintaining the illegality of abortion in Latin America is mentioned in several of the case-studies. In Mexico for example, Elu (*18*, p. 257) notes that, "Bishops have accused the government of not prosecuting abortion against participating doctors and women. While conservative groups recognize abortion as a major public health problem, they think the solution to unwanted pregnancy lies in the re-affirmation of the laws against abortion and in the promotion of total abstinence or periodic sexual relations." While it is impossible to know how many women, faced with unintended pregnancies and weighing the possibility of an abortion, stop because of religious convictions, the overall impression from the case-study data is that in Catholic countries, such as Colombia, the religious factor does not appear to be so important.

In Colombia, the study by Zamudio et al. (*22*), represents a pioneer effort to conduct a population-based representative survey of 33 275 urban women of reproductive age (15–55 years) on the issue of abortion. The survey concluded that 30% of women who had been pregnant at least once in their lives and who were therefore presumed to be sexually active had experienced an abortion. This is a very significant figure indicating the actual magnitude of abortion in Colombia. And this high abortion prevalence is found in a context where, as the authors (*22*, p. 408) remark, "the Catholic Church, for whom the issue is particularly sensitive, is a relatively solid presence in the political scene and in the daily lives of ordinary people."

Policy factors

Government policy is the decisive factor in making abortion legal, safe, available and affordable. In the preceding discussion, the importance of the law in securing or restricting women's reproductive rights has been repeatedly stressed. We turn next to a country where abortion is legal. The case-study by Alvarez et al. (*23*) depicts the situation in Cuba, one of two Latin American countries where abortion is legal, the other being Guyana. In Cuba, abortion became legal in the 1960s and is performed in large numbers within the framework of the official health services. Cuba's policy on abortion is very similar to that adopted by other socialist countries, such as those in the former Soviet block. In Cuba, abortion is performed using modern surgical procedures and is freely available, on request, in hospitals up to 12 weeks of gestation. The liberalization of the Social Defense Code by the Cuban government in 1964 permitted a broader interpretation of earlier, more restrictive penal codes. Since then, abortion has become increasingly common, particularly as contraceptives are not always easily available. The incidence of abortion is particularly high among adolescents, a major concern for health authorities.

In any particular year the number of abortions in Cuba may exceed 140 000. For example, in 1990, the number of abortions reached 147 530 while the number of live births was 186 658. This meant that there were 8 abortions per 10 live births, a very high ratio indeed. It should be noted that the U.S. embargo affects the availability of medicines, including contraceptives in Cuba. Despite a fairly high rate of contraceptive prevalence – 69% of the women in the case-study stated they were currently using a method – there is also a fair amount of method switching, perhaps as a result of intermittent contraceptive supplies. It is clear that the main reason for the high abortion levels is contraceptive failure, either through poor use of modern methods, forced discontinuation due to lack of supplies, or the failure of the methods themselves.

While Cuba may be an exception among developing nations, the policy situation elsewhere is more likely to resemble that of another island nation, Indonesia. The existing law, part of the Penal Code of Indonesia which originated in the Criminal Law of the Netherlands Indies of 1918, makes abortion for the purpose of terminating a pregnancy a criminal act. Efforts to change this law have failed, but since 1982 the Ministry of Health has authorized three methods of menstrual regulation: vacuum aspiration, sharp curettage, and the injection of hypertonic saline solution. However, these services are only available in large cities and are fairly limited (*8*).

Another country, known for its progressive policy positions on population and family planning, Mexico, still maintains a fairly restrictive abortion policy, only

permitting abortion in cases of rape, or when the mother's life is in danger, or if there is a possibility of congenital defects. But obtaining a legal abortion under these three circumstances is not easy. In 1974, Mexico changed its long-standing pro-natalist position to one that sought to put a brake on demographic growth. It did not, however, consider liberalizing abortion policy as part of the new population policy. Instead, the policy-makers expected that comprehensive access to family planning would reduce the need for abortion. Unfortunately, this has not been the case. It is estimated that about 850 000 illegal and mostly unsafe abortions are performed annually in Mexico and that this number is increasing (*18*).

The major obstacle to liberalizing abortion policy is one of politics and individual fears. Few legislators want to risk their political careers by publicly supporting measures to liberalize abortion policy, despite efforts by feminist groups and women's health advocates to implement the reproductive rights that international agreements have conferred them.

Conclusion

As stated in the Declaration on Principles, which emerged from a roundtable on ethics and reproductive issues in 1994 (*24*), "An example of a policy that produces a preponderance of unfavorable consequences for reproductive health is criminalization of abortion." Given that induced abortion exists in every society and that most abortion laws in the developing world are restrictive, the aim of women's health advocates is to stimulate public debate on abortion, focusing on changing its legal status. The ultimate aim is to reduce the unspeakable suffering that results from unsafe abortion for women and their families in the event of complications.

Attempts to liberalize or modify the existing legislation in developing countries will need an increasing amount of reliable and scientifically based information on unsafe abortion practices, which will help answer questions on both supply and demand factors, such as: What kinds of services are offered? Who is providing them? At what cost? Are dangerous medicines being sold by pharmacies or on the black market as abortifacients? What is the cost of treating incomplete abortions in clinics or hospitals? Why do women continue to have abortions even when family planning is available? What groups are left underserved, and why?

The research community faces a major obligation and a challenge to generate reliable information which will answer these questions. International and donor organizations should take vigorous steps to close the knowledge gap in the area of

unsafe abortion so that the public health implications and the reproductive rights violations that have been documented become better understood. Furthermore, every effort should be made to disseminate these findings to those who are in charge, so that their policies will ultimately save women's lives and improve their well-being.

Individual determinants of induced abortion include a variety of interrelated causal or background factors, such as educational level, marital status, family size and composition, and expectations related to completed family size and contraceptive history. All of these contribute to understanding what brought about the unintended pregnancy in the first place. It is important, from a research perspective, to learn why the pregnancy is unwanted and therefore likely to end in abortion. Further research is needed to unravel the process of decision-making leading to the abortion itself. The process is influenced by systemic determinants, such as service infrastructure and quality, social conditions, economic pressures, religious beliefs and other cultural norms and values. In many of the less developed countries, the status of women, their poverty, and lack of options when faced with an unintended pregnancy lead to the decision to abort. If safe and effective services do not exist, the risks for the woman and the costs for public health services when complications arise can be huge.

Finally, the question that hangs over the research and service community is what can be done to reduce the number of unsafe abortions in the world. International organizations and health advocates need to maintain pressure on governments so that the issue of unsafe abortion and its consequences for women, for society and for health systems is not submerged due to its controversial nature. The politics of abortion are extremely complex and, more often than not, abortion opponents exploit the issue as a means to obscure other pressing problems. Few politicians take the other route of promoting abortion liberalization, with the aim of eliminating unnecessary morbidity and mortality borne by only one sex: women.

Lastly, the WHO abortion case-studies amply demonstrate the need in the developing world to improve the services and women's access to quality services that offer safe and caring attention to their needs, and to liberalize abortion legislation. International organizations should encourage open public debate of these issues by mobilizing political leaders and the public health authorities to discuss the reality of unsafe abortion in their own countries and by supporting efforts to improve fam-

ily planning services, especially for groups that are underserved. The words in the ICPD Plan of Action (*5*, para 74) continue to be as true today as they were in 1994:

> *Since unsafe abortion is a major threat to the health and lives of women, research to understand and better address the determinants and consequences of induced abortion, including the effects on subsequent fertility, reproductive and mental health and contraceptive practice, should be promoted…*

Recommendations for research

While the Special Programme of Research, Development and Research Training in Human Reproduction at the World Health Organization debates the research needs in the area of induced abortion and contemplates research strategies to shed light on this complex issue, the following topics could be included in a comprehensive research agenda:

- Small-scale surveys to determine reliable induced abortion rates in communities suspected to have high abortion incidence. Local hospital records that show high levels of admissions for abortion complications could be investigated.
- Quasi-experimental or experimental intervention studies which are designed to lower induced abortion rates in communities where the abortion rate has been established or is known from local hospital sources. If abortion is not legal, interventions can include improved access to quality family planning, improved counselling, and informational efforts aimed at lowering the abortion rates.
- Surveys of medical and nursing personnel who work in hospitals and maternity clinics that treat women with incomplete abortions, which are designed to unravel provider attitudes as well as their knowledge of women's rights under specific circumstances (e.g. entitlement to legal abortion in case of rape, fetal malformation, and so on).
- Studies of women treated for abortion complications, which are designed to obtain information about the path they followed to terminate the pregnancy, including the type and number of procedures, the fees charged, and other data related to the decision-making process. Information in general terms about the location of the abortion can often be obtained, e.g. from a herbal doctor.
- Studies of hospital costs of treating incomplete abortions, including medicines, personnel time, and related services. For comparison purposes, these studies should also look at the cost of a normal delivery.

- Studies of informal or traditional practitioners - including pharmacy personnel, midwives, herbal doctors or vendors, and others, depending on the cultural context – who provide medical advice and information on a number of illnesses, often including abortion.
- Studies designed to establish the linkage between abortion and contraception, with the aim of identifying the methods most likely to lead to failure or abandonment and hence to increased abortion risks.
- Studies of sexually active women, with and without abortion experience, investigating their preferences for specific procedures. Choices would include surgical intervention, menstrual regulation, manual vacuum aspiration (MVA), medical (a pill), or an injectable, for example. Given the popularity of non-approved pharmaceutical preparations such as Cytotec in Brazil, this is an area to be pursued, especially as mifepristone and other medical alternatives become available for public use.
- Studies of HIV-infected women and their attitudes and concerns when faced with an unintended pregnancy, with the aim of assessing the effect of their health status on the decision to terminate the pregnancy.
- Medical school surveys which are designed to establish the extent of training and awareness of abortion-related issues among students opting to become gynaecologists, obstetricians and general practitioners. Such studies would also include the medical students' knowledge of the legal status of abortion in their countries, their attitudes towards performing an abortion, their familiarity with the procedures, and their in-residence experience with these issues.
- Studies of couples which are designed to understand the role of the male partner in the decision to abort, as well as his participation and support, or opposition, during the process of identifying a service to terminate the pregnancy.

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5

Reducing the complications of unsafe abortion: the role of medical technology

David A. Grimes [1]

ABSTRACT

As defined by the World Health Organization, unsafe abortion is a procedure for terminating an unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking the minimal medical standards, or both. This paper examines the problem of complications of unsafe abortion from a preventive medicine viewpoint. Three levels of prevention exist in medicine. Primary prevention avoids the occurrence of illness altogether. A prototype is childhood immunization. Secondary prevention entails prompt diagnosis and treatment. An example would be prompt diagnosis and treatment of a woman and her sexual partner for gonorrhoea. Tertiary prevention attempts to mitigate the damage caused by disease. Examples include coronary artery bypass operations and reconstruction of the fallopian tubes after salpingitis.

[1] Family Health International, P. O. Box 13950, Research Triangle Park, NC 27709, USA.

Introduction

Complications from unsafe abortion remain endemic in developing countries, and the problem may be worsening in both Africa and Latin America (*1*). As defined by the World Health Organization, unsafe abortion is a procedure for terminating unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking the minimal medical standards or both. An estimated 55,000 unsafe abortions occur daily; 95% of them are performed in developing countries. Up to a quarter of all maternal deaths in developing countries stem from complications of unsafe abortion.

Solving this chronic problem requires several complementary approaches. These include increasing access to safe, effective contraception; changing the laws and attitudes concerning abortion; and improving the training and equipment of providers (*2*). While societal attitudes may change slowly, the application of existing technologies can reduce complications promptly. This is perhaps the most tragic aspect of this global dilemma: delays in application of safe, proven technologies are causing needless suffering and deaths.

This "utilization gap" is not unique to women's health care. In a landmark study, Antman and associates (*3*) performed a cumulative meta-analysis of randomized trials of treatments for myocardial infarction. In this type of meta-analysis, one can determine in what year a treatment is shown to be significantly beneficial. In addition, the investigators tracked through the textbooks and review articles published during the years in question to learn what was being recommended by cardiology experts as therapy. It was found that 13 years had passed between clear evidence that thrombolytic therapy saved lives after infarction and the time when 51% of cardiology authorities recommended it. Indeed, a full decade after clear proof of benefit, most cardiology treatises were calling thrombolytic therapy "experimental", which probably had a negative effect on its use and reimbursement. This utilization gap led to the unnecessary deaths of thousands worldwide.

The same holds true for management of unsafe abortion. Reliance on sharp curettage under general anaesthesia, an obsolete practice, persists in many developing countries, despite compelling evidence against it (*4*). Today, apathy (or antipathy) (*2*) and ignorance may pose as great a threat to women, as do tetanus and haemorrhage.

Levels of prevention

This article examines the problem of complications of unsafe abortion from a preventive medicine viewpoint. Three levels of prevention exist in medicine. Pri-

mary prevention avoids the occurrence of illness altogether. A prototype is childhood immunization. Secondary prevention entails prompt diagnosis and treatment. An example would be prompt diagnosis and treatment of a woman and her sexual partner for gonorrhoea. Tertiary prevention attempts to mitigate the damage caused by disease. Examples include coronary artery bypass operations and reconstruction of the fallopian tubes after salpingitis.

While primary prevention of unsafe abortion complications could (and should) include access to contraception and provision of safe abortion, these are unavailable to millions of women worldwide. Hence, I will begin this review at the woman's decision to seek an unsafe abortion.

Primary prevention of complications

Improving the safety of legal abortions

"Legal" is not synonymous with "safe". While legalization of abortion can lead to profound improvements in abortion safety, this depends on adequate access to safe services. Several developing countries have legalized induced abortion, yet the procedure is neither widely available nor uniformly safe. Examples include India, Armenia (*5*), and Zambia (*6*). This section highlights the lessons learned from extensive experience with induced abortion in developed countries (*7,8*).

Principal determinants of the safety of abortion are the gestational age at abortion and the method used. In general, the earlier the abortion is performed, the safer it is. The nadir in complication rates occurs around 7 – 10 weeks from the last menstrual period. In the first trimester, suction curettage is safer than sharp curettage. Local anaesthesia is safer and less expensive than general anaesthesia. Clinicians need to know the safe dosages for the local anaesthetics used, since uptake from paracervical tissues is rapid.

Preparation of the cervix with osmotic dilators, such as laminaria, significantly reduces the risk of uterine perforation and cervical injury. Alternatively, cervical priming with misoprostol appears equally effective and avoids the instrumentation required with laminaria (*9*). The optimal dose of misoprostol appears to be 400 mcg given vaginally 2 – 3 hours before the operation (*10,11*). Although vaginal administration of misoprostol is usually more effective as an abortifacient than oral administration, a recent randomized controlled trial (*12*) showed that this may not

be true for cervical priming. In this study, misoprostol 400 mcg orally three hours before suction curettage was as effective as 400 mcg given vaginally. If acute mechanical dilatation is chosen, tapered dilators such as the Pratt or Denniston dilator should be used. They require one-third the force to dilate the cervix compared with the blunter Hegar dilators, which should not be used. Gentleness and thoroughness are keys to safe curettage abortion.

The clinician must confirm successful abortion before the woman leaves the facility. This entails rinsing the aspirate and suspending it in water in a transparent dish; back lighting with a horizontal radiology viewing box facilitates recognition of villi in early pregnancies. This procedure eliminates the risk of an unrecognized ectopic pregnancy escaping detection (*13*), except for the rare twin ectopic pregnancy. Women should receive prophylactic antibiotics (*14*), although the optimal regimen is unclear, and Rh (D) immunoglobulin (50 mcg) if indicated.

For early second-trimester abortion, surgical evacuation is superior to labour induction in terms of safety, speed, comfort, and cost. Opinion is divided concerning later abortions. No trials have compared the safety of D&E (dilatation and evacuation) abortion with labour induction using contemporary abortifacients. Two decades ago, D&E was shown to be superior to labour induction with prostaglandin F_{2a}, an agent no longer used as a primary abortifacient. Abortion mortality surveillance in the USA suggests that D&E and labour induction abortions have similar small risks of death.

Given limited personnel and resources in many developing countries, D&E in skilled hands may be preferable to labour induction, although this hypothesis has not been evaluated (*15*). Confirmation of gestational age by fetal biparietal diameter before D&E abortion is useful if ultrasonography is available. For pregnancies at 13 to 16 weeks, same-day osmotic preparation of the cervix is adequate. For more advanced pregnancies, overnight osmotic preparation is advisable. Misoprostol should not be used overnight for cervical priming because of the risk of inducing abortion.

Special forceps, such as the Bierer or Sopher forceps, are especially useful, as is a shorter Graves speculum (Moore modification). When resident physicians are learning D&E, ultrasound guidance during the operation is associated with both shorter operating times and a lower risk of uterine perforation. Addition of vasopressin to the local anaesthetic agent significantly reduces blood loss at 15 weeks' gestation and beyond. As with first-trimester abortion, use of local anaesthesia is safer than general anaesthesia for D&E procedures (*16*).

Choice of method

Several methods are widely used for labour induction. These include intrauterine hypertonic solutions, such as saline or urea, augmented by oxytocin, prostaglandin, laminaria, or some combination of these. Alternatively, some clinicians use uterotonic agents alone, such as misoprostol. Mifepristone given before uterotonic agents reduces induction-to-abortion times. A disadvantage of prostaglandins alone is that this method is not inherently fetocidal. Alternatively, high-dose oxytocin is effective and has less gastrointestinal side-effects than do prostaglandins. Scheduled breaks in the oxytocin infusion allow diuresis to occur and eliminate the risk of water intoxication. An alternative approach used in some countries is extra-amniotic injection of ethacridine lactate. This process is slow (*7*) and has no advantage over alternative methods.

When safe abortion services are inaccessible, the methods available to women vary widely in their risk. Women and providers resort to several broad approaches, including systemic and mechanical abortifacients (Table 1). In general, the more invasive the approach, the greater the efficacy. For example, introducing foreign bodies into the uterus has traditionally been more likely to produce abortion than the use of systemic medicines (*17,18*). However, many oral agents carry serious risks. In a logistic regression analysis of factors related to abortion deaths in Abidjan, Ivory Coast, high parity and use of plant infusions carried the greatest risk. The odds ratios of death were 6.2 (95% CI: 1.6 – 24.0) and 6.1 (95% CI: 1.5 – 24.9), respectively (*19*). Peritonitis was significantly associated with intrauterine methods, while neurological toxicity was strongly related to plant infusions. Women are unlikely to be able to judge the relative safety of the methods available to them.

Table 1.
Examples of unsafe abortion methods used in developing countries, by category.

Systemic abortifacient: oral
Quinine
Oral contraceptive
Laundry bluing
Turpentine
Bleach
Strong tea
Tea made of livestock faeces
Detergent
Acid

Black beer boiled with soap, oregano, and parsley
Boiled apio (celery plant) water with aspirin
Wine boiled with raisins and cinnamon
Tea with apio, avocado bark, ginger, etc.
Boiled and ground avocado or basil leaves
"Bitter concoction"
Assorted herbal medications
Oxytocics, such as misoprostol

Systemic abortifacient: injectable

Injection of unspecified drug

Vaginal/cervical abortifacient

Potassium permanganate tablet
Herbal preparation
Misoprostol

Intrauterine foreign body

Stick
Root
Leaf
Wire
Knitting needle
Rubber catheter
Bougie
Coat hanger
Ball-point pen
Chicken bone
Bicycle spoke
Air insufflation

External trauma

Abdominal massage
Lifting heavy weight

Curettage

Dilatation and curettage
Manual vacuum aspiration

Source: References *2, 17, 19, 27, 57, 58.*

The introduction of misoprostol, a tablet of a prostaglandin E1 analogue, has revolutionized abortion practice. Experience with misoprostol in Brazil has attracted intense international interest. Misoprostol was first introduced into Brazil in 1986. Because it was available over-the-counter, the drug quickly became a popular abortifacient. By 1990, around 70% of women hospitalized with abortion-related diagnoses reported having used the drug (*20*). This led to a rapid increase in uterine evacuation procedures done in one hospital for abortions initiated with misoprostol (*21*). However, other hospitals did not note such an increase (*20*). In 1991, the Ministry of Health in Brazil restricted the sale of the drug, and one state (Ceara) banned it altogether. The drug remains widely available on the black market at inflated prices. In Campinas, the rate of complications among abortion patients increased after the restriction, and maternal deaths related to abortion complications tripled (*20*). Several reports have documented that use of misoprostol was safer than the use of alternative methods, such as introduction of foreign bodies (*20,22,23*). Growing experience with the drug may have led to use of safer doses. Initially, women took doses ranging from 200 mcg to 9 400 mcg, with the mode being 800 mcg. Most women took the drug both vaginally and orally in equal amounts (*21*).

This natural experiment in Brazil parallels that in Romania. When the dictator Ceaucescu took power, he severely restricted access to abortion and contraception. After an initial rise in the birth rate, it soon dropped to customary levels because women once again resorted to the back alley to control their fertility, and the maternal mortality ratio escalated to the highest in Europe (150 maternal deaths per 100,000 live births). When Ceaucescu was deposed and access to abortion and contraception was restored, the maternal mortality ratio plummeted (*24*).

Before misoprostol was commercially available, women in Brazil commonly inserted foreign bodies into the uterus, which initiated bleeding, which, in turn, led to a safe surgical completion of the abortion. Even if given in doses inadequate to achieve abortion, misoprostol causes bleeding (and justification for a safe curettage) without the risk of trauma and infection related to foreign bodies. For example, at one hospital in Recife, the rate of infection in women was lower in women who reported using misoprostol (4%) than in those reporting spontaneous abortion (8%). Moreover, the infection rate associated with misoprostol was dramatically lower than that associated with alternative methods of unsafe abortion (49%) (*23*). While birth defects have been linked with administration of misoprostol in pregnancy, a follow-up study of 86 women exposed to misoprostol in Brazil found no evidence of a potent teratogenic effect of the drug (*25*).

Several investigators have evaluated misoprostol alone for induced abortion (*26*). Regimens and success rates varied widely. Most studies had small sample sizes as well, leading to imprecise estimates of the efficacy. The largest experience is that of Carbonell, who achieved the highest success rates in three studies of more than 100 patients each: 87% to 94% (*26*). More than half of the women had diarrhoea in Carbonell's studies; vomiting was less frequent. The acceptability of misoprostol-only regimens to women is unknown.

Providers

The providers of unsafe abortion vary widely in background and skills. They include medical doctors working in clandestine settings, midwives, traditional birth attendants, pharmacists, nurses, and "untrained quacks" (*2,27*). Many complications of unsafe abortion could also be managed by providers other than a physician if they had requisite training and equipment (*28,29*). Physicians' assistants can perform suction curettage as safely as do licensed physicians (*30*).

Prophylactic antibiotics

Administration of prophylactic antibiotics around the time of legally-induced abortion reduces morbidity (*14*). Because antibiotics such as doxycycline are inexpensive, this strategy is cost-effective, even given the rarity of postabortal infection in developed countries (*31*). Whether prophylaxis is beneficial or cost-effective after unsafe abortion in developing countries is unclear. One small (n = 240 patients) randomized controlled trial of incomplete spontaneous abortion in the USA found no benefit of doxycycline (*32*). Of more relevance, in another small trial (n = 140) patients with uninfected incomplete abortion in Harare, Zimbabwe, were randomized and given either tetracycline for a week or no antibiotic. Both groups had similar infectious morbidity, which the authors considered was due to poor compliance with the tetracycline regimen (*33*).

Secondary prevention

Prompt and appropriate care of complications can dramatically reduce the morbidity and mortality from unsafe abortion. While limitations of personnel, transportation, and equipment pose serious obstacles in many settings, inertia may be a more stubborn obstacle to better care. Prompt recognition of complications, timely transfer to medical care, and prompt treatment upon arrival are pivotally important to reducing morbidity and mortality. This section will consider the management of several common complications.

Incomplete abortion

Several options for management of incomplete abortion are available, although rigorous evidence is lacking concerning the best approach. If the patient is not bleeding heavily and is not infected, watchful waiting may resolve the problem (*34*). A second tactic is to expedite the expulsion by administering oxytocic drugs. Oxytocin has been used in this setting for decades, but its expense and need for parenteral administration are drawbacks. A more recent approach is use of misoprostol. This agent has the advantage of low cost, stability at room temperature, and simplicity of administration (*35*). A randomized controlled trial from Hong Kong compared surgical evacuation with medical evacuation using misoprostol; 635 women with spontaneous abortion participated (*36*). Immediate and short-term complications were less frequent among those assigned to receive misoprostol, although half of these women subsequently required surgical evacuation.

Brisk bleeding, infection, or clinician preference often dictate surgical evacuation of retained tissue. Suction curettage is clearly preferable to sharp curettage in this situation. The sharp curette is a suboptimal approach to emptying the uterus. Developed in the 1800s to scrape off "uterine fungosities", the metal curette has outlived its clinical usefulness. Suction curettage is faster, safer, and more comfortable than sharp curettage (*37*). In addition, use of a suction cannula may damage less of the basal layer of the endometrium, thus lowering the risk of uterine synechiae (Asherman's syndrome) (*38*).

The development of the manual vacuum aspiration (MVA) device in the 1960s was a landmark achievement in women's health. This simple syringe with self-retaining plunger and cannulas of varying size generates the same negative pressure as do large, expensive, electrical pumps. The syringe can be cleaned and re-used many times without deterioration in performance. Cannulas can be discarded or cold sterilized by immersion in glutaraldehyde.

Two randomized controlled trials have compared the utilization of suction and sharp curettage for incomplete abortion (*39,40*). The Singapore trial (*39*) used metal cannulas with an electric pump; the trial from Zimbabwe (40) used plastic cannulas with a manual vacuum aspiration device. The Singapore trial, with only 193 patients, had limited power. The Zimbabwe trial had 357 participants. Despite this small sample size, the Zimbabwe trial found manual vacuum aspiration to be significantly faster. It was also associated with a lower rate of sepsis and blood loss (≥100 ml) than sharp curettage. An extensive literature, though less rigorous in quality, supports the conclusion that manual vacuum aspiration is superior to sharp curettage for completion of abortions (*41*).

The upper gestational age limit for use of the manual vacuum aspiration device is unclear. While the manufacturer recommends it for pregnancies up to 12 weeks after menstruation, limited experience suggests that skilled operators can evacuate more advanced pregnancies without use of forceps.

Dilatation and evacuation (D&E) techniques used for second-trimester abortion may have an important role to play in managing incomplete unsafe abortion as well (*15*). In countries as diverse as Australia, the United Kingdom, Israel, and the USA, D&E is widely used for second-trimester elective abortion. The same approach can be used for managing spontaneous or induced abortions that are incomplete or inevitable. This is usually the fastest and safest way to empty the uterus when the patient is infected or bleeding heavily.

When confronted with a second-trimester incomplete abortion, clinicians in developing countries have limited options. Inducing or augmenting labour to effect delivery of the fetus may cost valuable time and may thus compromise the patient's condition. The other fallback is hysterotomy, which has no role in contemporary practice. It is needlessly invasive, expensive, and risky. This situation is analogous to obstructed labour with fetal death and infection. A cohort study from New Delhi showed that patients who were managed with destructive operations had shorter hospital stays and fewer complications than women who underwent a caesarean delivery of the fetus (*42*). Clinicians who manage patients with second-trimester unsafe abortions should learn to perform D&E. In this setting, the operation is easier to perform than when the pregnancy is undisturbed.

Haemorrhage

In general, the best oxytocic is an empty uterus. Thus, brisk bleeding requires rapid evacuation of the uterus. Recommendations to correct anaemia by administering blood before beginning an evacuation (*17*) are both obsolete and potentially dangerous. Young, healthy women will tolerate very low haemoglobin levels without correction, and arbitrary prerequisite haemoglobin levels before operations have been abandoned. Extensive experience managing haemorrhage with ectopic pregnancy has demonstrated that even laparotomy can be safely performed with haemoglobin levels around 4 gm/dl. The acute need for most patients is volume replacement with crystalloid or plasma expanders, depending on local availability (*43*), and not red cells.

Several ancillary methods can reduce bleeding associated with abortion. If available, a dilute solution of vasopressin administered with paracervical anaesthesia reduces bleeding. For example, when used prophylactically before second-trimester

D&E abortion, 4 units (0.2 ml) of vasopressin significantly reduced bleeding at 15 weeks' gestation and beyond (*44*). Oxytocin or ergot derivatives, such as methylergonovine maleate, can be helpful. The latter can be administered orally with onset time similar to that of parenteral administration. More recently, misoprostol has been found useful in managing uterine haemorrhage as well. Fourteen women with postpartum haemorrhage unresponsive to ergometrine and oxytocin received misoprostol 1000 mcg rectally, and bleeding was controlled within three minutes in each woman (*45*).

Infection

Uterine infections after unsafe abortion are typically polymicrobial: antibiotic coverage optimally should include gram-positive organisms, gram-negative rods, and anaerobic bacteria (*46*). Sexually-transmitted pathogens, e.g. Neisseria gonorrhoeae and Chlamydia trachomatis, will usually be susceptible to the broad-spectrum antibiotics. Clostridium perfringens, an uncommon obstetrical pathogen, is associated with intrauterine foreign bodies.

Treatment should be empiric. The optimal antibiotic regimen is unclear, and local availability of drugs may override any theoretical concerns about spectrum of coverage. If intravenous administration is not possible, intramuscular or oral administration of available antibiotics should be started promptly. Cultures of the endocervix or endometrial cavity are expensive and have little usefulness.

Clinicians in some developing countries are hesitant to empty the uterus until the patient begins to respond to antibiotic therapy. This custom may condemn many patients to death. Until the infected tissue is removed from the uterus, antibiotics will not be effective. No evidence exists that delaying curettage for antibiotics to take effect is beneficial, and considerable evidence links delays with death (*19,27,47*). Antibiotic treatment in large doses should begin quickly, and if the patient is haemodynamically stable, uterine evacuation should done as soon as practical (*47*).

Tertiary prevention

Septic shock

Septic shock remains a deadly complication of unsafe abortion. Management involves elimination of the infection and supportive care for the cardiovascular system and other organ systems involved. For example, adult respiratory distress syndrome develops in 25% to 50% of patients with septic shock (*48*). A traditional approach to antibiotic therapy includes intravenous penicillin (either penicillin G or

ampicillin) plus clindamycin plus an aminoglycoside (either gentamicin or tobramycin). High-dose glucocorticoid therapy is ineffective in this setting and should not be used (*48*). Uterine evacuation should take place promptly, using suction curettage, D&E, or labour induction with oxytocin, misoprostol, or other prostaglandin. If the patient does not respond to uterine evacuation and antibiotic therapy, laparotomy is needed. Other indications for an exploratory laparotomy include uterine perforation with suspected bowel injury, clostridial myometritis with haemolysis, and pelvic abscess.

Bowel injury

Bowel injury can result from insertion of foreign bodies into the uterus. The distal ileum is the most common site of injury, followed by the sigmoid colon (*49*). Experience with bowel perforations related to laparoscopy has revealed that classic signs and symptoms of bowel injury may not be present. Substantial proportions of patients with bowel injury had no fever, leukocytosis, or free air visible on abdominal radiographs (*50*). However, colon injuries led to symptoms earlier than did small-bowel injuries. A low or falling leukocyte count is especially ominous and may herald the onset of septic shock. In general, any woman with increasing abdominal pain after instrumental abortion should be considered to have a perforation and bowel injury until this diagnosis can be excluded.

Since life-threatening peritonitis is often present, primary (one-stage) repair of colorectal injuries (*51*) is often not advisable. In this setting, a diverting colostomy with secondary re-anastomosis some months later is preferable. In addition, the laparotomy incision should be left open for delayed primary closure.

Acute renal failure

Renal failure from unsafe abortion may have several origins: absorption of nephrotoxic abortifacients (*52,53*), decreased renal perfusion, or septicaemia. In general, oliguric patients, those with higher baseline serum creatinine, and those with multi-organ failure fare worse (*52*). Despite peritoneal dialysis or haemodialysis, mortality rates from renal failure in developing countries range from 23% to 44% in recent series (*54,55*).

Tetanus

Tetanus, which is entirely preventable with adequate primary immunization, remains a serious problem among populations without immunization. Objectives of therapy are to avoid death (primarily from asphyxia), decrease suffering, minimize

complications, neutralize any accessible toxin, and prevent recurrences. Human tetanus immune globulin (TIG) should be administered as soon as possible to neutralize any toxin that has not yet entered the nervous system, and a course of primary immunization should be started. The quantity of tetanospasmin sufficient to cause clinical tetanus is insufficient to provide lasting immunity. Benzodiazepines such as diazepam have been a mainstay of therapy. Support of respiration may require intubation or tracheostomy, depending on the severity of illness (*56*).

Conclusion

Prevention strategies at three different levels can reduce the frequency and severity of complications from unsafe abortion. Primary prevention includes improving the skills of providers in countries where induced abortion is legal. Use of safer abortifacients, such as misoprostol, has been linked with important declines in deaths from clandestine abortion. Whether administration of prophylactic antibiotics after unsafe abortion should be routine is unclear.

Secondary prevention includes prompt evacuation of incomplete abortions by either misoprostol or manual vacuum aspiration. Sharp curettage under general anaesthesia in an operating theatre should be abandoned. Rapid evacuation of retained tissue and administration of oxytocics (e.g. misoprostol) or vasopressin can reduce bleeding. Prompt empiric antibiotic therapy and rapid emptying of the uterus can reduce the morbidity related to infection.

Tertiary prevention includes management of life-threatening complications. Septic shock requires resuscitation with plasma volume expanders, large doses of antibiotics, and prompt uterine evacuation; steroids are ineffective. Prompt diagnosis and management of bowel injury can avert life-threatening peritonitis and septic shock. Acute renal failure may require dialysis for survival. Management of tetanus requires the administration of tetanus immune globulin, primary immunization, and supportive therapy as the disease runs its course.

Although more is known today about the epidemiology of abortion than about any other operation, large gaps in our knowledge persist (Table 2). An urgent need exists for answers to such fundamental questions as the preferred method for second-trimester abortion. Randomized controlled trials in settings where induced abortion is safe and legal are the optimal means of answering many of these questions. In industrialized countries, induced abortion is very safe. Herein lies a paradox. That abortion is so safe is reassuring to women and their clinicians. On the

other hand, complications of importance are now so rare that daunting sample sizes may preclude randomized trials needed to answer the unresolved questions.

Table 2.
Unresolved questions about abortion technology.

- What is the comparative safety of second-trimester labour induction vs. D&E abortion?
- What are the comparative acceptability and cost of second-trimester labour induction vs. D&E abortion?
- What is the upper gestational age limit (or uterine size) for unaided manual vacuum aspiration?
- What is the optimal regimen for misoprostol used alone for early abortion?
- Is a flexible plastic cannula with twin ports superior to a rigid plastic cannula with one port?
- Should misoprostol be used to prepare the cervix before all suction curettage procedures, or should it be used selectively, e.g. in primigravidas or those with later gestational ages?
- Do instruments inserted into the uterus need to be sterile, or is high-level disinfection adequate?
- Do sterile precautions, such as drapes and surgical gowns, have any effect on abortion morbidity?
- For infected incomplete abortions, how long after administration of antibiotics should clinicians wait before evacuating the uterus?

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6

Meeting women's health care needs after abortion: lessons from operations research

Dale Huntington [1]

ABSTRACT

Postabortion care has become a mainstream feature of women's reproductive health services since the 1994 International Conference on Population and Development (ICPD). Composed of three elements of care (emergency treatment for complications from an incomplete abortion, provision of family planning services, and referral for other reproductive health care needs), postabortion care has become synonymous with holistic health care for women who suffer from an incomplete induced or spontaneous abortion. This paper reviews the lessons learned from operations research studies on postabortion care and indicates five key strategies for improving this care: (1) upgrade clinical care, (2) provide family planning information and services, (3) expand access to care, (4) plan for comprehensive care services, and (5) involve male partners. Although progress has been made, evidence from operations research indicates that there is still a need for additional research and programme development. More experience in scaling up services from small-scale pilot programmes is required. Further strategic work is needed to ensure that improvements in counselling practices are sustained. Most improvements in the treatment of complications involve the use of manual vacuum aspiration (MVA), yet in many settings these instruments are not always available. Ensuring a regular supply of these instru-

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[1] UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction, World Health Organization, 1211 Geneva 27, Switzerland (was with the Population Council, New Delhi, India, at the time of the consultation).

ments and the medications associated with postabortion care will greatly contribute to safe, humane services for women who have suffered the trauma of an incomplete abortion.

Introduction

Incomplete abortion is a leading obstetric emergency and is the second most common cause of admission to obstetric wards in the developing world, following delivery. Women who seek emergency treatment for complications from an induced or spontaneous abortion – such as bleeding, infection and injuries to the reproductive tract system – should be a priority group for reproductive health care programmes. These women often receive poor-quality services that do not address their multiple health needs. They may be discharged without counselling on postoperative recuperation, family planning, or other reproductive health issues.

Women who have had an induced abortion due to an unwanted pregnancy are likely to have a repeat abortion unless they receive appropriate family planning counselling and services. The prevention of repeated unsafe abortions is important for reproductive health programmes because it saves women's lives, protects women's health, and reduces the need for costly emergency services for abortion complications.

Postabortion care (PAC) is a service delivery strategy built around three elements: emergency treatment of complications of spontaneous abortion (miscarriage) or induced abortion, postabortion family planning counselling, referral and services, and linkages to other reproductive health services. Five strategies for improving the quality of postabortion care have emerged from the operations research literature: upgrading clinical care, providing family planning information and services, expanding access to postabortion care, planning for comprehensive postabortion services, and involving male partners. These are described below.

At the 1994 International Conference on Population and Development, the world's governments called for improvements in postabortion medical services. As part of the resulting international postabortion care initiative, the Population Council's Operations Research and Technical Assistance (OR/TA) projects worked collaboratively with Ipas, the Johns Hopkins Program for International Education

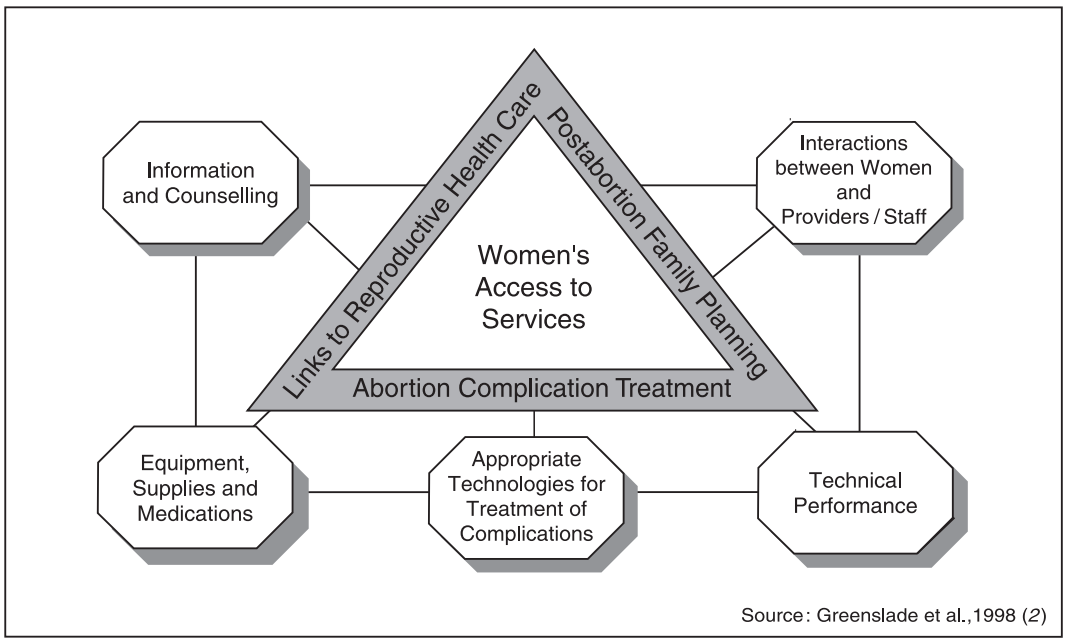
in Gynecology and Obstetrics (JHPIEGO), and AVSC International to conduct research on interventions to improve postabortion care (*1*).

This paper reviews the evidence supporting these five strategies, and concludes with a discussion of future priorities in the field of postabortion care operations research.

Strategy 1: Upgrade clinical care

The elaboration of a postabortion strategy within a quality of care framework has clearly facilitated its development (Figure 1). The reliance upon concepts drawn from the dominant paradigm for evaluating family planning programmes makes the approach towards improving postabortion medical services immediately applicable to both researchers and programme managers. The introduction of a new technology, manual vacuum aspiration, has been used to upgrade clinical practices related to pain control and prevention of infection, as well as other aspects of the care-giving process.

Figure 1.
Framework for quality of postabortion care.



Constant vigilance is needed to maintain high standards of care. Where staff turnover is high, new staff must receive the appropriate service protocols and training. All staff need regular supervision. The essential elements of high-quality clinical services include:

- Use of technology appropriate for the setting and the patient.
- Appropriate pain management before, during, and after the clinical procedure.
- Prevention of infection by all providers.
- Adequate supplies of essential medications and surgical equipment.
- Improved client-provider interactions.

These elements are discussed in more detail below.

Use appropriate technology

In many settings, the introduction of manual vacuum aspiration (MVA), combined with reorganization of services, has led to lower complication rates and shorter patient stays. Numerous studies in the USA and in developing countries show that MVA is a safer, equally effective, and less resource-intensive treatment for incomplete abortions of up to 12 weeks' gestation compared with sharp curettage or dilatation and curettage (D&C), which is the standard treatment in many countries (*3*). The results presented in Figure 2 from Egypt are taken from one of the first operations research studies that clearly demonstrated the ready acceptance of the new surgical instruments by physicians for postabortion care (*4*).

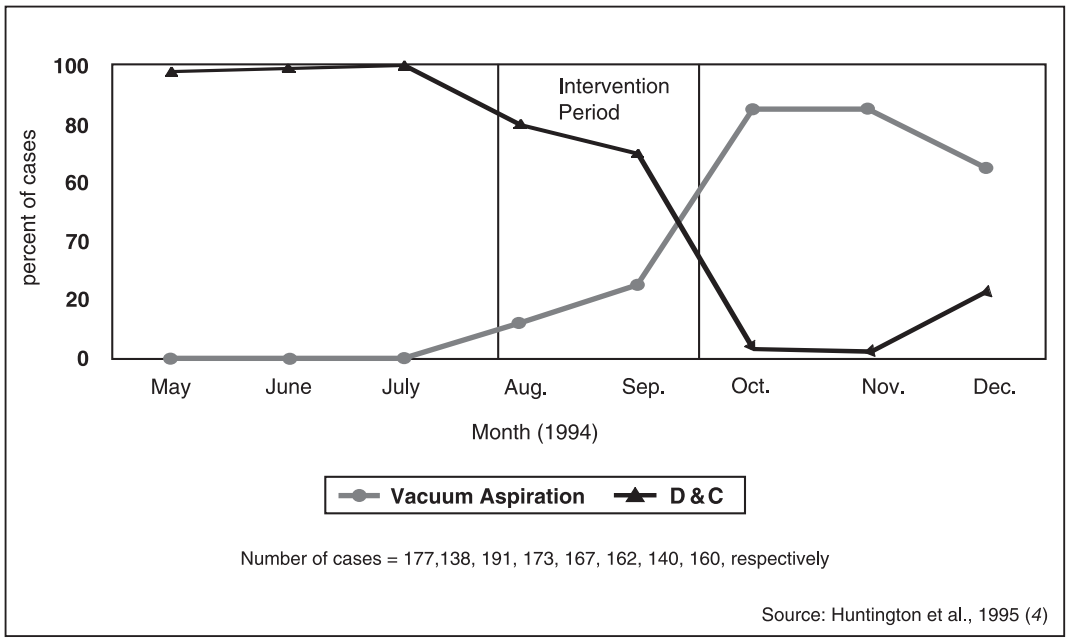
These results have been replicated repeatedly after the Egyptian study in many different settings and with a large variety of provider types. Studies in Burkina Faso, Kenya, Mexico, Peru and Senegal showed that after receiving training in MVA, the providers preferred MVA in most or all uncomplicated cases (*5,6*). The introduction of MVA also serves as a catalyst for making improvements to emergency obstetric care. By drawing the providers' attention to a "new" surgical device, ancillary services such as pain control, counselling, and linkages with family planning can be reinforced.

Provide appropriate pain management

Postabortion patients experience both pain and fear before, during and after uterine evacuation (*7,8*). Although providers typically sedate or anaesthetize

Figure 2.

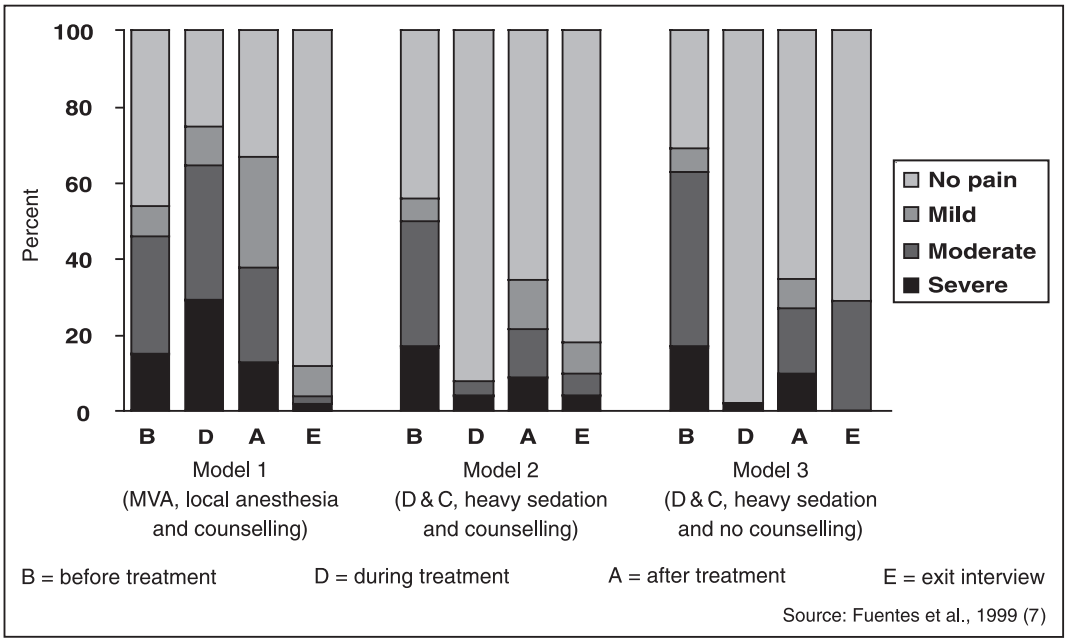
Type of postabortion surgical procedure used, by month, before and after the study intervention, Egypt, 1994.



the women during treatment with D&C, many of them do not provide adequate pain medication during MVA. Furthermore, most providers do not address the pain or anxiety experienced by women waiting for services or recovering from a procedure. In a Kenyan study, only 3% of MVA patients and 44% of D&C patients received pain medication during the procedure, and the providers rarely spoke to the patients during treatment. Three in five of the postabortion patients interviewed described their pain during the procedure as extreme (*9*).

The operations research study conducted by Fuentes et al. (7) provides a good example of the complexities of investigating the management of pain (Figure 3). By decomposing the postabortion care process into four stages (before treatment, during treatment, after treatment, and at the time of discharge from the hospital), this study draws attention to the particular pain management needs of the patient throughout her treatment. Before the treatment, all three models of pain management are about the same – with approximately one fifth of the postabortion patients reporting extreme pain. During and after the procedure, the effect of general anaesthesia is evident in models 2 and 3, as fewer heavily sedated patients were observed to be in pain than patients who received local anaesthesia. Of particular interest is

Figure 3.
Women's experience of pain, during postabortion care, Mexico City.



the reported lower level of pain at discharge among patients in Groups 1 and 2, i.e., those patients who had received counselling and analgesics. Reducing the pain and discomfort that a woman experiences is a fundamental element for improving the quality of postabortion medical care. In addition, women who are in a heightened state of anxiety will be less receptive to postabortion-related counselling and referral advice. This is most important as two thirds of the PAC initiative relates to interpersonal communication processes.

Women's perception of pain may be lessened if they receive verbal support from providers throughout their stay in the health facility. A study in Peru found that training in interpersonal skills helped providers to allay women's fear and anxiety. Hospital patients treated with MVA reported lower pre-procedure pain compared with a baseline group of D & C patients. The patients' perception of pain may also have been affected by the reorganization of clinical services that reduced the waiting period (*3*). Despite these reports of reduced pain, virtually all studies show that many women still experience severe pain during postabortion treatment, underscoring the need to implement pre-, intra-, and post-operative pain management protocols and train providers in interpersonal skills in order to lessen fear and anxiety.

Prevent infection

Key infection prevention practices consist of handwashing, use of gloves, adequate patient preparation, use of the "no-touch" technique, decontamination and high-level disinfection or sterilization of medical instruments, and safe disposal of biohazardous waste (*10,11*). Infection prevention is simple and inexpensive, and yet it remains a problem in many clinical settings. Studies in Bolivia, Honduras, Mexico, and Peru found that infection prevention practices were inadequate in many hospitals, despite the availability of appropriate protocols (*10*). Programme managers need to ensure that providers have sufficient training in infection prevention, supervision, and supplies to maintain high standards.

Ensure adequate supplies

To maintain high-quality PAC services, medicines and supplies must be continually available. Pre-intervention assessments in several countries found many sites without the necessary equipment, including specula, gloves, sterilizers, and examining tables. Periodic stock-outs of medicines and disinfectants are common in many countries. Programme managers need to ensure that equipment and supplies are on hand in all service points. In the public sector, the necessary supplies need to be on the MOH procurement list so that health facilities can order them. MVA equipment is usually obtained from a local medical supply distributor; the distributor may need to obtain government approval for the importation and sale of MVA equipment.

Promote improved client-provider interactions

In many settings, some providers harbour negative attitudes towards women who have had an abortion. These views prevent them from treating postabortion patients compassionately and sensitively. Differences in gender, social class, and language can also lead to strained relations between providers and patients. Training in quality of care and interpersonal skills can help to change the providers' attitudes and motivate them to improve their interactions with patients. In Mexico, after the providers had attended a two-day workshop on interpersonal relations and other improvements in the quality of care had been introduced, postabortion patients received significantly more information about follow-up care (Figure 4).

The proportion of patients who received care that included more interpersonal communication and support was substantially increased in the study conducted by Langer et al. in Oaxaca, Mexico (*12*). Relatively simple modifications to the patient flow or physician practices accompanied the communications skills training to achieve these impressive gains. For example, the provider introduced himself or herself to the patient

Figure 4.
Provider-patient relations during postabortion treatment, Oaxaca, Mexico.

Characteristics	Pre-Test (%) (n=136)	Post-Test (%) (n=207)
Patient knew which physician performed the procedure	17.4	74.4*
Physicians introduced self by name	26.1	51.0*
Physician addressed patient by name	59.1	84.8*
Provider gave patient explanation prior to the procedure	45.5	92.4*
Patient received information about her recovery	19.8	62.6*
Words used by provider were easy to understand	91.7	91.3
Patient felt great confidence in physician	52.4	73.6*

*p<0.05

Source: Langer et al., 1999 (12)

in the pre-operative waiting room before the operation and explained the procedure. In addition, the study was successful in building upon a team approach to counselling the patient, and nurses were enlisted to provide postoperative information about recovery and follow-up care.

Strategy 2: Provide family planning information and services

Offer family planning counselling and services to postabortion patients

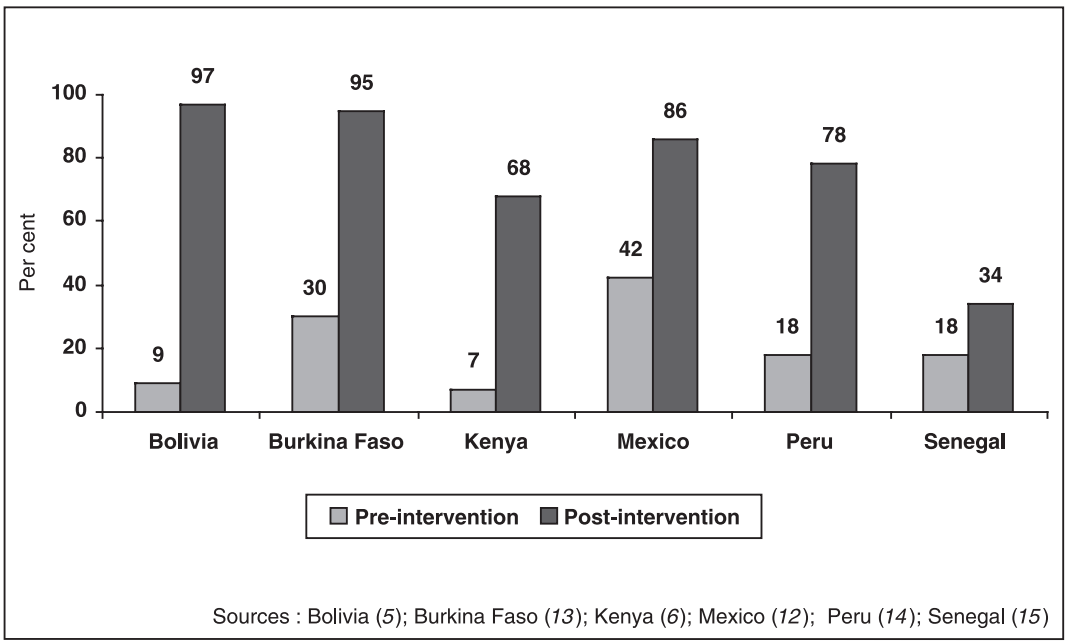
In many cases, women seeking emergency treatment for abortion complications are discharged without adequate information about family planning and may have difficulty in gaining access to family planning services. By making family planning information and services readily available to postabortion patients, the provider can help to prevent future unwanted pregnancies. For some women, emergency postabortion care

is the first contact with formal medical services and can provide the basis for future visits if the experience is a positive one.

Offering family planning at the time of emergency treatment is important because women's fertility can return within two weeks after abortion. Thus, many postabortion patients have an immediate need for family planning to prevent another unwanted pregnancy. Studies in Bolivia, Burkina Faso, Kenya, Mexico, Peru, and Senegal have demonstrated that after improved PAC services were introduced, the proportion of patients who were counselled about family planning increased (Figure 5). Furthermore, most patients who received counselling chose to use contraception (Figure 6).

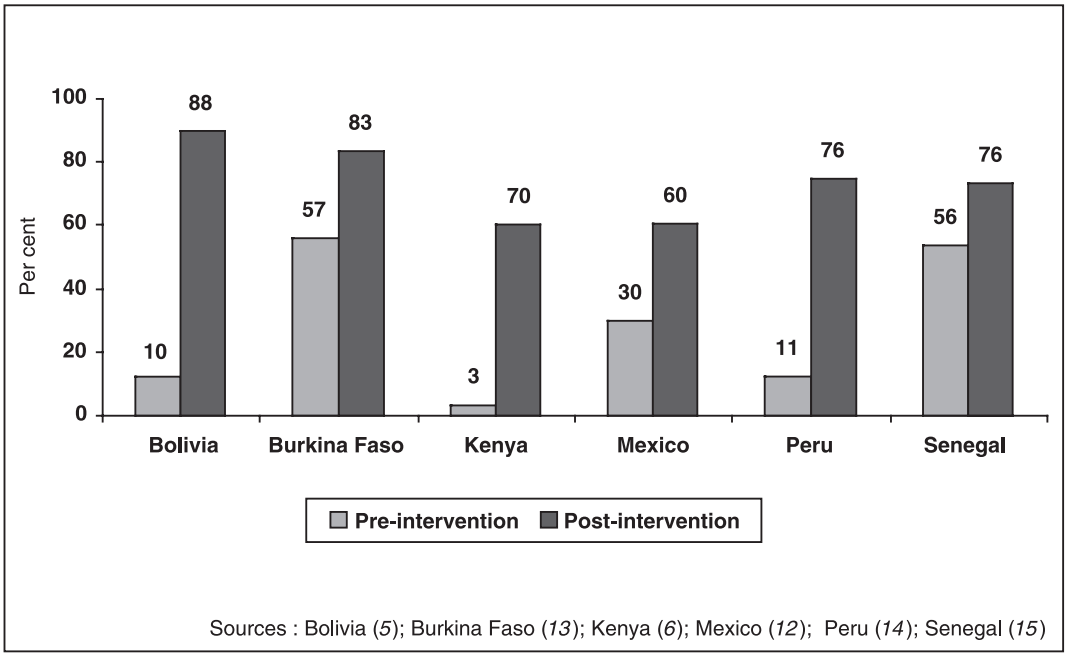
Consolidating the service to use both space and staff time efficiently can make family planning services more accessible. After the services were reorganized in six Kenyan hospitals, 68% of postabortion patients received family planning counselling, compared with only 7% before the change (*16*). This study found that having ward staff provide family planning information and services was more convenient than having maternal and child health/family planning (MCH/FP) providers come to the ward or taking patients to the hospital's MCH/FP clinic. When the ward staff provided

Figure 5.
Percentage of PAC patients who received family planning counselling.



Sources : Bolivia (*5*); Burkina Faso (*13*); Kenya (*6*); Mexico (*12*); Peru (*14*); Senegal (*15*)

Figure 6.
Percentage of PAC patients who were counselled and obtained a contraceptive method.



Sources : Bolivia (*5*); Burkina Faso (*13*); Kenya (*6*); Mexico (*12*); Peru (*14*); Senegal (*15*)

family planning services, 92% of the postabortion patients received family planning counselling, compared with 63% for patients in wards visited by MCH/FP staff and 54% for those who had to be taken to the hospital's MCH/FP clinic for counselling (Figure 7).

Strategy 3: Expand access to postabortion care

Train community health workers to provide family planning and make referrals

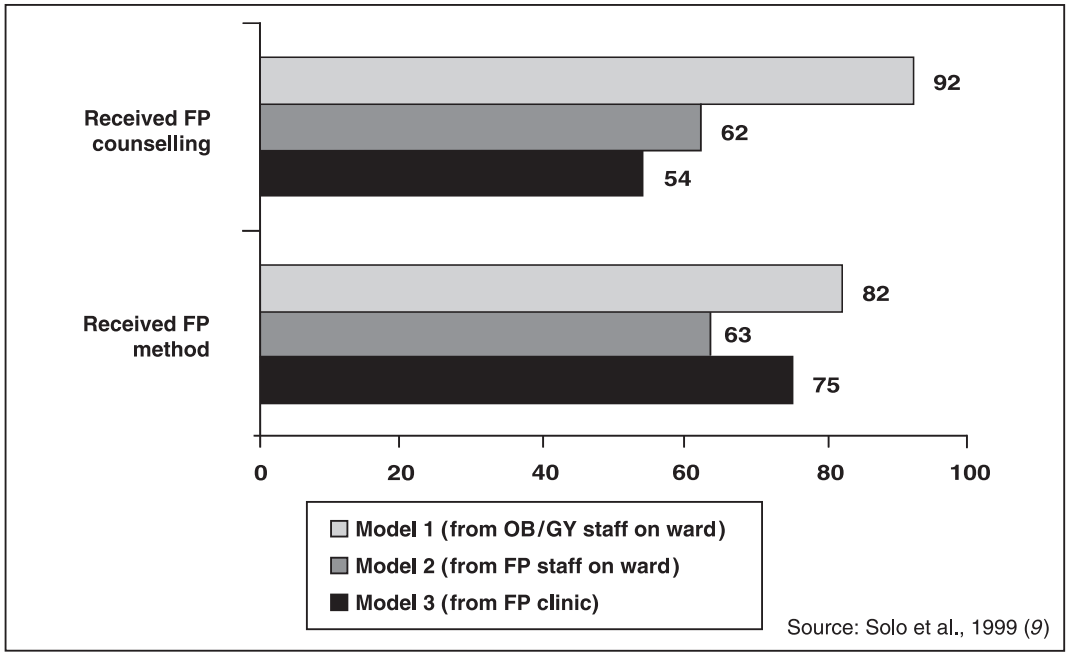
Making comprehensive PAC services available in remote rural areas can save lives and help to protect women's health. Health workers can play an important role by providing basic reproductive health services, including family planning, and by linking women to emergency obstetrical care and other health services.

Make PAC services available at the community level

In many settings, physicians specializing in obstetrics and gynaecology provide emergency treatment for abortion complications, thereby restricting

Figure 7.

Effectiveness of service delivery models: percentage of women receiving family planning counselling and methods, Kenya.

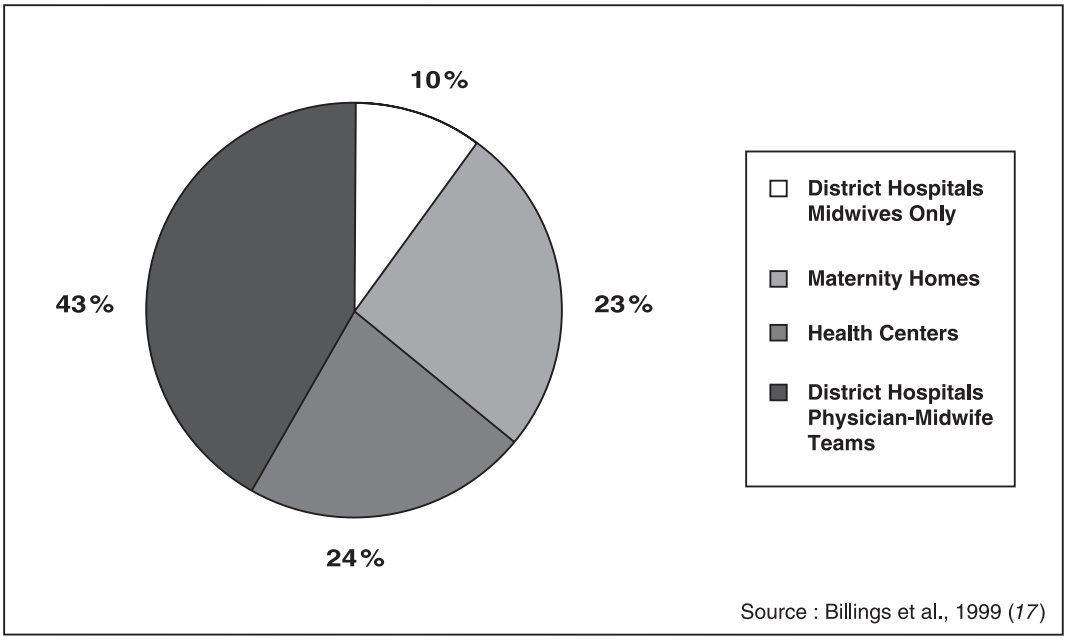


PAC services to hospitals. However, PAC is a simple emergency treatment and if the care protocols are followed, it can be provided in community clinics and health centres by other types of trained providers such as midwives (Figure 8) (*17*).

Train mid-level practitioners to perform MVA

Several studies have shown that postabortion emergency treatment using MVA can be provided in lower-level facilities by mid-level practitioners such as professional nurses and midwives. A 1996 - 1998 study in Ghana, funded by Mother Care/John Snow Inc., found that professional midwives with special training could perform MVA safely in rural health and maternity centres (*17*). Postabortion patients receiving treatment from midwives had shorter waiting times and lower out-of-pocket costs than those treated by physicians in district hospitals. Postabortion patients treated by midwives were more likely to receive family planning counselling and to adopt contraception than other postabortion patients.

Figure 8.
Locations where PAC was provided by midwives using MVA, Ghana.



Improve referral systems for reproductive health services

Prompt referral for obstetrical emergencies, including abortion complications, can save lives. In rural Pakistan, the overall maternal mortality was reduced in a community-based referral programme by training traditional birth attendants to refer women with obstetric complications to medical facilities (*18*). However, many areas lack referral systems, and many women do not know where to obtain emergency care for abortion complications. Two thirds of the women interviewed for a study in Senegal said that they had visited two or more hospitals before receiving treatment, which accounted for a delay of up to five days after the onset of symptoms (*15*). Links between reproductive care centres, emergency clinics, family planning organizations, and community networks can guide women to the most appropriate clinical setting for emergency treatment and other reproductive health services, which include treatment of sexually transmitted infections.

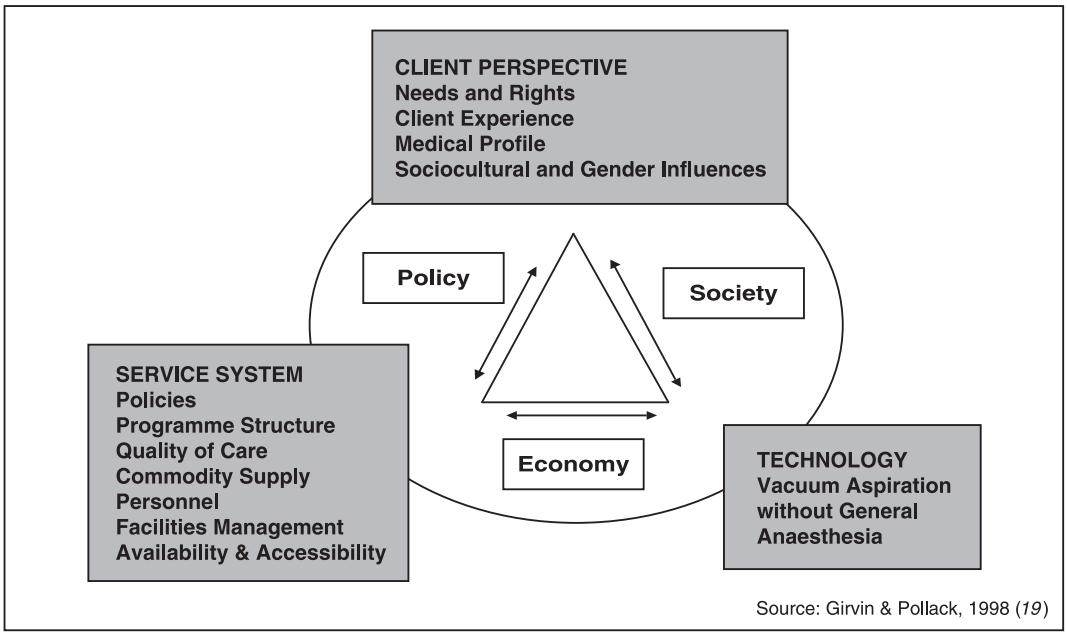
Strategy 4: Plan comprehensive PAC services

The range of elements that must be considered when programmes seek to either decentralize or expand a pilot study go beyond the elements of the quality of care

framework that has guided the conceptualization of PAC services. This is because quality of care is only one aspect of a comprehensive service delivery scheme. The adaptation of the WHO Strategic Approach to contraceptive introduction is a useful model for understanding the PAC programme expansion (*19*). The interactive nature of the three service delivery elements – client perspective, service system, and technology – is a fundamental dynamic of delivering health care services (Figure 9). The interface between the service system and the client includes provider attitudes, a critical aspect of service provision in light of the political, sociocultural and economic environment surrounding postabortion care.

The WHO approach to understanding the development of health care services draws attention to issues surrounding the decentralization of postabortion services. Programmes must distinguish between initiatives that seek to decentralize a technology (e.g. MVA) and those that develop autonomous centres of locally based authority for the delivery of health care services. The ability to create policies on costs, commodity supply, personnel and management systems in support of locally controlled services is an indication of a decentralized programme. Decentralization is most commonly taking place within the context of broader health sector reform in developing countries. PAC programmes need to pay attention to these broader

Figure 9.
Framework for introducing programme improvements in postabortion care.



initiatives within the health care sector as they seek to expand and plan for comprehensive services.

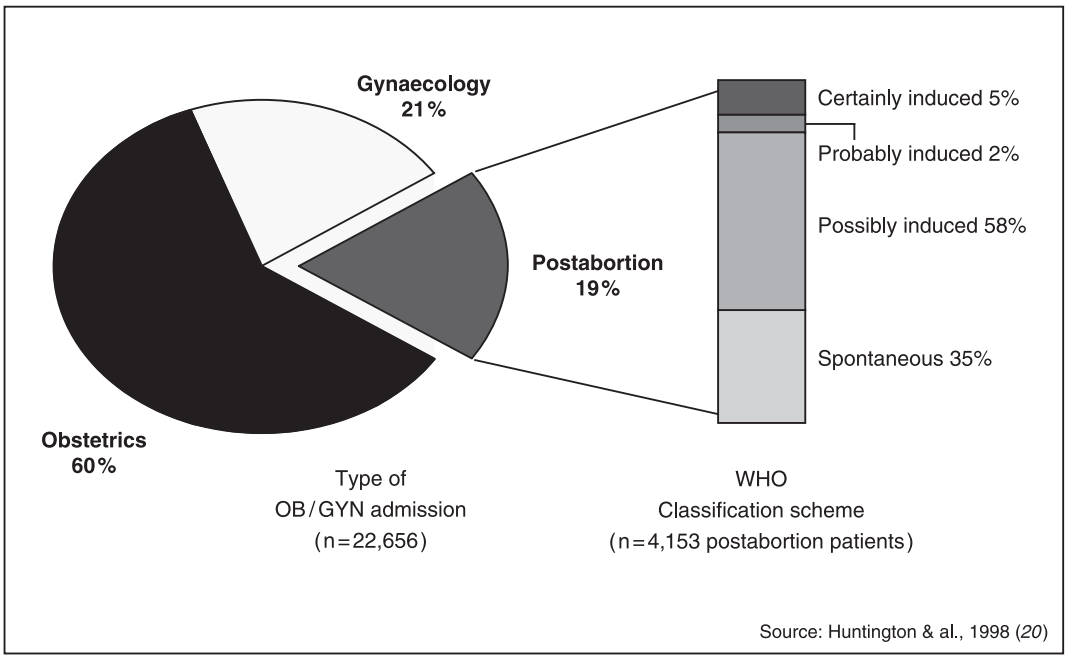
Plan PAC services to improve the quality of care and cut health care costs

Many hospitals consistently provide postabortion care on an unplanned, emergency basis. A study in Egypt showed that one out of every five Obstetric/Gynaecology admissions was for the treatment of complications from an incomplete abortion (*20*) (Figure 10).

Where the rates of postabortion complications are high, poorly planned services constitute a considerable drain on health care resources. For example, in Bolivia, health officials estimate that 60% of the costs of obstetric/gynaecological wards stem from postabortion treatment (*21*).

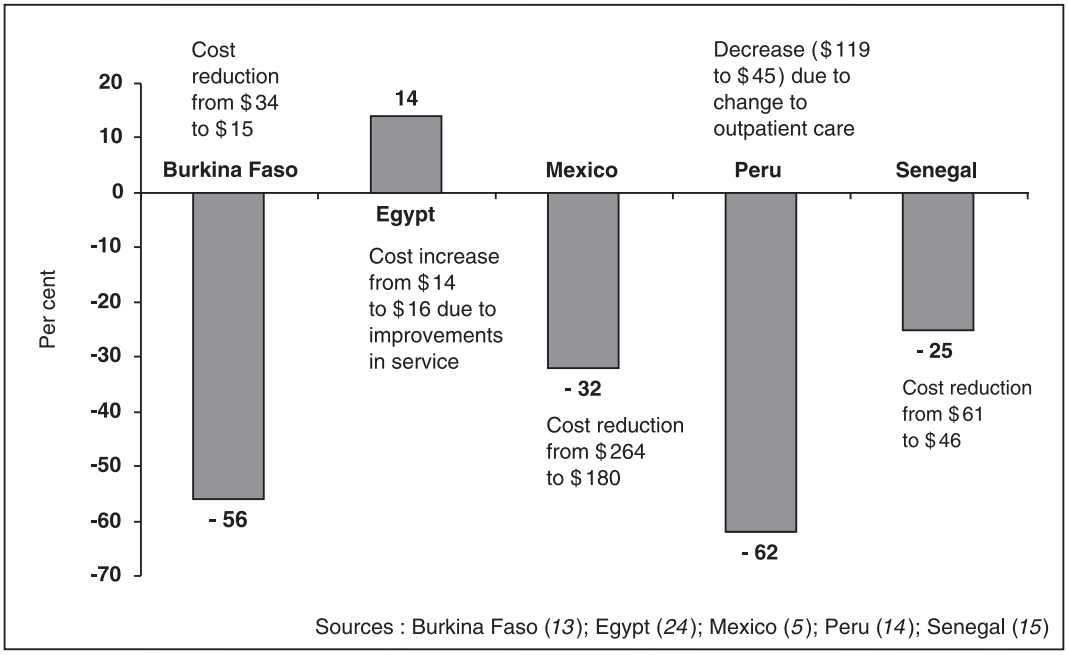
Instituting strategically planned postabortion care can improve treatment while consuming fewer resources. A 1998 overview of 21 studies in six countries showed that strategies to improve postabortion care shortened patient stays by an

Figure 10.
OB/GYN Department admissions during a 30-day study in public-sector hospitals, Egypt.



average of 30% and reduced the treatment costs by 61% (*22*). Studies in Burkina Faso and Senegal also showed that improving the PAC services shortened hospital stays by roughly 50%, thereby reducing hospital costs per patient by 56% and 25%, respectively (Figure 11). However, the cost of adding family planning services (including supplies) was about US$ 3 per patient (*23*).

Figure 11.
Cost of improved PAC services (US$).



Sources : Burkina Faso (*13*); Egypt (*24*); Mexico (*5*); Peru (*14*); Senegal (*15*)

Improving PAC services does not always reduce costs, however. In Egypt, the service reorganization at two hospitals entailed raising standards of patient care, such as introducing procedures for pain control, patient counselling, and aseptic conditions. These improvements led to modest increases in the costs (*24*).

Offer outpatient PAC services

Where it is feasible and appropriate for individual patients, providing postabortion care on an outpatient basis can achieve significant savings. After a hospital in Callao, Peru, shifted to outpatient PAC services, patients stayed six hours on average, compared with 33 hours when only inpatient services were available – an 81% reduction in average patient stay. The savings in shorter

patient stays made up for the increased costs for staffing and supplies – 13% and 44%, respectively. In light of these savings, the hospital cut patients' fees for PAC services by half. The reorganization of services had other benefits, including improved provider-patient relationships and more convenient access to family planning methods (*14*).

Strategy 5: Involve male partners

Inform male partners about PAC treatment and follow-up care

Although men frequently accompany their partners to hospitals for postabortion care, health providers often ignore them and fail to provide even basic information about the woman's condition and postoperative care. Talking with male partners or counselling the couples together, when the woman gives her prior consent, can help men understand how to help their partner recuperate after the procedure, decide on appropriate family planning methods, and ultimately prevent further unplanned pregnancies and repeat abortions. A 1997 study in Egypt found that couples where the husband had been counselled by a physician were more likely to be using or planning to use contraception one month after hospital discharge than couples where the husband had not been counselled (*25*). In Senegal, nearly two thirds (65%) of the PAC patients interviewed said that they would like their husband or partner to be present during family planning counselling. A 1995 study in a Turkish hospital found that almost 98% of couples who received family planning counselling chose a contraceptive method after abortion, and men who had participated in counselling were more likely to opt for vasectomy, compared with those who had no counselling (*26*). Nevertheless, the wishes of women who do not want their partners involved – e.g. 35% of the women in the Senegal study – must also be respected.

Sustaining improvements in postabortion care services

Programme managers need to ensure that improved PAC services continue over time. A study at a hospital in Callao, Peru, identified five critical factors that are likely to affect the continuation of services (*14*).

1. The hospital's willingness to commit funds and staff time to make the necessary improvements and pay for contraceptives and other supplies.
2. Improved physical facilities.

3. Incorporation of PAC in the routine training of obstetrics-gynaecology staff.
4. Hospital staff's support for the improvements.
5. Political support from the Ministry of Health, which helped design the intervention and disseminate its findings to other organizations.

Institutionalizing systematic postabortion care is likely to require the creation of partnerships with safe motherhood programmes and family planning clinics, as well as continued expansion of the range of informed constituencies within medical communities (*27*).

Priority topics for postabortion care research

Although much knowledge has been generated recently, several unexplored or under-explored areas remain. Priority topics for future study include:

- ***Decentralizing services.*** Most operations research studies have taken place in hospitals, typically in urban areas. As services move out of hospitals to health centres and the primary care level, there is increasing need to understand the required inputs to support paramedical personnel who provide postabortion services in outlying areas. In particular, the procedures for maintaining quality services – such as supportive supervision – need to be identified.
- ***Counselling family members and mobilizing social support systems.*** Despite increasing awareness that involving men can help to improve women's reproductive health status, few service delivery programmes have done so. Further exploration of specific strategies to involve partners or other concerned family members is an important direction for gender-sensitive programmes.
- ***Cost-savings resulting from improved PAC services.*** Studies to date have not addressed issues beyond immediate costs for postabortion care. New research is needed on ways to reallocate the resources freed by improved care and on the significance of savings to hospital managers as well as to the woman and her family.
- ***Ensuring the supply of MVA equipment and essential medications.*** The MVA technique has been proven successful and cost-effective in some settings. More work is needed to ensure the local commercial availability of MVA equipment, which is often constrained by local regulations, and to

ensure that health systems have a systematic and uninterrupted supply of MVA instruments and materials for instrument disinfection or sterilization.

- ***Women's perceptions of abortion and unwanted pregnancy.*** An understanding of the interrelationships between the dynamics of contraceptive use (including emergency contraception), unwanted pregnancy, and induced abortion is central to breaking the cycle of repeat abortions. More qualitative research on these issues is needed, particularly studies that suggest programmatic interventions that respond to women's perceptions and needs as well as their social context.
- ***Scaling-up of strategies, dissemination of successful models, and advocacy.*** A great deal of research has been conducted on postabortion care; now it is important to expand dissemination and advocacy efforts to maximize the benefits from the research.
- ***Postabortion follow-up studies.*** There have been only a few long-term follow-up studies of postabortion patients, in part reflecting the difficulty, sensitivity, and ethical complexity of such studies. More work is needed, particularly to document the effects of providing contraceptives in terms of reducing repeat abortions.
- ***Provider barriers.*** Studies are needed to determine which provider attitudes and practices constitute barriers to improved PAC services and postabortion family planning.
- ***Linking PAC to other reproductive health services.*** Research is needed to examine the linkages between treatment of abortion complications and related reproductive health care. In regions with a high prevalence of HIV and other sexually transmitted infections, these linkages are especially critical to the well-being of women who seek PAC.

Conclusions

Basic models for providing high-quality postabortion care have been tested in diverse settings and been found to be successful and cost-effective. When and where these models have been introduced, service providers and programme managers readily appreciate the benefits for improving the quality of care for women with abortion complications. These benefits extend into other areas of reproductive health care and hospital procedures.

Policy-makers play a critical role in ensuring that opinion leaders, medical authorities, legal experts, and the general public understand the need for postabor-

tion services, as well as the importance of making contraceptive information and services widely accessible in order to prevent unwanted pregnancies. Providing comprehensive treatment and counselling to postabortion patients is the first step in saving women's lives, reducing repeated unsafe abortions, helping women to cope with miscarriages, and improving women's overall health.

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Copies of these papers are available at the following address:

Frontiers in Reproductive Health, Population Council, 4301 Connecticut Avenue, N.W. ,Suite 280, Washington, D.C. 20008, USA.

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7

Unsafe abortion in Africa: an overview and recommendations for action

Charlotte E. Hord [1], Janie Benson [1], Jennifer L. Potts [2] & Deborah L. Billings [3]

ABSTRACT

Unsafe abortion is a major public health problem in Africa and is responsible for the deaths and disabilities of thousands of women each year. Low contraceptive use, restrictive abortion laws, limited availability of safe, elective abortion care and postabortion care, and the poor quality of services contribute to the 13% of maternal deaths attributable to abortion complications in the region. Significant social stresses further complicate the issue, including high rates of HIV/AIDS and other sexually transmitted infections, growing numbers of adolescents at risk of unwanted pregnancy and unsafe abortion, large populations of refugees and internally displaced persons, the low social status of women, and high rates of poverty. Four priority areas should be addressed to reduce maternal mortality and morbidity from unsafe abortion. First, while access to services has improved in the last decade, further improvements are needed to increase access to safe induced abortion and postabortion care through decentralization of services, provision of appropriate technologies for uterine evacuation, involvement of the private health sector, con-

[1] Ipas, 300 Market Street, Suite 200, Chapel Hill, NC 27516, USA.

[2] Planned Parenthood Federation of America-International, PPFA-I, 434 West 33rd Street, 10th floor, New York, NY 10001, USA (was with Ipas at the time of the consultation).

[3] Ipas Mexico, Pachuca 92, Col. Condesa, Mexico, DF 06140, Mexico.

trol of the costs of care, and full implementation of existing abortion laws and policies. Second, poor quality care is widespread so that services could benefit from training in pain management, infection prevention, postabortion family planning counselling and services, information and referral for other reproductive health care, provider communication with abortion clients, and the increased availability of supplies and equipment. The special needs of adolescent girls are a third priority area. A final priority is reform of abortion laws and policies that restrict abortion care, including decriminalization of laws penalizing abortion providers and women who seek abortion. The review concludes with recommendations and resources for research, policy, training, service delivery, and community outreach to prevent and treat the devastating consequences of unsafe abortion.

Overview of unsafe abortion in Africa

Each year, more than 4.2 million African women undergo unsafe abortion, and an estimated 38 000 of them die from the experience (*1*). These women represent over 50% of all women globally who die from abortion-related causes (*1*). Thousands of other women survive the intervention but experience short- and long-term morbidity, including uterine perforation, chronic pelvic pain, and secondary infertility. In addition, many women suffer stigma and isolation imposed by their families and communities.

With a few exceptions, the abortion laws in African countries are based on very restrictive 19th-century European penal codes, permitting legal abortion for only a few, narrowly defined indications (*2,3*). The legal status of abortion in Africa ranges from highly restrictive (permitted only to save a woman's life) to freely available upon request. Abortion is permitted by law to save the life of the woman in all African countries. Some countries will also allow abortion to protect the woman's physical health or in cases of rape or incest. Six countries (Botswana, Gambia, Ghana, Liberia, Namibia and Sierra Leone) allow abortion on the broader grounds of protecting mental health. In Zambia, abortion is also allowed on socioeconomic grounds but only Cape Verde, South Africa and Tunisia permit first trimester abortion upon request and without restrictions (*3,4*).

With the exception of Cape Verde, South Africa and Tunisia, the dissonance between policy and practice is such that induced abortions are rarely legally performed in Africa and the vast majority of abortions are clandestine, illegal, and generally, but not always, unsafe. In Africa, unsafe abortion is a health and human rights issue of enormous proportion. In this paper we present an overview of the

current situation of unsafe abortion in Africa, followed by recommendations for action that focus on rights-based solutions.

Africa has the highest maternal mortality ratio in the world – 1000 deaths per 100 000 live births – and approximately 13% of these deaths are attributable to abortion complications (*1,5*). The risk of death from an unsafe abortion in Africa is the highest of all the world's regions, with a case fatality rate (i.e. deaths per 100 unsafe abortion procedures) of 0.7% (*1*).

Maternal deaths and illnesses have an enormous impact on African society. UNICEF reports that motherless children are 3 to 10 times more likely to die within two years of their mothers' deaths than children who live with both parents (*6*). Furthermore, the impact of unsafe abortion on already beleaguered health systems is substantial. Studies in several African countries document that women suffering from abortion complications represent large proportions of obstetric-gynaecology admissions to hospitals (*7,8,9*). For example, in a major hospital in Nigeria, 76.7% of all emergency gynaecological admissions were for abortion complications (*9*). Nineteen per cent of all obstetric-gynaecology admissions in 569 public hospitals in Egypt were for treatment of complications of induced or spontaneous abortion (*8*). Care for these patients consumes a large percentage of beds, blood, medicines, and personnel – all limited resources in Africa, which has experienced an overall decline in its public health infrastructure during the last decade of debt restructuring and shrinking public health funds.

Unsafe abortion can be prevented through improved access to contraception, sexuality education, the provision of safe and elective abortion, and increased autonomy for women to make their own decisions about their reproduction. Complications from unsafe abortion can be treated by increasing the availability of high quality postabortion care (PAC) (see Box). Few countries in Africa offer this complete package of preventive and curative services, reflecting a combination of little or no political will in this area, restrictive attitudes towards abortion, poor infrastructure, inadequate community mobilization, and insufficient funding to implement, continue or expand abortion-related services. These conspire to create a number of challenges for women.

First, most African women have no legal way to terminate an unintended pregnancy, as few countries have health system guidelines for when and how to provide legal abortion, and services are rarely made available in public-sector health facilities. Consequently, many unintended pregnancies end in unsafe abortion. Women may induce abortion themselves, sometimes in collusion with

What is postabortion care?

Postabortion care consists of:

- **Community and service provider partnerships** for prevention (of unwanted pregnancies and unsafe abortion), mobilization of resources (to help women receive appropriate and timely care for complications from abortion), and ensuring that health services reflect and meet community expectations and needs.
- **Counselling** to identify and respond to women's emotional and physical health needs and other concerns.
- **Treatment** of incomplete and unsafe abortion and complications that are potentially life-threatening.
- **Contraceptive and family planning services** to help women prevent an unwanted pregnancy or practice birth spacing; and
- **Reproductive and other health services** that are preferably provided on-site or via referrals to other accessible facilities in providers' networks.

Source: Postabortion Care Consortium Community Task Force, 2002 (*10*)

a pharmacist or herbalist, or turn to clandestine, unskilled practitioners in unhygienic settings who use techniques likely to cause haemorrhage, infection or other harm to their health (*11,12,13,14*). Adolescents are particularly vulnerable, lacking basic knowledge of reproduction and often forced through violence or economic necessity into having unwanted and unprotected sex. Recent WHO estimates show that young women between the ages of 15–19 account for 26% of all unsafe abortions in the region (*15*).

Second, when a woman has obstetric complications, keys to her survival include the time it takes before she seeks care, and the time it takes for her to receive adequate emergency treatment. African women are often not the decision-makers about their own health care needs, relying instead on decisions made for them by their partners or mothers-in-law. To compound the problem, when an African woman miscarries or suffers potentially life-threatening complications from unsafe abortion, she rarely has access to prompt treatment. Historically, public health systems in Africa have neglected postabortion care and failed to ensure widespread availability or services of adequate quality. A typical example is Senegal, where more than two thirds of the

women interviewed for a study had visited two or more hospitals before receiving treatment, causing a delay of up to five days after the onset of symptoms (*16*). A Kenyan study also found that women with abortion complications may seek services in multiple locations before finally receiving care (*17*).

Third, the stigma frequently associated with abortion has prevented many practitioners, communities and donors from developing a compassionate and appropriate response to unsafe abortion. On an individual level, this stigma negatively affects interactions between health care providers and women with abortion-related needs. At the policy level, the stigma also influences the resources available to address this problem, causing leaders to be fearful of using government funds to address the issue or being denied the ability to apply external donor funds to abortion-related services.

Other obstacles have impeded policy and programmatic efforts to address unsafe abortion. Frequent changes in leadership of Ministries of Health, competing public health priorities, financial crises, bureaucratic indecision, pressure from internal constituencies opposed to abortion, and shifting requirements of international donors have all contributed to the continued isolation of abortion care in Africa.

Laying the groundwork for change

A 1995 review of published and unpublished literature from 1980 to 1994 in sub-Saharan Africa documented the gravity of unsafe abortion in the region (*18*). Findings from this review and other calls for action at regional and global levels over the past decade have spurred efforts in Africa to address improvements in PAC. Increasing attention is also being paid to the need for safe elective abortion (*19*). The most significant legal change in recent years took place in South Africa. Restrictions on abortion in South Africa were removed by the 1996 South African Choice on Termination of Pregnancy Act, which permits abortion at the woman's request through the first 12 weeks of gestation and with certain restrictions after this point (*20,21,22,23*). Other African countries are also considering changes in the legal status of abortion to improve the health of women. In Kenya, a public debate about liberalization of the Kenyan abortion law is currently ongoing, led by NGOs such as the Kenyan Medical Association and the national chapter of the International Federation of Women Lawyers with support from a number of policymakers and legislators. In Ethiopia, the Parliament is finalizing proposed changes to the Penal Code that would add additional indications for legal abortion. Community meetings have been held throughout the country to provide inputs into those deliberations. Government representatives or

NGOs are actively discussing legal reform in a number of other countries, including Cameroon, Mauritius, Namibia, Nigeria, and Uganda.

Projects to implement PAC have been conducted in selected hospitals in several countries in Africa. Operations research testing a PAC training intervention at two large hospitals in Burkina Faso led to reduced hospital stays, decreased patient costs for care, and improved family planning counselling and contraceptive acceptance (*24*). Standards developed during the study have been adopted by the Ministry of Health for expansion to regional facilities. Research in six Kenyan hospitals demonstrating the effectiveness of linking treatment of abortion complications with family planning counselling and services led the national Ministry of Health to incorporate the model into their PAC expansion for district hospitals (*25*). A study in Zimbabwe demonstrated that providing postabortion family planning counselling and services to PAC patients prior to discharge from the health care facility led to increased contraceptive use, fewer unplanned pregnancies, and fewer repeat abortions up to 12 months later (*26*). National scale-up efforts in Ethiopia and Nigeria are achieving widespread access to PAC for women in several regions of those countries.

Given the scarcity of physicians in many rural areas in African countries, some studies have investigated the feasibility of training midwives and nurses to provide PAC. Operations research in Ghana documented the feasibility and acceptability of PAC provided by trained midwives which led to implementation of a national PAC programme that links primary and secondary-level facilities in both the private and public sectors (*27,28*). A pilot project to train 24 Ugandan midwives in PAC increased access to services and resulted in treatment of more than 400 women at primary health centres and regional and district hospitals over a 9-month period (*28,29*).

Complex challenges of the region

While many strategies for improving the situation are well known, significant social stresses affecting Africa further complicate the problem of unsafe abortion. Decisions about next steps for abortion-related services, research, policy reform, and community mobilization must take into account the complex social, economic, political and public health challenges of the region.

HIV/AIDS and other sexually transmitted infections

A range of prevention and treatment programmes, including sexuality and reproductive health and rights education programmes and anti-retroviral and other

drug therapies among other approaches, should be expanded to address the ever-increasing rates of sexually transmitted infections in Africa. Sub-Saharan Africa is home to over 70% of the 42 million adults and children worldwide living with HIV/AIDS, and 3.5 million adults and children were newly infected in 2002 (*30*). Young women are at particular risk of acquiring HIV. In 2001, an estimated 6% to 11% of young women aged 15 – 24 were living with HIV/AIDS, compared to 3% to 6% of young men (*30*). In 11 population-based studies conducted in several African nations, the average infection rates for teenage girls were more than five times higher than among teenage boys (*31*). The vulnerability of young women is due to a combination of their immature genital tracts, older male sexual partners, prevalence of sexual violence, and low social status – among other factors (*31*). Young women at risk of HIV are also likely to be at high risk of unwanted pregnancy and unsafe abortion. The HIV pandemic has also had a devastating impact on already stretched public health systems in Africa. Scarce health resources are being used to treat patients with HIV – up to 66% of public health expenditures in Rwanda and more than one-quarter in Zimbabwe – leaving little for other needs, such as postabortion care (*31*).

Low contraceptive use

In Africa, women use contraceptives at a much lower rate than women in other areas of the world. In sub-Saharan Africa, for example, the modern contraceptive prevalence rate for married women is only 14% (*5*). Low contraceptive use does not mean that contraceptives are unwanted: 27% of sub-Saharan African women in a union reported an unmet need for contraception (*32*). An analysis published in 2000 indicates that, in contrast to other regions, the unmet need for contraception to limit births is increasing in sub-Saharan Africa (*33*). Low contraceptive use does mean, however, that more African women are at risk of unwanted pregnancy and unsafe abortion.

Growing numbers of adolescents

An estimated 43% of the population of Africa is under age 15 (*34*). Because this largest generation of African adolescents is now reaching child-bearing age with little access to family planning and abortion care, African girls are at high risk of early, unsafe sexual activity, unwanted pregnancy, unsafe induced abortion, early childbearing, and HIV infection (*35,36*). Data from hospitals across Africa reveal that young women constitute up to one-third of patients treated for abortion complications, and up to one-half of those with the most severe complications (*18,35,37*). Individual country studies show an even greater burden borne by adolescent girls. In

Nigeria, for example, adolescents account for 80% of all women treated for abortion complications in hospitals (*38*). Adolescents also account for a disproportionately high number of abortion-related deaths. In a Ugandan study, almost 60% of abortion-related deaths occurred among women under age 20 (*39*). A Nigerian study found that abortion complications were the most common cause of death among unmarried women aged 15 – 24 (*40*). A community-based study in western Zambia estimated that 1-in 100 schoolgirls dies from abortion-related complications each year (*41*).

Armed conflict and refugees

Africa has experienced a marked growth in populations of refugees and internally displaced persons. Of the 30 to 50 million refugees worldwide, more than 6 million are in Africa (*42*). Women refugees lack access to reproductive health care during their flight from volatile areas, and refugee camps often fail to prioritize these services, reflecting the historical lack of priority for reproductive health care in relief settings. Refugee women are at particularly high risk of sexual violence and, resulting from this, unwanted pregnancy and unsafe abortion (*43,44*). UNFPA estimates that 25% to 50% of maternal deaths in refugee situations are due to abortion complications (*45*).

Gender inequality and the social status of women

Continued gender inequality throughout Africa, particularly in more rural and traditional communities, has a significant effect on prevention of unwanted pregnancy and women's access to abortion-related care. Women's partners, spouses or other family members may discourage them from using contraception. In many communities, women cannot seek medical treatment without the permission of their husbands, mothers-in-law, or other family members, even when they may be experiencing severe complications. This practice often delays the woman's access to care and can lead to serious complications or death. Furthermore, women's limited economic resources also contribute to delays in seeking services.

Poverty and the debt burden

The average per-capita income in sub-Saharan Africa is US$ 1370, the lowest of any region in the world (*5*), and external debt owed by African nations consumes a staggering proportion of national incomes. Few resources remain to improve health and other social services, and the result has been a steady deterioration of the public health system throughout the region over the last decade. Shrinking health funds make it even more difficult for planners to address complications resulting from unsafe abortion and the provision of contraceptives to prevent unwanted pregnancies. Thus, it

is imperative to implement low-cost public health approaches to preventing unwanted pregnancies, with a focus on providing affordable and accessible contraception and abortion care to poor women, who suffer disproportionately from unsafe abortion.

Priority areas for action

Within the current African context, efforts and funds dedicated to reducing maternal deaths and improving women's health should target four priority areas: improving access to legal induced abortion and postabortion care, improving the quality of abortion-related care, addressing adolescent needs for sexual and reproductive health with a focus on abortion care, and reforming legal and policy restrictions on abortion care.

Improving access to legal induced abortion and postabortion care

Compared to the early 1990s, access to abortion-related care in Africa has improved dramatically. Hospital-based postabortion and abortion care training and service delivery programmes have been introduced to varying degrees in Botswana, Burkina Faso, Cameroon, Egypt, Ethiopia, Ghana, Kenya, Malawi, Mozambique, Nigeria, Senegal, South Africa, Sudan, Tanzania, Uganda, Zambia, and Zimbabwe, and national expansion efforts are underway to mainstream PAC throughout the health system in a number of these countries (*46*). Pilot programmes to train and equip mid-level providers working at less centralized levels of the health system are reaching women who have never before had local access to PAC. The private sector is taking on an increasing role in filling the gap left by deteriorating national health systems.

Despite this significant improvement in just a decade, women throughout Africa continue to have limited access to safe abortion-related care. This section reviews the major strategies for improving the situation.

Provide appropriate technology

Given the highly rural nature of most African countries, the growth of marginal communities outside of major cities, and the inaccessibility of hospital-based services, uterine evacuation techniques that do not require general anaesthesia or a hospital setting, such as manual vacuum aspiration (MVA) and medical abortion, are more appropriate for the region than dilatation and curettage (D&C) which is still widely used (*18*). The World Health Organization (WHO) considers vacuum aspiration to be the preferred surgical method for abortion and recommends that D&C should be used only where neither vacuum aspiration nor medical methods are

available (*47*). Widespread adoption of these methods would also allow services to be decentralized. Although many countries have integrated MVA into the services offered at major teaching hospitals and occasionally at district or secondary-level hospitals, it is still rarely available at lower-level health clinics, which are often the closest facility to the women in need. Studies in South Africa, Uganda and Zambia provide well-documented examples of these practices in the region (*48,49,50*).

Medical abortion may hold promise in the region both for elective procedures and for treatment of incomplete abortion and is currently being used or explored in a number of countries, including Kenya, Mozambique, Namibia, South Africa, and Tunisia. Studies indicate that medical abortion can be administered safely in low-resource settings where multiple visits and monitoring by health personnel are not feasible (*51,52,53*). Medical abortion may pose great opportunities for expanded access to safe abortion throughout Africa, and its potential in the region should be studied.

Improve proximity of services

Decentralizing postabortion care is an important strategy to alleviate life-threatening delays in obtaining care. A majority of African women live in rural areas, but in most countries induced abortion and postabortion care are offered almost exclusively in urban hospitals, which are out of reach even for many urban residents. The lack of transportation in many parts of Africa exacerbates this situation. Often, there is simply no way for an African woman to travel to an abortion care provider; in other situations, such a trip would take several days or be cost-prohibitive.

Centralized abortion-care services rely on physicians as providers, most of whom practice in urban settings. Abortion-related services can be decentralized by training and authorizing the staff in both the public and private sectors, who work at primary and secondary level health facilities, to offer this care; these staff are primarily midwives, clinical officers, and other mid-level providers (see Box) (*47,54,55*). Research, training, and service delivery interventions in Ghana, Kenya, Mozambique, South Africa, and Uganda have laid the groundwork for national policies and programmes that can extend abortion-related care to primary and secondary level health clinics and hospitals (*21,27,28,29,56,57*). Safe services to treat incomplete abortion or provide first trimester abortion now exist at the primary level of care in a number of places in these countries.

Involve the private sector

Access to abortion services is increasingly being provided by the private sector. Nongovernmental organizations (NGOs), such as Marie Stopes International and the Kisumu Medical Education Trust (KMET), have opened reproductive health clinics that serve as alternatives to public health facilities and provide abortion-related training and services. NGO networks, such as the Christian Hospital Association of Nigeria (CHAN) and similar mission hospital networks in Ethiopia and Zambia are integrating postabortion care and the diagnosis and treatment of STI (sexually transmitted infections) into their work and improving access for many rural and poor women. The potential impact of private sector involvement is very positive. For example, CHAN serves 40% of Nigeria's population in over 300 health institutions and 3 000 outreach facilities, including those in rural areas and urban slums (*58*).

Address the reproductive health needs of displaced women

Access to appropriate reproductive health services, including safe abortion care, is particularly challenging for the millions of displaced and refugee women throughout the continent. It is still rare to find postabortion care or safe abortion services in refugee camp hospitals or health clinics, and governmental health facilities that serve as referral sites for refugee camps often do not have trained providers or equipment for abortion-related care. Given the high incidence of sexual violence in areas of armed conflict and within refugee camps, unwanted pregnancies and unsafe abortions are frequent, and the lack of services is alarming (*59*).

Who are mid-level providers?

Mid-level provider refers to a range of non-physician clinicians whose training and responsibilities differ among countries but who are trained to provide basic, clinical procedures related to reproductive health, and who can be trained to provide an early abortion or postabortion care. Midlevel providers can include:

- Midwives
- Nurses
- Clinical officers
- Physicians assistants
- Family welfare visitors

Source: *WHO, 2003 (47)*

Refugee-assistance experts are increasingly aware of the need for reproductive health services in camp settings and are working to rectify this problem. In the area of provision of safe elective abortion, however, the humanitarian assistance community has faced resistance. Because of extreme opposition to abortion by a few working group members, the interagency guidelines published by the United Nations High Commissioner for Refugees (UNHCR) recommend emergency contraception (EC) as the primary medical response for women who are raped, failing to acknowledge that many women will be unable to obtain EC within the 72-hour effectiveness window and that some rapes will result in unwanted pregnancies. The more comprehensive and responsible approach is to offer both EC and safe induced abortion in all situations permitted by law. Of 38 African countries hosting at least one million refugees in 2001, nine permit abortion to protect the woman's mental or physical health, after rape, or for broader indications (*44,60,61*).

Control the cost of care

The costs of treating incomplete abortion in developing countries are staggering – in some countries as many as two out of three maternity beds in large urban public hospitals are occupied by women hospitalized for treatment of abortion complications, and as much as one-half of obstetric care budgets are spent dealing with this problem (*12*). One study indicated that illegal abortions prior to liberalization in South Africa cost the health system 9.74 million rand (the equivalent of US$1.4 million in the year 2000) (*62*).

The cost of abortion-related care typically decreases when services are offered in more decentralized or outpatient settings. A hospital-based study in Kenya, conducted in the early 1990s, demonstrated that shifting postabortion care from an inpatient setting using sharp curettage to an outpatient setting with MVA contributed to a 66% decrease in treatment costs (*63*). In Ghana, decentralizing PAC services to a range of lower-level settings (private maternity homes, health centres, and district hospitals) resulted in women paying less in transportation and in general overall care (*56*). A study conducted in South Africa in 1997 estimated that the cost of uncomplicated first-trimester abortion, when performed by a doctor at the tertiary level, was 133% higher than when the same procedure was performed at the primary level (*64*).

Fully implement the laws and policies

Although abortion laws throughout Africa remain very restrictive, every country in the region permits abortion at least to save the pregnant woman's life and

often for more liberal indications. Nevertheless, public-sector facilities rarely offer legal abortion as an option. Many providers and most women are unfamiliar with the specifics of their country's abortion law and tend to believe that abortion is completely illegal. For example, a community study in Zambia (which permits abortion on socioeconomic grounds) found that fewer than one third of women interviewed knew they had a right to a legal abortion in a hospital (*41*). An equally important problem in most countries is the systemic lack of protocols outlining the provision of legal abortion within most public health systems, a lack of coordination with other relevant sectors (e.g. the police and judiciary) to facilitate the process of obtaining legal abortion, and a lack of enforcement of the law. In Ghana, for example, the law permits registered physicians to provide abortion in a number of circumstances, including rape, incest, or risk to the physical or mental health of the pregnant woman. In practice, however, access to safe abortion is still limited. Although the Ministry of Health has produced an excellent set of reproductive health guidelines that include postabortion care, they do not address legal abortion (*65*). The general perception among the Ghanaian public is that abortion is illegal in all circumstances. As a consequence, women rarely request abortion in public health facilities, and abortion continues to be offered clandestinely, and often expensively (*66*).

In much of Africa, the stigma attached to abortion is a primary reason health professionals are unwilling to provide abortion openly, and increasingly providers – and sometimes entire hospitals or health centres – exempt themselves from involvement in abortion-related care because of "conscientious objection". According to accepted legal principles, institutions and clinics, even when established by religious agencies, cannot invoke conscientious objection. A public hospital cannot endanger patients' lives or health by refusing an indicated service; hospital management must either ensure that adequate staff are available to provide the indicated services, or must have a standing arrangement for referral to alternative facilities (*99*).

To address this discomfort with abortion, "values clarification" workshops have been conducted for health workers to allow them to explore the wider social implications of unsafe abortion and examine the result of their judgemental attitudes (*68*). Despite its positive results, the values clarification approach has been criticized by some as being inadequate to sustain attitudinal changes over time and not providing the needed support for health care workers (*69*).

Rectify the lack of community involvement

Most adults and many young people in Africa probably have direct knowledge of the consequences of unsafe abortion. A recent community-based study conducted in western Zambia found that 69% of women reported knowing one or more women who had died after an induced abortion (*41*). However, the silence and shame that surrounds the issue keeps it invisible. Keeping abortion issues "hidden" at a community level creates an additional barrier to care, as women and their families often do not know when to seek care for abortion complications or where to find a skilled provider. As highlighted in a community study in Zimbabwe, addressing unwanted pregnancy and unsafe abortion requires community education, dialogue and mobilization to sensitize individuals about the problem, organize prompt treatment of complications, and involve groups in developing local solutions (*70*).

Improving the quality of abortion-related care

Among Africa's institutions offering abortion-related services, poor quality care is widespread (*25,27,71*). This section analyses quality of care issues important to abortion-related services in Africa, drawing on a framework that focuses on key aspects of clinical care, service delivery organization, postabortion family planning, other reproductive health care, and information and counselling (*72*). Additionally, we note the importance of community-level action to foster understanding of women's needs and rights to critical care (*14*).

Quality in clinical services can be measured in many ways. Several elements are particularly critical for the delivery of high-quality abortion care: the technology used for uterine evacuation, pain-management practices, infection-prevention practices, availability of clinical supplies and equipment, availability of good postabortion care counselling and contraceptive services to prevent future unwanted pregnancies, and service monitoring and evaluation.

Technology

As described previously, vacuum aspiration has been shown to be safer than and as effective as sharp curettage for management of incomplete abortion and elective abortion up to 12 weeks uterine size and is the preferred surgical method for abortion at this stage (*47,73*). Medical abortion is a safe and effective method for early termination of pregnancy (*47*) and should be introduced more broadly in Africa.

For abortions over 12 weeks, both surgical and medical abortion can be safe and effective if trained staff and appropriate equipment are available (*47*). The standard practice throughout Africa for abortion after 12 weeks remains induction of labour (*13*). Training providers with experience in dilation and evacuation (D&E) may expand the pool of skilled providers and offer women more options for safe, effective services should they be needed later in pregnancy.

Pain management

Pain management is often a neglected aspect of care in both elective abortion and postabortion treatment. Instances of providers denying pain medication to women with abortion complications as a means of punishment have been documented in Kenya, and anecdotal evidence shows that the practice is common throughout the region (*74*). Shortages of pain medication in health care facilities also contribute to inadequate pain management measures. On the other hand, overuse of pain medications is a remnant of outdated protocols for sharp curettage. These protocols recommend the use of general anaesthesia or heavy sedation administered by an anaesthesiologist, use of which keeps providers from building skills to reassure patients, adds expense to the procedure, and can delay care. The development of up-to-date pain management protocols, along with pain control individualized to women's needs before, during and after the uterine evacuation procedure, is needed to address these issues.

Infection prevention

Infection prevention (IP) is particularly important in African health care settings because of the high prevalence of HIV and other infectious diseases but can be handled with universal precautions and appropriate instrument disinfection. Numerous training and reference documents have included detailed information about handling infected instruments and waste (*47,75,76*). In Zambia, evaluators reported that IP procedures varied greatly from facility to facility and were carried out appropriately only at the central teaching hospital (*49*). Improving IP practices will require particular attention as abortion-related services are expanded to less centralized levels of the health care system.

Clinical supplies

Supplies and equipment for first-trimester elective abortion and PAC should be routinely available at hospitals and health centres; sites at the appropriate level should be equipped for PAC and elective abortion after 12 weeks. However, finan-

cial stresses, disrupted logistical chains, and other obstacles have left many African health care facilities without even the most basic supplies of drugs, gloves, gauze, and bleach for disinfection. As health systems attempt to introduce PAC services at the primary level, system-wide shortages become even more problematic.

Governments can facilitate access to the necessary supplies by approving and including emergency contraceptives in the contraceptive supply chain; streamlining import regulations; approving cervical ripening agents and drugs used for medical abortion and adding them, along with MVA instruments, to standard health system supply lists; and standardizing the use of MVA instruments at all levels of the health system.

Postabortion family planning counselling and services

Research from Zimbabwe shows that many women treated for incomplete abortion had been carrying an unplanned pregnancy (*26*). Throughout Africa, women commonly leave health care facilities after postabortion care without being offered information and contraceptive methods that can help them prevent a future unwanted pregnancy and repeated unsafe abortion. For those women who have lost a wanted pregnancy, information about the timing of a repeat pregnancy and assessment for infertility is essential but rarely offered. These gaps are caused by the physical separation between emergency obstetric and family planning services, a lack of staff trained in postabortion family planning, and shortages of contraceptive methods on gynaecological units (*77*). Many recent studies conducted in Africa have demonstrated that integrating contraceptive counselling and services with treatment of abortion complications is an effective approach, resulting in increased provision of information to patients and acceptance of contraception, and is acceptable to providers and patients (*8,16,24,25,26,27*).

There is less documentation about family planning services in elective abortion settings in Africa, but an evaluation of abortion services in South Africa found that although contraceptive services were provided, serious gaps remained, such as inadequate assessment of clients' desires for a future pregnancy and provision of a limited range of contraceptive methods (*21,57*).

Other reproductive health care

Many issues that affect an African woman's health are related to reproduction or sexuality, including HIV and STIs, unsafe abortion, childbirth and pregnancy-related problems, abusive relationships, and sexual violence. When a woman seeks emer-

HIV education and postabortion care

HIV management and prevention is a logical component of the postabortion care model because:

- Emergency treatment of abortion complications may be a woman's only contact with the health system.
- Postabortion clients are sexually active and may not be practising safe sex.
- Postabortion clients are at high risk for contracting HIV.
- Postabortion clients may have HIV and not know it.

Source: Baird et al., 1999 *(58)*

gency postabortion treatment or an elective abortion, therefore, health care providers should make use of the contact to address other reproductive health concerns. Yet few practitioners offer the information and referrals that can make an overall difference in the woman's future health. A lack of information about HIV is particularly troublesome because women who have had an abortion are at obvious risk of having unprotected sex and may unknowingly be HIV-positive. Failure to counsel women (and their partners, where possible) about safe sexual practices and provide them with condoms represents the loss of an opportunity to provide life-saving information and services. In South Africa, where almost 20% of adults aged 15 – 49 are HIV-positive, a small study found that just over one half of elective abortion clients were given information about HIV and STIs (*21,31*). Health care providers must avoid pressuring women living with HIV (WHA) either to bear children or to terminate their pregnancies. Advocacy efforts often neglect the right of WHA to have access to safe abortion. The strategy of preventing unwanted pregnancy among WHA has focused almost entirely on urging them to use contraceptives, despite knowledge that many WHA have little control over whether they become pregnant or not (*79*). The WHO Making Pregnancy Safer Initiative states that: "access to safe abortion (where this is legal) and counseling to ensure informed decision making and consent by the woman, should be part of the services" (*80*).

Information and counselling

Provider attitudes are often punitive towards abortion patients, even when women have experienced the loss of a wanted pregnancy. As one provider in Kenya

described it, "The patients are generally handled as criminals or sinners…" (*74*). Judgemental providers may subject abortion patients to long waits, abusive language, improper pain management, higher fees, and lack of privacy (*13,49,78,81*). In one study in Kenya, for example, when women with abortion complications finally arrived at a hospital, they typically waited a day – and sometimes several days – for treatment. The majority of these women reported that the evacuation procedure caused extreme pain, yet they were not given medication or verbal assurance to ease the pain (*81*).

Few providers receive training in communication and counselling skills that would enable them to improve this aspect of care. Well-trained counsellors ask women more questions about themselves, listen more attentively, and give them more complete information (*82,83*). Failing to provide women with information about their diagnosis, treatment and prognosis, post-procedure care, and the immediate return of fertility may increase their anxiety as well as the risk of subsequent complications, and decreases overall patient/client satisfaction.

Studies have shown that male involvement can play a very important role in postabortion care. In Egypt, some women who had had an abortion found their

What is good counselling?

Good counselling is a discussion between a provider and a client that helps each woman apply information to her own circumstances, make her own decisions based on her needs and wants, and act on these decisions.

Good counsellors:

- Acknowledge what the woman has said.
- Encourage her to speak and to ask questions.
- Respond directly and honestly to her questions and to the information she provides about her personal situation.
- Use nonverbal cues that show attention, such as leaning forward and facing the client with eye contact and smiling.
- Establish trust with the woman.

Source: *Salter et al. 1997 (78)*

health being compromised by returning too early to manual labour after the procedure and others faced social pressures to conceive again within a short period of time. An intervention that included counselling the husbands of postabortion patients, with the women's permission, improved men's subsequent assistance with household tasks, emotional support and support for contraceptive use (*84*). Research in Ethiopia has shown that including husbands in family planning counselling improves contraceptive use (*85*). However, African practitioners mostly do not involve a woman's partner in the treatment and the counselling process.

Monitoring and evaluation

In Africa, the reporting of abortion cases, complications, and deaths is generally poor. When a maternal death from abortion occurs in the public health care system, paperwork is often filled out incompletely, other causes such as haemorrhage or infection are cited instead of abortion, or the death is ignored completely. Abortion-related maternal deaths that occur outside of health facilities are unlikely to be reported at all. Poor reporting makes it difficult for health care planners and policy-makers to have an accurate sense of the magnitude of unsafe abortion in their countries, keeps abortion a clandestine procedure that is not subject to other regulatory requirements, and limits the health administrators' ability to enforce standards of care.

Monitoring and evaluation of abortion-related services are also poor. At the health facility level, medical reviews of maternal mortalities or morbidities, especially those due to abortion, are rarely routine. In general, supervisory systems are weak, data are collected at sites solely for sending to higher levels of the system, and information is rarely used for decision-making at the facility or other levels.

Addressing adolescent needs

One reason young women and girls suffer so disproportionately from unsafe abortion is that they are less likely to seek and receive appropriate care. Adolescents differ from adults in their care-seeking behaviour and are more likely to delay seeking abortion, often waiting until the second trimester of pregnancy when the procedure is more dangerous. They are also more likely to resort to unskilled providers and use dangerous methods to induce abortions. Even after complications develop, adolescents are more likely to delay seeking treatment, because they lack transportation, do not know where to seek help, cannot afford health services, or fear the possibly negative attitudes of health care workers (*15,86*).

Adolescents have the least access to services. As in other regions, reproductive health services in Africa are not designed to meet young people's needs. Most providers are not trained to work with adolescents and may have difficulty providing non-judgemental care to young people they think should not be sexually active. In other countries, health professionals avoid providing reproductive health counselling or services to adolescents because of an erroneous perception that it is illegal.

Further, adolescents may have special needs for confidentiality and they may have difficulty providing an accurate medical history. Younger women may need special medical equipment; for example, a regular speculum may be too large for very young adolescents. Those in school may not be able to attend regular clinic hours and their ability to pay may be more limited.

Young women also may be vulnerable to making poor choices because they lack basic knowledge about their bodies and how they become pregnant. About 60% of Nigerian youth surveyed did not know pregnancy was possible at first intercourse (*87*). Young people also tend to exchange information among themselves rather than seek information from an informed source, allowing myths about sexual and reproductive health issues to be accepted as truth (*88*). Efforts to better inform young women and girls may be hampered by the belief that sexual education will increase adolescent sexual activity. Evidence from around the world suggests otherwise. A 1997 review of 53 studies on sex education programmes showed that in 50 programmes adolescent sexual activity either was reduced or did not change. Only in three cases was an increase in sexual activity reported (*89*). Yet in western Zambia, the situation is typical of much of rural Africa – schools have no sexual awareness programmes and only 5% of girls learn about sex from parents (*41*).

Cultural factors may affect a young girl's or woman's ability to take care of her health. The practice in many African schools of expelling a female student who is pregnant or who sought an abortion can be devastating for a young woman's future. In Kenya, a review of school discontinuation rates found that nearly 10 000 students are forced to leave school each year because they are pregnant (*90*), while a Zambian study found that an estimated one-in four girls leave school because of pregnancy in the four districts surveyed (*41*). Cultural imperatives that a girl should not be sexually active before marriage may make her feel ashamed to seek help when she needs it, or to obtain contraception to prevent an unwanted pregnancy. For example, Nigerian adolescents said that if they suffered abortion complications, they would be more likely to run away from home than to tell their parents or go to a health facility (*91*). Cultural expectations that a pregnancy is the female's

> *"We have a choice. We can retain our customs and traditions of not talking to our children and spouses about sexuality and see our children dropping out of school because of pregnancy or lose our beloved ones to AIDS and abortions. Or, as I recommend, we can do away with those traditions, communicate with our spouses and children, prevent those problems from happening and keep them alive."*
>
> Permanent Secretary of Western Province, Zambia (as quoted in 41)

responsibility allows many male partners to avoid any involvement in the abortion process or child-rearing responsibilities.

A common danger to young girls throughout Africa is the cultural acceptance of sexual relationships between adolescent girls and older men who provide them with school fees, clothes or jewelry, transportation, or good grades in school (*37,41,92*). In this situation, young women often lack the ability to make decisions or state their preferences about the safety or frequency of sex and contraceptive use, including condoms, and sometimes parents support the relationship for financial or other reasons (*93*). These practices put adolescents at additional risk of disease, unwanted pregnancy, and unsafe abortion.

Reforming laws and policies that restrict abortion care

Restrictive abortion laws

Rather than protecting women's health, restrictive abortion laws in Africa have the opposite effect, driving women with unwanted pregnancies to clandestine abortion practitioners or to attempt the abortion themselves.

In many traditional African communities, terminating unwanted pregnancies has long been an accepted practice. Anecdotal reports indicate that many traditional communities regard termination of pregnancies as vital to maintaining social order and harmony. A study among the Maasai of Kenya, for example, found that the community had defined categories of unwanted or socially unacceptable pregnancies, including those involving an unmarried girl or a woman who had been raped (*94*). The use of abortion by traditional African societies was also an issue

raised during the South African debate about liberalizing the law. Proponents of the new law highlighted traditional abortion practices to illustrate that terminating unwanted pregnancies is a familiar approach to fertility management in many settings (*69*).

Abortion laws in most African countries do not reflect the reasons most women terminate their pregnancies. Research shows that women choose abortion most often not because their lives are endangered by the pregnancy but for socioeconomic reasons (see Box). A study in Mozambique, where abortion is permitted to preserve the woman's physical health or save her life, showed that of the twelve primary reasons women cited for requesting an abortion, only 6% gave poor health or chronic illness as a reason (*95*).

Restrictive health care laws and policies

Health care policies create additional barriers to legal abortion. For example, Zambian law requires the woman to obtain the opinion of three doctors, one of whom must be a specialist (*96*). With few practising doctors (or specialists) out-

Reasons women decide to terminate their pregnancy

- They do not want more children or want them later on.
- They are not married.
- Their contraceptive method failed.
- A child would disrupt their education or ability to work.
- They cannot afford to raise a child.
- Their relationship with their partner is bad.
- They are too young.
- Their parents object.
- They do not want their parents to know they are pregnant.

Sources: *AGI, 1998 (12); Seyoum, 1993 (98)*

side of Lusaka, the requirement is nearly impossible for most Zambian women to meet (*41,49*). Policies that permit only physicians to perform uterine evacuation can limit efforts to decentralize abortion and postabortion care. South Africa is the only country in Africa that legally permits trained nurses and midwives to perform first- trimester induced abortion.

Criminalization

In many countries, abortion laws subject women and abortion providers to criminal punishment. In Mauritius, for example, women seeking abortions are subject to penal servitude for up to 10 years. The UN Committee on the Elimination of Discrimination Against Women (CEDAW) has called on countries to amend legislation criminalizing abortion in order to withdraw punitive measures imposed on women who undergo abortion (*97*).

Support for change

Progress in the policy arena has been slow and incremental but is worth noting. The draft protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa calls on State Parties to respect and protect women's rights by authorizing abortion in cases of sexual assault, rape and incest (*99*). The Programme of Action from the 1994 International Conference on Population and Development (ICPD) in Cairo broke new ground in recognizing unsafe abortion as a public health issue and called for widespread access to information, counselling, postabortion care, and family planning services (*100*) (see Box). The Cairo Conference also called on governments to ensure that wherever abortion is legal, it should be safe. This recommendation was reiterated and strengthened at the ICPD five-year review of progress in 1999 (*101*), and both the 1995 Fourth World Conference on Women and its five-year review of progress in 2000 called for governments to consider decriminalizing abortion. Few governments have actively responded to this mandate. Efforts to build political will to address this critical health and human rights issue must be strengthened.

Conclusion

Five million African women each year undergo unsafe abortions, and as a result many die or suffer from debilitating health problems. Unsafe abortions are performed because of poor access to abortion-related health care, poor quality of abortion-related

International Conference on Population and Development (ICPD), Programme of Action (*100*)

Paragraph 8.25-"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 measures 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. Postabortion counseling, education and family planning services should be offered promptly which will also help to avoid repeat abortions".

* Unsafe abortion is defined as a procedure for terminating unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking the minimal medical standards or both. (WHO)

ICPD +-5 review, 1999 (101)

Paragraph 63iii "… and 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. Additional measures should be taken to safeguard women's health."

care, restrictive laws and policies on abortion, and the continuing stigma associated with abortion that paralyses communities at all levels from taking effective action.

Yet unsafe abortion is both preventable and treatable. Improving the health and well-being of women in Africa requires that governments, international agencies, health care managers, and community members mobilize to mitigate the circumstances that make unsafe abortion a major public health problem. The priorities for action detailed in the above sections and the following recommendations can help guide those efforts.

Recommendations to transform abortion care in Africa

Research

- Document the impact of restrictive abortion laws and policies on maternal mortality and morbidity.
- Document the impact of abortion-related mortality and morbidity on the economic and social well-being of families and communities.
- Assess the costs of implementing all legal indications for abortion, or for liberalizing abortion laws. Compare costs of providing legal abortion to costs of treating complications from unsafe abortion.
- Investigate the feasibility, safety, and acceptability of using medical abortion for elective abortion care and treatment of incomplete abortion in decentralized settings.
- Assess the effectiveness of models for including community-based providers in the process of postabortion care (PAC) service provision.
- Test models for youth-friendly reproductive and sexual health services that include abortion care and STI/HIV services, education, and treatment. Engage youth in the design, implementation, and dissemination of important initiatives regarding adolescent services.
- Conduct formative research examining the linkages among violence against young girls and women and the incidence of unintended pregnancy, STIs/HIV, and unsafe abortion.
- Document the impact of conscientious objection on access to legal abortion.
- Assess models for incorporating men into postabortion counselling in ways that respect the rights of women; examine the impact of including them on women's recovery and use of contraceptive methods over time.
- Improve health information systems to facilitate measurement of abortion-related mortality and morbidity.
- Research how positive changes in gender policies and rights-based laws have improved women's health outcomes and access to health services.

Policy

- Revise abortion laws to base them on human rights principles and to reflect the reasons women seek abortions.
- Decriminalize abortion, removing punitive measures for abortion providers and women seeking abortions. Reform policies that punish young or unmarried women who become pregnant.
- Establish policies that ensure equitable access for all women to abortion-related services, regardless of location, socioeconomic status, age, or ethnicity. Remove or revise health system policies and regulations that restrict access to abortion-related care.
- Ensure that abortion-related services are covered by government or private insurers on an equal basis with other reproductive health services.
- Incorporate commitments made at the ICPD (Cairo) and Beijing Conferences, as well as the 5-year review meetings, into policies and programmes.
- Ensure that health professionals know their responsibilities in implementing new laws and policies.
- Eliminate regulatory barriers to importation and distribution of abortion-related equipment and supplies. Include manual vacuum aspiration (MVA), medical abortion, and other relevant equipment on standard hospital equipment lists.
- Prioritize funding for abortion-related care by international donors, multi- and bi-lateral agencies and within country budgets.
- Prioritize external debt relief for health and social services.

Training and service delivery

- Establish ongoing training and supervision in postabortion and abortion care for all relevant health care professionals. Include attention to all available abortion technologies, to any special approaches needed when working with adolescents, to legal and ethical obligations to provide abortion to the full extent of the law, and to gender-power dynamics inherent in the provider-client relationship.
- Provide postabortion care and induced abortion services to the full extent of the law and create programmes to inform women about the legal indications

for abortion. Ensure that safe abortion services after 12 weeks of pregnancy are available in appropriate facilities throughout the health system.

- Provide comprehensive reproductive health care to refugees and displaced persons, including postabortion care, safe abortion where legal, family planning, STD/HIV education and prevention, and counselling on sexual violence.
- Create sexuality education campaigns that educate adolescents about the dangers of unsafe sex, unwanted sex, unwanted pregnancy, unsafe abortion and HIV/STIs. Focus on healthy sexuality and on the ability to negotiate sex. Design services with input from adolescents to ensure that their reproductive health needs are met.
- Identify creative approaches to link abortion-related care with other reproductive health or social services, including information and methods necessary to protect against HIV transmission.
- Develop creative partnerships between the public and private sector to facilitate access to abortion-related care.
- Improve logistics systems for consistent availability of abortion-related supplies, equipment and contraceptive commodities.
- Develop monitoring and evaluation systems to assess the quality of care offered and incorporate the findings into decision-making about management of services.

Community outreach

- Inform women and their families about the circumstances in which abortion is permitted by law and the procedures required for obtaining legal services.
- Partner with NGOs, women's groups, and other members of civil society to identify and recommend changes in laws and policies to reflect women's needs.
- Incorporate traditional or community-based practitioners in the process of referral and follow-up care related to abortion.
- Mobilize communities to prevent and treat unsafe abortion, encourage a shift to earlier abortion, build acceptability for safe abortion, and increase awareness of women's sexual and reproductive rights.

- Build community support for sexuality education and community outreach services for adolescents.
- Work with men and boys to foster responsible sexual behaviour.
- Establish links outside the health system (e.g. with the police, NGOs, the judicial system, battered women's shelters) to facilitate immediate and respectful care for women seeking legal abortion.

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8

Unsafe abortion in South and South-East Asia: a review of the evidence

Bela Ganatra [1]

ABSTRACT

Over three fourths of the abortions in South Asia and nearly two thirds of the abortions in South-East Asia are illegal. The majority of these abortions are also medically unsafe, with abortion-related deaths accounting for over one in ten maternal deaths. Throughout the region, legal policies vary from very liberal to extremely restrictive, although recent moves towards liberalization have taken place in many parts of the region. However, even when laws ensuring safe services are implemented, health system barriers remain such as the use of outdated technology and a shortage of trained personnel. The social stigma of out-of-wedlock pregnancy in some parts of the region and the increasingly widespread ban on sex-selective abortions are additional barriers to women seeking access to early and safe abortions. This paper examines the available evidence on access to safe abortion in the region and identifies critical gaps in existing information. The paper then outlines key priorities for research and programmes. There is a need to document the ways newer technologies (such as vacuum aspiration and medical abortion) and decentralization of services can provide women with greater access to abortion care. It is also important to identify the pathways that young or unmarried women follow to resolve unwanted pregnancies and how best the services can meet their special needs. Equally critical is the need to increase legal awareness among women and providers so that existing policies are implemented to their fullest extent.

[1] Ipas India, B/322 Clover Gardens, Naylor Road 4, Pune 411001, India.

Introduction

A recent global review of the incidence of abortion estimated that over 75% of the abortions in South Asia and nearly two thirds of those in South-East Asia are illegal (*1*). The majority of such abortions are also medically unsafe, although in India this relationship may be less polarized because poor implementation and bureaucracy in fulfilling legal requirements result in the coexistence of legal services that are unsafe and safe services that are technically illegal (*2*).

Both morbidity and mortality from medically unsafe abortions are unacceptably high in South and South-East Asia. Abortion-related case fatality is estimated at 4 per 1000 procedures and abortion-related deaths account for 13 – 15% of all maternal deaths in this region (*3*). Restrictive laws in some countries put women at additional risk of prosecution and imprisonment, in addition to preventing access to safe services.

The concept of safety, however, extends beyond both the legal and medical aspects. Ideally, a safe induced abortion is one where the following conditions are met:

1. The decision to abort is a woman's informed choice, made without coercion, and is free from the risk of family violence or societal stigma.
2. The procedure is carried out in an enabling legal environment.
3. The procedure is performed in early gestation with medically appropriate technology by an empathetic non-judgemental provider who is geographically and financially accessible.
4. The procedure is backed up by medical services to detect and manage complications and provides information about and access to contraceptive options.

This paper reviews unsafe abortion in the South and South-East Asian region from the perspective of this framework which covers access to services, the characteristics and motivations of abortion-seekers, decision-making and pathways to abortion, morbidity and mortality, postabortion care (PAC), and concepts of safe abortion. The paper defines a key research agenda, as well as areas of priority action for programming and advocacy efforts.

Legal access

Although a liberal abortion law does not guarantee accessibility and the safety of services, neither of these can be achieved in any sustainable manner without an

enabling legal framework. The region represents a wide spectrum of legislative responses to abortion – ranging from countries with laws that criminalize abortion and prosecute women who attempt it, to countries where abortion is available on demand from services provided by the State and actively encouraged in the interest of population control. Annex 1 highlights the contrasting legal picture in the region.

In many countries where legal circumstances are unfavourable, the medical profession protects women by deliberately not recording the interference that resulted in abortion, by avoiding asking questions about the circumstances that led to the abortion, or by deliberately falsifying medical records. However, irrespective of the circumstances, in illegal situations the power imbalance is very clearly tilted in favour of the provider (*4*). This manifests itself in overt and covert ways, ranging from exorbitant fees and poor quality care to unscrupulous exploitation (*4,5*). For example, at one illegal clinic in Indonesia, women were coerced into using Norplant following the abortion because the provider was conducting a study on the method (*4*). Many doctors who perform illegal abortions limit their numbers so as not to draw attention to themselves or to avoid police surveillance and action. In these circumstances women have little recourse if they are overcharged, or sent home in poor condition, or suffer some other form of malpractice (*6*).

In recent years, however, there has been an active movement towards legal reform in many countries in the region. Pakistan, Cambodia, and Malaysia all liberalized their provisions for abortion (*7*). An active advocacy movement that included professional bodies, civil society, nongovernmental organizations (NGOs), and health activists has successfully campaigned for legal reform in Nepal. The Supreme Court in Nepal recently reduced the penalty in judgements related to infanticide from 20 years to 5 years, acknowledging the social stigma that leads women to commit such acts. It also held that unless the cause of death to an infant can be confirmed, a woman cannot be held guilty of infanticide (*5*). Efforts at public advocacy by local NGOs, lawyers, etc., and the resultant increase in negative publicity have made the police more reluctant to register cases against women who have attempted abortion (*5*).

But in the most exciting development of all the Nepalese House of Representatives finally approved an amendment to the Civil Code that conditionally legalizes abortion up to 12 weeks' gestation (*8*). The Nepal Civil Code was one of the most restrictive; abortion was not permitted unless performed as part of an act of "benevolent nature", but what constituted benevolent nature was not specified. It was the

only country where prosecution of women under the law was not uncommon. Unlike other countries (e.g. in Latin America), women in Nepal were reported to the authorities, not by hospitals or physicians treating complications, but by their own family and community. Arrests were made on the basis of such locally generated complaints and subsequent "confessions" by the women (*5*,*9*). In a study of 406 women prisoners throughout the country, a CREHPA study in 1997 found that 17 were in prison on charges relating to abortion and another 63 for infanticide (*9*); 70% of these women were illiterate and all came from a poor socioeconomic background. It was not uncommon for women to languish in prison for periods longer than their sentence would have been under the law, as trials take a long time and access to legal aid is restricted (*5*,*9*). The law also did not clearly distinguish abortion from infanticide, which carried a far greater penalty than abortion – from 20 years to life imprisonment and confiscation of property (*9*,*10*). Thus, women who underwent a late pregnancy termination and aborted a recognizable fetus were often tried under infanticide laws (*9*). Under the law, the male partner was also liable to be prosecuted although men were rarely imprisoned (*9*). Prosecution to this extent is not common elsewhere in the region, but it is not unheard of. For example, sporadic arrests both of providers and of women are made in Sri Lanka (*11,12*).

Efforts at legal reform have been less successful in Sri Lanka. A proposed amendment to the law to allow for abortion in cases of rape, incest, and fetal anomaly was tabled in Parliament in 1995. The amendment was withdrawn because it was too controversial, but the proposal led to a parliamentary debate. Parliamentarians across party lines opposed the bill on religious and moral grounds, raising concerns that women could become promiscuous, run wild, or embarrass men and bring false charges of rape against them (*11*). In a recent nationwide opinion poll in Nepal, those who opposed liberalization cited similar reasons, ranging from social corruption and increase in prostitution to increases in STDs, HIV and premarital sex (*13*).

While no country in the region has restricted its legal provisions in recent years, the ambiguous wording of the 1992 Health Law in Indonesia, though intended to be a step forward, has set back the liberal attitude towards the provision of services that were available through the tacit approval of the government (*14*,*15*) following a High Court ruling in the 1970s that freed doctors from prosecution for performing abortions if their training and methods were appropriate (*7*). Despite Pakistan's liberalization of the law, the medical community is cautious in its interpretation and usually provides abortion only in the case of a serious medical condition (*7*).

Generally, whatever the legal context, public awareness about the status of abortion in local communities remains low. A nationwide survey of 19 333 women in rural Nepal before legalization (*16*) showed that 45% of the women were unaware of the legal status of abortion in their country and 8% actually believed that it was legal. At the other extreme is India, where despite nearly 30 years of a liberal law, legal awareness remains nearly as low as when the legislation was passed, even among the self-selected group of women who have themselves undergone an induced abortion (*2*). Moreover, those who are aware that abortion is legal do not always have correct information on the provisions of the law or the conditions under which abortion is allowed (*17*). Lack of accurate knowledge of legal rights exposes women to both legal as well as medical risks. In Nepal, for example, women who did not know that they could be prosecuted under the law were especially vulnerable to exploitation at the hands of family members. In India, where the law is liberal, lack of awareness prompts women to seek clandestine and expensive services even where cheaper, safer options might be available.

But even countries with restrictive legislation often tolerate induced abortion to a far greater extent than is implied by the law. Bangladesh has found a unique way to circumvent its own laws by legalizing menstrual regulation (MR) as an interim health measure (*18*,*19*). The service is provided by the government health system throughout the country where family planning services are available (*19*).

Access to services: geographical and financial obstacles

As abortion becomes legal in an increasing number of countries, more and more services are provided through state mechanisms in the public sector, as is the case in China, Viet Nam and India. However, liberal legislation does not necessarily translate into equity of access. India is a case in point. Over 9 467 legally approved MTP (medical termination of pregnancy) centres exist in the country (*20*). However, there are vast regional as well as rural-urban disparities in the distribution of these services. For instance, only 16% of all approved MTP centres lie in the four large northern states (Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh), although together they account for over 40% of the country's population (*21*,*22*). The tiny state of Goa has one MTP centre for every 3 600 couples (*22*), while Bihar has only one centre for every 176 000 couples (*20*).

Even where facilities exist, they may not actually provide services (*21*) or may provide them only sporadically. Services are not provided because doctors are not available or adequately trained, or are not confident about performing termina-

tions (*20*,*21*). Similar problems plague the menstrual regulation (MR) services in Bangladesh (*19*). Where manpower is available, equipment may not be. Thus, many health centres are inadequately supplied with basic equipment, such as dilators and cannulas, and basic drugs like sedatives and anti-haemorrhagics (*21*).

In both these contexts, the role of the private sector cannot be underestimated. It provides the only potential source of safe services in an illegal setting, and is a major player in a context where the government infrastructure is unable to cope with the demand for abortions. In addition, in many parts of Asia the government services are equated with poor quality care and women opt for private sector services if they can pay for it (*2*). However, private sector services are difficult to regulate and their quality is difficult to measure. Many are reluctant to meet national reporting requirements as well; thus there is very little information on their functioning (*19*,*22*).

High costs may limit access even where care is geographically accessible. In general, private sector costs remain unregulated and controlled by the client's ability or willingness to pay. The few clients who can afford to pay large sums negatively affect the poorer women's access to services (*23*). Even in the public sector where services are free, hidden costs to the user in the form of purchase of medicines, unauthorized service fees, or under-the-table payments are incurred (*2,19,24*), and sometimes public sector services can actually be more expensive than private ones (*25*).

The backdrop: motivations and characteristics of women seeking abortion

The profile of the typical abortion-seeker in South and South-East Asia is that of a married woman in her late twenties or early thirties with at least one child, more often several, seeking to limit births or space her next pregnancy (*26*,*27*,*28*), which is a striking indicator of the unmet need for contraception. Between 1% and 15% of abortions in this region are among adolescents (*26*). Misreporting of marital status is not uncommon and several micro-studies have shown the proportion of adolescent abortion-seekers to be much higher (*12*,*29*); nevertheless, adolescent abortion-seekers are a much smaller minority than in other regions of the world. The majority of adolescent abortion-seekers are married, but rapid industrialization, rising age at marriage, and increasing entry of females into the workforce are responsible for a large increase in premarital sexual activity and unwanted pregnancies in several countries, notably Sri Lanka, Republic of Korea, Philippines and Viet Nam (*12*,*30*,*31*,*32*).

Women may not want any more children either because their desired family size or composition has been achieved or, more commonly, due to economic necessity (*10*,*24,28,33*). A mistimed pregnancy typically reflects a desire to delay the next birth because the previous child is considered to be too young, although a pregnancy may be mistimed for a variety of other reasons, ranging from employment- and education-related problems to marital dysfunction and financial difficulties (*2,26,33,34*).

While few women throughout the region are actually using contraceptives at the time an unwanted pregnancy occurs, contraceptive method failure constitutes a significant minority of abortion-seekers in China where contraceptive prevalence is high but focused around the use of the domestically produced steel-ring IUD which has a 12-month failure rate of 10.6% (*35,36,37*).

In addition to those cases in which the pregnancy itself is unwanted from the start, some women seek abortion services as a result of events that occur after the woman becomes pregnant. These include maternal illness, problems with the marital relationship or a suspected genetic weakness in the fetus, often because of drugs ingested by the mother in early pregnancy (*2,34,38*). Also included in this category are sex-selective abortions.

Most countries in the region, with the possible exception of Thailand, Indonesia, Philippines and Sri Lanka, exhibit a strong son preference (*39,40,41*). In high-fertility settings this preference modifies contraceptive use and is evident in increased family size. But as increasing urbanization and economic as well as state-imposed pressures move families towards a one or two child norm and the technology for pre-natal diagnosis of sex becomes widely available, the conflicting demands of small family size and the desire for sons are increasingly being met through the use of sex-selective abortions.

Although sex-selective abortions were first documented as early as the 1970s, sex ratios at birth began to rise significantly above the expected norm (i.e. 107 males: 100 females) in parts of India, the Republic of Korea, and China (including Taiwan) (*42*) only in the mid-1980s, coinciding with the increasing availability of ultrasound technology (*43,44,45,46*). The Republic of Korea banned prenatal sex detection as early as 1987, China followed in 1989 (*42*), and the Prenatal Diagnostics Techniques Bill made sex-detection tests illegal in India in 1994, making it difficult to obtain direct evidence of the prevalence of this practice; nevertheless micro-studies highlight the fact that, despite legal sanctions, such abortions are widespread (*47,48*).

There are considerable in-country variations, with the highest levels occurring in areas of rapid urbanization; more recent evidence suggests that as technology becomes more widely accessible, the practice is spreading to rural areas as well. For example, in one large community-based study in a rural part of Western India, one out of every six recent abortions among married women followed a sex determination test that showed a female fetus (*49*). In a study in rural China, out of 820 women surveyed, 36% of the 301 who reported induced abortions acknowledged them to be female sex-selective abortions (*50*). In another survey of 127 women of reproductive age in one village in North India, 13.4% had had at least one sex-selective abortion in the preceding five years (*48*).

While India, China (including Taiwan), and the Republic of Korea, are the countries where sex-selective abortion seems to be the most common, a study in Nepal showed that the practice may have existed even when abortion for any reason was forbidden (*51*), and there are concerns that it may be an issue in Pakistan as well as Viet Nam (*52,53,54*).

Decision-making processes: the unwanted pregnancy

Decision-making is one of the least studied areas of abortion behaviour, in part because hospital records, surveys and structured questionnaires are not suited to explore the dynamic nature of the process. The decision to abort begins with the process of recognizing the pregnancy. While for most women this does not pose a problem, young adolescents with an inadequate knowledge of reproductive physiology may not recognize the symptoms of pregnancy. When pregnancy occurs outside a marital relationship, there may be psychological denial. Delays in recognizing the pregnancy may also occur among women whose periods are irregular, those who conceive during lactational amenorrhoea, or in older women who may mistake the signs for menopause.

Sexual coercion within marriage as well as male reluctance to use or allow their wives to use family planning methods are major contributors to the burden of unwanted pregnancies. However, the male role in responding to an unwanted pregnancy is less well documented. Among married women, husbands play a major role in deciding the fate of an unwanted pregnancy. Even though friends or other female relatives may be consulted, the final decision is usually taken jointly with the husband (*24,34,55*). However, although dialogue and discussion between the couple do take place, the woman's role as decision-maker is often not so much about making choices as accepting the alternative that is socially sanctioned (*2,55,56*). Unlike

other spheres of domestic life, mothers-in-law play less of a role in the decision to abort and intergenerational differences on the ethics of the decision are a factor in not informing the older generation about plans to terminate an unwanted pregnancy (*2,24,56*).

The primary role of the husband as decision-maker is reinforced by legal requirements imposed in some countries. For example, both the Republic of Korea and Taiwan (Province of China) require spousal consent prior to providing an abortion. While this is not legally required for MTP services in India or the provision of MR in Bangladesh, in both countries spousal consent is widely supported by physicians (*57*) and is practised in the public sector (*17,19,28*). The practice limits access to services for women who do not have family support for their decision to abort.

Many women in fact are forced to carry on with an unwanted pregnancy as a result of this lack of support. In one in-depth study of women with an unplanned/unwanted pregnancy, nearly 6% reported that they would have liked to have had an abortion but were not permitted to do so by their husband or other family members (*55*). When 725 recently delivered women in a North Indian hospital were asked whether they desired their latest pregnancy, 11% reported an unwanted pregnancy that had been carried to term because of family opposition to abortion (*58*).

At the other end of the spectrum many women report being pushed, pressured or coerced, sometimes with physical violence, into aborting a pregnancy that they would rather not have terminated. A pregnancy after her partner has undergone a vasectomy or because he has doubts over the paternity compel women to end the pregnancy (*28,59,60*). The pressure to abort may also come from anti-natalist state policies either by direct coercion or indirectly to avoid fines and other disincentives that result from a birth that may be perfectly acceptable to the woman but unacceptable for state demographic targets (*38,60,61*).

Decision-making is a far more complex issue in the case of unmarried women. In the South Asian context, even when the pregnancy is the consequence of a long-term sexual relationship, the partner usually plays a limited role and sometimes the pregnancy is not even revealed to the man in a bid to preserve the family's honour (*28,62,63*). In such cases, decision-making is in the hands of the parents who can sometimes be particularly harsh in their indictment of their child's predicament, subjecting her to violence including beating or food deprivation for prolonged periods (e.g. see *64*).

On the other hand, in the South-East Asian context, single women make the decision on their own, or with their male partners but parents are rarely involved (*31,32*). Few partners, married or unmarried, assist the woman in obtaining abortion services. While some offer monetary assistance, most are unwilling to assume practical responsibility. Male indifference is a result of socialization and may also have been accentuated by the exclusive female focus of family planning programmes in most countries where even male methods such as condoms are supplied to women. In China, it is not uncommon for the man to be rewarded for meeting demographic goals while the woman bears the burden of both contraception and repeated abortions (*65*).

The abortion pathway: the choice of provider

Providers of services can range from specialists in obstetrics/gynaecology, doctors in other branches of medicine notably anaesthesia and surgery, general practitioners, physicians qualified in other systems of medicine, nurses, and birth attendants as well as a variety of traditional practitioners. The legal status of the provider varies depending on the country and the context – for example, paramedics are allowed to perform menstrual regulations in Bangladesh, but non-physicians such as nurses, midwives, and paramedics are not allowed to perform abortions in India. Under the complex legal requirements of Indian law, even qualified gynaecologists may be technically illegal providers if their clinic has not been specifically certified as an abortion (MTP) centre.

Although we speak of 'a' provider of services, micro-studies have shown that the pathway to seeking help is complex and can involve several providers (*24,28*). In most countries at least on the Indian subcontinent, medical pluralism is a way of life and treatment with alternative medicine such as herbs, etc., is seen as complementary to medical treatment. Thus, herbal remedies are often one of the first responses to a missed period, which may be followed by an attempt to 'bring on' the delayed period with drugs from a nearby chemist or local doctor. Self-induction with misoprostol is not uncommon in the Philippines (*66*). For most women, trying to induce menstruation is not perceived as equivalent to an abortion but as a way to confirm the pregnancy, or to provide reassurance that they are not pregnant in a way that is more private than going to a clinic for a pregnancy test. A formal provider is contacted only if these initial attempts are unsuccessful (*67*).

Clients are usually referred to a provider by a family member or friends who have used the service before. Sometimes the help of intermediaries, such as a per-

son from the community, a chemist, or a lay health provider may be sought. This informal information network is the main source of accessing services in illegal contexts (*23,59*), but plays a role in other settings as well. One study of the abortion care-seeking process in Tamil Nadu (India) showed that auxiliary nurses have developed extensive networks with both the government and private sectors and play a crucial role in obtaining appropriate services for their clients. By maintaining good relations with the community, they avoid being at the receiving end of the clients' wrath when services are not provided at government centres or complications occur. Many also receive a commission from service providers for the patients they refer (*68*).

Women do not always obtain satisfactory services from the first provider they visit, and sometimes refuse a service because the cost is prohibitive. Others find that provider insistence on sterilization or IUD insertion, as often happens in the public sector in India, is unacceptable (*17*). Conversely, providers may refuse to provide services to some clients. For instance, concern about maintaining the quality of the service within an inadequate infrastructure may prompt government doctors to be extra cautious when accepting clients so that women may be rejected on health grounds ranging from advanced pregnancy to anaemia (*68*). In one district in India, concern about potential litigation under the Consumer Protection Act was the reason for refusal of services to all but the safest cases at sub-district hospitals (*68*). Some providers may refuse services on moral grounds, even in legally acceptable situations (*20*). It is estimated that around one third of clients coming for MR services in Bangladesh are turned away mostly because of advanced gestation age (*19*), but often because they are unmarried or experiencing their first pregnancy. Women may also need to seek out additional providers because of an unsuccessful or partially successful attempt at induction (*24*).

In contexts of illegality or poor availability of services, the choice of provider is limited but where options exist, women demonstrate a concern for quality of care and safety. Frequently mentioned reasons for choosing a particular provider include the fact that he or she is known to be experienced in performing abortions, is patient and good-natured, and performs the abortion in a place where facilities like blood and oxygen are available. Positive previous personal experience also influences the choice as does the sex of the provider and whether repeated visits and an overnight stay at the hospital are required (*2,38,69*).

Although there may be several steps in the abortion-seeking pathway, the majority of abortions among married women take place in the first trimester. Among ado-

lescents, the gestational age at abortion is higher. Unmarried women, even those not in the adolescent age group, seek later abortions compared to married women. Another category of late abortion-seekers has recently become increasingly important – those opting for abortion following sex determination. With ultrasound imaging, fetal sex can be determined at around 13 to 14 weeks; therefore, abortions following sex determination are necessarily delayed into the second trimester and carry greater risks of morbidity.

A variety of techniques to induce abortion are used depending on the type of provider. Despite ample proof that vacuum aspiration is the technology of choice for early pregnancy terminations, sharp curettage is the method most commonly used throughout the region with the exception of Bangladesh and Indonesia and, to some extent, Nepal and Sri Lanka (*66*). Later terminations are usually done using extra-amniotic instillations of hypertonic solutions but many physicians, at least in their private practices, use prostaglandins as well – both injectable as well as suppository (*12,14*). Traditional methods vary widely and range from abdominal massage (common in South-East Asia) to insertion of roots, twigs, catheter, holy water, bitter concoctions, etc. (2*3,24,33,66*).

Medical abortifacients have been extensively used in clinical trials in China, India and Viet Nam. Clinical trials of medical abortion (combined mifepristone-misoprostol) in medicalized settings with backup surgical services have shown high success and satisfaction rates (*70,71*). Rates of incomplete abortion were marginally higher with medical methods than for a surgical evacuation, but some of these failures may also be a result of patient or provider preference to interfere earlier than indicated clinically. Failure rates also increase with increasing gestational age (*71*).

Women participating in the trials in both China and India who chose medical abortion over surgical often cited their preference for the method because it seemed more natural and feminine, was more compatible with their household tasks and duties, and avoided the pain involved in a surgical procedure (*72*). This is not surprising given that pain control is often not used with surgical abortion procedures (*38,72*). Medical abortifacients have been available in China since the late 1980s (*73*); in 2002, the Indian Drug Controller approved the marketing of medical abortifacient drugs to gynaecologists for use in hospital settings that have surgical abortion backup.

The potential for using medical abortion in places other than urban clinics is also being investigated (*74*). A study that integrated delivery into an urban fam-

ily planning clinic as well as a subsequent study done in a rural setting in India showed that women can come in early enough for medical abortion to be useful and are able to follow the demands of the rigorous protocol (*75,76*). A recent study of women's ability to estimate their duration of pregnancy, compared to physicians' estimates, showed that urban women in India were able to do this accurately within a clinically inconsequential margin of error for safe use of unsupervised medical abortion (*76*). This implies that women would be able to come in for the abortion early enough for the method to be effective. In Viet Nam trials have evaluated the potential of regimes using clinic-based administration of mifepristone followed by home administration of misoprostol (*77*). However, it is too early to decide on the wider-scale applicability of such trials, given the difficulties of emergency backup care in most developing countries.

Side-effects with this method are often greater than with a surgical method and bleeding is a particularly bothersome side-effect for women, even when it is not large enough to constitute a medically significant problem (*73,78*). Self-perception of heavy bleeding especially in the South Asian context is an important consideration for women. Since the abortion may occur at any time over a period of seven days, it becomes difficult for women to hide the event from family members – especially in societies where the tradition of isolating a woman during menstruation or whenever she bleeds is not an uncommon practice. Repeated visits to the hospital could also pose a problem for many women for whom mobility is restricted and the opportunity costs of a visit to the health centre are significant. Cost is also an issue of concern for women – both the cost of the drug and the associated costs of clinic observation and ultrasound (*73*).

Nevertheless, medical abortion has tremendous potential for expanding the access to safe abortion services in low-resource settings and could possibly circumvent complicated laws by being labeled as a menstrual regulation technique. It is also ideal for decentralization to mid-level providers; for example, nurses who are already trained to insert IUDs could also administer medical abortion (*75*). A referral centre with adequate surgical evacuation facilities, blood, etc., is a necessary backup as this is required at present to deal with complications of abortion.

China approved the use of mifepristone in 1986 and medical abortion is now available as an option through State-provided services in the cities. The Chinese experience suggests that medical abortion is feasible under a variety of conditions (*73*).

Morbidity and mortality

Although all abortions carry some risk of complication, a legal and early abortion performed in relatively aseptic surroundings is a procedure with low mortality. In some developed country settings, the mortality risk of terminating a pregnancy is lower than carrying the pregnancy to term (*3*). In both China and Viet Nam, where service delivery outreach is good and the context is legal, complications from induced abortions are less common and mortality is low.

The risk of mortality increases when the abortion is performed under unhygienic conditions or by inadequately trained people. Also, irrespective of the conditions under which the abortion is performed, both morbidity and mortality are closely related to gestational age. Even safely performed late abortions have a higher complication rate than early ones. Independent of gestation, complications may also be related to the method used to terminate the pregnancy. For example, perforation is more likely to occur with curettage than with vacuum aspiration, and incomplete abortions and excessive bleeding are more likely to occur with medical than with surgical abortion.

Wherever abortions are illegal or access to services remains poor, abortion-related deaths constitute a disproportionately large part of maternal mortality (see Annex 2) and a serious public health problem. For example, abortion-related morbidity was ranked third among leading causes of morbidity in Myanmar, according to a priority ranking of diseases based on a scoring system used by the Department of Health (*79*).

Anywhere from 10% to 30% of women undergoing an unsafe abortion may develop a complication (*66*). In one hospital in metropolitan Manila, one in three women developed complications serious enough to require hospitalization (*66*, citing a study by J. Cabigon, 1994). Life-threatening complications and subsequent mortality are disproportionately higher among rural abortion-seekers as well as women who are illiterate, unmarried or in the adolescent age group (*9,66,79*). In the South Asian region, age-specific mortality rates are higher in older women as well (*20*). This is not surprising since these women are more likely to come in for delayed abortions or to seek the services of unqualified providers.

Most abortion-related mortality can be attributed to sepsis, though other life-threatening complications like haemorrhage and perforation also account for a small proportion of deaths. Tetanus continues to remain an issue of concern in several countries of the region (*80*). In one recent Bangladesh study, of the 298 preg-

nancy-related tetanus deaths identified nationwide in 1996, 104 (34.9%) were related to abortion. The study also reviewed the medical records of women dying from tetanus in five urban infectious disease hospitals and found that over half of all the 390 female tetanus deaths were due to postabortion tetanus (*81*).

Increased availability of antibiotics has reduced sepsis-related mortality so that case-fatality rates of abortion-related complications are often lower than the case fatalities for many other obstetric emergencies (*82*). Unfortunately, not all women with complications are able to access hospital care in time for it to be effective and as many as 60% may remain without care (*66*). Apart from the transportation and financial obstacles that women face when seeking emergency obstetric care in general, the same legal, geographical, and social barriers that inhibit access to pregnancy termination services make it difficult for a woman to reach medical care for a complication.

Hospital studies have provided some insight on abortion-related mortality but much less is known about the epidemiology of postabortion morbidity, especially the chronic or delayed effects of abortion like chronic pelvic inflammatory disease (PID), secondary infertility, increased risk of future ectopic pregnancy, spontaneous abortion and prematurity. These are particularly difficult to study because the long-term follow-up of abortion clients is not easy and causality is difficult to prove. In Myanmar, a six-month follow-up of women with septic abortion revealed that one third were re-admitted for pelvic pain or a tubo-ovarian mass (*79*).

While most abortions end with a feeling of relief, long-term persistence of feelings of guilt or sadness may be of concern especially among women who have late pregnancy terminations where a recognizably human fetus is aborted. This experience is common in the South Asian context, where women themselves are often given the responsibility of disposing the products of conception (*17,62*).

Separating morbidity due to abortion from morbidity due to contraceptives that are simultaneously adopted is particularly difficult, although there is some evidence that the risk of complications for abortions with concurrent IUD insertion or sterilization may be greater than with either procedure performed alone (*1,83*).

Postabortion care (PAC)

Hospitals spend a disproportionately large amount of resources treating complications that arise from improperly performed abortions. As many as 20% to 60%

of hospital obstetric/gynaecological admissions relate to abortion complications in some settings (*79,84*). In the Philippines, abortion-related complications were found to be the tenth leading cause of admissions from all causes (*66*), and in some areas of Myanmar there is one abortion-related admission for every delivery-related admission (*79*). Table 2 provides a sampling of the extent of caseloads due to abortion-related complications in various settings.

Even though the private sector plays an important role in provision of abortion services throughout the region, they have a negligible role in the management of complications that arise from badly performed abortions. Thus, the public systems bear the brunt of the high caseloads, which drain an already poor infrastructure, staff and budgetary capacities. In most settings, complications are treated with dilatation and curettage (D&C) in operation theatres that are meant for general surgery, thus increasing the load on an already strained service. The costs to the woman and her family are also high. Women need to be hospitalized for 4 to 7 days on an average and the monetary costs are 5 to 10 times the cost of an induced abortion. In one study in Nepal, women with abortion-related complications paid an average of US$ 62 for treatment costs (*9*).

The responsibility of the provider does not end with the provision of the termination or medical treatment of complications. Care includes a compassionate, value-neutral attitude that does not allow personal views on the morality of abortion to interfere with treating the client with dignity and respect. Especially in the public sector, where there is little incentive to invest in good patient communication, it is not uncommon for women seeking an abortion to experience judgemental, unsympathetic or even abusive behaviour (*68,85*).

Throughout the region, postabortion counselling services are non-existent or limited in quality and often not linked with contraceptive provision (*23,79*). One study in Viet Nam found that nearly 40% of the clients did not receive contraceptive counselling (*86*). Even where there is counselling, it often does not address such issues as post-hospital care, education on possible complications, and actions to be taken. Especially neglected are the needs of sexually active adolescents and unmarried women who are rarely offered counselling on contraception options. Several studies show that although psychological stress and anxiety are greatest before the abortion (*36*), the procedure is rarely explained to women who do not have a clear understanding of what to expect. One recent initiative in Indonesia introduced with some success a special programme targeting such women that

included pre- as well as post-procedure counselling. Family members were also counselled to provide psychological support to the patient (*14*).

At the other extreme, in situations where demographic goals are paramount, counselling is replaced by overt or covert insistence on contraceptive use, often of a particular method. Other aspects of care receive little attention (*20,21*). Provision of services may be made conditional upon accepting a long-acting contraceptive (*2,17,21*), and in some cases IUDs are inserted without the knowledge of the client. Such contexts rarely guarantee long-term use. One study in India found that continued use of contraceptives among women who had accepted an IUD as a precondition to the abortion was significantly lower than among women who adopted contraceptives out of informed choice (*28*).

Evidence of poor contraceptive use also comes from the high rate of repeat abortions, often in relatively quick succession. Cross-sectional profiles of abortion-seekers invariably show that up to a third have had one or more abortions in the past. The interval between two successive abortions is usually short, often less than a year (*28,87*).

Operations research on postabortion care in this region has been limited, compared to experience elsewhere, but is showing signs of success wherever it is being implemented. One model PAC service and training programme, which set up a separate manual vacuum aspiration (MVA) unit to deal with abortion-related complications, was initiated in Nepal in 1995. Six months after its introduction into a large referral hospital, the PAC unit had saved the hospital 400 bed-days and 282 operations under general anaesthesia in the operating theatre. The average duration of hospital stay was reduced from 36 hours to 3 hours (*88*). However, maintaining the momentum of change is difficult. A recent review of PAC services in Nepal found that several MVA units were not fully operational because of shortages in staff and support infrastructure.

Social safety

Independent of legal statutes, the strongly patriarchal cultures within this region have their own ways of restricting access to safe services. In South Asia, it is often the pregnancy – not the abortion – that is "illegal" or "legal", a legal pregnancy being one that occurs within marriage to a woman who is not considered too old to be sexually active. Premarital sexual activity is not considered normative behaviour

in most areas, and changing economic structures have not necessarily removed the traditional proscription on premarital sexual activity.

Thus, unmarried adolescents and separated and widowed women find themselves in socially vulnerable situations. The greater the social unacceptability of a particular pregnancy, the greater a woman's personal risk in allowing such a pregnancy to proceed to term. Unfortunately, the same conditions that make the pregnancy socially unacceptable make it difficult for such women to access abortion services that are available to other women in the community. The need for confidentiality and protecting the honour of the family is the primary concern and outweighs any other risks. Thus, quality of care takes on an entirely different meaning under these conditions. In one study of quality of care in India (*17*), women were asked to rank the indicators they considered to be the most relevant to women seeking abortions out-of-wedlock. Discreet location of the provider and maintaining confidentiality were considered the most important indicators, outranking safety and convenience criteria. In one hospital in Manila, nine out of ten women using dangerous traditional services knew someone who had died from a complication (*23*). Medical safety often has to take second place to concerns of preserving marital harmony in married women as well. In one study in China, Yang et al. (*65*) found that women were concerned not about potential life-threatening complications but about the impact of the abortion on their future fertility and sexuality and whether it would impair their ability to keep up with their husband's sexual demands.

This double jeopardy can result in disastrous consequences by pushing women towards medically unsafe services. For example, in one study in India in a setting where access to abortion services was fairly good, only 2% of married abortion-seekers used the services of a traditional provider but nearly 25% of the unmarried women resorted to the use of such providers (*62*). The responses to social stigma can be even more dramatic. In Nepal, where access to any type of care may sometimes be impossible without the family's support, women may carry such pregnancies to term and then actually abandon the babies or resort to infanticide (*9*).

"Illegitimate" pregnancies may also be dealt with by a hasty marriage, suicide, homicide or by banishing the woman from the community. In the Philippines, selling of unwanted children is not uncommon (*59*). In a study in rural India, 3.6% of all pregnancy-related deaths occurred as a result of suicide by women who had an unwanted pregnancy but did not seek abortion services (*2*) fearing social stigma. Among 184 non-delivery-related pregnancy deaths identified over

a 10-year period in a rural area in Bangladesh, 14 were due to suicides, 6 of these in unmarried women. It is certain that at least some suicides were due to a pregnancy conceived under socially unacceptable circumstances. For example, one young unmarried adolescent was poisoned by her parents when they found out about her unwanted pregnancy and another young adolescent hanged herself after a violent dispute with her mother who discovered her pregnancy (*63*). This is perhaps the strongest indicator of women's helplessness, lack of autonomy and inability to access safe services.

Conclusion and key recommendations

While much is known about unsafe abortion in the region, much of the existing evidence revolves around understanding the differences in levels of unsafe abortion and demographic and mortality-related consequences. The region represents a picture of contrasts. It has some of the most liberal laws in the world (e.g. China, Viet Nam), as well as some of the most restrictive (Philippines). Liberal laws have resulted in well distributed services in some countries; in others, despite legalization, there has not been equity in access to care (e.g., India). Yet another dimension exists in countries like Sri Lanka where the law remains restrictive, yet services are easily available. Maternal mortality and morbidity have decreased in regions with good access to care but continue to remain unacceptably high in other areas.

There appear to be two categories of abortion-seekers. The first includes married women who are spacing or limiting their family by seeking an early termination. This group is socially sanctioned and most available services cater for them, although the degree of access to safety may be determined by their ability to pay. The second includes unmarried adolescents and separated or divorced women who, in many parts of the region, remain marginalized – socially, medically, legally, and in their access to reproductive health information and contraceptive use.

Those who seek sex-selective terminations are another important group of abortion-seekers in this region. In addition to being late in approaching the services and therefore increasing the medical risk of the procedure, none of the traditional interventions that will reduce unsafe abortion in other circumstances, e.g. promotion of early abortions, contraceptive use, etc., will have any effect on this group, since here it is the child and not the pregnancy that is not wanted. Research agendas and programmatic actions need to recognize and address these dichotomies both in terms of strategies and appropriate interventions.

Key priorities for research

While we have a good understanding of the mortality resulting from unsafe abortion, there is a need to look more closely at in-country variations and to understand the determinants of differential access to care.

Despite sustained research on family planning, not enough is understood about the determinants of voluntary contraceptive acceptance and the dynamic interrelationship between contraceptive use and abortion. Particular attention needs to be focused on women with repeat abortions. While there is evidence to show that women have clear expectations of quality care, what determines these expectations and how preferences are translated into actual utilization of abortion services is not fully understood. Neither the sequence of events between a pregnancy and abortion nor the dynamic nature of decision-making and provider choice has been fully unravelled. In-depth qualitative studies that address these issues are a necessary first step towards designing effective interventions to improve access to services.

As we move beyond these traditional areas of information, our understanding of the complex nature of the decision-making process and the help-seeking pathways remains scanty. Research must also address issues of how gender relations, family violence, and sexual coercion determine the "unwantedness" of pregnancy as well as the response to it.

Research also needs to move beyond the limited concept of 'illegal' and 'legal' to fully understand what constitutes safe and sensitive abortion care. Thus, research must focus on services and providers both in the public and in the hitherto little studied private sector. Issues of cost, quality of care, respect for women's rights and dignity as well as how provider attitudes to and knowledge of abortion laws influence provider-client interaction and access to services must be better understood.

The research agenda also needs to move beyond analytic and descriptive research into a phase of intervention and operations research with particular focus on the following topics.

- Determining the feasibility and potential challenges to the use of medical abortion in different contexts.
- Developing strategies to address both male and female adolescent needs for reproductive health information including knowledge of reproductive physiology through schools, the media, and informal information networks. Equally important are strategies that help to make the health services for abortion as

well as contraception more sensitive to adolescent needs for confidentiality and maintaining their social status.

- Developing effective ways to decentralize the abortion services within the constraints imposed by legal and other requirements.
- Developing strategies that examine the feasibility of providing tetanus immunization to all women at adolescence, so that girls seeking unsafe abortion will be protected against this infection.
- Providing scientific documentation of existing best practices and innovative approaches to service delivery by the government, private and NGO sectors.

Research in the field of induced abortions presents unique conceptual and methodological challenges. Unlike most other reproductive health matters, abortion research has strong legal and moral implications which make identifying and locating the study population particularly challenging. For this very reason, much of the available data comes from the study of the most captive and easily studied group – those admitted to a hospital for the treatment of complications. Unfortunately, however, even the best designed hospital studies are not easily generalizable. Innovative and non-traditional approaches to collecting community-level data, especially those that emphasize the use of qualitative methods, need to be developed. Research into qualitative approaches to locating cases and gathering information are also needed. In fact, the need of the hour is for well-documented information using multidisciplinary approaches and combining methods from the fields of epidemiology, demography, and the social and behavioural sciences.

Again, while there is abundant literature on the morality and ethics of abortion, sex selection and the law, the ethical issues involved in researching abortion are rarely discussed upfront. Denial of the abortion or recasting it as a spontaneous event can be a psychological defence mechanism, which can be exposed in the interview process. Ethical dilemmas also arise from using information obtained through secondary sources or confidential medical records and dealing with disclosures of private and often illegal actions. Guidelines are needed to deal with such ethical concerns and ways to design scientifically valid research that still preserves individual rights and dignity.

Key priorities for programmatic and advocacy action

In conjunction with these activities, programmatic efforts should shift their focus to providing on-site, skill-based, and continuously reinforced training to providers. Training must emphasize the use of safer methods and vacuum aspira-

tion should be promoted for all first-trimester abortions. In a context where even existing services are not fully functional, programmes to reform health systems should promote non-punitive solutions for increasing access and to encourage innovation and action.

Opportunities for further training within the region must be enhanced and providers of services should be actively supported in a regional programme of peer education and exchange visits.

Advocacy efforts must focus around the mobilization of public support for safe abortion services and the promotion of political leadership that is committed to change. These are necessary advocacy activities if legal reform is to come about. The professional medical community is a key stakeholder in the process of mobilizing change, but they can also be key barriers to changing medical practice, especially when it comes to decentralization of services to mid-level providers.

To address widespread ignorance about the legal status of abortion, raising awareness about the legal status of the abortion law and the services that women are entitled to is an essential first step in promoting access to care. Education campaigns about the law must target the providers of services as well, so that they do not create barriers by, for example, insisting on spousal consent where it is not required by law. Information, education, and communication (IEC) efforts should target the entire community including men and the various lay practitioners, chemists, and providers of other types of medical care since throughout the region they play a crucial role in determining the abortion pathway for women.

Abortion services should be integrated into mainstream safe motherhood activities to the extent possible. Medically, the management of postabortion complications needs to address issues similar to other obstetric complications. Community mobilization for transporting women in need of emergency care and financing for such emergencies are equally relevant in this context. Integration of abortion and obstetric management practices may also help defray the sensitivity of this issue among both the community and political structures that find it threatening.

According to Dixon-Mueller (*89*), at least for some women, the option of abortion at some stage in their lives will be preferable to any other alternative. Such situations may arise from a woman's particular social or personal situation or from the inadequacies of particular contraceptive methods or delivery systems. When faced with an unwanted pregnancy, a woman should be able to determine her options and have access to safe and non-judgemental abortion services.

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Annex 1.

The diverse legal picture on abortion in selected countries of the region.

Country and references	Year of law	Comments
Bangladesh: (*18,90*) To save the life of the woman.	1861	Menstrual regulation up to 10 weeks legal since 1974 as an interim health measure to establish non-pregnancy.
Nepal: (*5,51,91*) Excused if it occurs incidentally during the performance of an act of benevolent nature. Allowed up to 12 weeks (18 weeks in case of rape and incest) for danger to the physical or mental health of the woman or because of deformed fetus.	1853 2002	What constitutes benevolent nature is not specified. Prosecution under the old law common: 1 year imprisonment if < 6 months pregnancy and 1.5 years for ≥ 6 months pregnancy.
Pakistan: (*7,92*) Abortion up to four months is not a crime if it is carried out to provide necessary treatment.	1991	Necessary treatment is not clearly defined.
Sri Lanka: (*11,92*) To save the life of the woman.	1883	
Lao PDR: (*91*) To save the life of the woman.		Special approval from the Ministry of Health is required.
Myanmar: (*79,91*) Only to save the life of the woman.		Both the woman and the provider are liable to be prosecuted.

Democratic People's Republic of Korea: (*90*) Available on request.		
Thailand: (*92,93*) Legal if it is necessary for the woman's health. Also for rape.	1956	Medical Council has stated that it will not punish physicians performing abortion on humanitarian grounds (fetal abnormality, HIV infection, etc.).
Philippines: (*92,94*) Only to save the life of the woman. The constitution promises to "protect the life of the mother and the life of the unborn from the moment of conception".	1930 1986	
Indonesia: (*14,95*) To save the life of the woman. The health law allows for "a certain medical procedure" to save the life of the mother or that of her baby.	1918 1992	
India: (*22*) Legal on a broad range of medical and social grounds including physical and mental health, rape, suspected deformity in the fetus, contraceptive failure in a married woman.	1972	Parental consent required for women < 18 years.

Malaysia: (*7,96*) Permitted if the practitioner feels in good faith that continuing the pregnancy would constitute a risk to the mental and physical health of the pregnant woman greater than if the pregnancy were terminated.	1989	
Republic of Korea: (*92*) Medical and genetic causes, rape, incest	1973	For married women, spousal consent is required.
Viet Nam: (*92,97*) Legal without restriction (on request).	1945 in North Viet Nam; since 1975, in the whole country.	Private practitioners legalized since the late 1980s.
China: (*90,98*) Available on request.	1957	Woman entitled to paid sick leave when she undergoes an abortion.
Cambodia: (*7,90*) Available on request for the first three months of pregnancy. Second trimester abortions are allowed under certain conditions like danger to the life of the mother, rape, or likelihood of an incurable disease in the fetus.	1997	

Annex 2.

Abortion deaths as a proportion of all maternal deaths.

Note: Estimates of abortion deaths vary widely by the type of method used to determine cause of death. Under-reporting is common in all settings but especially where abortion laws are restrictive. These examples are illustrative but comparisons cannot be drawn across studies.

Source of information	Year of study	Type of study	Place	Deaths due to all induced abortion complications (%)	Total n° of maternal deaths
Bangladesh: Abortion restricted, MR legal, service availability not uniform					
Khan et al. (*82*)	2000	Hospital	Nationwide	5.4	1653
Koenig et al. (*99*)	1976-85	Community	Matlab	18	387
Alauddin (*100*)	1982-83	Community	Tangail Province	17	48
Khan et al. (*101*)	1982-83	Community	Jamalpur Province	20.7	58
Bhutan: Restrictive laws					
Norbhu (*102*)	1976-87	Hospital	Thimphu	6.8	44
India: Liberal laws, access to services variable					
Registrar General of India (*103*)	1998	Sample registration system (SRS)	Nationwide	8.9	498
Bhatt (*104*)	1992-94	Hospital	Nationwide	11.1	487
Ganatra et al. (*105*)	1994-96	Community	West Maharashtra (rural)	3.3	121
Kumar & Agarwal (*106*)	1995-96	Community	Haryana (rural)	4.8	63
Bhatia (*107*)	1985	Community	Anantapur, Andhra Pradesh	10.9	284
Indonesia					
Fortney et al. (*108*)	1980-82	Community	Bali	6.8	295
Lao People's Democratic Republic: Restrictive laws					
Fauveau (*109*)	1991-92	Community	Nationwide	11	127

Myanmar: Restrictive laws					
Khin Khyi (*110*)	1978-82	Hospital	Rangoon	50	44
Nepal: Prior to 2002, restrictive laws					
Ministry of Health (*111*)	1996-97	Community	3 districts	3.8	132
Pakistan: Restrictive laws					
Fikree et al. (*112*)	1989-92	Community	Karachi, Baluchistan, North West Frontier Provinces	4.1	196
Bashir et al. (*113*)	1989-93	Community	Faisalabad city	9.3	215
Thailand					
Phuapradit et al. (*114*)	1969-82	Hospital	Ramathibodi Hospital, Bangkok	38.5	26
Vietnam					
Trong Hieu et al. (*29*)	1994-95	Community	3 provinces	3.4	321

9

Unsafe abortion in Latin America and the Caribbean: priorities for research and action

Yolanda Palma [1], Elsa Lince [1] & Ricardo Raya [1]

ABSTRACT

This paper addresses a number of issues relating to priorities for research and programme implementation in Latin America and the Caribbean. The paper reviews attitudes towards abortion, determinants of induced abortion, the incidence of induced abortion, the quality and types of abortion services, abortion among adolescents, and the relationship between contraception and abortion. Areas in need of research in Latin America and the Caribbean include analysis of the formation of ideological positions against or in favour of abortion, measuring the prevalence of abortion using household surveys focusing on various subgroups in the population, improving understanding of the decision-making process in dealing with an unwanted pregnancy in the Latin American region, improving understanding of the decision-making process among adolescents regarding sexuality, contraceptive use, abortion and fertility, and conducting policy-oriented research and sharing the findings with decision-makers, legislators, and those in charge of formulating abortion-related policies and programmes.

[1] Investigación en Salud y Demografía, S.C. (INSAD), Amsterdam 33-5, Hipodromo Condesa, C.P. 06170, Mexico, D.F., Mexico.

Introduction

Induced abortion, when unsafe, is a major public health problem in many countries around the world. In Latin America and the Caribbean, the illegal status of abortion prohibits safe abortion services in the public sector and the consequent number of unsafe abortions creates a public health problem which is particularly serious compared to most other world regions. Annex 1 provides a summary of abortion policies in the region. Despite strong legal penalties for providing abortion services, there is evidence to suggest that the incidence of abortion is high (Table 1). The incidence of unsafe abortion in the region is similar to that in Africa – where also, in general, abortion is highly restricted.

Table 1.

Unsafe abortion in Latin America and the Caribbean: annual estimates of incidence and mortality.

Region	Estimated number of unsafe abortions (000s)	Incidence rate (per 1000 women aged 15-49)	Incidence rate (per 100 live births)	Estimated number of deaths due to unsafe abortions	Mortality ratio (deaths due to unsafe abortions per 100 000 live births)	Proportions of maternal deaths due to unsafe abortions
Latin America and Caribbean	4000	30	36	5000	41	21
Caribbean	200	17	21	600	71	18
Central America	900	26	26	700	20	14
South America	3000	34	42	3500	47	24

Studies on unsafe abortion have been conducted in the Latin American and Caribbean region but many gaps remain in our understanding of the determinants and consequences of abortion. This paper is based on a review of published material and some unpublished documents. Our task was made easier by the edited volumes produced by Mundigo & Indriso (*1*) and by Zamudio & Rubiano (*2,3*), following a meeting on unsafe abortion in Colombia in 1994. The findings from the Population Council's operations research on postabortion care (*4*) provided another resource. The conceptual framework developed by Frejka and colleagues (*5,6*) proved very useful in guiding this work.

The identification of priorities for both research and programme implementation was based on two criteria. First, there had to be identifiable gaps in knowledge about the topic; secondly, and most importantly, the research findings had to

be relevant to designing and implementing strategies aimed at preventing unsafe abortion and providing quality abortion services – where the law permits it – and postabortion care.

This paper addresses four main issues: attitudes towards abortion, determinants of induced abortion, the incidence of induced abortion, and the quality and types of abortion services. Two topics pertaining to the broad field of determinants, namely (a) contraception and abortion and (b) adolescents, are addressed separately.

Attitudes towards abortion

Latin American and Caribbean societies exert substantial influence over individuals to develop ideological positions regarding abortion. Weisner (*7,* p. 24) notes that "the concept of the phase in which the fetus is imbued with life varies according to culture. The degree of approval or disapproval of induced abortion will depend in part on this concept." For 70% of Weisner's Chilean study population, life does not begin at the moment of conception but is generally defined as beginning somewhere between the first and third month of the pregnancy; the state prior to this is considered a "blood clot formation".

In a study of an urban fringe community in Mexico, many women believed that pregnancy was definite once the fetus was completely formed, even though the women were aware that one of the signs of pregnancy was the lack of menstruation (*8*). The women in Weisner's study also believed that male and female fetuses develop at different rates. The male fetus was thought to develop more quickly and the female fetus more slowly. Results from the Mexican study agree with this finding; a male fetus was considered formed at two months, and a female fetus at between four and five months. Belief systems of this nature may explain why women who declare themselves against abortion, including those who regard it as a "crime" or a "sin", may eventually resort to this method of fertility regulation.

A study conducted in Mexico City (*9*) explored the acceptability of reasons for seeking an abortion and found that, in general, there is greater acceptance of abortion when the reasons are closely related to the health of the mother or the fetus. Acceptable reasons include: presence of infectious disease such as AIDS in the mother (87%), severe alcoholism in the mother (76%), presence of physical or mental defects in the fetus (72%), and the woman's life is endangered by the preg-

nancy (70%). Pregnancy as a consequence of rape was also considered an acceptable reason for an abortion for 70% of the respondents in the study. AIDS awareness campaigns in Mexico City most likely contributed to the high level of acceptability of an abortion for women with AIDS.

The five circumstances in which the respondents were least likely to approve of an abortion were: the woman does not have a partner and her child would be without a father (7%), the woman wishes to finish her studies before becoming a mother (14%), the woman is pregnant due to contraceptive failure (15%), the woman is extremely young and is not physically prepared to have children (17%), and the woman does not yet feel responsible or mature enough to have a child (23%). Reasons related to the emotional well-being of a woman or those related to her personal development seem to carry less weight than health-related reasons for an abortion.

It is notable that the least acceptable reason for an abortion is when the woman does not have a partner and her child will not have a father. These responses could reflect the fact that in Mexican homes a high percentage of women are heads-of-households as a result of absentee husbands and family support networks play an important role in sustaining the lives of single mothers in Mexico City. According to some authors who have written about national identity in the Latin American region (e.g. *10*), the father figure is generally distant or absent, in contrast to the strong bond between mother and son. Men's lesser role in child-rearing is indicated by the difference in the ranking of reasons related to motherhood and fatherhood. It is three times more acceptable to abort if a mother does not feel sufficiently mature for maternity than to abort because the child will not have a father.

Reasons for an abortion that were ranked as intermediate included insufficient economic resources for raising a child (24%) and an unwanted pregnancy (33%). The fact that one third of the respondents supported abortion as a means of resolving an unwanted pregnancy shows that a substantial number of respondents view abortion as a legitimate means of fertility regulation. However, few respondents (only 4%) approved of abortion as a means of fertility control in all situations; and only a few were totally opposed to abortion regardless of the situation (7%). An analysis of the outlying categories is interesting primarily because it is in these categories that the influence of selected variables on attitudes towards abortion are most marked. Interestingly, 70% of the respondents disagreed with the Church's total ban on abortion despite Mexico's deeply rooted culture of Roman Catholicism. Nearly half (44%) of the women believed that abortion should be decriminalized in Mexico.

The findings from the study indicate that acceptance of abortion increases when the contextual circumstances are directly related to the health of the mother or the fetus, or when the pregnancy results from rape or incest. The degree of acceptance diminishes when the reasons for abortion are related to the woman's socioeconomic status or personal well-being.

The illegality of abortion in the region influences attitudes to a great extent but it is unlikely that its decriminalization alone would provoke a complete change of attitude towards abortion. Understanding the determinants of attitudes towards abortion is an important area for further development.

Research priorities

- Analyse different currents of opinion with respect to abortion and their influence on the formation of ideological positions against or in favour of abortion.
- Explore the meaning of abortion among various population groups through qualitative studies and household surveys.
- Conduct policy-oriented research and share the findings with decision-makers, legislators, and those in charge of formulating abortion-related policies and programmes.

Determinants of induced abortion

An unwanted or unplanned pregnancy is at the start of the abortion decision-making process. This happens when the pregnancy is regarded as unacceptable or inconvenient, or is a source of internal conflict (*5*). There may be considerable ambivalence towards the pregnancy, given that women may experience a confluence of mixed emotions rather than a clear-cut rejection of the pregnancy. Consequently, the decision to terminate the pregnancy may be complex. Related factors at the individual level, which may influence the decision-making process, include socioeconomic and religious characteristics, the use or non-use of contraceptives, the stage in the woman's reproductive life-cycle, her relationship with the father of the child (i.e. married or not), and whether the sexual act was voluntary. Other factors that influence the decision-making process are related to having access to abortion services, which are particularly relevant in Latin America and the Caribbean where abortion is essentially illegal. In addition to these two types of factors, there are macro-level factors associated with the sociopolitical context where the women live.

Some of the most commonly declared reasons for having an abortion are the following (*11*):

- A woman is unable to raise a child because she and her partner receive a low salary, have unstable jobs or are unemployed, or are students.
- The relationship between the woman and her partner is insufficiently stable for the couple to be sure of raising children together, or because the man stopped providing emotional and economic support to the woman when the pregnancy was discovered.
- The woman or the couple have all the children they want or they want another child, but not at this time.
- The pregnant adolescent or unmarried woman fears rejection by her family and society.
- Some young single women wish to attain a certain level of personal satisfaction before becoming mothers.
- In certain cases (the proportion seems to be very small), the pregnancy is the result of rape or incest, or the fetus is abnormal.

The study of the sociodemographic characteristics of women who have abortions has occupied an important place in abortion research. Different studies undertaken in the region (*2, 3*) show that in contexts where family planning programmes have not been effectively implemented to prevent unwanted pregnancies, abortion occurs among older women, poor women, women with little education, and women with a large number of offspring (*1*). Another study in support of these findings was conducted among inhabitants of an urban fringe area of Mexico City (*8*). The age and parity of women who had an abortion were significantly higher than the average of those interviewed.

On the other hand, where there is a widespread availability of contraceptive methods, women who abort are younger, have a higher educational level, and have a higher level of participation in the workforce (*1*). In a study conducted in urban areas in Colombia, the highest incidence of abortion was observed in the 15–19 year age group (*12*). In this study the likelihood of having an abortion was directly related to the previous number of pregnancies. A study undertaken in Mexico (*13*) showed that the absence of a mother in the home approximately doubled the probability that an adolescent's pregnancy will terminate in an abortion.

The role of the male partner in the decision-making process has not been widely studied. However, there is evidence that men play an important role in women's decisions to continue or terminate an unwanted pregnancy and that gender and power relations may unduly influence the woman's decision regarding abortion (*14*). The degree of instability in the relationship and disagreement over the decision to abort are also important elements in the decision to terminate a pregnancy.

If access to abortion services is limited or not available, women in rural areas may self-induce an abortion. That is, they initiate a miscarriage using any number of abortion procedures and then go to the hospital to complete the procedure or seek the help of a home practitioner (*11*). A similar process occurs on a smaller scale among poorer women in urban areas, although some of these women may turn to medical services or trained paramedics providing clandestine abortion services. Women with a higher level of economic resources generally have access to trained health professionals. In some cases, such as in Mexico (*2*), women use methods to "hurry up a late period" and many women interviewed for the study were aware of methods to induce menstruation. These methods are used even before the existence of a pregnancy has been established. There is little information on how many women want an abortion but cannot afford one and so continue with the pregnancy, fearful of using high-risk services or procedures.

For some women there appears to be a lack of concern about or awareness of the risks involved in clandestine abortion services (*1*). However, little is known about the ways in which women understand and define the concept of safety. It would be very useful to understand how perceptions of safety are associated with the decision to undergo an abortion. A study in Mexico found that women face a non-secure abortion with a certain degree of anxiety (*8*).

As mentioned earlier, the decision-making process may be complex as it involves an interactive set of values, expectations, as well as conscious and subconscious fears (*5*). These aspects vary by social and cultural context; however, the decision-making process will always involve a certain degree of psychological tension and may pose a challenge to the social and psychological equilibrium of the woman, and sometimes her partner.

There is also a lack of knowledge among women about different abortion techniques and their relative risks. In a study conducted in Cuba (*15*), where abortion is legal and accessible, 40% of women had only a vague idea about abortion pro-

cedures or did not know what procedures were involved. Some 10% of women worried that an abortion could cause their death when in fact the rate of complications from safe abortion, as performed in Cuba, is extremely low.

Cuba is the only country in Latin America to have legalized abortion. In the rest of the region, abortion is penalized with exceptions only for certain cases. However, even when women meet the legal criteria for abortion (i.e. the pregnancy results from rape or incest, or the woman's health is endangered by the pregnancy, or there is congenital malformation in the fetus), opportunities for safely terminating the pregnancy are limited. Some countries such as Mexico and Brazil have made efforts to establish clinical procedures and provide access to abortion care for women who are eligible under the law. Generally, however, abortion services are limited to a few hospitals in urban areas.

Little is known about the ways women who meet the criteria for an abortion exercise that right. A study was conducted in Mexico documenting the steps to obtaining a legal abortion and the attitudes of physicians who performed the abortions (*16*). However, the study did not indicate how many requests for abortion were denied; nor did it explore women's perceptions of the complexity of navigating the bureaucratic process or the quality of the services they received.

Women who wish to have an abortion where it is not permitted by law may seek providers in the private health sector. A woman's access to these providers is determined by her economic status coupled with her knowledge of the availability of such providers or her ability to employ a network of informants to provide this information. The methods women use to identify service providers willing to perform an abortion are not well known. The role of informal social networks in this process is also not well understood.

Further research is needed in Latin America to investigate the impact of social, political, and legal contexts on women's reproductive decisions. Further research is also needed to build on existing studies of the determinants of abortion seekers to better identify groups at risk of unwanted pregnancies.

Research priorities

- Measure the prevalence of abortion, focusing on various subgroups of the population using household surveys.
- Improve understanding of the role of the men in reproductive and abortion decision-making.

- Improve understanding of the decision-making process to resolve an unwanted pregnancy in the Latin American region. This includes the development of a conceptual framework of the pathways to abortion. Influential factors in the decision-making process include the sociopolitical context (knowledge of laws and policies and the degree to which they are implemented) as well as access to and perception of abortion procedures and services. This is a complex topic that requires multiple methodological approaches: focus group discussions, household surveys, and in-depth interviews.
- Improve understanding of women's perceptions of the safety of clandestine health services and of women's knowledge of self-induced methods of abortion.

Priority actions

- Inform communities about the legal status of abortion at the local level.
- Provide true access to safe abortion services for pregnant women in circumstances where this is permitted by law.

Contraception and abortion

The relationships between contraceptive needs, behaviour and the use of abortion are very complex and thus continue to be a high priority area of research. A study carried out in Brazil, Colombia and Mexico concluded that it is unlikely that the practice of abortion will disappear from Latin America, although effective contraception practice continues to rise (*17*). Studies have shown that some couples do not use contraceptives despite their availability, and in other cases the failure rates remain high (*1*).

The aim of family planning programmes is to provide clients with the most effective methods of contraception. However, frequently in the region the emphasis is on contraceptive use alone and little effort is made to provide adequate counselling and other aspects of quality of care. This has contributed to lower levels of acceptance than anticipated. This lack of adequate counselling negatively affects younger clients in particular. Low levels of contraceptive use also reflect a poor understanding of contraception. The greater part of the region's population is aware of different methods of contraception, but few know how they work or how to use them (*15*). Negative perceptions of their safety and effectiveness also affect acceptance. Partners may disapprove of the use of contraceptives or may have a strong preference for a method with low efficacy.

The interrelationship between contraception and abortion is extremely important, given that under no circumstances is abortion seen as an alternative to family planning. Quality family planning programmes must better address the unmet need for contraceptive use to reduce the need for abortions.

Research priorities

- Identify strategies and policies for improving family planning programmes.
- Identify those at risk of an unwanted pregnancy and those who are least likely to attend family planning clinics.
- Improve knowledge and perceptions of contraceptive methods.
- Increase knowledge about emergency contraception.

Adolescents

Although national and regional estimates of the incidence of abortion should be interpreted with caution, the available data reveal that abortion is a common practice among adolescents in Latin America and the Caribbean. It has been estimated that in Latin America 10 % of women hospitalized for postabortion complications are younger than age 20 (*11*). These same studies estimate high rates of abortion of up to 36 abortions per 1000 women aged between 15 and 19 for some countries in the region. In an investigation carried out in Colombia using rigorous methodology, the percentage of ever-pregnant women aged 15 – 19 years who had aborted a pregnancy was 44 %. This was 12% higher than for those aged 20 – 24 years (*12*).

When adolescents decide to abort a pregnancy, there is a greater likelihood that the procedure will take place under unsafe conditions. Their desire to hide the pregnancy from their family means that riskier alternatives are sought out. Frequently, an initial period of denial leads adolescents to seek termination at an advanced stage in the pregnancy when complications are more likely to occur (*1*).

The most frequently cited cause of abortion among adolescents is an unwanted pregnancy occurring outside of wedlock. Nonetheless, there is evidence that some proportion of pregnancies among those under 19 years old is desired (*18*). Some of the most striking Mexican data show that a significant proportion of adolescents fails to use contraceptives during their first sexual experience because they wish to become pregnant (*18*). The data show that the average age for first pregnancy is very low, 15.9 years. These findings require further analysis, but the data suggest that, to a large degree, motherhood during adolescence is part of an attractive life

project. This possibly reflects the regional socioeconomic context which offers very few alternative scenarios to young people.

The cultural and socioeconomic contexts in which young people find themselves determine, to a large extent, their expectations and the path their life will take, including wanted or unwanted child-bearing. A number of factors render adolescents vulnerable to unwanted pregnancy and abortion. Adolescents are the most exposed to rape and sexual abuse, which could result in an unwanted pregnancy. Knowledge and use of contraceptives in this population is very low, which increases the risk of becoming pregnant during the first sex encounter (*1,18*). In addition, as social norms are opposed to premarital sex in Latin America, the likelihood of planning for contraceptive use during first sex is lower. Contraceptive use is further hindered by difficulties in accessing health services, in part because adolescents do not dare use them and because these services are not adequately organized to address adolescent clients.

Gaps in the understanding of abortion among adolescents remain. Because of the large numbers of adolescents and their inherent vulnerability, research on adolescents must be a priority concern in the area of reproductive health.

Research priorities

- Improve the understanding of adolescents' decision-making process regarding sexuality, contraceptive use, abortion and fertility.
- Evaluate the existing strategies and interventions and test new interventions for adolescent sexual and reproductive health within education, health, and community institutions.

Incidence of abortion

With the exception of Cuba, there are no reliable statistical data available on the number of abortions performed in most of Latin America and the Caribbean. However, there have been considerable efforts to provide estimates of abortions (Table 2). These estimates usually follow one of two approaches. The most common approach uses official data on the number of women hospitalized for treatment of postabortion complications to indirectly measure abortion rates by making a series of estimates based on different parameters. The crucial estimate is the probability of a woman experiencing complications from an abortion. Of these women, further estimates are made to determine the percentage that will go

Table 2.
Measures of induced abortion in Latin America.

Country	Year	Best estimate of number of abortions	Range	Rate (abortions per 1000 women aged 15-44)	Ratio (abortions per 100 known pregnancies)
Brazil	1991	1,444,000	1,021,000 - 2,021,000	40.8	29.8
Chile	1990	160,000	128,000 - 224,000	50.0	35.3
Colombia	1989	288,000	288,000 - 404,000	36.3	26.0
Dominican Republic	1990	82,000	58,000 - 115,000	47.0	27.9
Mexico	1990	533,000	297,000 - 746,000	25.1	17.1
Peru	1989	271,000	271,000 - 380,000	56.1	30.0

Source: Henshaw S. et al. The incidence of abortion worldwide. *International Family Planning Perspectives*, 1999 (*29*)

to public hospitals for care, the degree to which women use clandestine private abortion services, and, finally, the degree to which cases of abortion complications are under-reported within the hospital system due to their illegal nature. For these reasons, estimates incorporate a degree of uncertainty. Unfortunately, there are no rigorous sources of data for each of the parameters under consideration, and therefore it is necessary to base estimates on assumptions and adjustments.

The second approach is to draw on data from large-scale household surveys. Large fertility surveys, such as the World Fertility Surveys and the Demographic and Health Surveys (DHS), have yielded data on abortions and are highly credible sources of data in political and scientific circles. However, Casterline (*19*) noted that a large portion of induced abortions is not reported in this type of survey. Several approaches have been used to improve the quality of abortion data. Huntington (*20*) tested a sequence of questions administered to women at different health service delivery points in Côte d'Ivoire. The aim of the study was to probe for evidence of an undesired pregnancy; if one was discovered, the woman was asked how the problem was resolved. The results obtained encourage the use of this methodology in household surveys.

Protecting the confidentiality of the respondent from the interviewer is an important ethical aspect of household interviews. In a study undertaken in Colombia (*2-3*), a short, ten-minute questionnaire was designed to be filled in, sealed in an envelope by the respondent, and then put in a sealed box. Findings from the study provided data on the incidence of abortion and some basic

socioeconomic characteristics of women who had abortions. This procedure was widely accepted by the respondents, with only 2% refusing to participate.

A similar randomized sample survey was conducted in three zones of Mexico City (*9*). Two population samples were selected from each of the three zones; in one group the respondent completed the questionnaire and placed it in a sealed box, and in the other group the respondent was questioned directly by the interviewer. The investigators found that the incidence of abortion was 50% higher in the first sample than in the second. One obstacle to the use of this type of methodology is that it can only be applied to literate populations.

Research priorities

- Develop and test the modules and questions that elicit accurate reporting of abortion, which will be incorporated into large fertility surveys.
- Conduct surveys incorporating new methodologies for research on abortion and apply these to the countries in the region to obtain a better understanding of the phenomenon through an improvement in the evidence base.

Quality and types of abortion services

The quality of abortion services depends on the use of safe procedures by properly trained providers. Women who have undergone an abortion have very different psychological, medical and contraceptive needs from women who have just given birth. Therefore, providing comprehensive postabortion care is important in a quality abortion service.

Many women confronted with an unwanted pregnancy resort to a variety of techniques to induce an abortion. Many of these procedures begin in the woman's home and end in a hospital emergency room; they may include self-administered abortifacients taken orally or administered vaginally (*8,11,21*). When women turn to others for help, the uterus may be manipulated by an unqualified person who may introduce a probe, catheter, or sharp object to cause an abortion. Women may resort to untrained providers, including midwives and lay persons who induce abortions, often using unsafe techniques in unhygienic conditions (*22*). Private physicians and other medical, paramedical, and pharmaceutical facilities may also provide abortion services for a fee, using high-dose oral or injected hormone treatments such as misoprostol, aralen, quinine, or oxytocins illegally. Medical, or non-surgical abortion, is gaining popularity in the region and high levels of clandestine use of misoprostol is report-

ed in Brazil. When these techniques produce complications, a tertiary-level public sector hospital may have to carry out an emergency abortion and provide treatment for postabortion complications.

Since abortion services are mostly illegal, postabortion services addressing complications are often a woman's only point of contact with the public health sector. Rapid return to fertility following an abortion (generally within two weeks after a first-trimester abortion and within four weeks after a second-trimester abortion) makes prompt attention to her contraceptive needs imperative.

Studies in Mexico, Ecuador, Peru and Bolivia (*22*) found that improvements in postabortion care provided in secondary and tertiary public hospitals should include the introduction of MVA with a local anaesthetic for first-trimester incomplete and failed abortions and the use of dilatation and curettage (D&C) for septic abortion, molar abortion, and abortions of more than 12 weeks' gestation. Improvements in communication between medical/paramedical personnel and patients and improvements in postabortion contraceptive counselling were also found to be necessary.

Many service providers ignore the psychosocial needs of women undergoing abortion or postabortion care and focus only on the physical aspect of the abortion. Motives and attitudes of providers tend to vary considerably and are not always focused on providing appropriate abortion-centred care. In a study in a public hospital in Mexico (*23,24*) where women who were admitted with incomplete abortions were interviewed, it was reported that these women often felt considerable worry, fear, and/or guilt in addition to physical pain, that care was inadequate (long waiting times, no privacy, and a lack of information), and that the staff were short of skills and time, and, in many cases, showed little interest in providing a minimally dignified encounter.

The possible psychological consequences of abortion, such as psychosis, neurosis or depression, appear not to be due to the abortion itself; rather they are prompted by the set of family and social circumstances surrounding the abortion. Restrictive legislation, as well as religious and social disapproval, may lead to feelings of guilt, self-devaluation and confusion among women who have had an abortion (*25*).

The cost of unsafe abortions to national health care systems has been assessed in a few studies, but more are needed. Results from studies in Mexico demonstrate the potential for reducing the costs associated with treatment of incomplete abortion. Johnson et al. (*26*) found that the use of MVA costs on average $75 less per patient than D&C. The total savings of MVA procedures more than offset the expenditures for ini-

tial investments in purchasing equipment and replacing instruments and resterilizing them. The long-term financial benefits to investing in better quality of care, including improved counselling for contraceptive use to prevent future unwanted pregnancies and to enhance the women's general health, have not been analysed.

Priority actions

- Implement a comprehensive approach to health care that includes treatment for complications of induced abortion, family planning counselling, and screening and treatment for sexually transmitted infections.
- Examine ways to involve traditional caregivers in abortion care.
- Implement strategies and interventions for improving quality of care:
  - Improve follow-up care for postabortion patients.
  - Modify providers' negative attitudes about abortion and their behaviour towards abortion patients.
  - Design special programmes for adolescent postabortion care and counselling for HIV-positive women.

Priority research topics

- Assess the immediate and long-term effects of unsafe induced abortion, by the women's characteristics.
- Develop simple, low-cost methodologies for assessing and improving the quality of care.

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Annex 1.
Abortion policies in Latin America and the Caribbean, 1999.

Region and Country	Grounds on which abortion is permitted							Total fertility rate: births per woman (2)	Maternal mortality ratio (per 100 000 live births) (3)		% of maternal deaths due to abortion (4)	
	1	2	3	4	5	6	7					
	Save the woman's life	Preserve physical health	Preserve mental health	Rape or incest	Fetal impairment	Economic or social reasons	On request (1)	1995-2000	Rate	Year	Rate	Year
Caribbean												
Antigua and Barbuda (7)	X	–	–	–	–	–	–	●●	●●	●●	●●	●●
Bahamas (9)	X	X	X	–	–	–	–	2.6	100	1990	●●	●●
Barbados	X	X	X	–	–	–	–	1.5	43	1990	6.3	1989-92
Cuba	X	X	X	X	X	X	X	1.5	95	1990	21.8	1988
Dominica	X	–	–	–	–	–	–	●●	●●	●●	●●	●●
Dominican Republic (7)	X	–	–	–	–	–	–	2.8	110	1990	17	1988
Grenada	X	X	X	–	–	–	–	–	–	–	–	–
Haiti (7)	X	–	–	–	–	–	–	4.4	1000	1990	11.9	1987-89
Jamaica (6)	X	X	X	–	–	–	–	2.5	120	1990	65.8	1984
Saint Kitts and Nevis (6)	X	X	X	–	–	–	–	●●	●●	●●	●●	●●
Saint Lucia (9)	X	X	X	–	–	–	–	●●	●●	●●	●●	●●
Saint Vincent and The Grenadines	X	X	X	X	X	X	–	●●	●●	●●	●●	●●
Trinidad and Tobago (6)	X	X	X	–	–	–	–	1.6	90	1990	50	1987
Central America												
Belize (9)	X	X	X	–	X	X	–	3.7	●●	●●	67	1989
Costa Rica (5)	X	X	X	–	–	–	–	2.8	55	1990	6.7	1988

Annex 1, continued.

Region and Country	Grounds on which abortion is permitted							Total fertility rate: births per woman (2)	Maternal mortality ratio (per 100 000 live births) (3)		% of maternal deaths due to abortion (4)	
	1	2	3	4	5	6	7					
	Save the woman's life	Preserve physical health	Preserve mental health	Rape or incest	Fetal impairment	Economic or social reasons	On request (1)	1995-2000	Rate	Year	Rate	Year
Central America (continuation)												
El Salvador (8)	X	–	–	–	–	–	–	3.2	300	1990	9.1	1991
Guatemala	X	–	–	–	–	–	–	4.9	200	1990	11.5	1987
Honduras (10)	X	–	–	–	–	–	–	4.3	220	1990	8.7	1989-90
Mexico	X	–	–	X	–	–	–	2.8	110	1990	7.8	1993
Nicaragua (12)	X	–	–	–	–	–	–	4.4	160	1990	9.5	1979
Panama (13)	X	–	X	X	–	–	–	2.6	55	1990	11.0	1988
South America												
Argentina (5)(14)	X	X	X	X	–	–	–	2.6	100	1990	29.1	1993
Bolivia (5)	X	–	–	X	–	–	–	4.4	650	1990	15.2	1988
Brazil	X	X	X	–	–	–	–	2.3	220	1990	8.2	1996
Chile (8)	–	–	–	–	–	–	–	2.4	65	1990	30.8	1992
Colombia (7)	X	–	–	–	–	–	–	2.8	100	1990	10.3	1986
Equador (5)(15)	X	X	X	X	–	–	–	3.1	150	1990	7.3	1988
Guyana	X	X	X	X	X	X	X	2.3	●●	●●	30.8	1984
Paraguay	X	–	–	–	–	–	–	4.2	160	1990	13.6	1988-89
Peru (5)	X	X	X	–	–	–	–	3.0	280	1990	11.2	1983
Suriname	X	–	–	–	–	–	–	2.2	●●	●●	11.1	1988-92
Uruguay (5)(16)	X	X	X	X	–	–	–	2.4	85	1990	5.0	1988
Venezuela	X	–	–	–	–	–	–	3.0	120	1990	19.4	1987

Sources: Department of Economic and Social Affairs, United Nations, 1999 (*27*).
Unsafe abortion. Global and regional estimates of incidence of and mortality due to unsafe abortion with a listing of available country data. WHO, 1998 (*28*).
Note: X indicates that abortion is permitted; a hyphen (–) indicates that abortion is not permitted; the sign (●●) indicates that information or data are not ready or available.

Footnotes to Annex 1

(1) Unless otherwise indicated in a footnote, if an abortion is authorized on request, it is presumed that an abortion can be performed for any of the conditions listed in the table, even if the law does not specifically mention the condition.

(2) The total fertility rate (TFR) is the average number of children that would be born alive to a woman during her lifetime if she were to pass through all her childbearing years conforming to the age-specific fertility rates of a given year.

(3) The maternal mortality ratio is the number of women who die as a result of childbearing in a given year per 100 000 births in that year.

(4) Abortion deaths as a percentage of all maternal deaths (proportion of maternal deaths)

(5) The abortion laws in these countries allow abortions to be performed to preserve the health of the woman, but do not differentiate between physical and mental health indications.

(6) The abortion laws in these countries either expressly allow abortions to be performed only to save the life of the woman, or are governed by general principles of criminal legislation which allow abortion to be performed for this reason on the ground of necessity. In addition, the holding of the British case of R. v. Bourne or local applications of that decision apply. Under the decision, the ground of necessity was interpreted to encompass abortions performed on physical and mental health grounds.

(7) The abortion laws in these countries do not expressly allow abortions to be performed to save the life of the woman, but general principles of criminal legislation allow abortions to be performed for this reason on the ground of necessity.

(8) The abortion laws in these countries have been amended to remove all indications for the legal performance of abortions; however, it is not clear whether a defence of necessity might be allowed to justify an abortion performed to save the life of the woman.

(9) The criminal laws of these countries provide that medical and surgical treatment performed in good faith is legal even though it involves abortion.

(10) The Honduras Penal Code makes no exceptions to the general prohibition on the performance of abortions; the Code of Medical Ethics, however, allows abortions to be performed for therapeutic purposes.

(11) Abortion in Mexico is determined at the state level. The grounds checked refer only to the abortion law of the Federal District; some other states allow abortions to be performed on grounds (2), (3), (5) and (6).

(12) Nicaragua's abortion law allows the performance of "therapeutic abortions", but does not specify which abortions are therapeutic.

(13) Abortions are also authorized for serious health reasons that endanger the life of the "product of conception".

(14) There is controversy over whether the text of the Argentine Penal Code can be interpreted to allow abortion to be performed for a woman who has been raped or only in the case of the rape of a mentally retarded woman or an insane woman.

(15) Abortions are allowed to be performed on the ground of rape or incest in the case of a mentally retarded or insane woman.

(16) In cases of severe economic hardship, the penalty for performing an abortion illegally may be reduced or waived.

Sources:

Department of Economic and Social Affairs, United Nations, 1999 (*27*).

Unsafe abortion. Global and regional estimates of incidence of and mortality due to unsafe abortion with a listing of available country data. WHO, 1998 (*28*).

10

Abortion in Eastern European and Central Asian countries: priorities for change

Mihai Horga [1]

ABSTRACT

The distinctive political and economic evolution of Eastern European countries created substantial differentials in reproductive health indicators compared to Western European countries. One of the main reproductive health characteristics in this region is the high rate of abortion associated with low levels of contraceptive use. Contraceptive prevalence is generally low in most Eastern European countries and use of traditional methods of contraception, such as withdrawal, is widespread, resulting in a large number of unintended pregnancies. With the exception of Poland, all countries in Eastern Europe have liberal abortion laws. Pregnancy terminations in Eastern Europe are performed almost entirely in medical settings by qualified physicians using approved medical techniques. However, the quality of services is negatively affected by the large number of procedures performed under limited resources in a high-caseload setting. Furthermore, despite liberal legislation and wide availability of services for termination of pregnancy, unsafe abortions nonetheless take place. Several main priorities related to abortion need to be addressed in Eastern Europe. First, decreasing the number of unwanted pregnancies and the need for abortion are paramount. Second, providing women with access to quality abortion care and reducing repeat abortions are

[1] East European Institute for Reproductive Health, 1 Moldovei Street, 540493 Targu-Mures, Romania.

also important priorities. To address these challenges in the region, strategies are needed to address not only the medical aspects of abortion, but also economic, social and educational issues associated with abortion.

The region

Eastern Europe, as defined in this paper, comprises 27 countries with transition economies, some of them extending beyond the borders of continental Europe into Central Asia and some newly independent states that were part of the former USSR. This grouping reflects the similar historical and political trajectories followed by these countries over the second half of the twentieth century. After the fall of communism in the early 1990s, these countries underwent a period of political and socioeconomic reforms which resulted in a relatively homogeneous profile in terms of general health trends and reproductive health problems in particular.

Defined as such, the countries can be grouped into five subregions: Eastern Europe, the Baltic States, the Commonwealth of Independent States, Central Asian Republics and Kazakhstan, and Former Yugoslavia (*1*). The total population of the region is 627 million, representing diverse peoples, cultures and traditions. The different political and economic evolution of these Eastern European countries created a substantial health differential compared to countries in Western Europe, particularly in terms of reproductive health indicators, although many general health indicators remain similar (*1,2*).

Demographic trends

The demographic transition in Eastern European countries was similar to that in Western countries, and there is concern about the decline of fertility to below replacement levels in these countries. Reasons for this situation are the same for all countries and include a sharp fertility decline, rising or stagnant mortality, and emigration. According to the United Nations *World Population Prospects: the 1994 revision*, a medium variant projection of the population of Eastern Europe shows a decrease of approximately 10 million between 1994 and 2025 (*3*). Fertility in Eastern Europe declined from 2.1 children per woman in 1980 - 85 to 1.6 in 1990 - 95 (*4*), and the population growth rate in Eastern Europe was negative in 1990 - 95 (– 0.1%), compared to + 0.6% in 1980 - 85 (*3*). This trend is not uniform; for example, the populations of Hungary and Bulgaria declined by about 2.5%, while the populations of Poland and Slovakia continued to grow. Family planning programmes therefore face challenges that are radically different from those confronting the overpopulated and underdeveloped regions of the world.

Abortion legislation and regulations

With the exception of Poland, where abortion is allowed only to save a woman's life or protect her physical health, or in cases of rape, incest or fetal impairment, all countries in Eastern Europe have liberal abortion laws that do not restrict the grounds for abortion.

Abortion may be legally performed up to 12 weeks gestation in medical facilities (governmental, nongovernmental or private) by obstetricians and gynaecologists. Counselling and waiting requirements vary from one country to another, but it is generally possible to obtain an abortion very quickly. In most countries, spousal consent is not required, but parental consent is needed for minors.

The cost of a legal abortion varies from country to country. For example, in Romania, the price of an abortion is less than US$ 3 in public clinics but may be as much as US$ 15 in private clinics. In Armenia, abortion was provided free of charge until August 1997; since then, the charge has increased gradually from about US$ 7.50 in 1997 to approximately US$ 9 in 1999 and general anaesthesia raises the charge to approximately US$ 13.50. In Lithuania, abortions under 6 weeks gestation cost approximately US$ 15; those beyond 6 weeks gestation cost approximately US$ 22. Private practices also offer abortion services ranging from US$ 100 for vacuum aspiration to US$ 200 for dilatation and curettage. In the Russian Federation, although abortion is theoretically free of charge, prices may reach US$ 50 in some clinics.

Several countries offer financial exemptions for some categories of women including students, the unemployed or those with no income, mothers with four or more children, women with life-threatening pregnancy-associated diseases, pregnancies occurring to couples with a history of genetic defects, women with severe physical or mental disabilities, and victims of rape or incest resulting in pregnancy, etc. In some countries, physicians receive a percentage of the official abortion fee and there is a widespread culture of informal payments to physicians, a practice rooted in the communist era.

Abortion levels

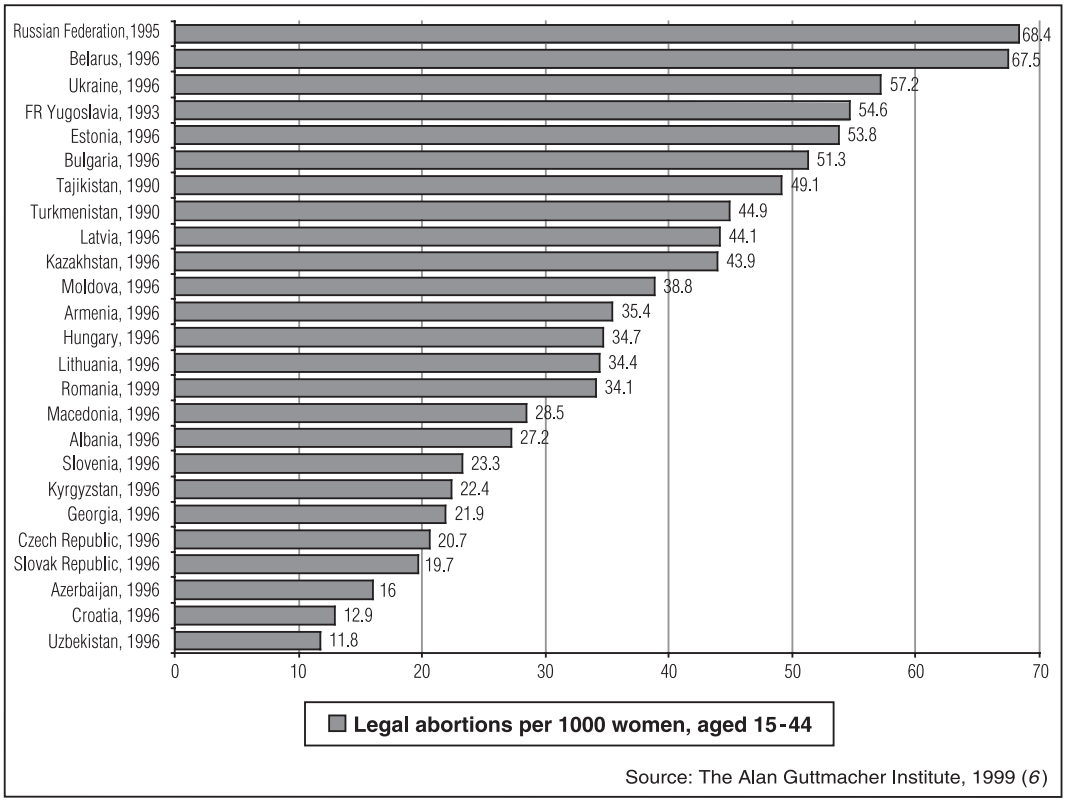
One of the main reproductive health characteristics of this region is the high rate of abortion associated with low levels of contraceptive use. Rates of contraceptive prevalence are generally low in most Eastern European countries and are less than 1% in a few countries, in spite of efforts by governments, nongovernmental organ-

izations and international agencies (*1*). Use of traditional methods of contraception such as withdrawal is very high, resulting in a large number of accidental pregnancies (*5*).

In some countries, the abortion rates equal or even exceed birth rates by a factor of two or three. The lowest rate occurs in Uzbekistan (11.8 abortions per 1000 women aged 15 – 44 years), while the highest appears in the Russian Federation (68.4 abortions per 1000 women aged 15 – 44 years) (Figure 1). In comparison, most Western countries have abortion rates below 23 per 1000 women aged 15 – 44 years, with a rate of 11 per 1000 women aged 15 – 44 years in Western Europe (Figure 2).

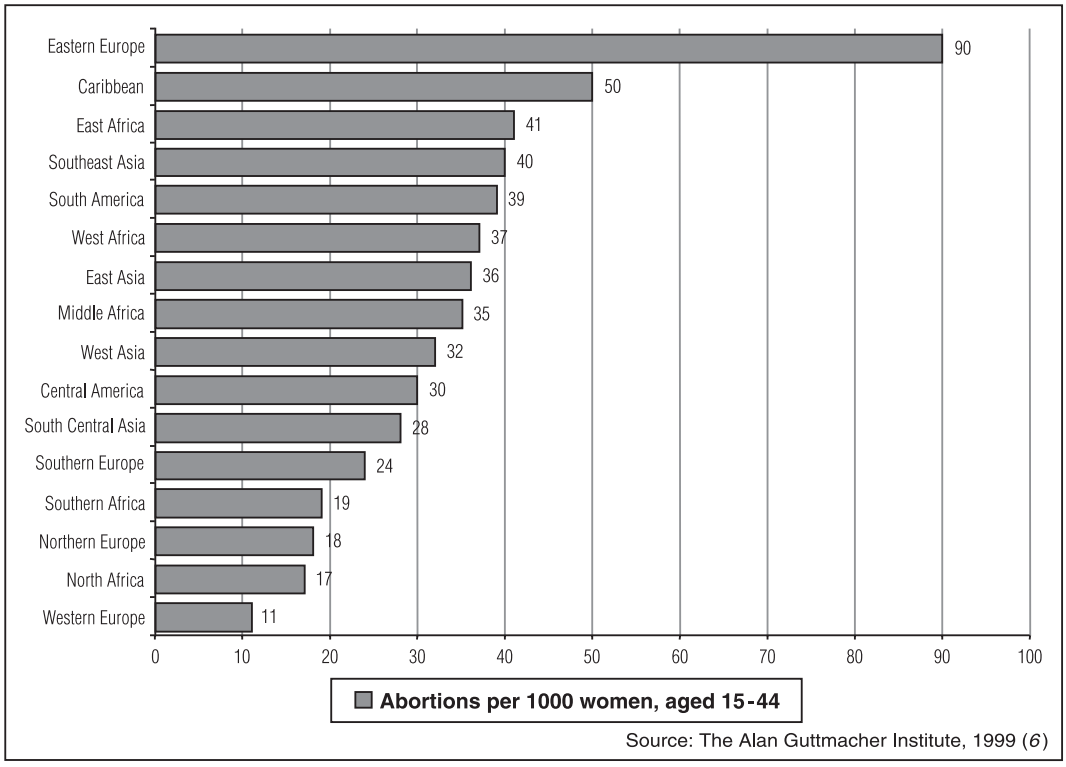
Eastern Europe has one of the highest abortion rates in the world. Due to underreporting and other data problems, available figures may be incomplete and data from the private sector may be reported with varying frequency. Rates should therefore be interpreted with caution; however, even when taking into account possible

Figure 1.
Incidence of legal abortion in Eastern European countries in the 1990s.



Source: The Alan Guttmacher Institute, 1999 (*6*)

Figure 2.
Abortion rates in different regions of the world.



underreporting, the figures show that abortion still remains the principal means of fertility regulation for most Eastern European countries.

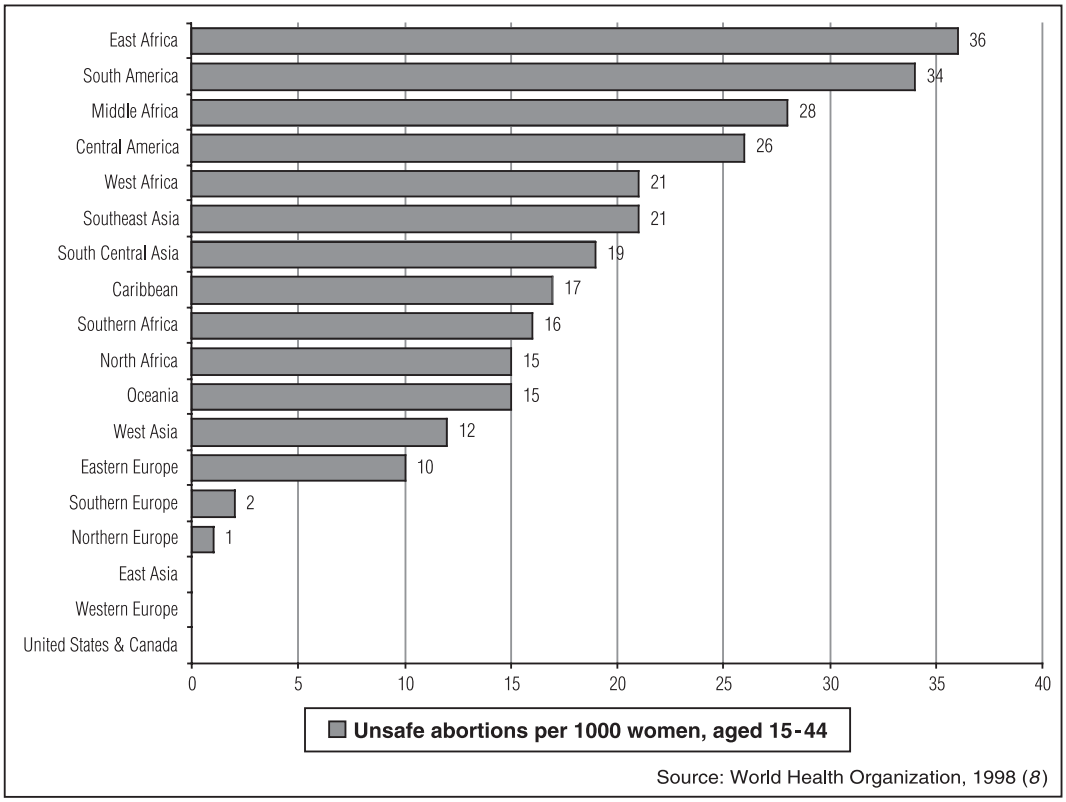
As a general rule, at the global level, the proportion of abortions in a world region is approximately equal to the proportion of women who live in that region. From this perspective, Eastern Europe has a disproportionate share of abortions, with 14% of abortions and only 5% of the world's female population.

Although abortion is legal in Eastern European countries, illegal and unsafe abortions nonetheless take place. There are no statistics for the number of abortions that take place outside the public and private health sectors, but existing data indicate that a relatively high number of hospital admissions are due to abortion complications, which suggests that the total number of illegal abortions is unacceptably high. For example, although abortion has been legal since 1990 in Romania, there were still 207 admissions to hospitals in 1999 for complications of illegal abortions, according to official Ministry of Health statistics.

Unsafe abortion has been defined as a procedure for terminating an unwanted pregnancy carried out by persons lacking the necessary skills or in an environment lacking minimal medical standards, or both (*7*). Data from the database on unsafe abortion maintained by WHO's Department of Reproductive Health and Research (*8*) indicate that Eastern Europe has a relatively low incidence of unsafe abortion compared to other regions of the world (Figure 3). Of the almost 20 million unsafe abortions that take place each year, 19 million occur in developing countries, and only 800 000 in Eastern Europe. Nonetheless, this figure represents approximately one unsafe abortion for every four live births in Eastern Europe (*1*).

According to the WHO definition, unsafe abortions are characterized by inadequate provider skills, hazardous techniques, and/or unsanitary facilities. This definition does not take into consideration differences in quality of available services, or other differences between health systems in each country. In terms of the WHO definition, legal abortions in Eastern Europe are technically safe, because they are

Figure 3.
Incidence of unsafe abortion in different regions of the world.



performed only in medical settings by qualified physicians using approved medical techniques. However, the quality of abortion services may be negatively affected by the large number of abortions performed under limited resources in a high-caseload setting, as is the case in Eastern Europe.

High levels of abortion: the socioeconomic context

Although the demographic transition in Eastern Europe is similar to the transition in Western countries, there is a major difference in patterns of family planning. The overall aim is the same in both regions – to limit unwanted pregnancies – but the means of achieving this goal differ. While Western European couples use contraception to space and limit births, Eastern European couples plan births without using modern contraception and rely mainly on abortion to resolve an unwanted pregnancy (*9*). There are two possible interrelated factors that may explain this pattern: one is historical and the other cultural.

Historically, abortion was legalized in most Eastern European countries following the 1920 Soviet model (*10,11*). The intention was to create conditions for a new communist society and acknowledge the equal status of women, but the fact that modern contraceptive methods had not yet been developed led to the establishment of induced abortion as the main method of fertility regulation throughout Eastern Europe. The Soviet model of birth control thus promoted abortion over contraception and was characterized by essentially limitless legal grounds for abortion, low use of modern contraceptive methods, and a lack of contraceptive information and services (*12*).

When faced with declining fertility, some communist regimes enacted radical legislation to boost birth rates. The pronatalist measures taken by some communist regimes (e.g. in Romania, Bulgaria, Czechoslovakia, and Hungary) included a ban on abortion and contraception coupled with incentives for childbearing when fertility rates in these countries fell below replacement level (*11*). Unfortunately, these measures only reinforced the use of abortion to avoid unwanted births – although rendering it illegal and unsafe – and led to an increase in maternal mortality and morbidity.

Health policies were influenced by political ideology with a substantial impact on health care providers at the primary level. For example, in 1974, the Ministry of Public Health in the former USSR published a letter on the side-effects and complications of oral contraceptives. This was reinforced by another document in 1983, which sustained the prohibition of oral contraceptives for contraceptive purposes (*12,13*).

With the fall of communism in the beginning of the 1990s, abortion and contraception were legalised in countries where they had been banned for decades (such as in Romania). However, this change in policy took place in a vacuum of contraceptive knowledge and a shortage of supplies, and this led to a sharp increase in the number of abortions. The number of abortions decreased over subsequent years as a result of increasingly available family planning information, education and services provided by governments and nongovernmental organizations, although abortion levels remain high.

Cultural factors sustaining high levels of abortion in the region have been reinforced over time, reflecting the historical and political evolution described above. These are, unfortunately, also the most difficult elements to change. Cultural norms surrounding abortion became embedded in the national psyche and continue to affect current behaviour patterns.

Experience in many countries indicates that better educated couples are more likely to use family planning. This is also the case for Eastern Europe, where data from national surveys and other research show a correlation between educational levels and use of modern contraceptive methods. What is specific to this region is that while women may be generally well educated, they are poorly educated in knowledge of family planning issues.

The vast majority of women and men in Eastern European countries have at least an elementary education. Universal education was a basic principle respected by communist regimes and the quality of the educational systems in these countries remains high. A highly educated population notwithstanding, most Eastern European women and men lack basic facts about sexual and contraceptive matters after so many years of a ban on reproductive health information. They continue to be influenced by misinformation spread through informal social networks including deliberately misleading information disseminated in the past. Perceptions of oral contraceptives, for example, remain surprisingly negative, even in a country like the Czech Republic where there is a long history of contraceptive use (*14*).

This distortion in women's and men's perceptions and attitudes towards family planning continues to negatively affect their contraceptive practices today. Many women know about the existence of modern contraceptive methods, and might even know where to find them and have the means to get them, but they do not act because of a confusing system of misleading beliefs. In a recent study of the determinants of choice and use of fertility-regulating methods in five Eastern

European countries (Armenia, Georgia, Lithuania, Romania and Russian Federation), the most important reason for not using a modern contraceptive method was an incorrect assessment of the risk of pregnancy (*15*). A second important reason for rejecting contraception was a fear of complications caused by modern methods, either based on problems encountered in the past using a modern contraceptive method or from misinformation about the side-effects of modern contraceptives, particularly hormonal contraception and IUDs.

Other less important reasons for not using modern contraception included various limitations on contraception use, e.g. partner opposition or medical barriers. In many Eastern European societies, partner attitudes play an important role in the decision to use contraception or to have an abortion. Medical barriers reflect the level of knowledge and professionalism of the family planning providers (*16*). Most of the current family planning providers in Eastern Europe were trained with outdated textbooks (*17,18*) and they lack up-to-date information about modern contraceptives. Some physicians even counsel women not to use oral contraceptives because they believe, incorrectly, that they cause cancer, liver disorders, and cardiovascular disease.

Despite extensive efforts by governments and nongovernmental organizations and support from international agencies, the low availability of modern contraceptive methods and barriers to accessing good-quality family planning services continue to limit the use of modern contraception in Eastern Europe. In contrast to these difficulties in accessing good-quality modern contraceptives, easy access to low-cost and safe abortions may be viewed as a contributing factor to the high incidence of induced abortion (*19*).

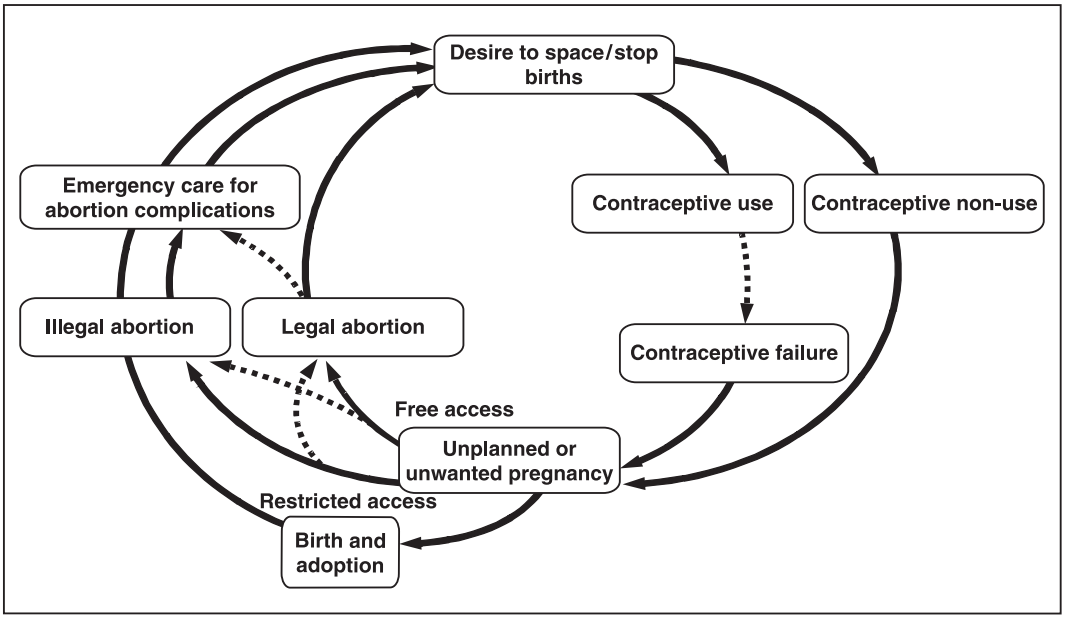
The outcome of this historical and cultural evolution is a situation similar to that encountered in most European societies before modern methods of contraception were developed, in which couples controlled their fertility through the use of traditional, less effective methods such as rhythm or withdrawal, and through abortions. This complex combination of perceptions, beliefs, attitudes and practices, whose roots may be found in the specific background of the region combine to create an "abortion culture" that is extremely resistant to change. Data from Germany after reunification show that women from East Germany (former German Democratic Republic) continued to have their pregnancies aborted more often than women from West Germany (495 abortions/1000 live births, compared to 104 abortions/1000 live births), thus preserving the pattern of fertility regulation in the East despite having free access to contraception information and services in a reunited Germany (*20*).

The cycle of unwanted pregnancy and abortion

The cycle of unwanted pregnancy begins when a pregnancy is considered to be unwanted or mistimed by the woman and/or her partner (Figure 4). The decision to have a child and the decision to proceed with a pregnancy are influenced by many factors but are dominated by socioeconomic and cultural considerations. The economic difficulties encountered by Eastern European countries during the transition period led to a lack of desire to have more children. For example, inability to afford another child was stated by 14 % of the respondents in a 1993 Czech Republic Reproductive Health Survey, while 34 % expressed the desire to have no more children and 15 % wanted to wait longer for a child (*21*). Similarly, the 1993 Romanian Reproductive Health Survey showed that 20 % of abortions were performed for economic or social reasons (low income, crowding, or fear of losing a job) and 67 % for limiting or spacing childbirth (*22,23*). In the study of the determinants of choice and use of fertility-regulating methods mentioned above, there was a clear preference for smaller families among women in the five Eastern European countries, and the most important reasons for not wanting a child were related to socioeconomic status (*15*).

Lack of contraceptive use or the use of traditional methods are critical factors leading to unwanted pregnancies. As a result, 63% of the approximately 11 million preg-

Figure 4.
The cycle of unwanted pregnancy.



nancies occurring each year in Eastern Europe are unplanned and 57% of them end in abortion (*6*). In comparison, in Western Europe, only 33% of pregnancies are unplanned and only 21% of them end in abortion. For those couples who are using contraception, the use of traditional methods associated with high failure rates and inconsistent or incorrect use of modern methods are responsible for part of the unwanted pregnancies.

When faced with an unwanted pregnancy, few Eastern European women accept carrying it to term. The concept of delivering the baby and giving it up for adoption is not culturally acceptable, so abortion is the easiest way to resolve the unwanted pregnancy. Since most Eastern European countries have no legal restrictions on abortion and the procedure has widespread acceptability, the majority of women terminate the pregnancy. Women living in countries with restrictive abortion laws may travel to a neighbouring country with more liberal legislation to have the abortion.

In the absence of proper postabortion family planning counselling and services, women often find themselves back in the same situation of wanting to avoid a subsequent unwanted pregnancy but being unable to achieve that goal. Thus, they re-enter the same cycle of failing to prevent unwanted pregnancies.

Some women living in countries with liberal abortion laws do not turn to available safe abortion services but resort to illegal abortions – a persistent and puzzling phenomenon. Research is needed to better understand why these women choose a risky procedure over a substantially safer one. Abortion is considered an elective procedure at the request of the patient in many Eastern European countries and is therefore not covered by state funds or insurance systems, especially in the context of the transition to a market economy. Some women may seek cheaper services outside of the government sector. However, the number of private gynaecology clinics offering abortion services for expensive fees is growing. Lack of confidentiality of abortion services might also deter some women from turning to existing abortion services. Finally, the fact that abortion services are offered primarily in urban districts leaves the rural areas without accessible services and many clients who undergo unsafe abortions come from these areas.

Emergency care services for abortion complications are included in health care services in all Eastern European countries and many women who have complications from illegal unsafe abortions turn to these services. Additionally, some women who had legal abortions may develop complications requiring emergency treatment. Again, however, as contraceptive counselling and services are generally not part of postabortion care, these women are likely to re-enter the cycle of unwanted pregnancy and abortion.

Consequences of poor-quality abortion services

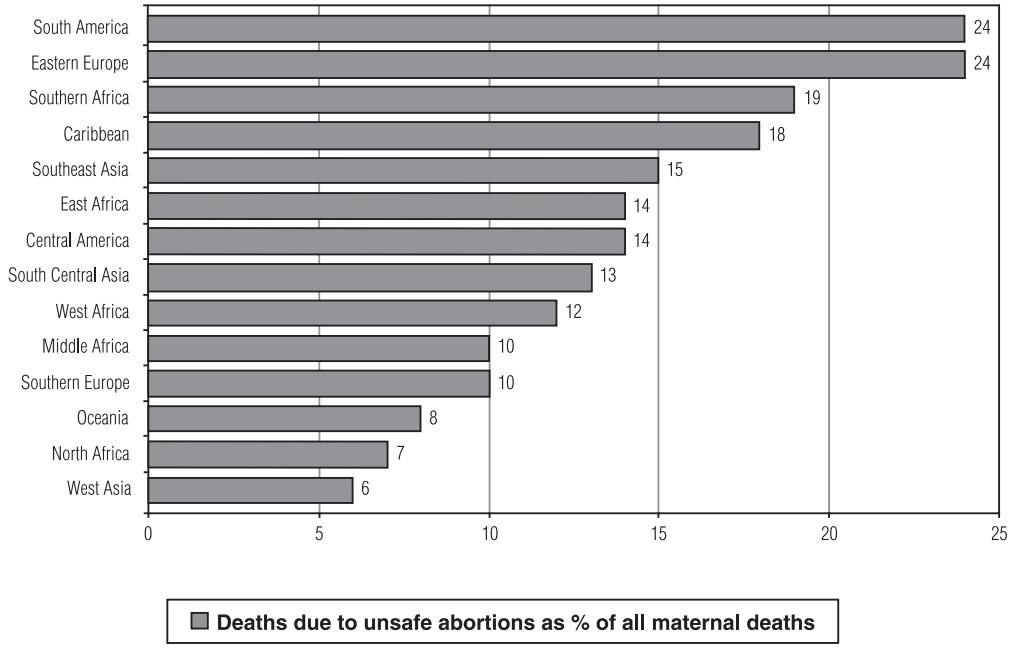
Although it is generally believed that abortions performed in a legal facility by an experienced provider using vacuum aspiration have few, if any, long-term consequences, the large number of legal abortions that are performed routinely in Eastern Europe and the strain this demand places on resources may lower the quality of abortion services. As a result, morbidity from legal abortions, including early complications (trauma, haemorrhage and pelvic infection) and delayed complications (cervical or uterine adhesions and secondary infertility), may be fairly prevalent in Eastern Europe and may have an impact on a woman's reproductive health and subsequent pregnancies (*24,25,26,27*).

As for illegal abortions, the situation is similar to that in other world regions (Figure 5). Although the rate of unsafe abortion is lower in Eastern Europe compared to other regions, the percentage of maternal deaths due to unsafe abortion (24%) ties with that of South America, where the incidence of unsafe abortion is threefold. Permanent disability may result from unsafe abortion and a hysterectomy may be needed to save the woman's life. Delayed complications from unsafe abortion including chronic pelvic pain, pelvic inflammatory disease, tubal occlusion and secondary infertility may affect the woman's health. About 20% to 30% of unsafe abortions may lead to reproductive tract infections, of which 20% to 40% lead to pelvic inflammatory disease and consequent infertility. The total Disability-Adjusted Life-Years (DALYs) lost due to unsafe abortion in Eastern European countries as a percentage of total DALYs in the 15 – 44 year age group were 1.75, compared to only 0.08 in Western countries (*28*).

Mortality ratios from abortion-related causes range between 2 and 24 deaths per 100 000 live births, with an average of 13 deaths per 100 000 live births, while in most European countries and in the USA and Canada the figure is lower than 2 deaths per 100 000 live births (*29*). This places unwanted pregnancy in a leading position among causes of maternal death in some Eastern European countries (*30*). For example, although abortion is free and widely available in Romania, illegal abortions were responsible for 45% of maternal mortality in 1999. This is the main reason the country has a maternal mortality ratio that is considerably higher than other countries in the region with similar quality health care systems.

Almost all these deaths are due to illegal, unsafe abortions, and mortality due to legal abortion is extremely rare in Eastern Europe. Furthermore, although mortality rates due to illegal abortions are relatively high compared to the rest of Europe, the absolute figures for each country are small compared to other regions in the world with higher levels of unsafe abortion.

Figure 5.
Mortality from unsafe abortion in different regions of the world.



Source: World Health Organization, 1998 (*29*)

In addition to the health impact, complications from abortion also place material and financial burdens on the fragile health systems of Eastern European countries. Although they are infrequent, complications from an unsafe abortion may require a long stay in hospital and high associated costs. The cost of treating a septic abortion may be three or more times that of a normal delivery (*31*). It was estimated, for example, that the economic effect of reducing the number of abortions in the Russian Federation by 15% to 20% would save 165 million roubles annually (*32*).

Priorities and strategic objectives

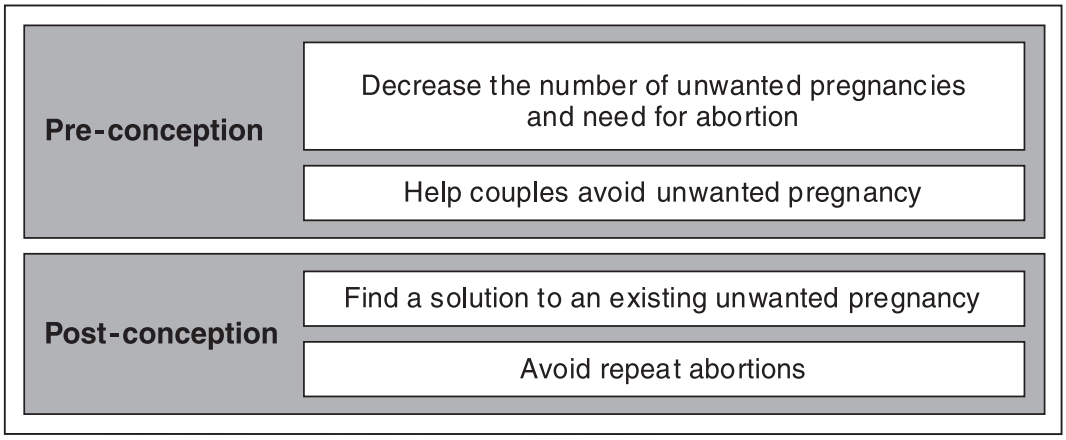
Four main priorities related to abortion in general and to unsafe abortion in particular need to be addressed in Eastern Europe.

1. Decreasing the number of unwanted pregnancies and the need for abortion.
2. Helping couples avoid an unwanted pregnancy.

3. Resolving an existing unwanted pregnancy.
4. Reducing repeat abortions.

These priorities can be grouped temporally into pre-conception and post-conception needs (Figure 6).

Figure 6.
Priorities to be addressed before and after conception.



To address the above priorities, several possible strategies may be used based on one or more of the following three intervention areas: socioeconomic interventions, behavioural change interventions, and health interventions. The objective of these interventions should be to promote a shift from post-factum to preventive thinking. As stated in Chapter 8, Paragraph 25 of the Programme of Action of the 1994 Cairo International Conference on Population and Development, "Prevention of unwanted pregnancies must always be given the highest priority and all attempts should be made to eliminate the need for abortion" (*33*).

1. Decreasing the number of unwanted pregnancies and the need for abortion

The best way to prevent abortions, both legal and illegal, is by decreasing the number of unwanted pregnancies and therefore the need for abortion. Improving women's status, including their economic and social situation, and a more equal distribution of family and childbearing responsibilities would permit more women to achieve their reproductive goals. Moreover, improvement in both the status and the reproductive health of women has multiple benefits for the society as a whole (*6*).

2. Helping couples avoid an unwanted pregnancy

If couples were able to achieve their desired family size with optimal spacing and timing, the number of abortions would be reduced and an estimated 25% to 40% of maternal deaths would be averted and women's health would be improved (*34*).

Inform and educate women and men

There is an urgent need for national health and education systems to implement programmes on sexual health and contraception in most Eastern European countries. To be efficient, information must be specifically targeted to address misperceptions and rumours and must be part of a broader campaign addressing sexuality, sexual behaviour, and reproductive health in general. Medical and technical messages about contraceptives should be simplified in order to be better understood by clients. Information that is too technical or too detailed may confuse or turn away potential users, and poorly chosen or presented information may result in negative images of contraception.

Inform and educate educators and media professionals

Not only clients and providers but also educators and media professionals in Eastern Europe need family planning education and information. Both categories of professionals are important as they reach vast audiences with information that may create or change behaviours.

Expand the range of contraceptive methods available

All Eastern European countries have initiated or developed family planning programmes that offer, at the very least, basic modern contraceptives. Development of these programmes has been clearly associated with a decrease in abortion rates. For example, in Kazakhstan, the use of oral contraceptives and intrauterine devices rose 32% between 1988 and 1995, with a 15% decrease in the abortion rate (*35*). In Romania, the modern contraceptive prevalence rate more than doubled from 13.9% in 1993 to 29.5% in 1999. The rise was associated with a decrease in abortion rates from 104 to 45 abortions per 1000 women of reproductive age (*36*). These interventions were clearly highly effective and efforts should be made to expand the quantity and range of contraceptive methods available in Eastern European countries.

Improve access to and quality of family planning services

Access to family planning services offering modern contraceptives should be improved, especially by expanding the services towards primary health care. Ensur-

ing the availability of good-quality modern contraceptives is an important step; however, contraceptives must be affordable to all potential clients including disadvantaged groups such as poor or rural women, adolescents, etc. In this respect, cost is an extremely important factor when developing services because government subsidies may fluctuate or end. In those Eastern European countries where limited national health budgets do not cover essential drugs, contraceptives may cost up to one third of a woman's income (*37*). As long as it is cheaper to have an abortion than to obtain a good-quality contraceptive method, and as long as women lack correct information about contraception, they will continue to use the more familiar option of abortion (*17*). This being the case in Eastern European countries facing harsh economic problems during the transition, the current allocation of international funds for family planning in the region should be increased if the desire to make contraceptives more accessible to all women is genuine.

Inform and educate family planning providers

Continuing education of health care providers, and especially of physicians, is particularly important since they are regarded by the population as the primary source of family planning information. Unfortunately, many family planning providers in Eastern European countries continue to follow unnecessary exclusion criteria, based largely on outdated scientific studies on contraceptives, or on theoretical concerns that have not been scientifically substantiated, or on personal subjective preferences. Current prescribing policies limit access to some modern methods by increasing cost and inconvenience through unnecessary expensive laboratory tests and frequent pelvic examinations. These barriers limit access to contraception and diminish the quality of services.

Promote emergency contraception

Emergency contraception is an important method for helping women achieve their reproductive health goals. If it is widely advertised and available, many potential unwanted pregnancies and induced abortions may be avoided. Emergency contraception can also play an important role linking women to broader family planning and reproductive health services, serving as a first contact point for counselling, information and other reproductive health services. The provision of emergency contraception methods in Eastern Europe through existing family planning programmes and, if necessary, through possible alternative services should be considered as a part of any strategy to address the issue of reducing unwanted pregnancies and abortion.

Increase male involvement

Involving male partners and encouraging their cooperation in contraceptive use may also help increase the use of modern contraceptives and, consequently, contribute to reducing abortion rates. Family planning programmes and services should address the roles and responsibility of men in preventing unwanted pregnancies (*38*).

3. Resolving an existing unwanted pregnancy

Even the best contraceptives available today are unable to entirely eliminate the risk of pregnancy and, consequently, the need for abortion. Between 8 and 30 million pregnancies each year are due to contraceptive failure, which are related to the method or to inconsistent or incorrect use.

Abortion legislation

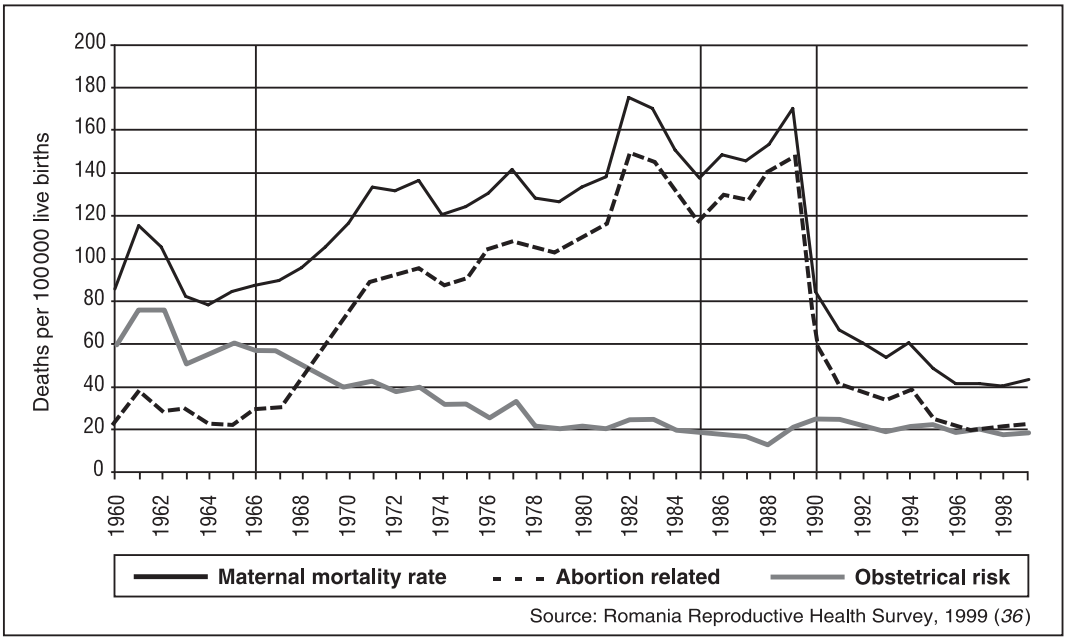
Compared to Western Europe, state institutions in Eastern Europe have exerted a very strong influence on family planning programmes. For example, the Romanian government sought to decrease abortion through legislative means by restricting or eliminating access to safe abortion services. However, as the Romanian experience clearly demonstrated, legal restriction of abortion is not a solution. The restrictive legislation served to turn legal abortions into illegal ones, with dramatic consequences in terms of increased maternal mortality and morbidity (Figure 7) (*39,40,41*). Evidence indicates that legislation making abortion illegal, particularly when contraceptive use is also highly restricted, will not increase the number of wanted conceptions and will not lead to a marked decrease in the number of abortions (*42*).

Hospitals that refuse to provide abortion services based on conscientious objection may be endangering women's lives if no referral system is in place, as these women may turn to illegal and unsafe abortion (*43*).

Improve access to and the quality of abortion services

Although abortion services are widely available in Eastern Europe, they are usually located in urban areas and rural areas often lack such services. In addition, poor referral mechanisms between different levels of service providers may also affect abortion care. The provision of appropriate abortion techniques is an important element of quality of care. Although vacuum aspiration has become widely used, there are still countries and health centres in which dilatation and curettage continue to be practised, especially by older gynaecologists. Even in leading medical centres,

Figure 7.
Evolution of maternal mortality in Romania, 1960-1999.



there is widespread opinion that aspiration should be followed by a short curettage to ensure that the uterus is empty. Studies have shown that new abortion technologies, such as medical regimens with mifepristone and misoprostol, represent a highly acceptable alternative to classical curettage or aspiration and become part of abortion services provided in Eastern Europe.

Inform women about the risks of illegal abortions

Many Eastern European women view abortion rather casually and exhibit a lack of concern about the risks involved in illegal abortion procedures. Sustained information campaigns on the risks of illegal abortions should be targeted towards women who might turn to illegal providers to end an unwanted pregnancy.

Inform and educate abortion providers

Another important element in enhancing the quality of abortion services is improvement in the competence of abortion providers. As a result of experience with a large number of abortion cases, many of them complicated, Eastern European gynaecologists have developed extensive clinical skills, and medical schools

have developed good guidelines for the clinical management of abortion. In this respect, Eastern European providers may serve as resources for training less experienced abortion providers from other regions of the world.

However, providing high-quality abortion care requires, among other things, training in modern techniques, pain control, interpersonal communication and counselling skills, aspects that are less familiar to Eastern European providers. In many Eastern European countries, the high number of abortions per day and the off-handedness with which they are regarded by both the patients and providers have led to low-quality services, particularly in terms of information, counselling, and patient-provider interactions. Revisions to the curricula used in the medical schools and in residency programmes should lead to improvement in the providers' competence and quality of care.

4. Reducing repeat abortions

Improve postabortion contraception information, counselling and services

Women requesting an abortion represent a well-defined target population for postabortion family planning services. Providing these women with contraception information and counselling and offering them reliable methods of contraception may break the cycle of unwanted pregnancy and help prevent another abortion (*44*). Postabortion care also provides an opportunity to offer women a broader array of sexual and reproductive health care services.

Research areas

Research is an important component of any strategy addressing the issue of unsafe abortion. Both the United Nations International Conference on Population and Development in 1994 and the Fourth World Conference on Women in 1995 called on governments "to understand and better address the determinants and consequences of induced abortion". Information based on reliable, timely and relevant scientific data is essential to identifying needs and priorities and pointing to effective strategies. A coherent and comprehensive research strategy should ideally begin with a nationwide assessment of the reproductive health situation of the country with a special focus on abortion. Because abortion is a combined medical, social, and health systems issue, its study requires the combined approaches of clinical, epidemiological, social science and health systems research.

Clinical research on contraceptive technology may lead to the development of more effective and reliable contraceptives, thus reducing the number of unwanted pregnancies and subsequent abortions. New abortion technologies may provide highly acceptable and safe options for resolving an unwanted pregnancy and contribute to improving services. Clinical research can also address issues such as the effectiveness of different treatment protocols for complications of abortions and different pain control procedures. Most abortions in Eastern Europe are performed under local paracervical anaesthesia.

Epidemiological and demographic research provides important baseline data on abortion rates and trends over time, although underreporting is common. An accurate assessment of the incidence of complications and of the long-term consequences of induced abortion (both legal and illegal) on the subsequent reproductive status of women is an important research aim, given the magnitude of abortion in Eastern Europe.

Social science research identifies factors that contribute to the high number of unplanned pregnancies in the region. Studies of the determinants of contraceptive use and choice of method, the reasons individuals and couples reject modern contraception and turn to abortion to regulate fertility, and men's attitudes and influence in the decision-making process are important. Available data suggest the existence of a gap between reproductive goals and effective contraceptive use, and a gap between knowledge of family planning and available information (*15,45*). Community-based studies of women's attitudes and behaviours regarding unwanted pregnancy are needed, including investigation of the abortion-related needs of adolescents and other special groups. Studies of the role of the providers' gender in the quality of abortion services and their impact on women's access to services may be useful in improving the quality of the service. Research is also needed to identify and document providers' knowledge, attitudes, and perceptions in different countries and regions, including differences in what service providers consider is appropriate information to give to patients. Finally, the reason women turn to illegal abortion in situations where abortion is free of charge and available in government clinics needs to be better understood.

Health systems research on the effectiveness of different service delivery models may lead to better and more efficient family planning and abortion services. Studies on financing family planning and abortion services, including the ways cost affects the choice and use of modern contraception and abortion are

needed to facilitate the development of strategies favouring contraception. Research is also needed on the real costs incurred by abortions and on the treatment of abortion complications in Eastern Europe. Cost-benefit analyses of different interventions will provide evidence for policy-makers and health planners to adopt the best strategies. In addition, studies on the impact of integrating new abortion technologies into existing health care systems may be needed to improve current services.

For many of the above objectives, local small-scale studies are required, given the diversity of issues related to unsafe abortion, and because national and local actions may be needed. Regardless of the scope of the studies, the research findings should be linked to policy change and to improving the practices. To achieve this in Eastern Europe, with its long tradition of centralized decision-making, it is important to involve key policy-makers and service providers in the research process from the beginning, and to disseminate the research findings as broadly as possible.

Conclusions

After the fall of communism in the region, an international conference in Tbilisi, Georgia, in October 1990 drew attention to unwanted pregnancy and unsafe abortion as major public health and social problems for the countries in Eastern Europe and proclaimed the necessity of switching from the practice of abortions to the use of contraception (*46*). In other words, these countries had to make the transition from an "abortion culture" to a "contraception culture". Apart from technological issues, the problem is complex with deep historical and cultural roots.

It must be understood, however, that although the incidence of abortions in Eastern Europe may be reduced over a period of time through combined national and international efforts, abortion will never be completely eliminated. There is no perfect contraceptive method and no perfect service delivery system. Improving and increasing the use of contraception would indeed help to reduce the number of abortions, but women will always need to have access to a safe and supportive abortion service as part of their reproductive health care. Although it may be a long process, Eastern European countries must shift from post-factum to preventive family planning strategies. Prevention of unwanted pregnancies through a comprehensive and integrated approach is the road to follow, and the strategy to achieve this transition is not only medical, but also economic, social and educational.

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11

Conclusions and Recommendations

Ina K. Warriner [1] & Iqbal H. Shah [1]

The papers presented at the consultation and the ensuing technical discussions highlighted the pressing need to address a significant number of gaps in knowledge about unsafe abortion. The evidence presented at the meeting underscored the fact that unsafe abortions and their consequences remain an important maternal health concern in areas where safe abortion services are highly restricted or where the available services are of poor quality. The participants urged the international public health community to continue to address the root causes of unsafe abortion by promoting family planning to reduce unintended pregnancy and by ensuring that abortion services, to the extent permitted by the law, are safe.

The participants called on the international community of stakeholders in women's health, including researchers, medical providers, advocates, policy-makers and programme managers, to take up the recommendations described below. These recommendations were drawn from the presentations and discussions during the consultation, and they focus on critical needs in the area of preventing unsafe abortion. The participants called on those working to prevent unsafe abortion to address specific research strategies and advocacy proposals that cover a range of social, geographical and legal contexts. Furthermore, Ministries of Health, nongovernmental organizations, and health research centres worldwide were urged to review these recommendations, and to support and implement these research topics and advocacy activities, where possible.

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[1] UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction, World Health Organization, 1211 Geneva 27, Switzerland.

To achieve the overall goal of eliminating unsafe abortion, the participants at the consultation identified priority topics and activities in research, capacity-building, norms and tools, and advocacy to reduce the burden of unsafe abortion on women, their families, and health systems. The participants made recommendations in four main areas: 1) biomedical research and the introduction of medical abortion technologies, 2) social, behavioural, and health systems research, 3) programmes and policies, and 4) advocacy. The participants acknowledged that defining priorities is often a challenge, given that the problems associated with unsafe abortion are subject to shifts in social and legal contexts over a period of time and that, to a greater extent than with many other reproductive health issues, unsafe abortion is a regional matter. This call for action reflects recent thinking on issues associated with unsafe abortion, including topics that are relevant globally or in some cases, for specific regions only.

Biomedical research

The participants were asked to identify priority needs in the area of biomedical research which would improve the safety and efficacy of surgical and medical (non-surgical) technologies for abortion. They recommended the following studies, which build upon previous biomedical research in abortion.

Improve the effectiveness and safety of medical methods for inducing abortion

Conduct trials to:

- Refine misoprostol regimens for early abortion to improve its efficacy without causing intolerable gastrointestinal side-effects.
- Further investigate the safety of medical methods such as misoprostol for second-trimester abortion.

Improve the safety of procedural techniques

Conduct randomized controlled trials to:

- Evaluate the safety and effectiveness of preparing the cervix with misoprostol before vacuum aspiration for early abortions.
- Compare the safety and effectiveness of pre-surgical use of misoprostol versus a placebo.
- Evaluate the potential benefits of prophylactic doxycycline for incomplete abortion.

Social, behavioural and health systems research

A significant number of recommendations were made for social science and operations research. In addition to the specific topics listed below, discussions surrounding the recommendations focused on neglected topics and poorly understood issues. As a general observation, the participants noted the poor quality of the available literature and the need for rigorous studies to strengthen the evidence base.

The participants concluded that research on the social determinants of abortion should be complemented by operations research to reduce unintended pregnancies and improve abortion care. Both the long- and short-term impact of interventions designed to reduce recourse to abortion by preventing unintended pregnancies need to be addressed. Study methodologies should be longitudinal, where appropriate, to assess the impact of interventions on repeat abortions and on women's understanding of their own reproductive health. Interdisciplinary approaches to addressing unsafe abortion should be pursued to better understand the choices women make and the pathways to these decisions. For example, violence against women and its associations with unsafe abortion should be explored. The participants also observed that health systems are not always up to the desired standard and providers may not have updated their skills and knowledge base. Many providers also hold negative or punitive attitudes towards women who seek abortion care. Research on health systems is needed to assess safe abortion care in both public and private health systems.

The following priority needs in the area of social, behavioural, and health systems research were identified.

Measure the incidence of unsafe abortion and its consequences

- Summarize and evaluate the existing approaches for measuring and estimating the incidence of unsafe abortion. Assess the increasing impact of medical abortion procedures on the quality of data reporting. Explore ways to adapt methods of data collection to improve the reporting of medical abortion and assess ways to better estimate the incidence of medical abortion.
- Document the incidence of morbidity and mortality from unsafe abortion.
- Estimate the incidence of unsafe abortion by subgroups such as poor women, refugees, and other disadvantaged populations.

Assess the costs of unsafe abortion

- Document the costs – to the individual, to families, and to the local and national health systems – of treatment for complications of unsafe abortion.

Analyse the relationship between laws and policies

Develop case studies to:

- Document and analyse the role of civil society in bringing about changes in laws and policies related to preventing unsafe abortion.
- Document key examples of dissonance between abortion laws and their implementation.
- Evaluate the impact of changes in abortion laws and policy on women's health outcomes.

Assess the linkages between sexuality, violence and abortion

- Examine sexuality and violence-related determinants of abortion at the individual level, the interpersonal level, and the community level.

Explore the impact of women's autonomy and health outcomes

- Examine the relationship between women's empowerment and access to safe abortion services, including the role of women's social networks and grassroots organizations in the diffusion of information on abortion services.
- Explore the interrelationship between types of abortion procedures and the degree of women's choice and control over the methods used.
- Explore women's perceptions of "safe" abortion procedures, including both "social" and "medical" safety, and the ways these perceptions influence preferences for types of providers and procedures.

Explore the role of men in preventing unsafe abortion

- Investigate men's knowledge, perceptions and attitudes regarding unsafe abortion as well as their involvement in (a) the decision-making process leading to an unsafe abortion, (b) postabortion care, and (c) home-based abortion procedures (whether traditional or new, such as medical abortion).

Investigate unsafe abortion among young unmarried women

- Investigate the pathways to resolving an unwanted pregnancy through unsafe abortion among young women.

- Document the impact of psychosocial counselling on postabortion contraceptive use.
- Document community norms and support for abortion services and evaluate the availability and accessibility of these services for young women.
- Conduct operations research on improving the capacity of service providers to better meet the needs of youth – focusing on attitudes, skills and provision of appropriate services.

Programmes and policies to reduce unsafe abortion

The participants mapped the priority needs in the design and implementation of appropriate, acceptable, and affordable programmes and services. The following programmatic recommendations and guidelines were identified.

Introduce new medical abortion technologies to medical communities

- Develop strategies for introducing medical abortion in different settings, where permitted by law.
- Assess the outcomes of introducing medical abortion technology on clients, providers, and health systems.

Improve the quality of safe abortion services and postabortion care

- Test models for the introduction and support of abortion and postabortion care using MVA in primary-level health care facilities.
- Institute mechanisms for quality assurance in the provision of abortion services.
- Evaluate the safety of the provision of MVA by mid-level providers.
- Assess the potential use of misoprostol for postabortion care at primary and community level services.
- Examine the feasibility and impact of integrating abortion and postabortion services with other reproductive health services for refugees and displaced persons.

Develop guidelines for safe abortion and postabortion services

- Develop evidence-based safe abortion and postabortion care guidelines for:

– Case management of women undergoing abortion with medical methods.

– Managing abortion complications in different resource-settings.

  - Groups with special needs such as unmarried women, refugees and displaced persons, and women who are victims of violence.
  - Midwives and other primary and community health care providers.
- Collate impediments to accessing and providing safe services including third-party authorization, lack of confidentiality, negative or punitive provider attitudes, prohibitive cost of care, onerous certification procedures for rape and incest, and misunderstanding and misapplication of the law including lack of knowledge of the legal indications for abortion.
- Adapt guidelines at the national level in collaboration with professional associations, women's health advocates, human rights organizations, and community groups.

Dissemination of information to reduce unsafe abortion

Data on the impact of unsafe abortion on women's health should be made accessible to local policy-makers and officials who are frequently unaware of the magnitude of the problem, its consequences, and ways to reduce unsafe abortion. In many situations, improper implementation of abortion laws through negligence or ignorance leads to needless suffering. In Africa, for example, where abortion is permitted to save a woman's life, laws safeguarding the right to an abortion are often not implemented even when conditions meet the requirements of the law. The impact of non-implementation of these laws has a profound negative impact on women's health. Priority needs in the provision and dissemination of appropriate information as well as training and capacity-building are provided below.

- Compare the availability and quality of abortion services in terms of varying legal and policy contexts:
  - Liberal/accessible (quality & technology)
  - Liberal/limited accessibility (regulations & quality)
  - Liberal/inaccessible (regulations & knowledge)
  - Restrictive/inaccessible (laws & knowledge)
  - Restrictive/available/safe (laws & policies).
- Develop regional strategies with inter-disciplinary participation to assess the causes and consequences of abortion and suggest solutions to the psychosocial, economic, gender, legal, cultural, religious, health systems and other barriers.
- Promote and inform the public debate on the causes and consequences of unsafe abortion through improved dissemination of research findings and by focusing on the burden of disease associated with unsafe abortion.

The contributors

Wendy Baldwin
University of Kentucky
Office of the Executive Vice President for Research
201 Gillis Building
Lexington, Kentucky 40506-0033
USA

Janie Benson
Ipas
300 Market Street, Suite 200
Chapel Hill, NC 27516
USA

Deborah L. Billings
Ipas Mexico
Pachuca 92
Col. Condesa
Mexico, DF 06140
Mexico

Rebecca J. Cook
Faculty of Law
University of Toronto
Toronto
Ontario M5S 2C5
Canada

Bela Ganatra
Ipas India
B/322 Clover Gardens, 4 Naylor Road
Pune 411001
India

David A. Grimes
Family Health International
P.O. Box 13950
Research Triangle Park, NC 27709
USA
and
Department of Obstetrics and Gynecology
University of North Carolina School of Medicine
Chapel Hill, NC 27599
USA

Charlotte E. Hord
Ipas
300 Market Street, Suite 200
Chapel Hill, NC 27516
USA

Mihai Horga
East European Institute for Reproductive Health
1 Moldovei Street
540493 Targu-Mures
Romania

Dale Huntington
Population Council
53 Lodi Estate
New Delhi 110003
India
now at:
UNDP/UNFPA/WHO/World Bank
Special Programme of Research, Development,
and Research Training in Human Reproduction
World Health Organization
1211 Geneva 27
Switzerland

Elsa Lince
Investigación en Salud y Demografía, S.C. (INSAD)
Amsterdam 33-5
Hipodromo Condesa
C.P. 06170, Mexico, D.F.
Mexico

Axel I. Mundigo
International Programs
Center for Health and Social Policy
Manchester, Vermont 05254
USA

Yolanda Palma
Investigación en Salud y Demografía, S.C. (INSAD)
Amsterdam 33-5
Hipodromo Condesa
C.P. 06170, Mexico, D.F.
Mexico

Jennifer L. Potts
Planned Parenthood Federation of America, PPFA-I
434 West 33rd Street, 10th floor
New York, NY 10001
USA

Ricardo Raya
Investigación en Salud y Demografía, S.C. (INSAD)
Amsterdam 33-5
Hipodromo Condesa
C.P. 06170, Mexico, D.F.
Mexico

Iqbal H. Shah
UNDP/UNFPA/WHO/World Bank
Special Programme of Research, Development,
and Research Training in Human Reproduction
World Health Organization
1211 Geneva 27
Switzerland

Susheela Singh
Guttmacher Institute
120 Wall Street
New York, NY 10005
USA

Ina K. Warriner
UNDP/UNFPA/WHO/World Bank
Special Programme of Research, Development,
and Research Training in Human Reproduction
World Health Organization
1211 Geneva 27
Switzerland

Unsafe abortion is a significant yet preventable cause of maternal mortality and morbidity. The gravity and global incidence of unsafe abortion call for a better understanding of the factors behind the persistence of unsafe abortion and of the barriers to preventing unsafe abortion and managing its consequences. This volume brings together the proceedings from an inter-disciplinary consultation to assess the global and regional status of unsafe abortion and to identify a research and action agenda to reduce unsafe abortion and its burden on women, their families, and public health systems. The volume addresses a comprehensive range of issues related to research on preventing unsafe abortion, outlines regional priorities, and identifies critical topics for future research and action on preventing unsafe abortion.