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The Safe Motherhood Action Agenda:

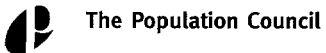
**Priorities for the
Next Decade**

The Safe Motherhood Action Agenda:

Priorities for the Next Decade

**Report on the Safe Motherhood Technical Consultation
18-23 October 1997
Colombo, Sri Lanka**

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in collaboration with the Inter-Agency Group for Safe Motherhood



The views expressed in this report do not necessarily reflect the policies of the Safe Motherhood Inter-Agency Group.

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Executive Summary

The global Safe Motherhood Initiative was launched at an international conference held in Nairobi, Kenya in 1987. Its aim was to draw attention to the dimensions and consequences of poor maternal health in developing countries, and to mobilize action to address high rates of death and disability caused by the complications of pregnancy and childbirth. The goal set out by the Initiative, and later adopted at several United Nations conferences, was to reduce maternal mortality by half by the year 2000. The Initiative is sponsored by a group of international agencies that includes the United Nations Children's Fund (UNICEF), United Nations Population Fund (UNFPA), the World Bank, the World Health Organization (WHO), International Planned Parenthood Federation (IPPF), and the Population Council. This group is called the Safe Motherhood Inter-Agency Group (IAG), and is currently chaired by IPPF.

The Safe Motherhood Initiative has accomplished a great deal in its first decade — though much remains to be done. “Safe motherhood” is universally defined as one of the central components of reproductive health, and countries around the world have initiated local or national efforts to improve and expand maternal health services. Technically, a great deal has been learned about what strategies are (and are not) effective in reducing maternal mortality.

The co-sponsors of the Safe Motherhood Initiative therefore convened a global meeting in October 1997 to review key lessons learned from the Initiative's first ten years, articulate a clear consensus on the most effective strategies, and map out a plan for mobilizing country-level action to implement these strategies. The meeting was the first element in a comprehensive two-year effort to expand funds and activities aimed at reducing maternal mortality.

THE TECHNICAL CONSULTATION - OVERVIEW: The Safe Motherhood Technical Consultation was held in Colombo, Sri Lanka, from 18-23 October 1997. The agenda was structured around ten key “action messages” that had been defined by the IAG in consultation with experts in the field. For each action message, there were one or more overview speakers who summarized key facts and findings; one or more case studies to illustrate how that action message had been implemented at the country level; and one or more working groups that focused intensively on critical sub-topics, and especially on identifying the most effective interventions.

More than 250 people from 65 countries attended the Technical Consultation. They included those with hands-on clinical experience, such as physicians and midwives, as well as researchers and programme staff from governmental and non-governmental agencies. Also participating were policy-makers and programme-planners from both donor agencies and developing countries who could use the information presented to plan, support, and implement new programmes. The range of participants was designed to ensure that the consensus was carefully crafted, and based on research, community-based experience, and technical expertise.

THE ACTION MESSAGES AND PRESENTATIONS: The first three safe motherhood action messages are directed to changing the political environment around women's health and empowerment issues:

1. **Advance Safe Motherhood Through Human Rights:** Legal as well as cultural factors have a strong influence on women's lives and their ability to make their own decisions and choices. Ms. Rebecca Cook, an international human rights lawyer, argued that maternal mortality must be defined as a social injustice that governments are obliged to remedy through political, health, and legal systems. She outlined ways to use international human rights conventions and national constitutions to advance safe motherhood as a human right.
2. **Empower Women, Ensure Choices:** Ms. Shireen Jejeebhoy from India stated that women's powerlessness and unequal access to resources set the stage for poor reproductive health and unsafe motherhood even before pregnancy occurs. Efforts must be made to give women more autonomy and more choices through social and economic policy changes such as increasing education for girls and women, expanding access to income-earning opportunities, and giving them opportunities to learn life skills.
3. **Safe Motherhood as a Vital Social and Economic Investment:** Ms. Anne Tinker from the World Bank presented the economic arguments for investing in maternal health, given the vital role women play in society. She also argued that safe motherhood interventions are among the most cost-effective in the health sector, and that investing in these interventions is therefore an economically sound decision as well as a moral imperative.

The remaining seven action messages related directly to the design and implementation of programmes:

4. **Delay Marriage and First Birth:** Girls aged 15-19 are twice as likely to die from childbirth as women in their twenties, yet more than a tenth of births worldwide occur to adolescents. Options for delaying first birth were discussed by Mr. John Hobcraft of the London School of Economics, and include delaying the onset of sexual activity — particularly by encouraging later marriage — and providing access to services for regulating fertility (appropriate information and counselling, contraception, and where legal, safe services for the termination of pregnancy).
5. **Every Pregnancy Faces Risks:** The use of risk screening during antenatal care is intended to identify women at greatest risk of developing complications, and ensure that they receive special attention and care. However, as Dr. Wendy Graham from Aberdeen University pointed out, complications of pregnancy and childbirth are difficult to predict, and existing risk screening tools are largely ineffective. She therefore recommended that health systems stop relying on risk screening as a means for rationing maternal health care. Instead, the critical goal should be to ensure that all pregnant women have access to good quality maternal health services that can detect and manage life-threatening complications.
6. **Ensure Skilled Attendance at Delivery:** Ms. Margaret Peters of the International Confederation of Midwives presented the argument that having a health worker with midwifery skills present at childbirth, backed up by transport in case emergency referral is required, is perhaps the most critical intervention for making motherhood safer. In order to realize this goal, sufficient numbers of skilled attendants — primarily midwives — need to be trained and deployed, especially in rural areas. They need to be supported with adequate supplies and equipment, regulations that permit them to carry out necessary procedures, and supportive supervision and monitoring. Traditional birth attendants, trained and untrained, are not defined as skilled attendants.

- 7. Improve Access to Quality Maternal Health Services:** In developing countries as a whole, many women lack access to quality services before, during, and after pregnancy that are critical for ensuring their survival and well-being. Ms. Carla AbouZahr of WHO analyzed the obstacles that prevent women from using available care, including: physical barriers of poor roads and long distances; financial barriers; or problems with the quality of services, including poor provider attitudes. The last ten years have shown that many of these obstacles can be overcome with practical, low-cost solutions developed by and with the community itself. Ms. Marjorie Koblinsky of MotherCare discussed what is required to ensure good quality maternal health services, including an adequate number of trained staff; a regular supply of drugs, equipment, and supplies; and functioning referral systems. Services should also be respectful of – and responsive to – women’s needs, preferences, and cultural beliefs.
- 8. Prevent Unwanted Pregnancy and Address Unsafe Abortion:** Each year there are at least 75 million unwanted pregnancies around the world. As argued by Dr. Ho Kei Ma of the University of Hong Kong, the number of unwanted pregnancies can be significantly reduced through greater access to high-quality family planning services. Understanding clients’ perspectives and needs is the key to providing family planning services in a way that will enable clients to reach their reproductive goals in a healthful manner. This implies addressing gender inequities in society as well as practical changes in how family planning services are provided and evaluated.
- Dr. Khama Rogo of the Centre for the Study of Adolescents in Kenya pointed out that the issue of unsafe abortion has often been ignored within the Safe Motherhood Initiative. He argued that providers and policy makers need to take responsibility for providing safe abortion to the full extent allowed by law, and in all settings, the complications of unsafe abortion must be managed. Efforts should also be directed to expanding emergency contraception; more and better postabortion care and counselling; and strong advocacy programmes.
- 9. Measure Progress:** Ms. Oona Campbell of the London School of Hygiene and Tropical Medicine and Ms. Tessa Wardlaw from UNICEF presented the latest information on how to measure progress toward the goals of the Initiative. Measuring maternal mortality and morbidity with accuracy is difficult, time-consuming, and expensive. Instead of expending scarce resources on collecting data on maternal mortality, therefore, participants were urged to focus on identifying mechanisms to assess programme impact and quality. Suggested tools include the use of process indicators and maternal death audits and case reviews.
- 10. Power of Partnership:** Safe motherhood must be a priority for governments, policy makers, health providers, and for civil society at large. Alliances need to be formed, not only among advocates for human and women’s rights, but also with men’s groups and religious groups, with non-governmental organizations, donors, and other sectors of government as well. A panel of presenters described success stories in forming and sustaining partnerships at both the national and international levels. Speakers also highlighted the importance of involving communications specialists and the media, who are critical for “packaging” safe motherhood messages and disseminating them to key audiences worldwide.

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Introduction: The Safe Motherhood Initiative, 1987-1998

In 1997, the Safe Motherhood Initiative marked a decade of global and country-level programmatic and advocacy work — ten years during which at least six million women died of the complications of pregnancy and childbirth. The Initiative was launched in 1987 to draw the world's attention to a largely neglected, but extremely serious, public health problem: the thousands of deaths and millions of serious illnesses and disabilities that afflict women every year. At the Safe Motherhood Conference in 1987 that launched the Initiative, Dr. Halfdan Mahler, then Director General of the World Health Organization, defined maternal mortality as “a neglected tragedy, neglected because those who suffer it are neglected people, with the least power and influence over how national resources shall be spent; they are the poor, the rural peasants, and above all, women”.

BOX A: THE SCOPE AND CONTEXT OF POOR MATERNAL HEALTH

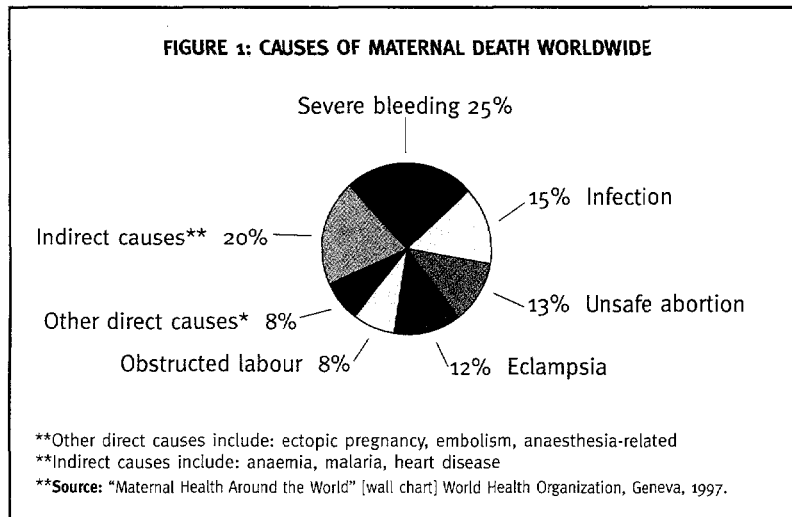
Globally, at least 585,000 women die each year from the complications of pregnancy and childbirth. Almost 90 percent of these deaths occur in sub-Saharan Africa and Asia, making maternal mortality the health statistic with the largest discrepancy between developed and developing countries. While women in northern Europe have a 1 in 4,000 likelihood of dying from pregnancy-related causes, for those in Africa the chance is 1 in 16. As stated by Dr. Pramilla Senanayake of the International Planned Parenthood Federation during the opening ceremony of the Technical Consultation on Safe Motherhood, “The fact that there are so few maternal deaths in the industrialized world only goes to show what can be done when there is the will and resources to do so”.

More than 70 percent of all maternal deaths are due to five major complications: haemorrhage, infection, unsafe abortion, hypertensive disorders of pregnancy, and obstructed labour (see Figure 1). The majority of maternal deaths – 61 percent – occur in the postpartum period, and more than half of these take place within a day of delivery.

An estimated 40 percent of pregnant women (50 million per year) experience pregnancy-related health problems during or after pregnancy and childbirth, with 15 percent suffering serious or long-term complications. As a consequence, 300 million women today suffer from pregnancy-related health problems and disabilities, including anaemia, uterine prolapse, fistulae (holes in the birth canal that allow leakage from the bladder or rectum into the vagina), pelvic inflammatory disease, and infertility.

Addressing these problems requires a well-functioning health system that encompasses all levels — from the community to referral facilities — and provides accessible, good quality care. Adequate supplies, skilled personnel, and an effective system for referral and transport are particularly important for managing obstetric emergencies, which can arise suddenly and without warning.

Underlying the medical causes of maternal death and disability are a range of social, economic, and cultural factors that contribute to women's health and nutritional problems before, during, and after pregnancy, and are integrally linked to women's low utilization of available health services. These factors include inadequate education, low social status, and lack of income and employment opportunities. Efforts to address these factors are also important for improving maternal health in the long term.



To help promote and support action to improve maternal health, seven international agencies — the United Nations Children’s Fund (UNICEF), United Nations Development Programme (UNDP), United Nations Population Fund (UNFPA), World Bank, and World Health Organization (WHO), as well as two international non-governmental organizations, the International Planned Parenthood Federation and the Population Council — formed the Safe Motherhood Inter-Agency Group following the 1987 conference. At that time, many governments and public health agencies questioned the need for a special focus on maternal health, or argued that they were already “doing” safe motherhood, since maternal and child health (MCH) programmes were included in their national health systems. But the need was clearly demonstrated by two key factors: the persistently high rates of maternal death in many countries — especially when compared to the dramatic declines in infant and child mortality that had been achieved in many countries; and the relative lack of investment in services and interventions specifically dedicated to maternal or women’s health. As Dr. Allan Rosenfield and Ms. Deborah Maine questioned in their 1985 article in *The Lancet*, “Where is the ‘M’ in ‘MCH’?”

During the late 1980s and early 1990s a series of conferences, dozens of advocacy and informational publications, and a wide range of national and local research projects helped the Safe Motherhood Initiative achieve one of its goals: global recognition of the problem of poor maternal health, and a global commitment to take action. By 1992, when the Safe Motherhood Initiative marked its first five years of effort with a “Meeting of Partners for Safe Motherhood” in Washington, DC, almost 80 developing country governments had directly participated in regional or national safe motherhood conferences, and most had launched policy or programme activities to reduce maternal deaths and disabilities. A number of donors had begun earmarking funds specifically for safe motherhood programmes, and hundreds of non-governmental organizations, including women’s groups, had incorporated safe motherhood into their priorities.

The next major landmarks were the 1994 International Conference on Population and Development in Cairo, and the 1995 Fourth World Conference on Women in Beijing. Each of these conferences gave substantial attention to maternal mortality as a visible and reprehensible sign of the historical neglect of women’s health and women’s needs, and called for efforts to “achieve a rapid and substantial reduction in maternal mortality and morbidity and... reduce greatly the number of deaths and

morbidity from unsafe abortion” (ICPD, 8.20). The Cairo conference defined safe motherhood as one of the components of reproductive health, and both conferences reiterated the call for governments to “extend integrated reproductive health and care and child health services, including safe motherhood..., to all the population and particularly to the most vulnerable and underserved groups” (ICPD, 8.17). (See Box B.)

BOX B: SAFE MOTHERHOOD IN THE CONTEXT OF REPRODUCTIVE HEALTH

The central role of safe motherhood interventions in reproductive health programmes is supported by various statements included in the Programme of Action of the 1994 International Conference on Population and Development. The definition of reproductive health states:

“Reproductive health is a state of complete physical, mental and social well-being... in all matters related to the reproductive system and to its function 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 rights of men and women to be informed and to have access to safe, effective, affordable and acceptable methods of family planning of their choice... and **the right of access to appropriate health care services that will enable women to go safely through pregnancy and childbirth** [emphasis added]”. (ICPD, 7.2)

Reproductive health care as defined at ICPD includes the following safe motherhood components (ICPD, 7.5, 8.25):

- education and services for antenatal care, safe delivery, and post-natal care;
- prevention of abortion, management of the complications of unsafe abortion, and safe abortion services, where not against the law;
- referrals for diagnosis and treatment for complications of pregnancy, delivery, and abortion.

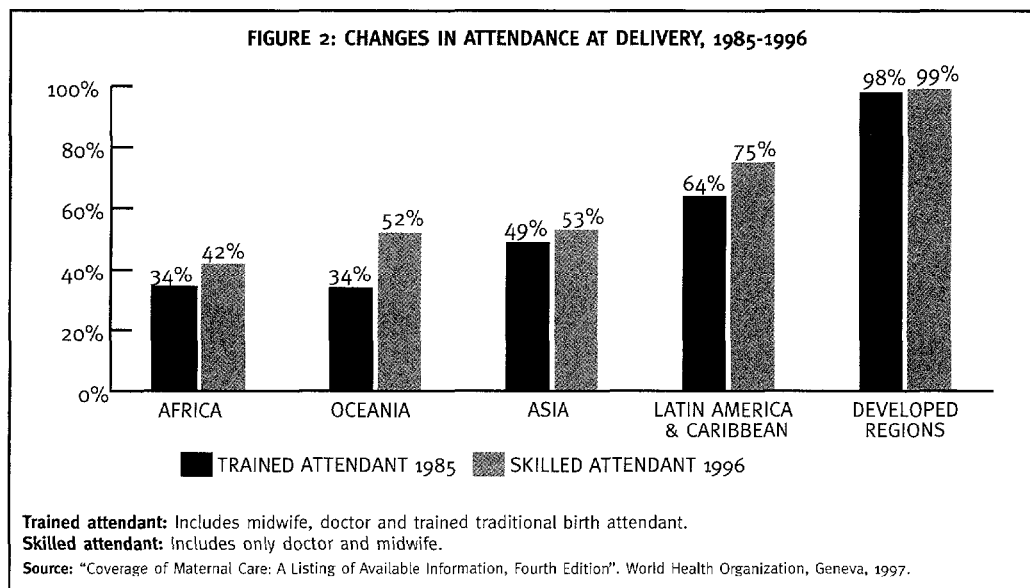
The importance of safe motherhood within reproductive health has been echoed in a number of other international conferences and documents, including the 1995 Fourth World Conference on Women and the 1995 World Summit on Social Development. At the operational level, however, many reproductive health programmes omit interventions specifically addressed to pregnancy and childbirth, focusing primarily on family planning and the prevention and management of sexually transmitted diseases.

In fact, it is logical that safe motherhood be a central component of any reproductive health programme, for several reasons:

1. “Reproductive health” by definition involves care during the process of reproduction – i.e., during pregnancy and childbirth – and not just the prevention of pregnancy.
2. Globally, complications of pregnancy and childbirth account for more death and disability than any other reproductive health problem.
3. Linking safe motherhood/maternal health services with other reproductive health interventions can enhance the impact of other services. In many countries, for example, antenatal care is the health service adult women are most likely to use, and therefore offers a valuable opportunity to establish a positive relationship with women, provide them with information, and link them to other services, including family planning.
4. Safe motherhood interventions have been found to be among the most cost-effective in the areas of public health and curative care, along with family planning and the management of sexually transmitted diseases.

Despite the recognition achieved by the Safe Motherhood Initiative over the past decade, by 1997 public health specialists and women's health advocates were increasingly challenged by one incontestable fact: maternal death rates were not declining in most of the developing world. In fact, improvements in the collection and analysis of maternal health data, brought about in large part by the Initiative itself, have led in some cases to *higher* estimates of maternal mortality. Many of these "new" estimates apply to earlier time periods (e.g., 1990 or before), indicating that these earlier figures were significant underestimates.

A review of changes in the coverage of one of the key maternal health services — supervised delivery — indicated that modest but significant improvements had been achieved over the decade (see Figure 2). Nevertheless, the lack of a significant decline in maternal mortality does raise valid questions about the impact of the Initiative, and the effectiveness of the strategies followed.



Why hasn't there been more progress in reducing maternal mortality? The answer varies by country and region, but generally reflects two inter-related factors:

- Priorities were not always clearly defined, and the interventions included in safe motherhood programmes were not always the most focused and effective. When the Initiative was launched, information was inadequate on what interventions were most likely to have a significant and immediate impact on reducing maternal mortality. Some safe motherhood strategies took a broad approach, giving equal emphasis to raising women's status, improving family planning, strengthening basic maternal health services, and expanding emergency care — resulting in programmes that were too ambitious and too expensive for many governments and donors to take on.

Even programmes that focused on maternal health services specifically were not always strategically sound. In fact, some of the strategies recommended during the 1987 Safe Motherhood Conference, while intuitively logical, have since been proven by research findings not to be effective. These include, for example, risk screening during antenatal care, and large-scale training of traditional birth attendants (see pages 25-28 and 30-31). In addition, some interventions known to be effective at addressing the major causes of maternal death, such as the management of abortion complications, were omitted from safe motherhood programmes,

largely due to political sensitivity about the issue. Finally, technical and programming guidelines, training curricula, and other resources to guide effective programmes were not widely available.

- Political commitment and resources were inadequate. While financial investments in safe motherhood programmes by both donors and governments have increased dramatically over the past ten years, they have remained far below the levels required to result in significant change. In part this reflects the problems outlined above — inadequate information about what are the most focused, cost-effective interventions. Lack of awareness and commitment among both donor and government decision-makers contributed to the problem as well.

Inadequate financial support for safe motherhood interventions also reflects inadequate awareness of the consequences of maternal death, “not just for women — which should be enough in itself to prompt action — but for the well-being of families and for societies and the development process”, said Dr. Senanayake, chair of the Safe Motherhood Inter-Agency Group, during the opening ceremony. “Safe motherhood has not been seen, as it should be..., as part of a woman’s right to accessible, high-quality services before, during, and after pregnancy and childbirth, and to make decisions about her own health free of coercion or violence”.

BOX C: A HISTORICAL PERSPECTIVE ON MATERNAL MORTALITY

How did countries in the developed world bring down their maternal mortality figures, and are there any lessons from their experience relevant for the developing world today?

By the early 19th century, maternal mortality ratios in much of the now-developed world had been brought down by about half from their "natural" level of about 1,500 deaths per 100,000 live births, largely because of improved and expanded midwifery care. Between 1870 and the late 1930s, the decline in maternal mortality levels began to assume widely different patterns. In Sweden, for example, ratios continued to decline steadily to about 250-300 between 1900 and 1940; in England and Wales there was a slower decline, stabilizing at about 400-450; in the U.S. maternal mortality ratios remained at 600-800 until the mid-1930s.

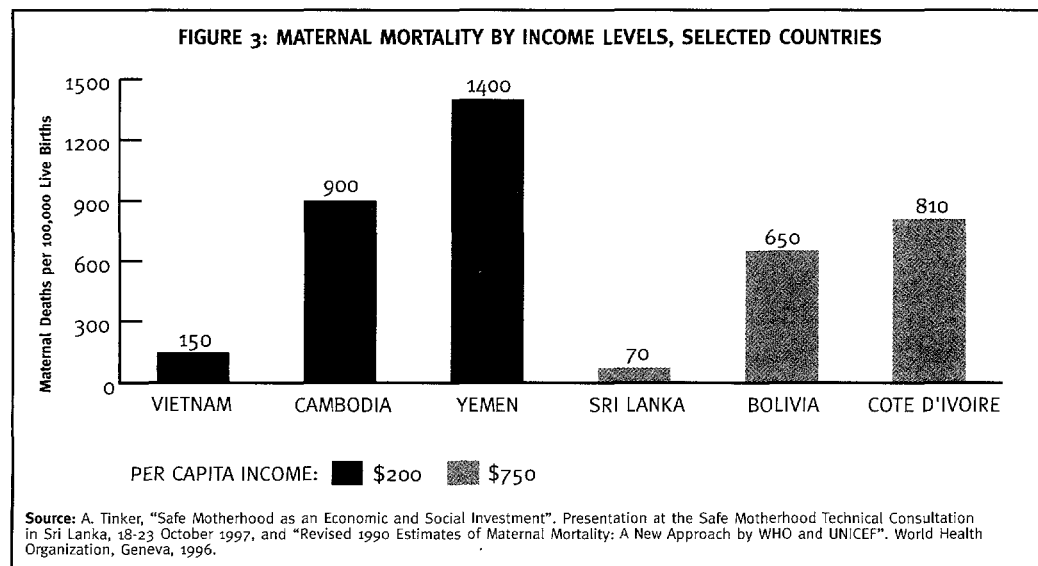
What explains these differences? One of the main factors was the greatly expanded role of professional midwives in providing care during delivery, and in their use of techniques such as asepsis (clean delivery) and forceps. This was the case in Sweden as well as the Netherlands, Denmark, and Norway. In England, competition from physicians and lack of support from the government inhibited the growth of midwifery; in the U.S., trained midwives were actively discouraged by lobbying from gynaecologists.

Following the mid-1930s there were steep declines in all developed countries, reflecting a range of factors: improved techniques (antibiotics, Caesarean sections, blood transfusions), the adoption of systems to monitor and enforce standards for quality of care, and access to care for the majority of women, whether in hospitals or at home.

Many developing countries, especially in Africa, have maternal mortality levels today that are comparable to the early 19th century in the developed world. Poverty contributes to this situation but does not explain it completely; countries with a per capita GNP of \$1,000 or less have maternal mortality ratios ranging from as low as 70 to as high as 1,400 (see Figure 3). What accounts for these wide variations, and what are the challenges for countries where maternal mortality is still high?

- Information: Measuring maternal mortality ratios is not enough; information on why maternal deaths occur needs to be generated and used by professional organizations and the public (see "Measure Progress", pages 62-71).
- Professionalism: Providing access to professional care — both by midwives at the community level, and by obstetricians at the hospital level — is essential. This requires investments in training, systems for accountability, and ensuring financial and physical access.

Based on a presentation by Dr. Wim Van Lerberghe of the Institute of Tropical Medicine in Belgium.



The New Challenge: Safe Motherhood at Ten

As it enters its second decade, the Safe Motherhood Initiative faces three major challenges: first, to clearly articulate the programmatic lessons learned from the Initiative's first decade; second, to convey those lessons widely and convincingly to key decision-makers in the developing and developed world; and third, to mobilize the financial and political support necessary to implement those lessons. The Technical Consultation on Safe Motherhood held in Colombo, Sri Lanka in October 1997 was organized primarily to address the first challenge, and to lay the groundwork for addressing the second. The agenda was structured around ten "action messages" that distilled key lessons learned from the past ten years of research and programmatic action (see Appendix A). More than 250 programme managers, researchers, and others from 65 countries around the world participated in the discussions (see participants list in Appendix B).

For each action message, an overview presentation summarized key facts and findings; one or more case studies illustrated how that action message had been implemented at the country level; and one or more working groups focused intensively on critical sub-topics, and especially on identifying the most effective interventions (see agenda in Appendix C). Fact sheets summarizing key data and recommendations related to each action message are available for technical and general audiences (see order form in Appendix D). This report follows the structure of the Technical Consultation, exploring each of the action messages in turn and summarizing the relevant presentations and working group discussions.

In keeping with the technical nature of the meeting, the opening ceremony of the conference welcomed participants and presented the objectives and aims of the consultation. It also served to remind participants of the tragic human reality they had been brought together to discuss. Dr. Mahmoud Fathalla of the Rockefeller Foundation, who played a key role in the 1987 conference that helped launch the Initiative, set the scene for participants in his opening address in Sri Lanka:

For obstetricians and midwives practising in developing countries, maternal mortality is not about statistics. It is about women; women who have names, women who have faces. Faces which we have seen in the throes of agony, distress and despair. Faces which continue to live in our memories and continue to haunt our dreams. Not simply because these are women in the prime of their lives who die at a time of expectation and joy; not simply because a maternal death is one of the most terrible ways to die... — but above all because almost every maternal death is an event that could have been avoided, and should never have been allowed to happen.

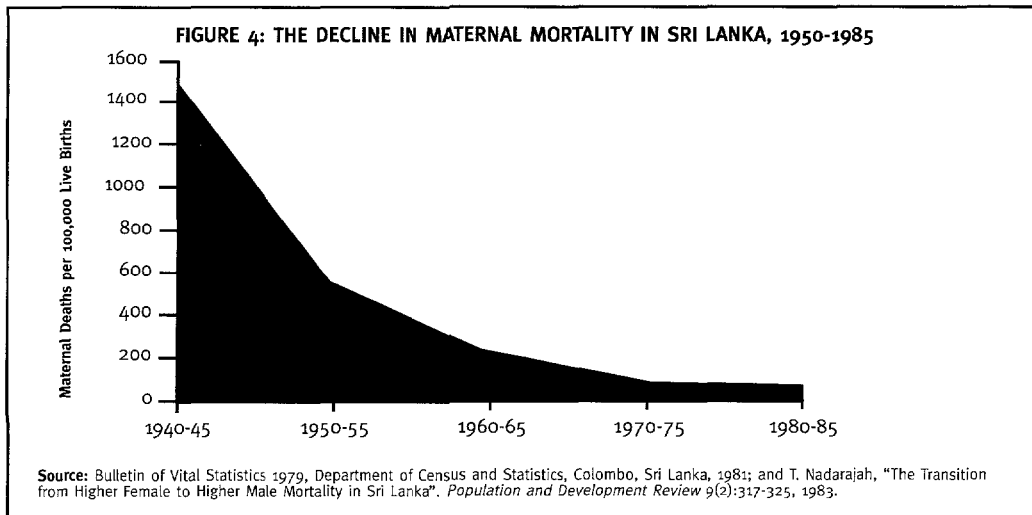
Besides providing this sobering reminder, the opening ceremony also provided inspiration — the inspiration of example. The host country, Sri Lanka, is one of the poorest countries in the world, but has made remarkable achievements in reducing maternal mortality during the past decades. Its example, described by Dr. Harsha Seneviratne of the University of Colombo and The Hon. G.L. Peiris, Minister of Justice, illustrates what can be achieved when resources are invested in appropriate interventions, and when society as a whole provides a supportive framework that encourages and enables women to value themselves and their health (see Box D).

BOX D: THE DECLINE IN MATERNAL MORTALITY IN SRI LANKA

In the 1920s, when the maternal and child health programme began in Sri Lanka, the maternal mortality ratio was estimated at 2,200 deaths per 100,000 live births. Today, national statistics indicate that the figure is 70 deaths per 100,000 live births — one of the lowest in the developing world, and an especially remarkable achievement given the general poverty still prevalent in the country (see Figure 4). In Côte d'Ivoire and Bolivia, for example, which have similar per capita income levels (US\$750 per year), maternal mortality is estimated at 810 and 650 respectively.

What is the secret behind Sri Lanka's success? There are three broad explanations:

1. The government's historical emphasis on meeting the basic needs of its population in the areas of infrastructure, health, and education, as well as the relatively high status of women in society. These factors set the scene for low maternal mortality by contributing to:
 - High female literacy (88 percent);
 - Free education and equal educational opportunities for girls;
 - Increased age at marriage for girls (25.1 years in 1993).
2. A comprehensive and high quality national family planning programme, which offers contraceptives through a wide range of channels. As a result, the contraceptive prevalence rate is now 66 percent (40 percent for modern methods), and the fertility rate is low (2.3 births per woman).
3. Focused investments in health interventions generally, and maternal health services specifically, have contributed to:
 - A good road network providing access to health facilities;
 - Maternal and child health services that reach the community level, and are provided free through government facilities;
 - Integration of family planning and maternal-child health services;
 - An institutional delivery rate of over 90 percent, and delivery by a trained attendant of over 96 percent;
 - Use of appropriate technologies, such as home-based mothers' records and partographs in selected institutions (since 1990).



Advance Safe Motherhood Through Human Rights

Defining maternal death as a “social injustice” as well as a “health disadvantage” obligates governments to address the causes of poor maternal health through their political, health, and legal systems. International treaties and national constitutions that address basic human rights must be applied to safe motherhood issues in order to guarantee all women the right to make free and informed decisions about their health, and access to quality services before, during, and after pregnancy and childbirth.

There is much that can be done to promote safe motherhood under national constitutions and international human rights treaties, argued Ms. Rebecca Cook of the University of Toronto Faculty of Law in her overview presentation. “The overarching challenge in applying human rights to advance safe motherhood”, said Ms. Cook, “is to characterize women’s multiple disempowerments not just during pregnancy and childbirth but from their own births as a cumulative injustice that societies are obligated to remedy. The recharacterization of maternal mortality from a health disadvantage to a social injustice places governments under a legal obligation to remedy the injustice”.

How, on a practical level, can this legal obligation be enforced? What are the steps involved in advancing safe motherhood through national constitutions and international human rights treaties? A number of these treaties, including the Convention on the Elimination of All Forms of Discrimination Against Women, the Convention on the Rights of the Child, and various regional human rights conventions such as the African Charter on Human and Peoples’ Rights, provide the basis for arguing that women have a right to the services essential to their ability to survive pregnancy and childbirth.

HUMAN RIGHTS RELATING TO SAFE MOTHERHOOD: The human rights that can be used to advance safe motherhood, explained Ms. Cook, fall into four main categories:

- 1. Rights relating to life, liberty, and security of the person:** The right to life is being increasingly applied to require states to take positive measures to protect against preventable death – an application with clear implications for safe motherhood. Similarly, rights to liberty and security of the person have been applied in a number of constitutional courts to ensure women’s right to decide if, when, and how often to bear children.
- 2. Rights relating to the foundation of families and of family life:** In general, these rights have been used to protect the right to marry and have children; in the context of safe motherhood, they can be used to promote women’s right to survive pregnancy and childbirth and enjoy family life.
- 3. Rights relating to the highest attainable standard of health and the benefits of scientific progress, including to health information and education:** For women, the “highest attainable standard of health” must include the right to information and reproductive health services, including maternal health care, that enable women to survive pregnancy and childbirth.
- 4. Rights relating to equality and nondiscrimination on grounds such as sex, marital status, race, age, and class:** The human right to sexual nondiscrimination can be used against laws or policies that require women seeking health services to obtain authorization from their husbands, or that criminalize medical procedures that only women need, such as abortion. In addition, the right of protection against sexual nondiscrimination requires governments to implement laws that protect women’s interests, such as laws that prohibit child marriages, rape, sexual abuse,

or female genital mutilation; it also requires governments to allocate health resources fairly to health services needed by women.

ACTION ON THE NATIONAL AND INTERNATIONAL LEVELS - THE OPTIONS: Real progress on the legal and policy front must be achieved at the national level, where laws and regulations that directly affect women's lives are passed and enforced — or not enforced. As such, in order to advance safe motherhood through human rights, countries must be seen not only as violating international treaties, but also as violating their own constitutions and values by neglecting to address the preventable causes of maternal death. Applying human rights to safe motherhood means challenging states in two major areas:

- requiring governments to offer effective preventive and curative services to reduce maternal mortality; and
- protecting women's rights to make and act on decisions about their own reproductive health, free from coercion or violence, and based on full information.

In order to carry out these challenges, advocates for women's health can:

- **Apply standards by which governments can be held politically and legally accountable:** For example, the Cairo Programme of Action and the Beijing Platform of Action obligate governments to reduce maternal mortality broadly, and to provide women with access to maternal and reproductive health services. Health specialists need to work with lawyers to define relevant indicators by which compliance can be defined and monitored.
- **Gather and provide information on compliance:** While standards are based on national statistics, single events can also demonstrate whether a government is fulfilling its duties, for example, to prohibit early marriage, or provide access to antenatal care. This information can be used in national courts of law, or, at the international level, can be submitted to the monitoring bodies for treaties such as the Convention on the Elimination of Discrimination Against Women. Reports can often be offered by non-governmental organizations as well as government representatives.

In summing up her arguments Ms. Cook stated, “The work ahead is to express not simply the fact but the injustice of preventable causes of maternal mortality, and to press parliaments, courts of law, and various news media that these avoidable tragedies require governmental accountability. Governments... need to be held to political and legal account, to be publicly embarrassed at their neglect of the preventable causes of maternal mortality, and compelled to devote resources at their command to address and reduce the enormity of the injustice”.

The centrality of human rights to safe motherhood is not just a matter of defining and enforcing national laws. It can and should shape the way programmes are designed and structured. Ms. María Isabel Plata, Executive Director of Profamilia, the family planning association of Colombia, provided a telling case study of how this can be achieved. The organization's founding principle was “to promote and defend the right of access to family planning in Colombia, and to offer information and services to the population with the least economic resources”. This commitment has translated into a programme approach that is based on understanding and respecting the needs of the organization's clients, and on satisfying those needs with high quality services. In taking a human rights perspective, Profamilia developed programme strategies to deal with human rights issues. Key strategies

include training programme staff to understand the gender and human rights dimensions of their work, and assessing whether individuals and couples can effectively exercise their right to determine the number and spacing of their children, and providing the necessary legal and counselling services to those who are unable to exercise these rights.

This emphasis on human rights and meeting client needs has also led Profamilia to continuously expand and revise its programme approaches, for example by adding special services and outreach for men to encourage them to assume their reproductive responsibility, and developing activities for and with adolescents.

Empower Women, Ensure Choices

Governments, community leaders, and women's advocates need to address social, economic, and cultural factors that limit women's choices and decision-making abilities. Legal reform and community mobilization are essential for empowering women to understand and articulate their health needs, and to seek services with confidence and without delay.

Since the Safe Motherhood Initiative was launched, women's health advocates and health specialists alike have recognized that “women's powerlessness, their unequal access to material and other resources, and their inability to make informed choices” is a fundamental cause of maternal death and disability, explained Ms. Shireen Jejeebhoy, an independent consultant from India, in her overview presentation. “Empowerment and its outcome, gender equity, are necessary conditions for improved access to health care”.

THE CONSEQUENCES OF WOMEN'S POWERLESSNESS: A range of barriers related to women's powerlessness can harm their health, directly or by limiting their access to health services. These include:

1. Limited exposure to information and new ideas, including:

- Ignorance of good health practices, as well as lack of awareness of danger signs during pregnancy or their misinterpretation (e.g., that obstructed labour is caused by a woman's infidelity). When obstetric complications are seen as reflecting the “will of God” or the influence of evil spirits, families often resort to traditional healers and diviners for care, and only take women to a health facility as a last resort — when it may be too late.
- Lack of knowledge of where to find health services.
- Ignorance of their legal rights — for example, of laws prohibiting early marriage, or laws against domestic violence — which can make women vulnerable to abuse.

2. Women's lack of control over their own lives, reflected in:

- Limited decision-making authority: Numerous studies in Africa and South Asia have found that other family members (husbands, mothers-in-law) often make decisions about where a woman will deliver. In Pakistan, for example, a study found that two-thirds of the women who delivered at home did so because the husband or other family member forbade a hospital delivery.
- Limited physical mobility: Many women, especially in South Asia and parts of Africa, need a husband's permission to visit a health facility, or must be escorted. Especially when husbands are away from home, this custom can severely limit women's ability to use even nearby health services.
- Limited access to economic resources: When women have little control over their own or the family's income, their ability to use health services — especially when fees are involved — is further constrained. A study in Swaziland and Kenya, for example, found that many women who did not deliver in a facility cited their husbands' refusal to meet expenses as the main reason.

3. Women's negative experiences and perceptions concerning the quality of care they receive from health providers: Studies from almost every region indicate that women are sometimes reluctant to use health services because providers are perceived to be rude, insensitive, or even threatening, and may pressure them to make unwelcome choices (e.g., to use a particular contraceptive). In rural Nigeria, for example, uneducated women are often afraid to deliver in hospitals because nurses reportedly “shout” at women in labour.

Where these barriers are prevalent, even the most efficient health services may have little impact on reducing maternal mortality, because women will be unable or unwilling to use the services available. Broader, multi-sectoral strategies that influence women's educational, social, legal, and economic status can therefore play a critical role in improving women's health. The goal is "shared power and responsibility between women and men at home, at work, in society, and in the world", explained Ms. Jejeebhoy. "Empowerment is critical to women's health because it enables women to: a) articulate health needs and concerns; b) access services with confidence and without delay; c) seek accountability from service providers and programme managers". More generally, it can also reduce gender bias in families, communities, and markets, and provide greater opportunities to participate in social and economic development.

STRATEGIES FOR EMPOWERING WOMEN: Long-term strategies for women's empowerment, and improving women's health, include:

- 1. Expanding educational opportunities for women:** Education — especially beyond the primary level — has a direct impact on women's health by increasing their knowledge about how to protect their own health. It also has many indirect benefits: increasing women's autonomy within the family, enhancing their ability to earn and control income, and strengthening their ability to demand better quality, more appropriate care.
- 2. Expanding labour market and economic opportunities for women:** Women with access to and control over income, and especially women who work outside of the home, tend to have greater leverage in family decisions and greater physical mobility — both of which can improve their general health and nutritional status. Well-designed programmes to train women in vocational skills and provide them with credit can help.
- 3. Making and enforcing women-centred legislation:** Laws and policies that define and enforce an egalitarian view of gender roles (equal access to education and credit, equity in inheritance, etc.) can help improve women's status generally. More indirectly, a society where women are valued enough to have passed protective legislation is more likely to have invested in programmes that benefit women's health, such as reproductive health services that respect women's choices.

Shorter-term strategies to empower women and enhance their choices can and must also be followed:

- 4. Promoting women's understanding of their needs and assertion of their rights:** Programmes that inform women about their rights, train women leaders, and support women's groups and collectives can have an invaluable impact. Specifically, they can have a psychological benefit by strengthening women's sense of worth, and a practical social benefit by helping to change cultural expectations and values about women's roles.
- 5. Developing life skills for adolescents:** Training in life skills for boys and girls can help break the cycle of vulnerability and encourage long-term changes in social expectations of gender roles. The most effective training not only provides information on health and sexuality, but also helps adolescents develop negotiating skills and learn valuable skills for earning a livelihood.

6. **Community education about pregnancy and childbirth:** Information campaigns have been successful at broadening awareness and use of essential health services such as immunization and family planning, but far less has been done, observed Ms. Jejeebhoy, “to dispel misconceptions, fatalism, and ignorance of danger signals surrounding pregnancy and childbirth”. These campaigns must not only promote awareness but appropriate action when problems or complications arise. Given the major role of men and other family members in making or influencing decisions about women’s health, efforts to improve women’s utilization of services must directly address these critical decision-makers.
7. **Make health services more responsive to women’s needs:** Involving women in planning, implementing, and evaluating health programmes is essential for ensuring that services are sensitive to their needs. Women may need to be encouraged to voice their opinions, ideally in a non-confrontational, supportive environment; they also need to feel that speaking out results in concrete change. For example, mechanisms can be developed to encourage client input into defining service standards, assessing job performance, and measuring the quality of services. Training and other efforts involving health care providers can help make them more aware of the realities of women’s lives, and can also improve their ability to listen to women, communicate with them more effectively, and involve men and other family members in efforts to protect women’s health.

In her case study presentation, Dr. Sharon Fonn from the Women’s Health Project at the University of the Witwatersrand in South Africa provided damning evidence of how health services are often insensitive to women’s needs, and the complexity of the factors that underlie poor quality services. The Women’s Health Project undertook a unique research effort to gather information on “women’s experiences, opinions, and expectations of maternal health services”, then followed up with an intervention to improve the quality of services. Fundamental to the project’s approach was the effort to focus on women’s reality and women’s needs, and how to meet them.

The study found that most women had negative experiences during childbirth in health facilities, largely because of the way they were treated by health care providers. Women’s most common suggestion for how to improve services was to be “treated with dignity and respect”. They wanted to receive information about their health, and wanted men to be involved in the process of receiving care to encourage their understanding and support. Women also had firm opinions about what services should be provided, and how they should be organized; for example, they wanted shorter waiting times and the full range of services available every day so that they would not have to make return visits to have all their needs met.

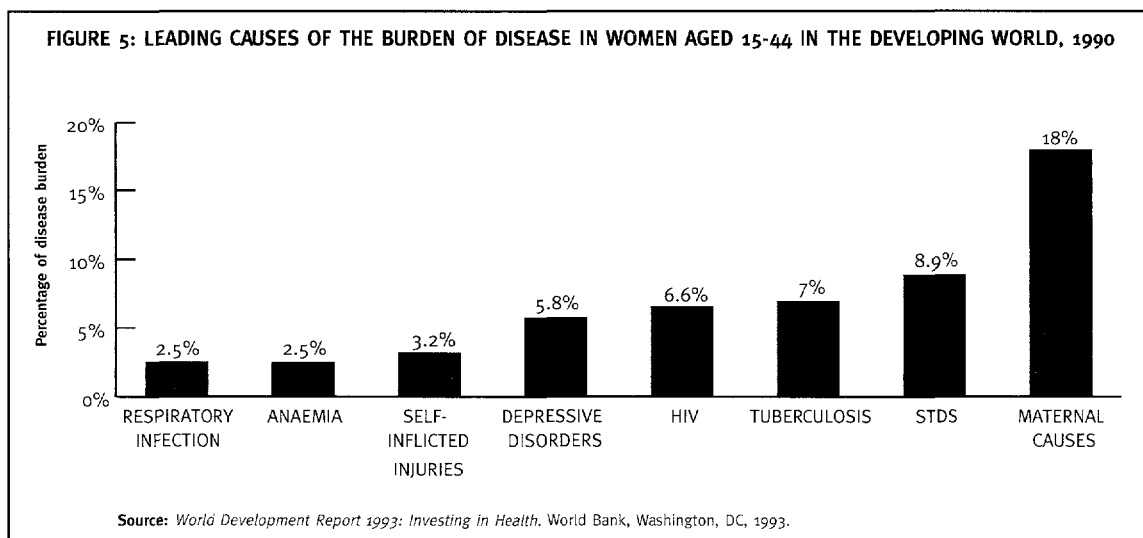
To address these needs, concluded Dr. Fonn, requires a systematic and fundamental change in the approach to designing and managing health services — changes that take into account the opinions of women and health workers in deciding what services are provided, how they are provided, and how they are evaluated.

Safe Motherhood Is a Vital Social and Economic Investment

All national development plans and policies should include safe motherhood programmes, in recognition of the enormous cost of a woman's death and disability to health systems, the labour force, communities, and families. Additional resources should be allocated for safe motherhood, and should be invested in the most cost-effective interventions.

The presentation by Ms. Anne Tinker of the Human Development Network of the World Bank offered a clear and succinct analysis of why policy-makers, programme managers, and households should invest in safe motherhood, focusing first on its benefits for women, families, and societies, and second on the cost-effectiveness of safe motherhood interventions.

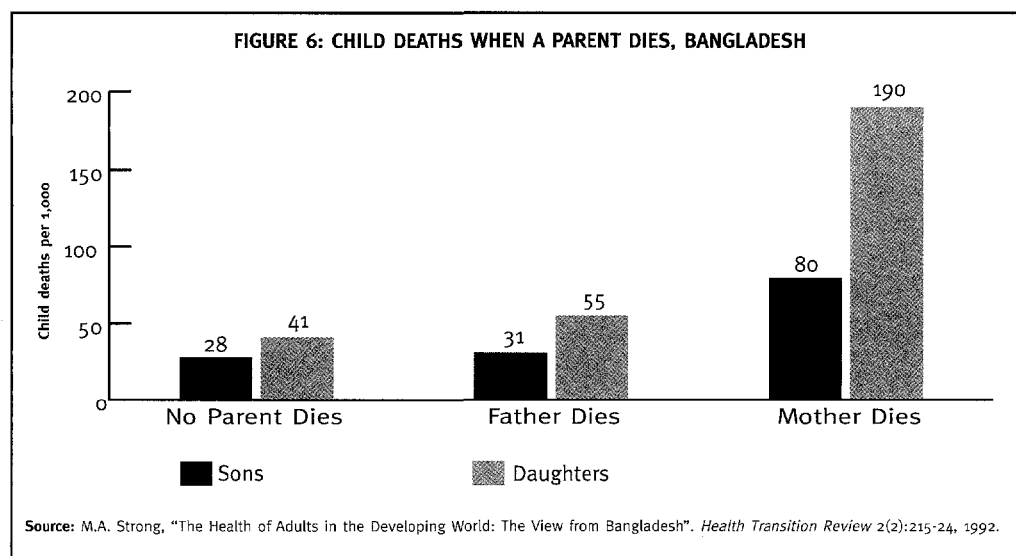
THE SOCIAL AND ECONOMIC COSTS OF UNSAFE MOTHERHOOD: Ms. Tinker first presented data demonstrating that in developing countries, complications of pregnancy and childbirth are by far the leading cause of premature death and disability among women aged 15-44, accounting for at least 18% of their "disease burden"* (see Figure 5). This is likely to be an underestimate because it excludes disabilities from the less common direct complications (e.g., ectopic pregnancy, anaesthesia complications), and indirect complications such as malaria, anaemia, and cardiovascular conditions.



Poor maternal health has a direct negative impact on the well-being of infants and children as well, for two reasons. First, the same factors that cause maternal mortality and morbidity — complications of pregnancy and childbirth and the poor management of those complications — also cause or contribute to a significant proportion of stillbirths and newborn deaths, estimated at almost 8 million per year. Close to three-quarters of these deaths could be avoided if women were adequately nourished and if good quality care were provided during pregnancy, delivery, and the postpartum period. Poor maternal health and nutrition also contributes to about 20 million low birth weight babies each year, who are more vulnerable to poor health and have a higher risk of disabilities.

* Disease burden is an estimate of the quantity of premature death and disability due to specific diseases and injuries, measured in disability-adjusted life years (DALYs). A DALY is a measure of the healthy years of life lost either from premature mortality or from disability.

Second, in most developing countries a mother's death has serious consequences for her children. According to a study in Bangladesh, if a woman dies after delivery, the newborn infant she leaves behind is almost certain to die. Even older children are likely to suffer: another study in Bangladesh found that children (up to age 10) whose mothers die are three to ten times more likely to die within two years than those with living parents (see Figure 6). A study in Tanzania also suggests that a woman's death has a negative impact on children's education — enrollment is delayed for younger children, and older children often leave school to take on household tasks such as cooking, cleaning, and collecting water and firewood.



Given women's central role in sustaining and providing for the family, it is no surprise that poor maternal health can have a significant impact on the economic well-being of families, and indirectly on communities and nations. First, in many developing countries a woman's death deprives the family of an essential source of income. This is especially problematic when the household is headed by a woman, or when, as studies have shown is often the case, women spend their income on meeting basic needs such as food, medicines, and school fees while men spend income on alcohol and cigarettes. Even when women do not die, the burden of frequent pregnancies and the consequences of pregnancy-related complications "drain women's productive energy, jeopardize their income-earning capacity, and contribute to their poverty", explained Ms. Tinker.

In discussing his government's commitment to safe motherhood in Bangladesh, Dr. Jahir Uddin Ahamed of the Ministry of Health and Family Welfare echoed Ms. Tinker's conclusions. "The improvement of Bangladeshi women's health is not just a social and moral necessity", he noted, "it is also an economic imperative. It is estimated that iron deficiency anaemia among women alone causes losses in agricultural production to the tune of \$5 billion over a period of 10 years. Economic losses caused by persisting and long-term complications resulting from pregnancy and childbirth, though not estimated, are likely to be of a much greater magnitude".

THE COSTS OF MAKING MOTHERHOOD SAFER: As Ms. Tinker's presentation demonstrated, there are significant social and economic benefits to protecting and preserving women's health — benefits that should go far in motivating governments and donors to invest in safe motherhood. Fortunately, she demonstrated, the interventions needed to achieve this goal are, for the most part, highly effective, and not very costly. In fact, a global analysis of the cost-effectiveness of a range of health interventions

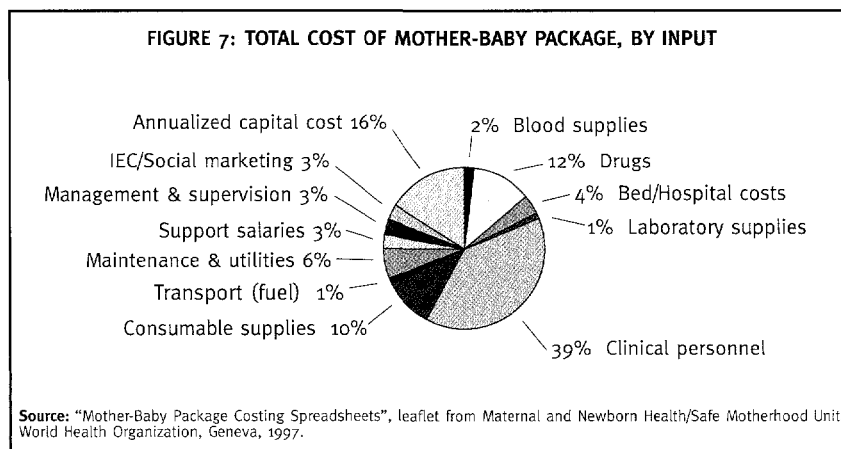
conducted by the World Bank and the World Health Organization found that family planning and maternal health services are the most cost-effective health interventions, in terms of the deaths and disabilities prevented. The World Bank and WHO have estimated that providing a standard “package” of maternal and newborn health services would cost approximately \$3 per person per year in a developing country; maternal health services alone could cost as little as \$2 per person per year (see Box E).

BOX E: THE COSTS OF A SAFE MOTHERHOOD PROGRAMME

WHO’s “Mother-Baby Package” includes the following interventions:

- Antenatal care
- Normal delivery care
- Essential care for obstetric complications (haemorrhage, obstructed labour, eclampsia, sepsis, abortion complications)
- Neonatal care
- Postpartum family planning
- Management of sexually transmitted diseases

The “costing” model for the Mother-Baby Package, available from WHO in September 1998, enables users to estimate the costs of implementing a comprehensive safe motherhood programme in a “typical” district – either starting from nothing or upgrading an existing programme. The computerized spreadsheet includes a standard set of assumptions about population size, number of births, costs (for example, salaries, essential supplies), and other factors. Users can tailor these figures according to actual local figures. The model generates estimates of the costs of the programme according to the intervention (e.g., antenatal care, normal delivery care, Caesarean section, postpartum family planning, etc.); service location (hospital, health centre, health post); and by input (personnel, consumable supplies, maintenance and utilities, drugs, etc.) (see Figure 7).



Combining these cost figures with the World Bank’s estimates of the effectiveness of maternal health interventions allows users to calculate costs in several ways:

- Cost for the entire package: In low-income countries, about \$3 per person per year; in middle-income countries with higher labour costs, about \$6 per person per year
- Cost per life saved (mothers and infants): \$230

These estimates are lower than or similar to the cost of many other programmes, such as measles immunization, which are considered global priorities and receive substantial funding from governments and donor agencies.

There is a common perception among donors and governments that safe motherhood is “expensive”. Ms. Charlotte Leighton of Abt Associates, in her working group presentation on financial and economic barriers, noted that this perception reflects the fact that safe motherhood interventions need to be implemented at all levels of the health system – community, health centre, and hospital. However, the interventions needed are not costly in terms of infrastructure and high-technology equipment; in most countries, the greatest impact could be achieved through interventions to improve existing services at community health centres and district hospitals, for example through purchasing basic supplies and equipment, upgrading infrastructure, and training additional personnel (especially midwives). Ms. Leighton also pointed out that cost-benefit analyses should take into account the synergy of safe motherhood services — e.g., improving transportation helps increase the impact of upgrading referral facilities.

In addition, noted Ms. Tinker, strengthening the capacity of the health system to manage obstetric complications, especially at the referral level, enables the health system to respond more adequately to other health complications as well, including accidents, trauma, and other medical emergencies, since services such as the capacity for blood transfusions, anaesthesia, and a functional operating theatre are necessary for other treatments as well. This is one of the considerations behind Bangladesh’s commitment to safe motherhood, noted Dr. Ahamed; “In the way that EPI [Expanded Programme on Immunization] took forward and built a base for outreach services, strategic responses to reducing maternal deaths can provide the entry point for improving the services in health facilities”.

WHO SHOULD PAY? Because of the public health benefits of reducing maternal mortality, argued Ms. Tinker, governments should be responsible for ensuring that all women have access to the basic services necessary to prevent maternal mortality and manage reproductive health problems — i.e., fees should not deter women from using essential services. However, this does not mean that governments need to provide the services themselves; for maternal health as for other health services, governments can, through sub-contracting, insurance schemes, or other mechanisms, enable private organizations to provide services, perhaps more cost-effectively. While some level of government financing will be necessary to ensure free or highly subsidized services, especially for the poor, in most countries there are (or should be) alternative mechanisms by which those who can afford to pay contribute to the costs of providing services. Possible mechanisms include health insurance schemes, sliding-scale fees, and collaboration with the private sector (including private providers and non-governmental organizations).

The Health and Population Sector Strategy in Bangladesh demonstrates how a government can cover the costs of safe motherhood and other reproductive health interventions. As explained by Dr. Ahamed, the reform of the health sector will feature “expenditure and financing strategies with stronger GOB [Government of Bangladesh] commitment to the sector, reallocation of resources to support the essential package of services, improving the efficiency of public sector inputs and services, and increased reliance on resource mobilization based on public willingness and ability to pay”. In addition, “Hospital-level health services will be improved and expanded through partnerships with NGOs, private not-for-profit hospitals, and a better regulated private sector. Greater autonomy and management, combined with local accountability, will form the basis of improvement of public sector hospitals. Resource constraints will require improved efficiency and cost recovery with attention given to the equity impact, particularly providing a safety net for poor women”.

THE TUNISIA EXPERIENCE: In his case study presentation, Dr. Moncef Sidhom of Tunisia's Ministry of Public Health provided a concrete analysis of what can be achieved when a government commits itself to investing in safe motherhood. The national Safe Motherhood programme, which began implementation in 1990, was aimed broadly at improving the quality and coverage of maternal and neonatal health services, including antenatal care, assistance at delivery, postpartum care, neonatal care, and promotion of breastfeeding; termination of pregnancy has been legal in Tunisia since 1973. Specific interventions included:

- Developing standard protocols for antenatal, delivery, and postpartum care;
- Improving pre- and in-service training to strengthen the skills of physicians and midwives;
- Improving coordination between peripheral and referral facilities, specifically by establishing mechanisms to provide feedback on the outcome of referred cases;
- Establishing a more systematic record-keeping system, strengthening supervision, and conducting periodic surveys to strengthen monitoring and evaluation;
- Ensuring that all peripheral facilities have the standard equipment necessary for the provision of the services specified;
- Involving general practitioners in the provision of MCH/FP services, and integrating maternal health and family planning services into both fixed and mobile health services;
- Increasing awareness and involvement at the community level through local education campaigns.

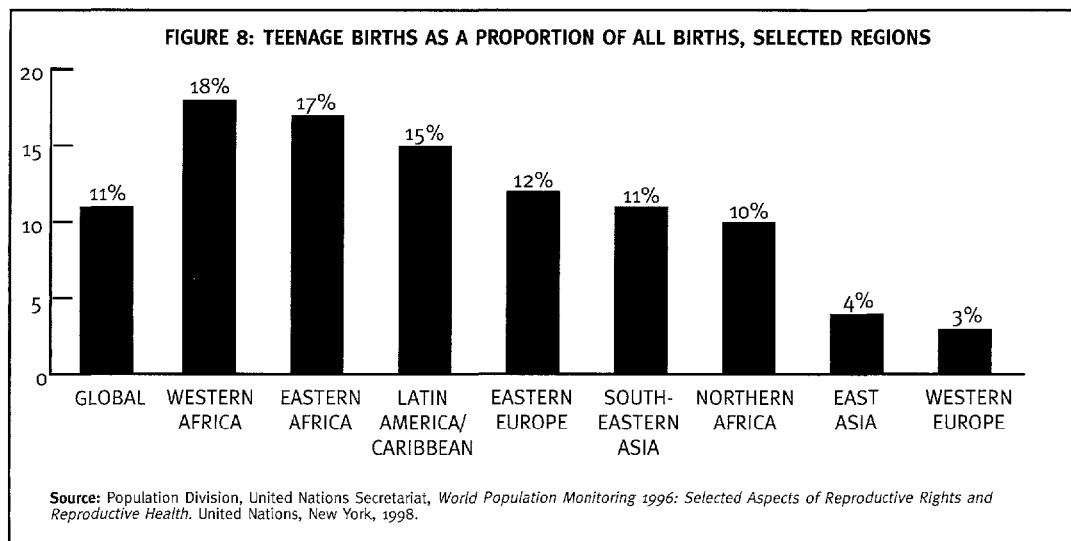
During the next 4-5 years the Ministry of Health plans to build on the successes achieved in two ways: first, by developing a comprehensive reproductive health strategy that will incorporate measures to address reproductive cancers, menopause, and prevention and management of STDs; and second, strengthening the safe motherhood programme specifically by drawing on an analysis of the most common causes of death during 1993-1994 to further focus and refine the interventions.

Delay Marriage and First Birth

Reproductive health information and services for married and unmarried adolescents need to be: legally available, widely accessible, and based on a true understanding of young people's lives. Community education must encourage families and individuals to delay marriage and first births until women are physically, emotionally, and economically prepared to become mothers.

Adolescent pregnancy is a critical issue in safe motherhood for two reasons: first, teenage mothers account for a large and disproportionate share of maternal deaths and disabilities; and second, early sexual activity and early motherhood can contribute to problems that can haunt a young woman for the rest of her life — missed education, lack of employable skills, frequent, poorly-spaced pregnancies, low self-esteem, and poverty.

Mr. John Hobcraft of the London School of Economics, in his overview presentation, offered an analysis of the dimensions, causes, and consequences of adolescent pregnancy. Each year there are about 15 million births to teenage mothers worldwide, comprising 11% of all births (see Figure 8). There are uncounted thousands of additional pregnancies among adolescents that end in miscarriage or induced abortion. Adolescents aged 15-19 years face a higher risk of dying from pregnancy and childbirth than older women — about twice as high as women in their twenties. Their infants also face a higher risk of infant and child death.



EARLY SEXUAL ACTIVITY: In presenting data on when adolescents become sexually active, marry, and bear children, Mr. Hobcraft emphasized that there is tremendous diversity both between and within regions. For example, over 80 percent of young women in Bangladesh, Côte d'Ivoire, Botswana, and Germany have had sex by age 20. The context in which sexual activity takes place, however, and its consequences, varies widely by country. In both Bangladesh and Côte d'Ivoire, two-thirds of women give birth by age 20, compared to one in 20 in Germany. In Bangladesh, however, virtually all sexual activity and births occur within marriage; in both Côte d'Ivoire and Botswana most women experience first sex before marriage, but 40 percent of teenage births in Côte d'Ivoire are within marriage, while most first births in Botswana are outside of marriage.

While these figures demonstrate the difficulty of making generalizations, Mr. Hobcraft noted that first sex is usually within marriage for Asian and North African women, whereas sexual activity before marriage is more the norm in sub-Saharan Africa and developed countries.

EARLY CHILDBEARING: As with sexual activity, it is difficult to make regional generalizations about age at first birth, since in each region there are countries that are exceptions to the dominant pattern. Mr. Hobcraft presented the following data:

- In *sub-Saharan Africa*, over half of women aged 20-24 had experienced a first birth before age 20, with some countries exceeding two-thirds while in others the figure is less than one-quarter;
- In *Latin America and the Caribbean*, about a third of women aged 20-24 had their first birth by age 20;
- In *Asia*, there are wide variations — two-thirds of women become mothers during their teenage years in Bangladesh, compared to half in India and less than 25 percent in Sri Lanka, the Philippines, and Thailand.

WHY SHOULD FIRST SEXUAL ACTIVITY AND FIRST BIRTH BE DELAYED? First and foremost, adolescents need help in avoiding early pregnancy because most of them do not want to have a child while they are still in their teenage years. Studies indicate that between 20 and 60 percent of pregnancies and births to adolescent women in developing countries are unwanted or — more often — mistimed, according to Mr. Hobcraft. A pregnancy that is unwanted is more likely to result in health problems for the mother, often because it may lead to unsafe abortion, or because a young woman with an unwanted pregnancy is less likely to seek appropriate care. Each year young women aged 15-19 are estimated to account for one to four million induced abortions, many of which are unsafe. Studies in a number of African countries, for example, indicate that adolescents constitute 24 to 37 percent of all hospital patients receiving treatment for abortion-related complications. In Latin America, the comparable figures are 14 to 40 percent.

When a pregnancy is not ended through abortion, it still carries higher health risks for adolescents than for older women. While reliable data are scarce, one study in Bangladesh indicated that the risk of maternal death for pregnant adolescents was nearly double that of women aged 20-34 years; other studies have found the increased risk to be as low as 20 percent. There is even less data available on whether adolescents face a higher risk of maternal morbidity, although certain pregnancy-related complications (obstructed labour, pre-eclampsia) are known to be more common among adolescent mothers. Obstructed labour can result in obstetric fistula, in which a hole develops between the vagina and the rectum or bladder, allowing faeces or urine to leak out through the vagina. Studies indicate that adolescents are much more likely than older women to suffer from this complication.

Finally, children born to adolescent mothers face a somewhat higher risk of death during the first five years of life. Data from Demographic and Health Surveys showed that the risk of death before age five is 28 percent higher for children of teenage mothers compared to those whose mothers were aged 20-29.

Even when sexual activity does not lead to pregnancy and its potential complications, it can carry substantial health risks for adolescents. In particular, sexually active adolescents — both girls and boys — face a substantial risk of contracting sexually transmitted diseases (STDs). According to the World Health Organization, more than one out of every twenty adolescents worldwide contracts a curable STD each year, not including viral infections; and more than half of new HIV infections occur among young people between 15-24 years of age.

There are various reasons for such statistics. Often adolescents lack knowledge about STDs and face substantial difficulties in accessing sexual and reproductive health services, including contraception, that they need to avoid or manage STDs and unwanted pregnancy. Social factors also play a role; in many cultures adolescent girls (or even older women) face considerable pressure from partners to engage in sexual activity, and may find it difficult to ask their partners to use condoms. Sexual abuse and rape appear to play a prominent role in adolescent girls' sexual experiences; studies have found that a significant portion of teenage girls report that they have been subject to rape or attempted rape, or were “tricked” into having sex.

AVOIDING THE RISKS OF EARLY SEXUAL ACTIVITY AND EARLY CHILDBEARING — THE OPTIONS: In outlining the mechanisms for delaying first birth and early sexual activity, Mr. Hobcraft focused on two broad models:

- 1. Where Sexual Activity and Childbearing Occur Largely within Marriage:** In these regions (primarily Asia and North Africa), one strategy is to delay the age at marriage until young women are physically, socially, and economically prepared to bear and raise children. Older brides are also more likely to have some measure of education, employable skills, and self-esteem that will help them negotiate for their own interests and those of their children within the context of a marriage and extended family.

This strategy has obvious application in Bangladesh, and during the Safe Motherhood Technical Consultation Ms. Sajeda Amin from the Population Council presented data from two studies that documented promising approaches. Women in Bangladesh marry at very early ages, she noted, primarily because there are few alternatives for girls besides being wives and mothers. Programmes that offer alternatives, specifically in terms of education and employment, can contribute to delayed marriage, delayed first birth, and possibly social change in the status of women.

One study described by Ms. Amin examined the impact of a scholarship programme introduced nationally by the government in 1994. If girls in secondary school attended regularly and maintained passing grades, and if their families were willing to sign a bond saying they would not be married before the age of 18, they were given a monthly stipend and money for books and fees. A complementary intervention offered a food subsidy (in the form of wheat) to the families of selected primary school students who maintained an 85 percent attendance rate. An analysis of the study indicated that enrolment figures for girls improved significantly following the programme, both at the primary and secondary school levels. Studies in Bangladesh and in countries around the world confirm that girls with more education — especially seven or more years — marry later and have lower overall fertility than women with less education.

The second study focused on young, unmarried women employed in Bangladesh's rapidly growing garment manufacturing industry. Ms. Amin explained that young women in their teens account for 70 percent of the workforce in this industry. The study found that garment workers marry significantly later than their non-working counterparts and are able to save substantial amounts by the time they marry. The authors speculated that by providing these young women with an independent source of income and enabling them to fulfill a visible economic role outside the home, working in the garment industry could contribute to significant changes in traditional attitudes toward women in Bangladesh.

The interventions described by Ms. Amin highlight the critical importance of addressing underlying social, cultural, and economic factors that contribute to adolescent marriage and childbearing. These include the social status of girls in comparison to male peers, access to education and training, and access to income and other resources. Community support for delayed marriage and childbearing is essential, but must be based upon a broader view of the roles women and girls can play in society.

- 2. Where Sexual Activity and Childbearing Often Begins Before Marriage:** In these regions — for example, much of sub-Saharan Africa and the developed world — programmes can promote delaying sexual activity, especially for those adolescents (usually, but not always, the younger ones) who have not yet engaged in sexual activity. In addition, however, programmes need to provide sexually active adolescents with the information and services they need to avoid the potential health risks of sexual activity — specifically, access to:
- complete and accurate information on sexuality and reproductive health;
 - contraceptive services for those who are sexually active to enable them to protect themselves against unwanted pregnancy and STDs, and;
 - where legal, access to services for the termination of pregnancy.

In most developing countries, some level of information on reproductive health is being offered through the formal school system, the mass media, youth programmes, or all of these channels. These family life or sexuality education programmes vary widely in quality, content, and effectiveness, but studies indicate they are most effective when they equip young people with the skills as well as the information they need to make informed decisions about sexuality and negotiate abstinence or safe sex. Such skills may include, for example, setting goals, asking for information, establishing positive relationships, and communicating with others.

Some studies indicate that a key aspect of effective adolescent programmes is a broad-based approach to adolescents' needs and concerns. Ms. Shombi Ellis, a 21-year-old student from Botswana who spoke at the Safe Motherhood Technical Consultation, pointed out that “sexual activity is viewed by many young people as a pastime which is normal, usual, and most of the time unplanned. But sexuality is not necessarily their main preoccupation; relationships, education, and employment opportunities tend to be more important to them”.

Addressing sexuality and reproductive health issues in the context of broader life issues — e.g., training for employment opportunities — can make such information and education efforts more acceptable not only to adolescents, but also to adults. These include parents as well as teachers, religious and political leaders, and health workers, who often resist or oppose the provision of sexuality education to young people.

Reproductive health services for young people face even more serious socio-cultural and political barriers. Many countries have legal or regulatory restrictions that prevent unmarried adolescents from using family planning or reproductive health services. Community attitudes are generally conservative, reflecting the widespread belief that providing contraceptives to young people will promote promiscuous behaviour. Even in countries where there are no restrictions on providing services to young, unmarried people, studies have found that most teenagers are uncomfortable using them. Many health workers, even some who have been trained in communication and counselling, treat young clients with hostility and refuse to provide them with information or services on family planning and other reproductive health problems.

Focus group discussions and interviews with adolescents, as well as other qualitative research techniques, have identified the following factors that contribute to adolescents' reluctance to use formal health services:

- poor treatment by health workers;
- concerns about privacy and confidentiality;
- fear of running into relatives or other adults who know them at the clinics;
- cost factors, including both service fees and transport costs;
- inconvenient location or operating hours of health facilities, since many are open only during school hours.

In most countries, significant policy and programmatic changes are needed to address these obstacles and make reproductive health services — including maternity care for those who are pregnant — more “youth-friendly”. Services need to be accessible to both married and unmarried young people; respectful of young people's preferences, including their need for confidentiality; and responsive to the ways in which adolescents' needs vary according to age, sex, marital status, level of sexual activity, socio-economic status, and vulnerability to sexual coercion or abuse.

In summarizing the session Dr. Andrew Arkutu, director of the UNFPA Country Support Team in Zimbabwe, emphasized that whether or not they are sexually active, young people do not need permission from parents, teachers, or religious leaders to do what they are doing; and whatever they are doing, young people do have a right to reproductive health services, provided in a way that is acceptable to them.

Every Pregnancy Faces Risks

During pregnancy, any woman can develop serious, life-threatening complications that require medical care. Because there is no reliable way to predict which women will develop these complications, it is essential that all pregnant women have access to high quality obstetric care throughout their pregnancies, but especially during and immediately after childbirth when most complications arise. Antenatal care should not spend scarce resources on screening mechanisms that attempt to predict a woman's risk of developing complications.

As Dr. Wendy Graham of the University of Aberdeen commented in beginning her presentation, the simple title to this session belies a complex set of issues that have important implications for the way in which maternal health services are organized and provided. The question being addressed relates to one of the most basic components of maternal health care: the use of risk assessment to try to identify women who are “at risk” of dying or developing serious complications due to pregnancy and childbirth, and to ensure that they receive special care and attention within the health system.

Dr. Graham's analysis of the evidence, however, showed that formal risk assessment is not effective in most developing country settings, and can actually cause harm by diverting resources away from women with the “greatest need” and by overloading maternity services. As such, Dr. Graham's recommendation was that health systems should stop investing in the development and implementation of formal risk assessment systems, and should instead focus on improving the quality and expanding the availability of services for the prevention and treatment of pregnancy-related complications. Her analysis covered the following points.

THE AIM OF RISK ASSESSMENT: Risk assessment, usually conducted during antenatal care (see Box F), involves the use of a set of criteria to classify women as being at “high” or “low” risk of developing pregnancy- or childbirth-related complications. While in theory this appears to be a worthwhile and feasible aim, Dr. Graham's presentation made it clear that it is, in fact, a difficult if not impossible goal, for a number of reasons:

- The prevalence of even the most common complications (haemorrhage, infection) is relatively low among pregnant women — almost always below 20 percent, and generally below 10 percent for any particular complication. For technical reasons, this makes risk assessment tools inefficient and inaccurate (i.e., they tend to result in a high rate of “false positives” — women who are identified as “high risk” but do not develop complications — and are also ineffective at identifying which women will develop a complication).
- The criteria used to define “risk” are often imprecise, especially when they are based on physical and socio-economic characteristics (e.g., age, parity, birth intervals, education, etc.). Even the more effective risk criteria — the actual presence of early symptoms or signs such as high blood pressure, vaginal bleeding, etc. — can change throughout a pregnancy, making it difficult to identify definitively whether a woman is “high risk” or not.
- Some complications can develop suddenly, without obvious warning signs or symptoms (e.g., postpartum haemorrhage). These complications, many of which are life-threatening, cannot be predicted by any risk assessment system.
- In some cases complications can actually be caused by medical interventions (for example, infection). This makes it more difficult to assess whether risk assessment is accurate, and also demonstrates that over-diagnosis (identifying women as “high risk” and referring them for treatment when in fact they do not develop a complication) can itself cause harm.

While assessing risk at the individual case-management level is and always will be an essential part of high-quality clinical care, problems arise when risk screening is applied to differentiate between groups of women for the provision of services. Since information about which so-called “risk factors” are most closely linked to obstetric complications is inadequate, risk assessment in practice is largely ineffective.

BOX F: ANTENATAL CARE: WHAT CAN IT ACHIEVE?

Antenatal care has long been considered an essential component of maternal health services, in part because it was seen as a way to identify women “at risk” of serious complications and refer them for appropriate treatment and care. Various research studies and programmatic assessments during the past ten years, however, have demonstrated that many of the most life-threatening complications of pregnancy and childbirth are difficult to predict or prevent, and a 1992 report commissioned by the World Health Organization* concluded that many of the standard components of antenatal care are not effective for reducing maternal mortality.

A working group session during the Safe Motherhood Technical Consultation, facilitated by Ms. Anne Thompson from WHO, examined the question of “what is the problem with antenatal care”? Has the problem been with how antenatal care services are organized and provided, or is antenatal care of limited impact and use even in an ideal situation? Participants discussed the following problems that affect antenatal care:

- It is often separated from delivery care — provided in a different location, by different personnel who have little communication with the providers of delivery care;
- It is frequently of poor quality — provided in a rote fashion, with information gathered and recorded but no analysis conducted and no action taken;
- Too much emphasis is placed on identifying a woman’s “risk category” without appropriate action (either immediate or follow-up);
- There is often little or no opportunity for women or family members to ask questions or express their preferences and opinions.

Despite these concerns, participants in the working group agreed that high quality antenatal care has an important role to play in safe motherhood. “High quality” antenatal care should:

- Establish a positive relationship between women and health care providers, building women’s confidence and encouraging them to make use of delivery services as well as antenatal care;
- Offer services that are responsive to women’s needs and include effective interventions;
- Be available as close to where women live as possible.

* C. Rooney, “Antenatal Care and Maternal Health: How Effective Is It? A Review of the Evidence”, World Health Organization, Geneva, 1992.

RISK ASSESSMENT AS A STRATEGY: Even if risk assessment tools were efficient and effective, Dr. Graham argued, other criteria must be met in order for risk assessment to work as a strategy for rationing services. Two essential criteria are: 1) when a woman is identified as “high risk”, the health system must be able to respond appropriately (by providing effective health services), and 2) women must be motivated and able to use those services. In fact, in most developing countries, neither of these conditions can be met: the quality of maternal health services is often poor, in particular their ability to manage obstetric complications (see section on quality of care, pages 43-50), and many obstacles can prevent women from using services even if they are told to do so (see section on access to care, pages 36-43).

THE “COSTS” OF INEFFECTIVE RISK ASSESSMENT: Even if risk assessment is not perfect, some argue that if it helps ensure that some women receive essential services, it is a worthwhile investment. Dr. Graham argued that this is not the case, because there are costs to ineffective risk assessment. These include:

- *Costs to women and their families:* When risk assessment results in over-diagnoses or false positives (women who are identified as high risk but who do not develop complications), women may spend scarce time and resources seeking out services that are unnecessary, and may even do them harm. Missed diagnoses or false negatives (women who are identified as low risk but do develop complications) carry an even higher cost: because neither the women nor their health providers expect a problem, they may not recognize the complication at first, resulting in delays in seeking essential treatment.
- *Costs to the health system:* Over-diagnosis — especially when risk criteria are broad, and result in the referral of a large number of women as “high risk” — can seriously overload the system. Missed diagnoses also carry a cost, since it can be more difficult and expensive to treat complications once they are advanced. In addition, the implementation of risk assessment itself carries costs: developing the system and training health workers to use it.

For these reasons, Dr. Graham concluded, “risk assessment is not an effective basis on which to ration services. Despite it being a foundation of service provision in many countries today, there is no reliable evidence of a fall in maternal mortality or serious morbidity due to risk assessment”. As such, she strongly urged that health systems stop relying on risk assessment as a core element of maternity care.

MALAYSIA — LEARNING THE LESSONS ABOUT RISK ASSESSMENT: Dr. Raj Karim, Director General of the National Population and Family Development Board in Malaysia, described her country’s experience with using a risk screening system — an experience that reinforced several of the points made by Dr. Graham. The Ministry of Health’s risk screening strategy was part of a comprehensive programme, begun in 1979, to analyze and address the causes and factors contributing to maternal death. The strategy began with a study in 1983-86 to examine risk factors and identify their prevalence, whether they could be prevented or managed, and what the outcomes were for women with risk factors. Based on the study, a risk scoring system was devised that classified women as “high” or “low risk”. However, the system had to be abandoned because it was found to overload health facilities. In particular, hospitals were not prepared and did not have the capacity to deal with the increased caseload and complications.

Instead, the Ministry developed a “risk tagging” system in which determination of risk was based primarily on whether the woman had actual signs or symptoms of complications, and on their prevalence, severity, the possibility of a poor outcome, and manageability. Four categories were used; red, for example, was used for cases of antepartum haemorrhage and impending eclampsia; yellow for hypertension and anaemia; green indicated a history of previous complications but no need for immediate intervention; and white indicated that no risk factors had been detected. Management procedures were outlined for each colour code, specifying the treatment that should be provided, the level of care (hospital, health centre, etc.), and category of personnel (specialist, medical officer, nurse/midwife). Risk screening was repeated with every antenatal visit to assess possible changes — for example, if anaemia became severe, a woman would be moved from the yellow to the red category.

At the same time that this risk tagging system was developed and implemented, significant improvements were made in the health system to ensure its capacity to treat and manage cases appropriately. These included training of midwives and medical officers in district hospitals, re-deployment of personnel to ensure adequate staffing at health centres and hospitals, improvement of logistics (transport, blood replacement), establishment of a referral and feedback system, and monitoring and evaluation via the health management information system.

Dr. Karim indicated that the risk tagging system has had some important benefits, including routine comprehensive screening of pregnant women; closer monitoring and better care for “high risk” women — i.e., those with signs of complications; closer linkages between health centres and hospitals; and standardization of procedures for the management of major causes of maternal mortality. However, the system has also run into problems:

- It is not easy to achieve comprehensive coverage; many women who would be categorized as high risk do not attend antenatal care or come late, and not all women who are “tagged” as red or yellow actually comply with referral;
- There are problems with the sensitivity and specificity of the system;
- Facilities must be prepared and able to provide essential obstetric care for the management of complications, and resources must be allocated for this to happen.

The Ministry is in the process of evaluating the system, focusing on the following objectives:

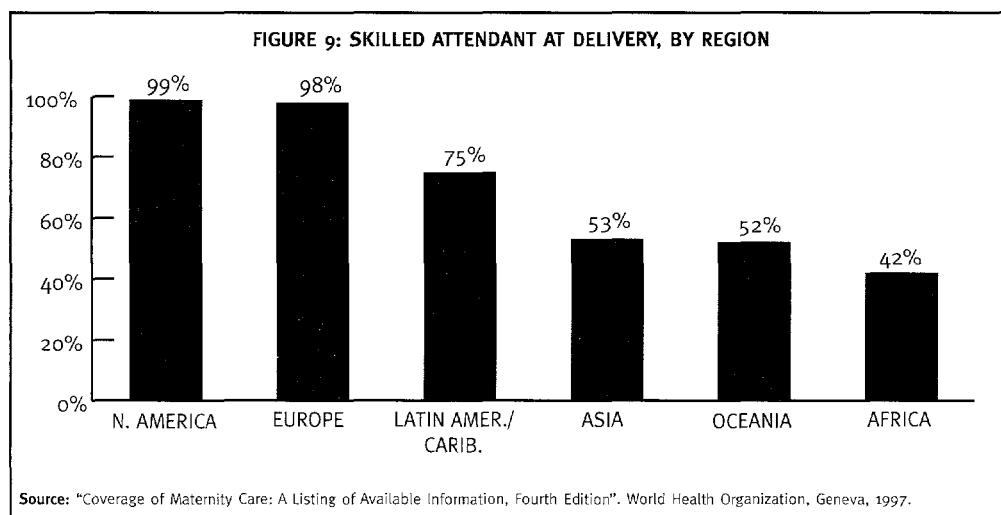
- careful monitoring of each pregnancy;
- early detection and management of complications;
- ensuring that all women have access to essential obstetric care for the management of unexpected complications;
- monitoring the quality of care and outcomes according to the risk code.

Malaysia’s experience demonstrates that even where the health system functions well, with high coverage and reasonably good services accessible to the community, risk screening can be problematic. In fact, the main benefit of the approach, as pointed out during the follow-up discussion, is that it focused less on predicting future outcomes than on the need for providing immediate care — i.e., women with signs or symptoms of complications were identified and provided with care immediately.

Ensure Skilled Attendance at Delivery

The single most critical intervention for safe motherhood is to ensure that a health worker with midwifery skills is present at every birth, and transportation is available in case of an emergency. A sufficient number of health workers must be trained and provided with essential supplies and equipment, especially in poor and rural communities.

Participants at the Safe Motherhood Technical Consultation agreed that this “action message” was perhaps the most fundamental one to emerge from the past ten years. As Ms. Margaret Peters of the International Confederation of Midwives pointed out in her overview presentation, “the great universal challenge in maternity care is its unpredictability, especially at delivery”. Since life-threatening complications can arise suddenly and without warning, the presence of a skilled, knowledgeable person at delivery is essential to ensuring that the complications are managed appropriately. In fact, attendance at delivery by skilled personnel has been found to be more strongly associated with reductions in maternal mortality than many other interventions. While some progress has been made in expanding coverage by skilled attendants over the past ten years, for developing countries as a whole almost half of deliveries still occur without a skilled attendant, and in some countries rates are still below 20 percent (see Figure 9).



DEFINITION OF A SKILLED ATTENDANT: When the Safe Motherhood Initiative began, the World Health Organization, most surveys, and many governments gathered data on whether women delivered with a *trained* attendant. In 1996, WHO shifted its focus to *skilled* attendants. This shift was based on the recognition that someone who has been trained is not necessarily skilled; “trained” implies but does not guarantee the acquisition of knowledge and ability, while “skilled” implies the competent use of knowledge. In the context of midwifery, therefore, “skilled” implies the ability to provide competent care and assistance during pregnancy, labour, childbirth, and the postpartum period. A skilled birth attendant can be a midwife, a nurse with additional midwifery education, or a physician with appropriate training and experience, but does not include traditional birth attendants, according to the definition now being used by WHO (see Box G).

BOX G: THE ROLE OF TBAS: WHAT HAVE WE LEARNED?

“Traditional birth attendants: to train or not to train?” is perhaps the most hotly debated issue within the Safe Motherhood Initiative. During a working group discussion at the Safe Motherhood Technical Consultation, Dr. Judith Fortney from Family Health International and Ms. Imtiaz Kamal of the National Committee on Maternal Health in Pakistan, facilitated a discussion on the role of TBAs.

According to WHO,

A traditional birth attendant (TBA) is a person who assists the mother during childbirth and initially acquired her skills by delivering babies herself or through apprenticeship to other traditional birth attendants. A family TBA is a TBA who has been designated by an extended family to attend births in the family. A trained TBA is a TBA or a family TBA who has received a short course of training through the modern health care sector to upgrade her skills. (Joint WHO/UNFPA/UNICEF Statement, 1992)

Dr. Fortney summarized the two sides of the TBA debate as follows: on the one hand, TBAs conduct a significant portion of deliveries in many countries, so from a public health perspective they cannot and should not be ignored. On the other hand, studies have shown that TBAs cannot prevent or treat most life-threatening obstetric complications, so it is a waste of resources to train them.

What do the data actually show? The proportion of deliveries attended by TBAs is significant, but as Dr. Fortney argued, not as high as many people believe. In fact, surveys indicate that relatives and friends account for a large portion of home deliveries — sometimes as many or more than are delivered by TBAs (e.g. Nepal, Kenya).

Can TBAs actually contribute to the reduction of maternal mortality? As Dr. Fortney explained, of the five main causes of maternal death (obstructed labour, hypertensive disorders of pregnancy, infection, haemorrhage, and complications of unsafe abortion), TBAs by themselves can have a direct impact on preventing only two: infection, through proper hygiene during and after delivery; and postpartum haemorrhage, primarily through proper management of the placenta. If any of these five complications actually develops, prompt treatment at a health facility is generally necessary. As such, the main role of the TBA in reducing maternal death is to recognize and refer the complications promptly.

Dr. Fortney described the findings of a study in Ghana to assess the impact of TBA training on maternal and perinatal mortality. The national TBA training programme in Ghana is well-established and well-managed, with TBAs relatively well integrated into the health system. Nevertheless the evidence from the study, begun in 1992, was mixed; health outcomes (incidence of infection, haemorrhage, and likelihood of referral) with trained TBAs were not substantially better than with untrained TBAs. The study concluded, therefore, that the benefits of TBA training are “modest at best”. During the working group discussion, other studies were cited with similar findings, leading to the conclusion that “there is no documented case of a society relying heavily on TBAs — trained or untrained — to attend deliveries that has succeeded in lowering its maternal mortality”.

Surveys and studies in a range of developing countries confirm that most women believe that a doctor or midwife can provide better care during delivery. Why, then, do they continue to turn to TBAs or relatives? As Ms. Kamal pointed out, this is largely because doctors and midwives are often not accessible, affordable, or culturally acceptable. Specifically:

- Doctors and midwives are not available in adequate numbers, and they are often concentrated in urban areas;
- The costs of using formal health services (direct fees, plus costs of drugs, supplies, transport, accommodation) can be prohibitive;
- TBAs provide additional services (such as cooking, cleaning, massage, traditional rites, etc.) that are valued by women and their families. They are also more likely to treat women kindly and with respect.

BOX G: THE ROLE OF TBAS: WHAT HAVE WE LEARNED? (CONTINUED)

Many maternal health specialists argue, therefore, that until health professionals become more widely available, TBAs will continue to perform a significant percentage of deliveries, and that safe motherhood interventions must include a component to train and integrate TBAs into the health system.

Participants also recognized, however, that many TBA programmes have been badly designed and/or implemented. As Ms. Kamal pointed out, training is often conducted using inappropriate techniques and materials, and — perhaps most importantly — TBAs are not provided with adequate supervision and support to link them to the formal health system. Whether to provide TBAs with incentives and/or compensation, and whether the community or the health system should be responsible for these payments, is another problematic issue. The working group recommended that:

- In all countries, emphasis should be placed on training and deploying an adequate number of professional, skilled midwives to provide the majority of delivery care;
- Where TBAs account for a significant portion of deliveries, safe motherhood programmes should include activities aimed at providing adequate supervision and integrating them into the health system; these activities could include:
 - Appropriate training (skilled trainers, appropriate teaching methodologies and materials);
 - Linkages to the health system that include proper supervision and referral mechanisms for complicated cases;
 - Ongoing assessment of the impact of TBA programmes.

A skilled birth attendant meets the following criteria, according to Ms. Peters:

- Ensures a clean, safe, normal delivery, without unnecessary intervention;
- Recognizes and responds appropriately to early warning signs of complications, either by managing them if within her or his competence (e.g., removal of placenta, repair of perineal or vaginal tears, administration of oxytocin for uterine haemorrhage, etc.) or by prompt referral to those who can carry out necessary obstetrical/surgical interventions;
- Listens to the woman and provides her with culturally sensitive emotional support;
- Provides both non- and pharmacological (if available) pain relief;
- Monitors maternal and fetal well-being throughout the delivery and immediate postpartum period;
- Ensures that the newborn breathes on its own, provides protection from hypothermia and cord infection, and initiates early breastfeeding.

Ideally, skilled attendants are from the community they serve, and reside in or close to the community. As such they can play an important role in educating community members about maternal health and mobilizing resources for care and referral, if necessary. In addition, skilled attendants promote effective links within the health system, for example by mediating between traditional health providers in the community, and physicians and other health personnel within the formal system.

Almost all specialists in maternal health — especially those working in developing countries — acknowledge that among those categorized as “skilled attendants”, midwives are an essential cadre for the reduction of maternal mortality. They have (or should have) the skills necessary to prevent maternal death, but require fewer resources for training and salaries than physicians (especially obstetrician/gynaecologists) or even nurse-midwives. They are (or should be) more flexible in terms of being posted in rural health facilities, making them more accessible to the women who need their services and skills.

Midwives and midwifery, however, have been neglected in many developing countries, and in some cases eliminated altogether. This has led to a situation where there are simply not enough midwives/skilled attendants to provide adequate care, and/or the skills of those who are working are outdated. In Uganda, for example, noted Ms. Anne Otto from the Uganda Midwives Association, a 1992 needs assessment found that the “Midwives Handbook and Guide to Practice” had last been revised in 1967. Of 105 midwives surveyed for the assessment, none had received any refresher training since graduating from midwifery school, even though some had been practising for 40 years. Some countries, such as Indonesia, have made a commitment to expanding the number of midwives and providing them with the necessary skills (see Box H); many others have yet to make the commitment.

BOX H: COMMUNITY MIDWIVES IN INDONESIA

In Indonesia during the late 1980s, traditional birth attendants (TBAs) provided 40-60 percent of delivery care. In 1989, as part of its effort to reduce maternal mortality and achieve 80 percent coverage by a skilled attendant at delivery by 1999, the Government of Indonesia made a commitment to train more than 54,000 “community midwives” by 1996/97. This cadre consists of junior high school graduates who received three years of nursing training and one year of midwifery training.

As shown in the table below, there have been significant improvements in coverage of antenatal care and supervised delivery since the programme began. In addition, the Ministry of Health took the important step in 1996 of issuing a decree stating that midwives can legally conduct life-saving procedures at the community level; these include administration of oxytocics, manual removal of placenta, antibiotics for management of infection, assisted vaginal delivery, and IV infusion and resuscitation. However, the programme continues to face some challenges, as outlined by Dr. Ardi Kaptiningsih from the Family Health Directorate of the Ministry of Health in her presentation at the Safe Motherhood Technical Consultation:

- Limited skills, reflecting in part problems with the quality and content of training: Basic and selected life-saving clinical skills need to be strengthened, as well as interpersonal skills. The Ministry is developing a strategy to improve both pre-service and in-service training based on the Life-saving Skills curriculum (see Box I), specifically targeting the most prevalent obstetric complications.
- Supervision and support to maintain and monitor quality of care: Poor transportation networks and geographic factors make it difficult to provide adequate support in some areas. Greater emphasis is therefore being placed on managerial skills for midwifery supervisors and the development of a system to monitor the quality and coverage of delivery services.
- Community response and relationship with TBAs: More effort is needed to increase the confidence of community members in the skills and abilities of the midwives, many of whom are still quite young. One strategy is to recruit midwives from various geographic areas and assign them to their home areas. The Ministry is also working to encourage partnerships between TBAs and midwives — for example, TBAs attend the delivery itself but call the community midwife immediately afterward to examine the mother and infant and provide appropriate care. Another option is to encourage TBAs to provide traditional forms of support, but encourage the community midwives to provide actual delivery care.

Table 1: Coverage of Maternal Health Services in Indonesia

	1993	1994	1995	1996
At least 1 ANC visit	74%	82%	85%	88%
Completed ANC	51%	55%	65%	69%
Skilled attendance at delivery	39%	43%	50%	55%
Number of community midwives	17,860	28,179	36,334	48,997

MIDWIVES ARE NOT THE ONLY SKILLED ATTENDANTS: While the presentation by Ms. Peters focused primarily on midwives, participants during plenary and working group discussions pointed out that physicians also qualify as “skilled attendants”, and that their roles and responsibilities need to be recognized and supported as well. Two obstetrician/gynaecologists, Dr. Pius Okong from Uganda and Dr. Joseph Taylor from Ghana, facilitated a working group discussion that focused primarily on the many roles district-level physicians are expected to play in relation to safe motherhood. Their responsibilities often go beyond clinical work to include, for example, financial administration, training, management of services (e.g., supply logistics), supervision and team-building, and advocacy with local decision-making bodies as well as the community. Training of physicians, however, almost never equips them to fulfill these roles, or to understand and be sensitive to the needs of the women and the communities they ultimately serve.

Another important gap in training for physicians, which was discussed in greater depth by a working group on “managing major obstetric interventions”, is the lack of capacity that often exists at the district level to provide surgical interventions, including Caesarean deliveries as well as symphysiotomy and craniotomy. Dr. Vivian Wong from the International Federation of Gynaecology and Obstetrics (FIGO) led a discussion on strategies for ensuring access to these interventions. One of the key questions concerns the feasibility of training rural doctors to carry out these interventions, in the absence of obstetrician/gynaecologists. In general, the group acknowledged that non-obstetricians, including community physicians and midwives in some cases, can be trained to carry out these procedures, depending on their level of experience and skill. However, national laws and regulations must permit them to do so, and the supplies, supportive personnel (anaesthesiologist), and infrastructure must be in place as well. In addition, they must have adequate supervision and back-up in case complications arise. Steps for achieving the necessary changes in policy, regulation, and practice to enable non-obstetricians to be trained in conducting these surgical interventions include:

- Issuing statements of support from international bodies like WHO and FIGO;
- Documenting the need by demonstrating that many cases of obstructed labour are not adequately dealt with, and result in maternal death;
- Documenting and disseminating information on the effectiveness of delegating these procedures to non-obstetricians;
- Involving national associations of physicians, ideally obstetricians/gynaecologists.

ENABLING CONDITIONS FOR SKILLED ATTENDANCE AT DELIVERY: In order to maximize skilled attendance at delivery and enable attendants to function effectively, Ms. Peters argued, the following conditions must be met:

- *There must be adequate numbers of midwives or other skilled attendants, and they must be deployed appropriately:* In 1993 WHO defined a target of one midwife for every 2,000 normal births; Ms. Peters pointed out, however, that this would translate into 5.5 births per day (24 hours) per midwife — an unmanageable figure, even if all cases came to the health facility and the midwife did not need to travel. Midwives who work within the public system must be remunerated adequately, with adequate incentives to stay in rural or isolated areas.

- *Training, both pre-service and in-service, should be based on the acquisition of competency in a defined set of skills (e.g., derived from accepted standards):* The length of training programmes should be dictated by the content and the time needed to gain competency. In addition:
 - * Students should be recruited/selected from the community they are to serve, and their selection supported by that community;
 - * Training sites should be hospitals or health centres with a large enough caseload to offer adequate clinical experience, sufficient to gain competency in a range of skills — from those needed for normal delivery to life-saving skills (see Box I);
 - * Instructors should be competent midwifery practitioners who also have skills in adult education.
- *Clear management protocols and standards should be produced and disseminated:* These protocols should be developed through a consultative process involving a range of practitioners as well as community representatives.
- *Skilled attendants must be provided with adequate supplies and equipment:* Only so much can be done with bare hands; midwives need to have basic equipment and drugs to carry out life-saving interventions.
- *Legislation or policies governing midwifery practice must be appropriate:* Individuals certified to have midwifery skills must be legally permitted and authorized to use them without fear of retribution.
- *Supervision and monitoring must be supportive:* Midwives should be viewed and treated as part of the health team; supervision should monitor not only administrative matters (number of deliveries, etc.), but also provide feedback on clinical practices.

BOX I: TRAINING IN LIFE-SAVING SKILLS

The Life-saving Skills (LSS) training package was developed by the American College of Nurse-Midwives (ACNM) to meet the need for updated training and continuing education for midwives. As explained by Ms. Deborah Armbruster of ACNM during a working group presentation on LSS, the skills covered in the training are those needed to save the lives of women during obstetric emergencies, including risk assessment, problem-solving, and clinical management. The approach taken is competency-based – i.e., the aim is to ensure that those trained are able to competently perform the skills being taught, not simply acquire theoretical knowledge. As such, the training emphasizes hands-on clinical practice rather than classroom lectures or discussion.

LSS training should begin with thorough planning and preparation, including a needs assessment, the preparation of the training site, and of course the selection and training of trainers. Materials include the LSS Manual for Midwives, which features review questions, case studies, illustrations, and checklists. The manual can be used as a reference both during and after the training, when midwives have returned to their workplace. It can also be used for pre-service training of midwifery students. Its 10 modules cover:

1. Introduction to Maternal Mortality
2. Quality Antenatal Care
3. Monitoring Labour Progress
4. Episiotomies and Repair of Lacerations
5. Prevention and Treatment of Haemorrhage
6. Resuscitation
7. Prevention and Management of Sepsis
8. Hydration and Rehydration
9. Vacuum Extraction
10. Other Emergencies (includes labour and delivery problems, postabortion care, symphysiotomy)

BOX 1: TRAINING IN LIFE-SAVING SKILLS (CONTINUED)

LSS programmes have been implemented in five countries (Ghana, Uganda, Nigeria, Indonesia, and Vietnam). Experience to date has highlighted the following issues:

- The needs of communities and midwives vary, so the content of the training must be adapted;
- Because the training methodology relies on adequate clinical practice, training sites must have a large enough caseload, and the training must be long enough, to ensure that each participant has enough time to refine her or his skills;
- All key departments at the training site must be given an orientation about the programme to ensure their support and assistance;
- The capacity of the trainers is critical: they should be clinically active, the team should include a balance of clinical areas (antenatal, labour and delivery, postpartum), and ideally they are peers of the participants (midwives train midwives).

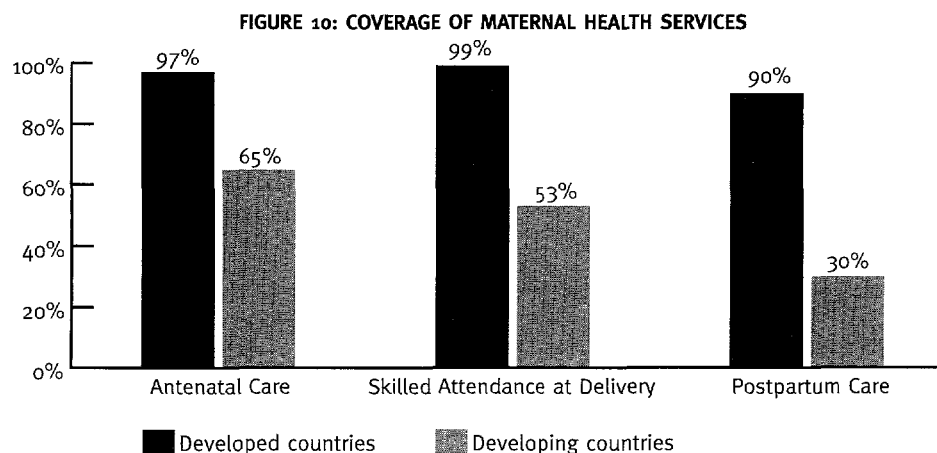
In addition, participants emphasized that LSS training is appropriate and needed for other cadres of personnel as well, including private as well as public midwives, medical officers, and general practitioners. It was also noted that other model training curricula and approaches are available, including WHO's five modules on midwifery education (WHO/FRH/MSM/96.1).

Improve Access to Good Quality Maternal Health Services

Health services should be located as close as possible to where women live, and must offer affordable, high-quality services. In order to meet required standards, health systems should have: an adequate number of trained staff; a regular supply of drugs, equipment, and supplies; and functioning referral systems. Services should also be respectful of – and responsive to – women’s needs, preferences, and cultural beliefs.

Establishing the capacity to provide skilled attendance at delivery is a significant challenge, but it is not the only one that must be met by safe motherhood programmes. To ensure that the Initiative’s goals can be achieved, services must be accessible, high-quality, and must meet women’s needs before, during, and after pregnancy. Two presentations were made on this challenge at the Safe Motherhood Technical Consultation: one focusing on access, another on quality.

ACCESS – STATISTICS AND A DEFINITION: In her presentation, Ms. Carla AbouZahr of the World Health Organization’s Maternal and Newborn Health/Safe Motherhood Programme provided information on which services women use and why; the barriers that prevent women from using available services; and ways to overcome those barriers. As shown in Figure 10 and noted by Ms. AbouZahr, “There continue to be vast discrepancies in the coverage of maternal health care between the developing and the industrialized world, between poor women and their richer sisters, between rural and urban areas, and between the educated and the uneducated”. For developing countries as a whole, the data clearly demonstrate that many women are not getting the care they need, when they need it.



Source: “Coverage of Maternity Care: A Listing of Available Information, Fourth Edition”. World Health Organization, Geneva, 1997.

What is meant by “access”, and what are the factors affecting it? Ms. AbouZahr presented a simple definition: a service is accessible if it is “within reach, people can get to it easily, and they are not deterred from using it”. While it is often assumed that simply establishing services makes them “accessible”, the reality is far more complex. In relation to pregnancy-related care, there are two ways to examine the issue of access:

1. **Access for which type of service, during what stage of pregnancy?** As Figure 10 indicates, women are far more likely to receive antenatal care than to have skilled care during pregnancy and childbirth, and are least likely to receive postpartum care. In fact, however, women need care most during delivery and the immediate postpartum period, especially the first 6-24 hours (see Table 2 and Box J). Because labour can begin unexpectedly, however, and especially at night, ensuring access to care for delivery is particularly difficult.

Time of Death	% of all maternal deaths
During pregnancy	24
During delivery	16
After delivery	61

BOX J: THE NEGLECTED ISSUE: POSTPARTUM CARE

As highlighted in Ms. Carla AbouZahr's presentation, the majority of maternal deaths (61 percent in developing countries) occur after delivery. Most of these (78 percent) take place during the first 24-48 hours after delivery, largely due to postpartum haemorrhage or hypertensive disorders, but also later, due primarily to sepsis. Women, families, and even health professionals are often not aware of the risks to women during this period.

Recommendations from the working group focusing on postpartum care, facilitated by Ms. Diana Beck from MotherCare/Indonesia, varied according to the time frame in which postpartum care needs to be provided:

Immediate postpartum care: Care during the immediate postpartum period — the first 6-24 hours after delivery — needs to be viewed as part of care during delivery. Particular vigilance is needed in the first 4-6 hours, when postpartum haemorrhage due to uterine atony or retained products of conception is most likely to occur. Problems that can arise during this period need to be included in training curricula, service protocols, etc. that are specific to delivery and neonatal care.

Later postpartum/postnatal care: If no skilled attendant is present at delivery, one should see the woman as early as possible. WHO now recommends a postpartum visit within 1-3 days, if possible through home visits by community health workers. Routine postnatal services should include:

- Detection and treatment of health problems in the mother;
- Counselling and information on family planning, breastfeeding, and maintaining good health;
- Care of the baby, including immunization.

For the entire postpartum period: Awareness needs to be raised among women, communities, and health care professionals about the postpartum period as a time of significant health risk, and warning signs for postpartum complications need to be included in education campaigns about obstetric emergencies and the need for referral.

2. **Access for routine care or for management of complications?** Clearly it is easier to use services for routine care (antenatal or postpartum care) that can be scheduled and planned for; ensuring access to care is much more challenging for sudden, life-threatening emergencies which must be treated promptly (see Table 3).

Ms. Deborah Maine of Columbia University School of Public Health has developed a highly influential framework for analyzing the factors that contribute to maternal death, called the "three delays". The first two "delays" relate directly to the issue of access to care, encompassing factors in the family and community:

1. **Delay in deciding to seek care:** As outlined below, key issues include the ability of family members and care providers in the community to recognize complications, and how and when the decision is made to take a woman with complications to an appropriate health facility.
2. **Delay in reaching appropriate care:** This encompasses the range of logistical factors, discussed below, that determine the need for and availability of transportation to take the woman to a health facility.

Complication	Hours	Days
Haemorrhage:		
• Postpartum	2	
• Antepartum	12	
Ruptured uterus		1
Eclampsia		2
Obstructed labour		3
Sepsis		6

The third “delay” relates to factors in the health facility, and is addressed in the section on quality of care (pages 43-50):

3. **Delay in receiving care at health facilities:** Once a woman reaches the facility, the promptness with which she receives appropriate treatment is determined by the capacity and quality of the services available.

OBSTACLES TO ACCESS AND WAYS TO OVERCOME THEM: The major barriers that cause delays in seeking and reaching health facilities, and suggestions on how to overcome them, include:

Lack of information and understanding: In many cultures, women and their families may not recognize the signs of pregnancy-related complications, may not realize how serious they are, or may not believe they can be addressed through formal health care. Complications may be seen as the result of “misbehaviour” by the woman or her family, evil spirits, or other factors that cannot be addressed through medical care. Cultural values can restrict women’s use of health services; for example, in some areas it is unacceptable for women to be examined by male health personnel. In addition, women are often not the ones who make the decision about whether or when to seek health care; husbands or other family members such as mothers-in-law may play a key role, especially where social norms dictate that women should not be seen outside the home.

Information campaigns to address these issues have been tried in a range of settings, and some have had an impact on knowledge and awareness among community members. Designing and implementing effective campaigns, however, is more complex and difficult than it first appears. Extensive research is often necessary to understand beliefs and values in the community; campaigns need to focus not only on conveying basic information (e.g., the signs of life-threatening complications), but also on what actions should be taken and when (taking the woman to an appropriate health facility). In addition, extensive discussions with community members may be necessary to determine what actions are acceptable and feasible to promote (e.g., community involvement in making transport available for emergencies).

A caution is in order, however. Ms. Angela Kamara of the Regional Prevention of Maternal Mortality (PMM) Programme argued that before implementing a campaign to increase service utilization, health services need to be capable of meeting increased demand and providing good quality care. One project that did not follow this rule found that the negative consequences can be significant: an effective community mobilization and health education campaign was launched to promote the use of services, but three months later utilization had dropped to below the pre-campaign levels. An assessment found that people initially responded to the messages, but lost confidence when they found the facilities could not provide adequate care.

Poor interactions between clients and providers: Around the world, women describe health care providers as unkind, rude, brusque, unsympathetic, and uncaring. In the face of such treatment, the use of formal health services may be a last resort. In Tanzania, among women in one study who delivered at home even though they believed it was safer to do so in a health facility, 21 percent said they stayed home because health centre staff were “unkind”. Differences in how complications are perceived by women and health staff, and poor communication between clients and providers, contribute to the problem.

Negative attitudes on the part of health workers can have many causes. As Dr. Sharon Fonn highlighted in her presentation on users’ and providers’ opinions about the quality of care in South Africa, “Health workers admitted that many of the factors that determined how they relate to clients are based on prejudice and unequal power relations based on class, sex, and race”. Other studies have also found that health workers can be harsher with clients who have little or no education or who are from a different ethnic group. However, in many cases health workers’ reactions and attitudes reflect their own frustrations with their work. Shortages of supplies, non-functioning equipment, excessive workloads, and poor infrastructure can make it difficult for them to provide what they perceive as good quality care; late or non-payment of salaries and lack of supervision can also make health workers resentful and unmotivated.

While training to improve communication skills and modify providers’ attitudes can help in many contexts, it is most likely to be effective where basic management and infrastructure issues have been dealt with, providing health workers with a supportive, enabling environment. In order to promote sustained change in health workers’ behaviour, supervision and monitoring systems can assess client-provider interactions as one of the criteria for evaluating health workers’ performance. In Dr. Fonn’s study in South Africa, for example, health staff made specific suggestions on how to address the management and functioning of the health system in order to improve the quality of care, and suggested that a “code of conduct” be established by supervisors and staff to determine promotion and disciplinary practices. Particularly where there are significant differences between clients and providers in terms of education and economic class, efforts may be needed to encourage women to express their opinions, and providers may need to be taught techniques for eliciting information that women may not feel comfortable volunteering — either about their health problems or about their opinions concerning services.

Distance and lack of communication or transport: Where roads are poor, vehicles are scarce, and distances to appropriate health facilities are considerable, it can be difficult for women to use even routine services. Data from Demographic and Health Surveys indicate that at least one-third of rural women in developing countries live more than five kilometres from the nearest health facility, and around 80 percent live more than five kilometres from the nearest hospital. Where walking is the main mode of

transportation, such distances can be insurmountable obstacles. Surveys in a range of countries confirm that many women would like to deliver in a health facility, but are unable to do so because of distance and lack of transport. In Malawi, for example, 90 percent of women in one survey wanted to deliver in a health facility, but only 25 percent actually did so.

Strategies to overcome these barriers must be based on local conditions. Some of the strategies that have been tried include:

- *Decentralizing care:* For routine services such as antenatal care, access can be improved by providing mobile outreach services, or ensuring that all health facilities provide antenatal care on a daily basis. In addition, efforts can be made to ensure that peripheral health facilities have the trained personnel, authority, equipment, and supplies to provide life-saving obstetric first aid.
- *Establishing emergency transport and referral mechanisms:* Most health systems have some (often limited) capacity to provide transport via ambulances or other vehicles, and channels for communication (via radio or telephone) between different levels of the health system. In many cases, vehicles and equipment only need basic repairs or fuel to function effectively. The definition of clear norms or protocols for referral — what complications should be managed at which level of the health system, and when during pregnancy or childbirth referral should take place — is critical to ensure that women receive the care they need, when they need it. Uganda has piloted one promising approach to emergency transport (see Box K).
- *Mobilizing communities:* The vast majority of women who reach hospitals in developing countries do so by finding their own means of transportation. Families — especially husbands — generally have the primary responsibility for finding transport, but numerous efforts have been made to involve communities in the process. In West Africa, for example, the Prevention of Maternal Mortality Programme tried various approaches:
 - Local transport unions and vehicle owners were sensitized to help women with obstetric complications. In one community, the local government established a Safe Motherhood Fund to reimburse drivers for fuel when they transport obstetric emergencies.
 - Community motivators were trained to form “action groups” of able-bodied men who would use a hammock to transport women with complications to the nearest health facility or roadside where transportation could be obtained.
- *Maternity waiting homes:* Dr. Jerker Liljestrand of WHO’s Maternal and Newborn Health/Safe Motherhood Programme, in a working group presentation on this topic, defined maternity waiting homes as: “residential facilities, located near a medical facility capable of providing essential obstetric care, where women defined as ‘high risk’ can await their delivery and be transferred to the nearby medical facility shortly before delivery, or earlier should complications arise”. Assessments in a number of countries (Ethiopia, Zimbabwe, Tanzania, Nicaragua) have found that maternity waiting homes can have a positive impact on maternal and perinatal health or birth weight; however, these assessments faced methodological difficulties that make it difficult to draw strong conclusions.

The idea of establishing maternity waiting homes also faces conceptual and practical difficulties. Conceptually, as Dr. Liljestrand explained, maternity waiting homes are “based on the premise that it is possible to identify pregnancies that are likely to develop complications and need skilled care”. As discussed in “Every Pregnancy Faces Risk” on pages 25-28, most “risk

BOX K: THE RESCUER PROJECT IN UGANDA

In March 1996, the Ministry of Health in Uganda launched a pilot project to establish a sustainable referral system in one district. The project, as described by Mr. Francois Farah, the UNFPA/Uganda Country Representative, aimed to:

- identify and equip health referral facilities to provide quality obstetric care;
- establish feasible, reliable, and cost-effective communication systems between referral facilities and traditional birth attendants in selected villages in the catchment areas;
- devise an efficient means of transporting women to the referral facilities.

Strengthening referral facilities: The district was divided into 12 catchment areas; in each area a health facility was designated as the referral facility. The capacity of the facilities was assessed in terms of the number and qualifications of personnel, equipment, logistics, drug supply, and physical structure. Deficiencies were addressed through training and posting of nurses and midwives, provision of minimum equipment, and renovation.

Communication: Based on a feasibility study, a VHF solar-powered radio was set up at each referral facility, connected on a 24-hour basis to walkie-talkies that were distributed to clusters of TBAs. In each village, 4-6 TBAs were selected and given training in early detection of obstetric emergencies, as well as use of the walkie-talkies. The two district hospitals were also equipped with radio which enabled them to communicate with the referral facilities.

Transportation: Three-wheeled motorized vehicles were provided to each referral facility as an affordable, easy-to-maintain means of transport. They were equipped with a simple structure on the back to accommodate the woman, and a side seat for an accompanying TBA or family member.

The system was designed to work as follows: when an obstetric complication arises, the TBA or the person attending the delivery uses the radio to contact the referral facility. Staff at the facility provide instructions on how to handle the situation and send transport. If higher-level care is needed, the referral facility also informs the hospital, which sends an ambulance.

A preliminary assessment conducted in October 1996, as well as routine statistics for the district, highlighted the following:

- Obstetric referrals and Caesarean sections increased dramatically; for example, referrals increased from 342 in 1995 to 1,028 in 1996;
- The aim of the project was highly valued by community members and staff at the health system;
- The availability of improved care at the referral facilities was recognized by community members, and led to a significant change in health-seeking behaviour;
- Some community members expressed concern about the vehicle, which was seen as unstable and potentially dangerous. Alternatives are being explored, including a stronger 3-wheeler that can better withstand the poor road conditions, or a 4x4 motorcycle with a trailer to carry the patient and an attendant.

The project was expanded to three additional districts at the end of 1997, and project plans call for expansion to three new districts per year until 2000.

factors” have low predictive value — i.e., many women who are identified as high risk do not develop complications, and perhaps more importantly, most of the women who do develop serious complications have no risk factors during pregnancy. As such, maternity waiting homes are most appropriate for the small proportion of women who can be correctly identified as being at “high risk” — e.g., those with previous cephalopelvic disproportion. Without the capacity to accurately identify which women are likely to develop complications, those who most need the services of a maternity waiting home are unlikely to use them.

In some countries, maternity waiting homes are made available based on “social” risk factors — for example in Cuba, where women who live in geographically isolated areas are entitled to stay in a waiting home. During the working group it was suggested that the criteria could be defined such that all women who live more than four hours’ travel time from a health facility should use a waiting home. In many settings, however, this may not be a practical option because of the huge numbers of women who would fall into this category. Finally, practical issues may limit the feasibility or sustainability of maternity waiting homes, including women’s inability or reluctance to be away from the family for an extended period, and the cost of constructing and maintaining the homes.

As such, the working group concluded, maternity waiting homes may have a role to play in safe motherhood strategies, especially in geographically remote areas; however a careful assessment needs to be made of whether they are culturally and economically feasible, and of what their impact is on maternal survival.

In many cases, a combination of approaches may be most effective to overcoming obstacles to care — e.g., decentralizing care by upgrading rural health posts or health centres to provide emergency first aid, in combination with strengthening referral mechanisms so that women can be transported quickly to a higher-level facility.

Financial barriers to access: In addition to distance, cost factors such as user fees can be a major obstacle to women’s use of health services. Ideally, funds generated through fees are retained at the local level and used to improve the quality of services (e.g., purchasing drugs and equipment, subsidizing transport). This can increase people’s willingness to pay and empower communities with a sense of their own responsibility and capacity, and may even lead to increases in utilization. Ms. AbouZahr noted, however, that for poorer women imposing or raising fees almost always deters them from using services.

Even when formal fees are low or nonexistent, there can be other costs that deter women from seeking care. These costs may include transport, accommodation, drugs, and supplies, as well as informal or under the table fees that may be imposed by health staff. When women lack control over resources and are dependent on others to provide funds, fees of any kind can be a serious obstacle to their use of services.

Options do exist for overcoming these barriers. These include:

- *Free services*, based on the principle that improved maternal health is of significant benefit to communities and society as a whole.
- *Sliding fees* where those who can afford to pay are charged higher fees, and those who cannot are provided with services for free or at token cost.
- *Insurance schemes* which spread the costs among community members, and work relatively well when everyone is obliged to join.
- *Community trust fund or loan schemes*, in which communities pool resources to establish a fund which then provides a loan to cover immediate transport and hospital costs in the case of an obstetric emergency.

The obstacles to women's access to and use of health services can seem so numerous and so fundamental that they can discourage action. But as Ms. AbouZahr pointed out, the underlying strategy is one that focuses on communication and dialogue: between women and providers, to build a common understanding of the problems and share ideas on how to address them; between communities and health facilities, to establish feasible, effective mechanisms for transport and referral; and between the formal and informal health sectors, especially between traditional birth attendants and facility-based staff, to encourage positive working relationships and improve understanding.

DEFINING QUALITY OF CARE: Quality of care, as noted by Ms. Marge Koblinsky of MotherCare in her overview presentation, is now viewed as being a key factor in ensuring programme success in reproductive health. While few would disagree with this conclusion, Ms. Koblinsky pointed out that in relation to maternal health, it is difficult to even define quality of care, much less determine which of its components are most important, how to measure it, and actually provide it. Her presentation outlined three ways in which quality is usually approached:

1. **Technical quality:** Assessments of technical quality generally focus on the efficacy of selected clinical interventions in terms of the health outcome for the woman and her baby. Maternal death audits and needs assessment methodologies, for example, generally examine factors such as the clinical knowledge and skills of providers, which can determine the actual impact of interventions known to be theoretically effective (e.g., Caesarean section for obstructed labour). In safe motherhood, most of the interventions that have the potential to save women's lives are well-known and tested, although recent research has highlighted promising new interventions (see Box L).
2. **Generic quality:** This term refers to women's perceptions of quality based on gender, socio-cultural, and psychological issues — e.g., what women want and expect from health services, and their opinions of how they are treated by health providers.
3. **Systemic quality:** As implied by the term, this broad approach to quality focuses on “Doing the right things right, obtaining the best possible clinical outcome, satisfying all customers, retaining talented staff, and maintaining sound financial performance”.

BOX 1: CAN MICRONUTRIENT SUPPLEMENTATION REDUCE MATERNAL MORTALITY?

The development of a “new” intervention in maternal health is a relatively rare occurrence. Before large-scale implementation can be recommended, new interventions need to be thoroughly studied and evaluated. Mr. Ray Yip from UNICEF/Jakarta presented data indicating that micronutrient supplementation during pregnancy, in certain contexts, may have the potential to substantially reduce maternal mortality.

In his presentation Mr. Yip analyzed evidence on possible associations between nutrition disorders and some of the most common obstetric complications, including:

- **Low calcium intake and pre-eclampsia:** Evidence indicates that calcium deficiencies play a role in pregnancy-induced hypertension and pre-eclampsia; specifically, the incidence of pre-eclampsia is lower in women with a diet adequate in calcium. An analysis of 14 randomized controlled trials of calcium supplementation during pregnancy found significant reductions in the incidence of pre-eclampsia, especially in countries where dietary calcium intake is relatively low. The findings, Mr. Yip concluded, imply that calcium supplementation should be considered, especially where regular diets are low in calcium and for women who are at high risk of pre-eclampsia.
- **Vitamin A/zinc deficiencies and sepsis/haemorrhage:** Both Vitamin A and zinc deficiency have been shown to reduce immune function in animals and humans, and trials of Vitamin A supplementation for children have reduced mortality by protecting children against infections. Preliminary data from a large-scale study of weekly supplementation with Vitamin A and beta-carotene among pregnant women in Nepal found that Vitamin A supplementation resulted in a 40 percent reduction in maternal mortality, and beta-carotene in a 50 percent reduction. The supplements appeared to have a protective effect not only against infection, but also against haemorrhage and prolonged/obstructed labour. A small-scale trial with zinc supplementation has indicated that it may also help protect against prolonged labour and excessive bleeding.

The “accepted wisdom” within the Safe Motherhood Initiative is that most obstetric complications cannot be prevented; they can only be managed appropriately, thereby averting death. Mr. Yip’s presentation, however, offered the possibility that nutrition interventions, especially micronutrient supplementation, could contribute to preventing complications, and could potentially serve as an important component of safe motherhood strategies.

Participants agreed that additional research is needed to better define and understand the impact of micronutrient supplementation, but also agreed that the recent findings “are too significant to ignore”. The working group therefore suggested that research be conducted to determine appropriate doses and distribution channels, and that micronutrient interventions should be considered as an addition to other safe motherhood interventions, especially in areas with high maternal mortality and poor maternal nutrition.

Unlike many public health issues, safe motherhood encompasses all levels of care, from the community to referral hospitals; as such, efforts to ensure good quality care must build on the existing health system and establish linkages between the various levels — an approach which can be time-consuming. Ms. Koblinsky's presentation focused primarily on systemic quality, examining existing safe motherhood programmes to identify key characteristics of high quality services. The review found four basic models of care, based on the organizational characteristics of where women deliver and who provides care during delivery, and highlighted the key characteristics that enable good quality care to be provided in each model:

Model 1 - Home deliveries by community members: While home delivery is the norm in many developing countries, maternal mortality tends to be highest where this is the case, implying that it is difficult to achieve “good quality care” with this approach. Where it has been successful, key factors are that the birth attendant provides clean delivery and postpartum care, that families are aware of danger signs during labour and delivery, and that a referral system is in place. Strong linkages must exist between the informal (home-based) and formal (facility-based) systems of care.

Model 2 - Home deliveries by a professional attendant (doctor or midwife): In this model the attendant is trained to recognize complications, conduct normal deliveries, stabilize a woman with complications, and organize referral to a health facility capable of managing the problem if needed. Assuming the attendant has the supplies necessary, all the elements of basic essential obstetric care (EOC)* could be provided at home. Key factors to the success of this approach have included:

- Posting well-trained midwives/community nurses at the community level who provide care for normal deliveries as well as identification and referral of complications;
- Provision of health services for free;
- A strong referral system with transport available;
- Respect for traditional customs and practices.

Model 3 - Delivery by professional attendants in a basic EOC facility: Basic EOC facilities can include health centres with beds, private or public maternity homes, and local hospitals that offer services on a 24-hour basis. Key factors to this model's success include:

- Making services available to all (by ensuring transportation and low or no cost);
- Making communities aware of the availability of the services;
- Ensuring good quality care within the facilities.

Model 4 - Delivery by professionals in a comprehensive EOC facility: The attendant in this model may be a midwife, doctor, or specialist obstetrician, but by definition a specialist is available and the supplies and equipment necessary for comprehensive EOC** are in place. Most developed countries follow this model, and it often applies as well in selected areas of developing countries (e.g., in urban areas). However, the use of this approach is no guarantee of high quality care, as shown by the experience in Central Asian republics, where nearly all births are in hospitals but the maternal mortality ratio

* Basic Essential Obstetric Care (EOC): The elements of obstetric care needed to manage major obstetric complications that can be safely provided at peripheral health centres, including: medical treatment of sepsis, shock, eclampsia, and anaemia; removal of placenta; repair of episiotomies and perineal tears; vacuum extraction; labour monitoring; management of severe anaemia, diabetes, and other indirect complications; and neonatal resuscitation.

**Comprehensive EOC: The complete elements that should be available at the district hospital, which include basic EOC as well as: surgical obstetrics (Caesarian delivery, treatment of sepsis, repair of high vaginal and cervical tears, laparotomy, removal of ectopic pregnancy, evacuation of uterus, intravenous oxytocin, amniotomy, craniotomy, symphysiotomy; anaesthesia; and blood replacement.

ranges from 55 to 200. Experience with this model indicates that for it to be successful, the following conditions must be in place:

- A fully trained cadre of professionals;
- Quality assurance mechanisms to ensure that personnel have the necessary skills, equipment is available and functions, and supplies are consistently available.

One risk of the model 4 approach is overmedicalization of the birth process, as highlighted by Ms. Beverley Chalmers of the Centre for Research in Women's Health at the University of Toronto and Dr. Ana Langer, Regional Director for Latin America and the Caribbean for the Population Council, in their working group session (see Box M). This can happen in individual hospitals even in countries where rates of institutional delivery are not that high (e.g., studies have documented overmedicalization in Tanzania, Nigeria, and Zimbabwe). Overmedicalization can also be a characteristic of national maternal health systems, as in the developed world and in countries like Brazil and Thailand.

BOX M: OVERMEDICALIZATION

The problem of overmedicalization, stated Ms. Chalmers, is rooted in the belief in the superiority of hospital-based care and the use of "modern" technology during pregnancy and childbirth — interventions such as the routine use of Caesarean section, oxytocics to augment labour, electronic monitoring of labour, and epidural anaesthesia. Belief in such technological interventions predominates in many developed countries, and has now become established as the "gold standard" in many developing countries as well.

Developing countries are prone to the overuse of technologies for a range of reasons. Inadequate basic and in-service training of providers, poor supervision and monitoring systems, and the lack of standards or regulations can encourage the incorrect use of reproductive technologies. Lack of information about the risks and benefits of certain procedures contributes to a situation where women accept or even ask for medical/surgical interventions that are not actually needed.

Dr. Langer cited statistics on one manifestation of overmedicalization: dramatic increases in Caesarean section rates in the last two decades. In Brazil, for example, the C-section rate was 32 percent in 1986, and has increased to 50-60 percent in more recent years. In hospitals serving women of higher socio-economic status, the figure has reached as high as 90 percent.

The negative consequences can be serious; C-section is one of the major causes of obstetric infection worldwide. Maternal mortality is 2-4 times higher, and morbidity is 5-19 times higher following a C-section compared to vaginal delivery. There is also evidence of negative effects on neonatal health, including respiratory distress, prematurity, and lower rates of successful breastfeeding. Finally, overuse of C-sections contributes to longer hospital stays, overcrowding, and misuse of medical personnel and resources.

The Population Council undertook a study in the largest teaching hospital in Quito, Ecuador to assess the effectiveness and cost savings of seeking a second opinion for controlling C-section rates. The change in hospital policy — systematically seeking a second opinion for C-section candidates — resulted in a significant reduction in the C-section rate, along with shorter hospital stays, lower costs, and similar maternal and neonatal outcomes.

The working group on this issue recommended establishing global standards, policies, and recommendations for the appropriate use of technology and medicalization of care. Other steps that could contribute to the goal of appropriate use of technology include:

- Targeting groups that can help disseminate information, including professional associations, academic institutions, the media, and publishers of medical textbooks;
- Addressing obstacles such as health provider reimbursement systems, litigation, and two-tiered systems of care that favour clients with higher incomes or those with "connections";
- Incorporating women and their families/communities into decision-making regarding care;
- Promoting family-centred maternity care.

Many countries will, in fact, have a mix of models, with variations by socio-economic category or by urban/rural area. In general, Ms. Koblinsky argued that most successful efforts to reduce maternal mortality have achieved their success by moving to facility-based professional attendance (Model 3), supported by strong management and good organization of services to ensure systemic quality, as well as mechanisms to maximize client and provider satisfaction. Key aspects of good quality care, according to the models and components of quality defined above, are presented in Table 4.

Model	Generic Quality	Systemic Quality	Technical Quality
1. Home delivery by lay worker	<ul style="list-style-type: none"> • community providers (TBAs) selected by and trusted by community • referral-level providers sensitive to birthing traditions • referral providers welcome community workers to facilities 	<ul style="list-style-type: none"> • TBAs are trained and supported by health system • incentives exist to maintain support/participation of TBAs • functional referral system exists (community to health centre to hospital) • transport and costs are covered by health system • hospitals guide process 	<ul style="list-style-type: none"> • TBAs are trained to recognize and refer complicated cases • providers in referral facilities have skills, supplies, equipment to manage complications
2. Home delivery by professionals	<ul style="list-style-type: none"> • neutral/beneficial traditions are incorporated, including respect for personal customs (e.g., privacy) • professionals have counselling/interpersonal skills • families are encouraged to use formal service, esp. in case of complications • traditional providers are partners and their roles are defined/recognized 	<ul style="list-style-type: none"> • professionals exist in adequate numbers and are deployed appropriately (midwife:pop ratio 1:4,000) • referral system links community with health facilities (protocols, midwives accompany referrals) • professionals are authorized to carry out necessary interventions, and know when to refer complications 	<ul style="list-style-type: none"> • clinical protocols clearly define management of cases • training for professionals is competency-based, including continuing education
3. Professional delivery in basic EOC facility	<ul style="list-style-type: none"> • neutral/beneficial traditions are incorporated (as above) • professionals have counselling/interpersonal skills • families are actively encouraged to use formal services • no active involvement of TBAs 	<ul style="list-style-type: none"> • outreach/peripheral workers promote facility-based births • referral services are ensured • transport and costs are covered by services 	<ul style="list-style-type: none"> • clinical protocols clearly define management of cases • training for professionals is competency-based, including continuing education • mechanisms are in place to assess/assure quality, incl. maternal death audits • district-level indicators are used to ensure public accountability
4. Professional delivery in comprehensive EOC facility	<ul style="list-style-type: none"> • social support is provided for institutional labour/delivery • birthing centres for normal births 	<ul style="list-style-type: none"> • no fees for transport and services 	<p><i>Same as for Model 3, plus:</i></p> <ul style="list-style-type: none"> • professionals qualify and are certified/licensed according to clearly-defined standards • oversight committees monitor quality (confidential enquiries)

ASSESSING AND IMPROVING QUALITY OF CARE - LESSONS FROM THE FIELD: What are the strategies for achieving good quality care? Ms. Koblinsky mentioned several options, and participants throughout the Safe Motherhood Technical Consultation provided concrete, practical examples of how some of these strategies can be implemented at the local level:

Improve training and ensure provider skills: Training is essential for ensuring technical quality (clinical skills), but can also contribute to generic quality by including a community orientation and appropriate counselling skills.

- *Upgrading clinical skills:* Doctors at the state hospital in Ogun State, Nigeria were provided with a five-day course reviewing obstetric life-saving skills; 182 nurses and midwives at the hospital and at local maternity facilities were also trained in life-saving skills. (*Regional Prevention of Maternal Mortality [PMM] Programme, presentation by Ms. Angela Kamara*)
- *Encouraging positive attitudes and interactions with clients:* In Malaysia, midwives and community nurses work at the village level and make home visits as well as provide care for normal deliveries at home. Their training includes a community posting to encourage understanding of and a good relationship with community members. (*National Family Planning and Development Board, presentation by Dr. Raj Karim*)

Upgrading infrastructure: Poor infrastructure is frequently the reason that hospitals cannot provide essential obstetric care; inadequate power and water supplies, as well as non-functional operating theatres, can often be addressed by simple, local interventions.

- *Repairing broken essential equipment:* In Bo, Sierra Leone, a discarded refrigerator was retrieved from the teaching hospital in the capital; it was cleaned and used for the storage of blood. A broken operating table from the hospital junk store was also repaired. (*PMM, Ms. Angela Kamara*)

Strengthening supply logistics: At all levels of the system — community, health centre, and district and regional hospitals — quality services require the availability of adequate supplies and equipment on an ongoing basis.

- *Introducing emergency operation packs:* At the teaching hospital in Zaria, Nigeria, standard supply packages for patients with obstetric complications who need surgical intervention are sold through the drugs and supplies system. The packs contain consumables such as sutures, gauze, anaesthesia, IV fluids, syringes, needles, and gloves. (*PMM, Ms. Angela Kamara*)
- *Improving the availability of blood:* In Cross River State, Nigeria, a series of community mobilization campaigns were carried out to encourage blood donations; messages emphasized that blood transfusions can save lives, and that voluntary donations from the community are essential to making blood available. (*PMM, Ms. Angela Kamara*)

Improving referral mechanisms: A functional referral system, including reliable means for communication and transport, are needed to ensure that women with complications are taken promptly to health facilities capable of providing appropriate care (see Box K).

- *Linking the community to referral facilities:* Mali's national programme to reduce maternal mortality focuses on improving access to essential obstetric care at the district level. A

communication and transport system links village health centres to the district hospital, supported by a financing scheme in which patients, village health associations, and district health authorities share the cost of treatment. Families in economic difficulty can draw on a special “solidarity fund”, paying back their share after treatment. (*Mali Ministry of Health, presentation by Dr. Madina Sangare*)

Setting and enforcing standards: Clinical protocols, peer pressure through maternal death audits, and quality assurance schemes can play an important role in improving quality of care, especially technical quality as well as some aspects of systemic quality (e.g., logistics).

- *Developing clinical guidelines for obstetric care:* In Lithuania, clinical guidelines were developed through a participatory, consultative process and disseminated to all ob/gyn and neonatology departments in the country. The guidelines were backed up by a formal ethical code for obstetricians/gynaecologists. (*Lithuanian Association of Obstetrics and Gynaecology, presentation by Dr. Ruta Nadisauskiene*)

Strengthening supervision, monitoring, and evaluation: Supportive supervision and monitoring, which involves providers in the process of assessing the quality of care and devising solutions to problems, is critical to ensuring that improvements are sustained. Mechanisms to collect and analyze data for monitoring and evaluation need to ensure that the information is used at the local level, not simply relayed to provincial or central headquarters.

- *Upgrading record-keeping:* In Kumasi, Ghana, health facility registers were revised to collect information on obstetric complications and time of treatment. Health staff and clerks were trained to record, compile, and analyze data. The data are being used for morning staff meetings and for monthly summaries showing complications by category. (*PMM, Ms. Angela Kamara*)

The case study presentation for the session on “Improving Quality” by Dr. Godfrey Mbaruku, Senior Obstetrician/Gynaecologist at the Regional Hospital in Kigoma, Tanzania, demonstrated how a comprehensive and focused approach can improve the quality of care with relatively little investment of resources (see Box N).

BOX N: IMPROVING MATERNAL HEALTH CARE IN KIGOMA, TANZANIA

In 1987, a project was launched at the Regional Hospital in Kigoma to improve the quality of maternal health services and reduce maternal mortality. A retrospective analysis of hospital records for the previous three years (1984-86) was carried out to ascertain the actual number of maternal deaths as well as the main causes of admission and death in the obstetric and gynaecology emergency wards. After analyzing the factors that contributed to maternal death in the hospital, a series of specific interventions were carried out to address the problems identified. These included:

- **Equipment in the ob/gyn department and operating theatre:** Severe shortages of basic equipment were found; in addition, much of the equipment was old-fashioned or out of date.
Interventions: Local carpenters and artisans were able to repair much of the non-functioning equipment at low cost, including sphygmomanometers, suction equipment, and sterilizers. Schedules for regular maintenance were initiated, and training in proper usage and care was provided to all workers. Local fundraising permitted the operating theatre to be repaired.
- **Staff attitudes and performance:** The assessment noted “a deplorable indifference among staff”, with frustration caused by poor living conditions, bureaucratic obstacles, and tensions between cadres of staff. Clinical practices were also poor, including late diagnoses, inadequate surgical skills, and poor postoperative care.
Interventions: Professional responsibilities were clarified, including delegation of more responsibility to nurses and midwives. Monthly meetings were instituted to increase staff involvement in identifying and solving problems. Training activities were carried out for all cadres of staff, covering such issues as patient management and resuscitation. Management protocols were also specified.
- **Patient attitudes:** Patients expressed high levels of dissatisfaction with the services; a critical factor was staff absence from the hospital during office hours, as well as after office hours when emergencies arose.
Interventions: Arrangements were made to house all essential staff within the hospital compound. Mechanisms were put in place to accept and respond to patient complaints.
- **Availability of drugs and supplies:** Essential drugs such as antibiotics, anaesthetics, and IV fluids were often unavailable from the pharmacy department; acute shortages of blood were also found to be common.
Interventions: A detailed plan was made to make sure essential drugs were maintained; a small sub-store was initiated at the maternity ward to avoid unforeseen shortages. A campaign was initiated to recruit blood donors, and strict norms were elaborated regarding the minimum requirements for receiving blood.

Following these interventions the reputation of the obstetric unit improved, both within the hospital and within the community. Even without a community education campaign to promote use of services, there was a steady increase in the annual number of deliveries following the intervention. At the same time, the number of maternal deaths declined substantially between 1984 and 1991 (see Table 5).

Table 5: Maternal Deaths and Births in Kigoma Regional Hospital, 1984-1991

	1984	1985	1986	1987	1988	1989	1990	1991
Number of maternal deaths	28	24	26	16	14	9	7	8
Total births	3,070	3,305	3,072	3,580	3,845	4,043	4,170	4,440

Prevent Unwanted Pregnancy and Address Unsafe Abortion

Programme planners should aim to reduce the number of maternal deaths from unsafe abortion by ensuring that all safe motherhood programmes include: client-centred family planning services to prevent unwanted pregnancy; contraceptive counselling for women who have had an induced abortion; the use of appropriate technologies for women who experience abortion complications; and, where not against the law, safe services for pregnancy termination.*

From the safe motherhood perspective, the core function of family planning services is to enable women to avoid unwanted pregnancies. As such, it is critical that family planning services be offered in such a way as to meet women's needs and expectations — that they be easily accessible and high quality. This focus on and commitment to meeting clients' needs and providing good quality family planning services was established as an international goal at the 1994 International Conference on Population and Development (ICPD) in Cairo. At ICPD, participants recognized that “women's empowerment, right to reproduce, right to good reproductive health, right to be educated, and right to be free from discrimination [are] essential to the success of family planning programmes”, said Dr. Ho Kei Ma of the University of Hong Kong in her overview presentation on preventing unwanted pregnancy.

THE SCOPE AND CAUSES OF UNWANTED PREGNANCY: Although globally nearly 60% of women and men currently use a modern contraceptive method, an estimated 120 to 165 million women, including 12 to 15 million unmarried women, want to limit or space their pregnancies but are not using contraception. This “unmet need”, along with the failure of contraceptive methods, contributes to the 75 million unwanted pregnancies women around the world experience every year.

While lack of access to family planning services is a major factor in the high rate of unwanted pregnancy, there are many other factors as well. A woman may not want to become pregnant, or to carry a pregnancy to term, because she lacks the economic or emotional resources to care for a child, because having a child would constrain her from taking advantage of other opportunities (for education or employment, for example), because the pregnancy could compromise her health, or because she is in an abusive relationship. Power imbalances in sexual and social relationships, noted one of the participants during this session, are at the root of many unwanted pregnancies.

These same power imbalances can make it difficult or impossible for a woman to take action to avoid unwanted pregnancy; opposition from a husband or partner may prevent her from using contraception, for example. Social discrimination may be embodied in legal or regulatory restrictions that prevent some women from using family planning services, especially adolescents and unmarried women. Other attitudinal and social factors can contribute to the non-use of family planning, including lack of knowledge of methods or where to obtain services, ambivalence about having another child (i.e., the woman may want another child at some point but is not certain about the timing), the belief that the risk of conception is low (e.g., because the woman believes she is infertile or seldom has intercourse), and the perceived costs of using contraceptive methods. These costs can be either physiological or social, such as the fear of side effects or societal/family/partner disapproval of the use of family planning.

* Each of the co-sponsors of the Safe Motherhood Initiative implements these activities according to its specific mandate.

ICPD's focus on meeting women's needs and providing high quality services has pointed out a number of shortcomings common to many family planning programmes which further discourage their use. These include:

- Some services are still organized around quantitative goals (for example, number of births averted, rates of contraceptive prevalence) instead of on helping clients decide the number and timing of their children, and offering them the full range of health services and information they need to do so.
- The range of contraceptive methods available is limited, counselling on their risks and benefits is rarely provided, and follow-up is often weak; also, decisions on which contraceptives to use are often made by the provider, not the woman seeking care. As a result, millions of women are using contraceptive methods that are not appropriate for their reproductive intentions or health needs, and many more are misusing or not using the contraceptive methods they have.
- Some procedures are not always done properly or well, causing the client unnecessary pain, infections, or other side effects. In addition, many providers are perceived as rushed, rude, or insensitive to women's expressed needs or concerns.
- Links to other reproductive health services (e.g., screening and treatment of STDs) are weak or non-existent. If women do not get proper care, their future health and fertility can be compromised.

THE REPRODUCTIVE HEALTH APPROACH AND ITS IMPLICATIONS FOR FAMILY PLANNING PROGRAMMES: From a service delivery perspective, perhaps the key point to emerge from ICPD was that family planning must be seen as one component of a comprehensive effort to promote the sexual and reproductive health of all individuals. Achieving this goal requires major changes in the way services are organized, as pointed out by participants during the plenary discussion. Helping individuals and couples achieve their reproductive health goals requires a completely different approach to how family planning providers are trained; how information, education, and communication (IEC) campaigns are designed and implemented; how counselling is approached; how broader reproductive health services are linked to family planning; and what indicators are used to assess the "success" of family planning programmes.

The key actions discussed by Dr. Ma and others include:

- Building services around the goal of enabling couples and individuals to achieve their reproductive intentions and protect themselves from STDs. Such services should provide couples and individuals, including adolescents, with good quality, client-oriented information and services, a wide choice of modern contraceptive methods, including emergency contraception*, confidential counselling that is responsive to and respectful of clients' needs, and linkages to other reproductive health services if they cannot be provided on-site.
- Ensuring that all family planning providers have the medical supplies, information, and technical and interpersonal skills necessary for high quality care.

* Emergency contraception is a method of preventing pregnancy within a few hours or days of unprotected sexual relations (see Box 0).

BOX O: NEW AND NEGLECTED TECHNOLOGIES FOR FERTILITY REGULATION

Tremendous advances in the use of contraception have been achieved since the 1960s; contraceptive prevalence in developing countries has increased from about 9 percent in the early 1960s to about 55 percent 30 years later. However, in the least developed countries, contraceptive prevalence was only 14 percent in 1992, with total fertility 6.1 births per woman.

In his working group presentation, Dr. Paul van Look of the UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction noted that efforts to prevent unwanted pregnancy are likely to fall short without a continuing effort to improve the family planning methods currently available. Improvements are needed to address the following issues:

- *High rates of method failure*, especially for temporary methods;
- *Client dissatisfaction with available methods*, including concerns about side effects, convenience, and other factors;
- *The lack of male methods*;
- *The need for methods that will protect not only against pregnancy but also against STDs.*

Dr. van Look's presentation and the following discussion focused on two methods of fertility regulation that have the potential to significantly reduce unwanted pregnancy:

Emergency contraception: Defined as "a method women can use after intercourse to prevent pregnancy", emergency contraception today encompasses two primary methods:

1. Administration of a modified regimen of oral estrogen/progestogen combined pills, initiated within 72 hours of unprotected intercourse; this regimen prevents about 75 percent of pregnancies that would have occurred if no treatment had been given. This is the most common method of emergency contraception.
2. Insertion of an IUD within five days after the estimated day of ovulation (i.e., before implantation). With this method candidates must be carefully screened to avoid the risk of pelvic infection.

Given the significant potential of emergency contraception to prevent unplanned pregnancy and reduce the recourse to unsafe abortion, there is a great need to disseminate knowledge about emergency contraception and, where appropriate, provide services.

New and neglected methods of abortion: Dilatation and curettage (D&C) is still the most common method of surgical abortion in the developing world. However WHO, FIGO, and other international organizations recommend vacuum aspiration over D&C for induced abortion in the first trimester because of its safety and effectiveness. Numerous studies have shown that vacuum aspiration has low complication rates, uses fewer hospital resources, and minimizes the time women must spend in post-treatment care. Manual vacuum aspiration is especially appropriate for developing country settings because it requires no electricity and can be performed by trained, non-physician health workers.

The last several years have seen significant research on the use of non-surgical or "medical" methods for pregnancy termination. The most common method is the administration of the antiprogestogen mifepristone, followed 36-48 hours later by a suitable prostaglandin. This regimen is effective at causing complete abortion in about 95 percent of women if administered no more than 49 days since the last menstrual period. Clinical experience in several developed and developing countries indicates that the method is acceptable and effective if procedures are established to deliver the method safely. However, given that 5 percent of women do not experience complete abortion, non-surgical abortion must be backed up by good quality surgical methods.

- Undertaking community mobilization and outreach to inform women, their families, and communities about family planning and reproductive health services, STD prevention and treatment, emergency contraception, and when and where a pregnancy may be legally terminated.
- Advocating for policies and changes at the community level to reduce the social, economic, legal, and cultural barriers that limit women's control over their sexuality and reproduction, including their access to contraception and other reproductive health services.
- Encouraging male actions to promote caring, responsible, and equitable sexual relations, while working within the context of the larger goal of ending the persistent gender inequalities that lead to neglect of women's health, constrain women's choices, and threaten their lives.

Case studies during the plenary and working group sessions offered a range of examples of how family planning programmes can be modified to take a more comprehensive reproductive health approach.

INDIA - EMPHASIZING CLIENT NEEDS OVER DEMOGRAPHIC TARGETS: Dr. Ashok Kumar, Deputy Commissioner of the Ministry of Health and Family Welfare, noted that India has achieved significant improvements in the health of women and children over the past four decades. Nevertheless, current levels of fertility, mortality, and morbidity are high by international standards. At least 20 percent of fertility is unwanted.

For India, to comply with ICPD's emphasis on the comprehensive reproductive health approach implied a significant shift in the focus of its national family planning programme from "a tool intended essentially for population stabilization," Dr Kumar said, "to using family planning as one among a constellation of interventions that would enable women and men to achieve their personal reproductive health goals". Such a shift in emphasis, noted Dr. Kumar, is more likely to address the needs of women who are at risk of experiencing unwanted pregnancies.

The government has increasingly endorsed this view, undertaking a major review of the Family Welfare Programme during 1994-95 and developing recommendations on how to implement the reproductive health approach. The review concluded that: a) programme implementation was being distorted by the system of contraceptive targets and incentives; and b) critical inefficiencies existed in programme implementation. In some geographic areas there were significant gaps in infrastructure, outreach, and availability of staff and drugs.

As a result, the government agreed to:

- Replace method-specific contraceptive targets and incentives with reproductive health indicators;
- Place greater emphasis on male responsibility and involvement, broaden the method mix, and emphasize contraceptive safety;
- Increase the role of the private sector by revitalizing social marketing programmes and expanding the involvement of private medical practitioners;
- Increase the budget for reproductive health to fill gaps in staffing and facilities, enhance service quality, and offer a package of reproductive health services;
- Use funding as a performance incentive to re-orient the programme and improve programme access and quality;

- Improve the referral system, especially for essential obstetric care, by strengthening primary health centres and first referral units.

A broad range of strategies were designed and are being implemented by the Family Welfare Programme to achieve these goals, including policy changes in the use of targets and indicators, decentralization of planning, and development of guidelines for increasing the roles of NGOs and the private sector; additional changes have been proposed and are being considered. The government has conceptualized a Reproductive and Child Health (RCH) Package which integrates previously separate programmes (child survival and safe motherhood, family planning, medical termination of pregnancy) and therefore reduces overlap in areas such as training and supply logistics. Because the quality and impact of previous programme efforts have varied widely by state, region, and district, area-specific strategies will need to be followed, including committing additional resources for poorly-performing states.

These changes, funded initially with donor aid but eventually to be supported by government resources, are at the beginning stages. But in time they are expected to result in significant improvements in service delivery that will reduce the unmet need for family planning and improve the health status of women and children.

IRAN - INCORPORATING OTHER REPRODUCTIVE HEALTH SERVICES: Iran began developing a national family planning programme in the 1970s and recent five year national development plans have set explicit demographic targets. Within the context of these demographic goals, said Dr. Shirin Ghazizadeh from the Ministry of Health and Medical Education, the government is also emphasizing the importance of meeting clients' needs and improving reproductive health (or to use the government's terminology, "family health") more broadly. For example, the programme offers a full range of contraceptive methods free of charge, and is undertaking a range of initiatives to improve programme quality, including:

- Training courses to improve the technical capacity of health care personnel at various levels;
- IEC programmes to increase public awareness of reproductive health/family planning issues;
- Strengthening relationships with community and religious leaders to enlist their support;
- Increasing public access to services by deploying mobile teams that regularly visit remote and hard-to-reach rural areas, offering tubal ligation, vasectomy, IUD insertion, and contraceptive implants.

The government is also intensifying its efforts to strengthen services for the prevention of cervical cancers, antenatal care, safe delivery, post-natal care, and promotion of breastfeeding. New educational initiatives are being launched for early detection of breast cancer, and on STDs and HIV/AIDS. Efforts are also being made to give greater emphasis to male participation, for example by extending educational activities to factories and mosques.

EASTERN EUROPE - IMPROVING ACCESS TO CONTRACEPTION: A working group session facilitated by Ms. Gunta Lazdane of the Latvian Association for Family Planning and Sexual Health focused on the problems caused by Eastern Europe's historical reliance on abortion as the main means for controlling fertility, and measures currently underway to redress the situation. In the 1970s and 1980s, most women had only three options for controlling fertility: intra-uterine devices (IUDs), high dose oral contraceptives, or abortion. Withdrawal and rhythm methods were also widely used.

Although contraception use is increasing and abortion rates are decreasing in most of Eastern Europe, attitudes and perceptions still limit the number of contraceptive users. Women worry about the negative health consequences of many methods and physicians express concern, for example, about the potential risks of cancer from using oral contraceptives. In addition, the growth of private, fee-for-service medical care may be contributing to the continued reliance on abortion to regulate fertility; higher fees can be charged for abortions than for contraceptive counselling or services.

Information and education campaigns, argued Ms. Lazdane, are a key strategy for changing the reproductive health situation in Eastern and Central Europe. NGOs, including family planning associations, are taking the lead in a broad range of strategies, such as advocating for the inclusion of sexuality education in school health education curricula, disseminating up-to-date, accurate information on reproductive health to the general public through the mass media, organizing training and advocacy workshops for health professionals, and producing informational materials. These efforts will, ideally, help promote greater understanding of and demand for quality reproductive health services, including family planning, among the public, as well as contribute to a better informed and proactive cadre of health professionals, on both the public and private levels.

ADDRESS UNSAFE ABORTION: Family planning to prevent unwanted pregnancy is one highly effective means for reducing unsafe abortion; but in our current world of imperfect contraceptive methods and far-from-perfect family planning services, it will not be able to prevent all such pregnancies. Dr. Khama Rogo of the Centre for the Study of Adolescence in Kenya, in his presentation to the Safe Motherhood Technical Consultation, pointed out that efforts to address unsafe abortion have been largely neglected within the Safe Motherhood Initiative — despite the fact that in some countries, the Initiative’s goal of reducing maternal mortality by 50 percent could have been achieved simply by eliminating deaths from unsafe abortion. The reality, however, is that the majority of local and national safe motherhood programmes have done little or nothing to address this particular cause of maternal death.

There is no question that unsafe abortion is a significant cause of poor maternal health: an estimated 20 million women undergo unsafe abortion every year, noted Dr. Rogo, 95 percent of them in developing countries. Up to 550 women die daily from unsafe abortion, which is defined by WHO as “a procedure for terminating unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking the minimum medical standards or both”. Between 10 and 50 percent of all women who undergo unsafe abortion will need medical care for non-fatal complications. Globally, unsafe abortion accounts for at least 13 percent of maternal mortality, and in some countries the proportion is much higher.

The costs of mortality and morbidity from unsafe abortion are significant — not just the loss of life and suffering, but also the costs to health systems for treating the complications of unsafe abortion. In many hospitals gynaecological emergency wards are filled with women, sometimes three to a bed, with complications from unsafe abortion. Treatment costs, including blood, drugs, and staff time, can consume a huge proportion of hospital budgets.

The tragedy of unsafe abortion, and its enormous costs to women, families, health systems, and nations, is that it is by far the most easily prevented cause of maternal death. Whereas most complications of pregnancy and childbirth — haemorrhage, obstructed labour, hypertensive disorders — are difficult to prevent, unsafe abortion could be easily prevented if the will and the services were available. Programmatically, there are three options for addressing unsafe abortion:

1. Preventing unwanted pregnancy through the provision of safe, acceptable, affordable contraception (addressed in the previous section);
2. Making abortion safer by improving the quality and accessibility of the procedure;
3. Reducing the likelihood that unsafe abortions will lead to death or serious morbidity by providing services to manage the complications.

INCREASING ACCESS TO SAFE, LEGAL ABORTION PROCEDURES: Making abortion services legal is a difficult challenge in many countries given the political, cultural, and religious sensitivities about the issue of abortion. Nevertheless, it is an important issue, as emphasized by Dr. Rogo and discussed in both case study and working group presentations during the meeting. There is no question, noted Dr. Rogo, that illegal abortions are more likely to be unsafe and to result in death; in developed countries mortality from legal abortion is about 0.6 per 100,000 procedures, compared to 1,000 deaths per 100,000 procedures in countries where the procedure is largely illegal.

However, making abortion legal is no guarantee that it will be available or safe. India is one example of this problem, as demonstrated in the case study presentation by Ms. Sudha Tewari from Parivar Seva Sanstha, a non-governmental organization in India that provides reproductive health services.

Abortion has been legal in India since 1972 for “socio-medical indications” up to 20 weeks gestation. The procedure must take place in a facility registered and approved for that purpose, by a physician with six months experience in obstetrics and gynaecology. In order to meet the demand for the procedure, it is estimated that rural areas alone would need 21,000 physicians trained in the procedure; there are currently an estimated 7,000. The approval process, noted Ms. Tewari, is cumbersome and unresponsive, and doctors performing the procedure are required to file detailed monthly reports. Women seeking the procedure through the formal health system are sometimes pressured to accept a long-term family planning method (sterilization or IUD insertion). Finally, studies indicate that most women are unaware of the legal status of abortion; a survey cited by Ms. Tewari found that only 28 percent of women are aware that abortion is legal, while 35 percent believed it to be illegal, and 37 percent were unaware of the law.

As a result of all these factors, of the estimated 6.7 million abortions performed each year in India, 500,000 are reported through the health system, 6.2 million are not. It is estimated that 2.7 million are performed by medical practitioners, using dilatation and curettage (D&C), electric vacuum aspiration, and medical (non-surgical) procedures. The remainder (four million) are performed by non-physicians, primarily using drugs, indigenous methods, and insertion of objects into the uterus. Reliable data are not available on the rate of complications and death due to unsafe procedures; a 1994 study estimated that 20 percent of maternal deaths in India are due to unsafe procedures, implying 15-20,000 abortion-related deaths each year. In a survey, health professionals estimated that more than 30 percent of women undergoing abortion have a complication, and of those almost 50 percent are hospitalized for treatment.

Clearly, legalizing abortion does not make it safe. Both Ms. Tewari and Dr. Rogo noted that much more can be done to make legal abortion more available and safer, including:

- Simpler administrative requirements for approving and providing the procedure;
- Addressing cost barriers;
- Culturally-sensitive education campaigns to broaden awareness about the legality of the procedure;

- Broader use of new technologies for pregnancy termination that can be used at lower-level health facilities and by non-specialist medical professionals, including medical termination of pregnancy (see Box O);
- Training additional providers, and as appropriate lower-level providers, to carry out the procedure.

Ms. Wanda Nowicka of the Federation for Women and Family Planning in Poland presented a case study that detailed the challenge of preserving access to safe abortion services in a situation of changing laws and attitudes. Under Communist rule, abortion was legalized in Poland in 1956. In 1993, however, a restrictive abortion law was adopted, permitting abortion only if a woman's life and health were threatened, when the pregnancy was the result of a crime, or in cases of severe fetal abnormality. While surveys indicated that most people did not support a ban on abortion, both the Catholic Church and the medical establishment worked actively for the restrictive law.

An analysis of the impact of the law conducted by the Federation for Women and Family Planning found that the law was even more restrictive in fact than on paper. Many women who were legally entitled to have an abortion were denied this right in local hospitals. Nevertheless, women continued to seek abortions, either finding physicians who would perform the procedure illicitly or going abroad.

Following the publication of various reports on the consequences of the law and a campaign by pro-choice parliamentarians and women's groups in 1996, the anti-abortion law was amended in August 1996 to allow abortion on social grounds up to 12 weeks gestation; women were required to have a "consultation", then wait three days before the procedure could be carried out. The new law came into force in January 1997, but in May the Polish Constitutional Tribunal found it to be unconstitutional, and in December 1997 the parliament passed a new abortion law in which abortion on social grounds is legally restricted.

During the brief period that the liberal law was in effect, abortion practices did not significantly change. Almost half of the public hospitals in Poland, as well as the General Chamber of Physicians, issued statements opposing the law and indicating that they would not provide abortion on social grounds. In general, procedures for the required "consultation" were not put into place. Mid-level personnel (midwives, nurses) as well as physicians expressed their opposition to abortion, and as a consequence many women seeking the procedure preferred to go to expensive private providers.

In conclusion, noted Ms. Nowicka, while the situation continues to fluctuate, it appears likely that abortion will continue to be restricted in Poland, with negative consequences for women's health. The strong opposition of the Catholic Church and the medical community, women's fear of speaking out about their preferences, the government's failure to publish data on the health consequences of illegal abortion, and the language of the abortion debate — which refers to the fetus as the "conceived child" and refers to abortion as a "holocaust" — are all strong deterrents to the liberalization of the law.

The experience in Turkey provides a strong contrast to that of Poland and India, and demonstrates that the incidence of maternal mortality and morbidity decreases when safe abortion services are made available as well as legal. Dr. Ayse Akin of the Hacettepe University Medical School presented a

case study on the Turkish experience during a working group session on providing legal abortion services. Abortion on request at up to 10 weeks gestation was legalized in Turkey in 1983. Before then, when access to both safe abortion and contraception was relatively restricted, unsafe abortion was a serious public health problem. In 1981, for example, it was estimated that 300,000 induced abortions were carried out, of which approximately 50,000 were self-induced. A 1977-78 hospital-based study in Ankara found that 8 percent of abortion cases were septic, and that the costs of managing abortion complications were significantly higher than other gynaecological or obstetric care.

Following the change in the law, abortion became available at public hospitals free or for a minimal fee, and the cost of the procedure in the private sector declined significantly. The rate of induced abortion, which initially increased from 12.1 per 100 pregnancies in 1983 to 23.6 in 1988, declined to 17.9 in 1993 as contraceptive use increased. Maternal deaths due to unsafe abortion nearly disappeared.

As the case studies and discussions illustrated, the relationship between legal change and safe abortion services is a complex one. While safe services for pregnancy termination can sometimes be available without legalization, and while legalization does not guarantee safe services, legalization of abortion is an important step in reducing unsafe abortion in that it enables services to be regulated (e.g., setting fees, defining quality standards, issuing regulations about approval procedures). Advocacy for legal change, participants agreed, must be based on clear objectives, and the strategy must be appropriate to the local political and cultural context. The general public needs to be informed about the consequences of unsafe abortion, and experience in a number of countries demonstrates that focusing on these consequences may be a more effective approach than focusing on women's reproductive rights. There are a wide range of interest groups that can be involved in public education and advocacy: service providers, lawyers, journalists, community leaders, professional associations, and women's groups. Advocacy and public education may also be necessary where laws are not restrictive, since laws that provide for legal abortion are under constant threat.

MANAGING ABORTION COMPLICATIONS THROUGH POSTABORTION CARE: One of the major achievements of the International Conference on Population and Development was that participants recognized unsafe abortion “as a major public health concern” and called on governments and non-governmental organizations to deal with its impact, regardless of the legal status of abortion, by providing “access to quality services for the management of complications arising from abortion”. Significant strides have been made in the past decade in demonstrating that effective techniques and low-cost technologies are available for reducing mortality and morbidity from unsafe abortion. Treatment of abortion complications with vacuum aspiration has been shown to be feasible at the health centre level, provided by midwives (in Ghana) or medical assistants (in Kenya), and can lead to significant savings in lives and money.

Comprehensive postabortion care, as defined by the Postabortion Care Consortium*, includes both medical and preventive health care. The key elements of postabortion care are:

- Emergency treatment of incomplete abortion and potentially life-threatening complications;
- Postabortion family planning counselling and services;
- Links between postabortion emergency services and other reproductive health services.

A working group on postabortion care examined some of the issues in this area (see Box P).

* The founding members of the Postabortion Care Consortium include: AVSC International, Ipas, International Planned Parenthood Federation, JHPIEGO and Pathfinder; a number of other organizations working in reproductive health also participate in the Consortium.

BOX P: POSTABORTION CARE: A MODEL PROJECT IN EGYPT

Since the International Conference on Population and Development in 1994, the number and scope of postabortion care projects has increased dramatically in developing countries, although there are still relatively few examples of national postabortion care programmes. During a working group session on postabortion care at the Safe Motherhood Technical Consultation, Dr. Mohammed Hefni of the Egyptian Fertility Care Society (EFCS) presented the findings from an operations research project carried out in Egypt by EFCS and the Population Council.

The project, implemented in 1996-97, aimed at institutionalizing improved postabortion medical care and increasing the use of family planning by postabortion patients in the ob/gyn wards of ten hospitals in Egypt. The interventions included training of physicians in the use of manual vacuum aspiration (MVA) under local anaesthesia (instead of the customary practice of dilatation and curettage under general anaesthesia). Five senior physicians from each study site were trained, followed by four months in which they trained other physicians and nurses in their respective hospitals. The training protocol also included a counselling component (for both physicians and nurses), and an infection control component.

The major findings included:

- Prior to the intervention, 98 percent of postabortion patients were managed with D&C; this dropped to 40 percent following the intervention, while those treated with MVA increased to 57 percent.
- Use of general anaesthesia fell from 85 percent to 51 percent, and use of local anaesthesia increased from one percent to 31 percent of cases.
- More than three-quarters of physicians perceived lower complications with the use of MVA versus D&C. About 61 percent stated that MVA was easier to use.
- Patients who reported that they were received by a friendly provider increased from 56 percent to 82 percent. Fewer patients in the post-test reported that they were blamed by the providers for their condition. However, information provided by physicians on possible complications, aspects of their health care, and follow-up increased only modestly.
- Patients were highly satisfied with the quality of services they received; the proportion of patients who described the service as "excellent" increased from 45 percent to 73 percent.
- The proportion of patients intending to use a contraceptive method increased from about one-third to about one-half.

EFCS is working with the Ministry of Health on a plan for broader implementation of postabortion care training, including phased implementation in hospitals, expansion to primary health centres, and training of general practitioners as well.

Based on the findings of the postabortion care study in Egypt, and the experiences of other participants involved in postabortion care, the working group recommended the following actions:

1. **Disseminating information on the scope of unsafe abortion** as a cause of maternal death and on the feasibility of postabortion care as a key component of safe motherhood interventions. Specific steps include:
 - Involving professional organizations and other influential groups in efforts to foster more open discussion about the need to address unsafe abortion;
 - Disseminating research findings and model training packages on postabortion care to demonstrate its cost-effectiveness and benefits from women's perspectives;
2. **Promote the key elements of postabortion care**, including MVA technology, recognizing that countries and health care settings differ;

3. **Develop pre-service and in-service training approaches** for physicians and other health workers that address the following issues:
 - *Clinical and technical skills:* Depending on the legal context, physicians need to be trained in up-to-date techniques for induced abortion as well as management of complications. Training should include appropriate pain relief;
 - *Counselling and interpersonal skills:* Both basic and continuing training should emphasize the importance of humane, considerate treatment and emotional support. In some cases training or other activities may need to be carried out to help health workers understand their own values and attitudes;
 - *Legal issues:* Health workers may not be aware of what the law permits or requires them to do in relation to abortion-related care;
4. **Address the regulatory environment** to define the roles of different providers, including general practitioners, nurses, and midwives;
5. **Decentralize services** as soon as feasible and train other health workers, such as midwives, in the procedure in order to increase access and minimize delays in reaching care;
6. **Promote community education** to overcome obstacles to access to care, including education on the signs of complications and information on where to go for treatment;
7. **Offer family planning and reproductive health counselling** as conveniently as possible to postabortion clients — preferably on site;
8. **Work with providers, husbands/partners, and others** to attend to women’s needs for social and emotional support both during and after care;
9. **Work to increase donor support** for postabortion care as called for in the ICPD Programme of Action.

PRIORITIES FOR THE FUTURE: One of the major ongoing challenges in addressing unsafe abortion, stated Dr. Rogo, is the unwillingness of both donors and governments to invest resources in this area. The ICPD Programme of Action, by identifying unsafe abortion as a priority problem and calling on governments to invest in its prevention and management, has helped to initiate some change, and both donor agencies and governments have, in selected cases, begun taking cautious steps to provide support for abortion-related activities. Much more, however, remains to be done.

Approaches to combatting unsafe abortion over the past decade, noted Dr. Rogo, have emphasized clinical/medical interventions. While important advances have been made in these areas that have allowed programmatic innovations, the role of the community — its values and perceptions with regard to unsafe abortion — has been largely neglected. In fact, however, while surveys to determine unmet need generally ask the woman whether a pregnancy was “intended” or “wanted”, it is often the family or the society that defines when a pregnancy is unwanted (e.g., in cases of fetal abnormality), and therefore defines when termination of pregnancy is allowed. Dr. Rogo argued, therefore, that efforts to combat unsafe abortion need to incorporate a more community-based approach to modifying community attitudes toward unwanted pregnancies, and the women who have them. This requires a more in-depth understanding of community perceptions, including the interplay between cultural and religious beliefs and gender issues; understanding of the decision-making process within the community and within families with regard to unwanted pregnancy and abortion; and more information on the attitudes, skills, and practices of informal abortion care providers in the community.

Measure Progress

Because it is difficult and costly to estimate maternal mortality accurately, alternative ways of measuring the progress and impact of safe motherhood programmes must be used. Since maternal mortality is directly linked to the coverage and quality of maternal health services, information on such indicators as who cares for women during childbirth, where the delivery takes place, and the quality of services at health facilities should be collected and analyzed.

Knowledge and understanding about how to measure maternal mortality and the impact of safe motherhood programmes has increased significantly in the past decade. Unfortunately, one of the main lessons learned is that measuring maternal mortality is much more difficult than previously assumed, and that techniques for doing so are far from precise. Ms. Oona Campbell of the London School of Hygiene and Tropical Medicine provided an overview of the difficulties involved in measuring progress, focusing on two major challenges: first, what are the optimal indicators for safe motherhood, and can they be measured easily and with sufficient accuracy to show progress; and second, can we attribute changes to actual programme interventions.

BOX Q: MATERNAL MORTALITY INDICATORS

The most commonly-used indicators of maternal mortality include:

- **Maternal mortality ratio** (number of maternal deaths per 100,000 live births): This measure indicates the risk of maternal death among pregnant and recently pregnant women. It reflects a woman's basic health status, her access to health care, and the quality of service that she receives.
- **Maternal mortality rate** (number of maternal deaths per 100,000 women aged 15-49 per year): This measure reflects both the risk of death among pregnant and recently pregnant women, and the proportion of all women who become pregnant in a given year. It therefore can be reduced either by making childbearing safer (as is true for the ratio, above) and/or by reducing the number of pregnancies.
- **Lifetime risk**: This measure reflects the probability of maternal death faced by an average woman over her entire reproductive life-span. Like the maternal mortality rate, it reflects both a woman's risk of dying from maternal death, as well as her risk of becoming pregnant. However, it also takes into account the accumulation of risk with each pregnancy.
- **Proportionate maternal mortality** (ratio of number of maternal deaths to all deaths among women of reproductive age): This figure represents how important maternal mortality is as a cause of death among women.

The choice of indicators, pointed out Ms. Campbell, is based on four points:

- **What are the programme goals?** The overall goal for the Safe Motherhood Initiative is to reduce maternal mortality by 50 percent; the optimal indicators would therefore be those related to maternal mortality (see Box Q).
- **What is the conceptual framework?** — i.e., what are the interventions which are intended to achieve the overall goal: Safe motherhood programmes tend to be broad and include a range of interventions and expected outcomes, implying that there are many possible indicators, both process and health impact indicators.

- **How well do the interventions work?** In safe motherhood, the relationship between interventions and desired outcomes is not always automatic. With immunization, for example, it can generally be assumed that inoculation against tetanus (the intervention) will prevent death from tetanus (the outcome). With many safe motherhood interventions, however, this is not the case; providing antenatal or delivery care, for example, does not necessarily mean that maternal death is averted. This argues in favour of health impact indicators, specifically mortality and morbidity.
- **How easily and accurately can desired outcomes be measured?** Unfortunately, indicators of maternal mortality and morbidity are usually too costly and too difficult to obtain with sufficient accuracy to measure progress, as the following discussion illustrates.

TECHNIQUES FOR MEASURING MORTALITY: The ideal way to monitor maternal mortality is through vital registration. However, in most developing countries, vital registration suffers from two serious problems: first, many deaths are not recorded (under-reporting), generally because they do not occur in health facilities; and second, many maternal deaths are misclassified. Even in developed countries, studies have shown that maternal deaths are misreported by 50 percent on average. Alternative methods, noted Ms. Campbell, include:

- **Sisterhood method:** This demographic technique uses surveys to ask women about the survival of their sisters; it requires relatively small sample sizes and is therefore comparatively inexpensive. However, the estimates produced apply to a time period 10-12 years before the survey, and have wide confidence intervals. A derivation used in DHS surveys can be used to produce more recent estimates, but it requires larger sample sizes and more time for field work (see Box R).
- **WHO/UNICEF models:** These models are based on data from countries with relatively good data on maternal mortality; data on the general fertility rate and the coverage of skilled attendant at delivery are used to generate an estimate of a country's maternal mortality ratio.

These two methods are useful for indicating the general dimensions of the problem of maternal death, but neither is precise enough to measure progress in the short term (3-5 years). There are other techniques for producing maternal mortality estimates, including reproductive age mortality studies, prospective studies, and direct surveys; however, most of these are difficult and expensive to carry out, although they can provide useful information on causes of death and avoidable factors. It was also suggested during the discussion that questions could be incorporated into national censuses to permit estimation of maternal mortality; this would have the advantage of using a large enough sample size to produce estimates for recent periods. To date, however, there has been little experience with this approach, and the logistical implications in terms of cost and added time could be significant.

Therefore, Ms. Campbell concluded, unless a country's vital registration system is very good, maternal mortality *should not be used as a short-term outcome indicator for safe motherhood programmes.*

Maternal mortality estimates *can* be used for the following purposes:

- To gain a general sense of the size of the problem;
- To sensitize policy makers, programme planners, and others to the magnitude of the problem;
- To stimulate discussion and action; and
- To mobilize national and international resources for maternal health.

BOX R: COLLECTING MATERNAL MORTALITY DATA: SURVEY METHODS

Dr. Cynthia Stanton from Macro International/DHS, in the working group on survey methods for measuring maternal mortality, provided a brief history of the use of population-based studies to estimate maternal mortality. Community- and hospital-based studies initially brought attention to the problem of maternal death, which led to greater awareness and demand for national and sub-national estimates. By now a broad range of studies and surveys have been conducted, including hundreds of community- and facility-based studies; more than 30 surveys using the sisterhood method; and 32 Demographic and Health Surveys (DHS) that included a module on maternal mortality.

The original sisterhood method includes four simple questions that can be used to estimate the lifetime risk of maternal death, from which a maternal mortality ratio can be derived. It also provides information on the proportion of adult female mortality due to maternal causes. The four questions include:

1. How many sisters have you ever had who were born to your mother and who reached the age of 15 years?
2. How many of these sisters who reached the age of 15 are still living?
3. How many of these sisters who reached the age of 15 have died?
4. How many of these dead sisters died while pregnant, in childbirth, or in the six weeks after a pregnancy ended?

The DHS adaptation of the sisterhood method for direct estimation is much more demanding, requiring respondents to list all their siblings in chronological order, then asking a series of questions about each sister (age, age at death and timing of death, pregnancy status at time of death). It has a number of advantages, including:

- It provides an estimate for a more recent period (0-6 years before the time of the survey, generally around 3 1/2 years);
- It allows changes over time to be monitored;
- It provides a distribution of maternal deaths by age and parity;
- It allows for data quality checks.

However, it also has various disadvantages:

- It requires an additional 8-10 minutes of interview time with each respondent;
- It requires additional training and supervision for survey personnel;
- It makes data processing considerably more complex;
- It requires large sample sizes;
- Margins of error can be quite large (generally $\pm 30\%$), much larger than for infant mortality or fertility.

Ms. Stanton noted that there is tremendous demand for national estimates of maternal mortality, but little recognition of the limitations of maternal mortality indicators. However, it is probably not justifiable to conduct surveys just to collect maternal mortality data, although it may make sense if the questions are added on to an existing survey. Given the imprecision of the estimates and the effort and cost that would be required to increase accuracy (much larger sample sizes), the group recommended that such surveys not be conducted more frequently than every ten years.

MEASURING MORBIDITY: Population-based measures of obstetric morbidity have been proposed as an alternative to mortality indicators as an indicator of progress. However, Ms. Campbell noted, use of morbidity indicators is problematic for the following reasons:

- **Morbidity is difficult to define and measure:** Death is a clear outcome, but morbidity is not, even to those with medical training. Use of surveys to collect information from women on the

prevalence of complications such as prolonged labour, haemorrhage, eclampsia, and sepsis have not produced reliable results.

- **Morbidity is difficult to interpret:** The link between programme interventions and morbidity is not straightforward: most safe motherhood interventions aim at preventing death from complications, not at preventing complications per se. As such, in theory safe motherhood programmes could reduce mortality without reducing morbidity.

A working group session on measuring morbidity, facilitated by Dr. Judith Fortney of Family Health International and Ms. Véronique Filippi of the London School of Hygiene and Tropical Medicine, examined the issue in greater depth. There are a number of advantages, the facilitators noted, to measuring the prevalence of morbidity: it provides a more complete picture of the burden of ill-health in the community; it helps identify the factors that influence maternal health; and it may provide greater insight into the working of interventions. On a practical level it also offers advantages, since it is more common than mortality and since researchers can speak with women directly about their experiences rather than having to interview relatives or care-givers.

Self-perceived and physically observed morbidity are measuring fundamentally different aspects of illness and diseases, noted Ms. Filippi:

- Women's perceptions of morbidity, gathered through surveys, reflect their own definitions and individual experiences of illness, and are helpful for explaining health-seeking behaviour and ranking health problems. It is important to recognize that self-perceived morbidity is a function of both the burden of ill-health and the individual's cultural context. Some people are more prone to recognize and report illness, making it difficult to compare data on morbidity from different cultures.
- Physicians' reports of diseases are based on predetermined sets of clinical criteria, and are important for establishing treatment and intervention programmes. These reports can be gathered through household surveys that involve physical examinations and laboratory tests leading to medical diagnoses. Obviously, these are labour- and resource-intensive to carry out, and therefore costly.

The presenters and the working group concluded that it is important to have indicators of morbidity for advocacy purposes; however, given the difficulties with currently-available methods for measuring morbidity, data must be presented and used with great caution, and progress cannot be assessed using morbidity.

USING FACILITY-BASED DATA: Data collected from health facilities, noted Ms. Campbell, could potentially be used to measure progress in safe motherhood. These records and registers can be used to gather information on the prevalence of morbidity and mortality, as well as the outcomes of treatment. Clearly, however, such data are not representative of the entire population, although if certain assumptions are made they can be used to produce estimates of the proportion of women with severe obstetric complications. However, attempts to carry out retrospective analyzes of facility-based records have not been practical because records are often missing information or are illegible.

LINKING OUTCOMES TO INTERVENTIONS: As Ms. Campbell outlined, it is difficult to find indicators that effectively measure changes in maternal health status. It is also difficult to demonstrate that changes occur because of a particular intervention. Safe motherhood interventions are usually part of a comprehensive package or system, and are usually delivered to communities, not individuals. This limits

the options for designing studies of programme impact. Ideally, in order to test whether an intervention is effective, one of the following experimental approaches is used:

- **Randomized controlled trials**, in which individuals are randomly assigned to an intervention or control group; this approach is used to evaluate interventions such as malaria prophylaxis for preventing severe anaemia.
- **Community randomized trials**, in which entire communities (e.g., the catchment area of hospital or health centre) are randomly assigned as an intervention or control area. Typically 12 or more communities will be required, making the cost of this approach high.

Given the difficulties of applying experimental approaches to safe motherhood interventions, descriptive or before-and-after designs are more commonly used for evaluating safe motherhood programmes. Such designs should be based on a conceptual framework that specifies programme objectives, programme inputs, and expected outcomes. Both qualitative and quantitative data can be gathered, for example, on the timing and coverage of the intervention, potential outside influences (such as the existence of other projects in the area), and the use of services (e.g., process indicators; see below). Such designs cannot prove a causal association between the intervention and the observed change, but can be used to demonstrate plausible linkages if interpreted correctly.

PROCESS INDICATORS: Given the difficulties of measuring maternal mortality and morbidity, the use of process indicators becomes an obvious — in fact, necessary — alternative. Ms. Tessa Wardlaw of UNICEF's Statistics and Monitoring Unit, in her presentation to the Technical Consultation, summarized the advantages and limitations of using process indicators, and described a series of indicators developed by UNICEF, WHO, and UNFPA to assess the availability and use of obstetric care.

In general, noted Ms. Wardlaw, process indicators have several advantages over health impact indicators like maternal mortality and morbidity:

- They provide information on what actions need to be taken to improve the situation or existing programmes;
- They are less expensive to measure, and can therefore be measured more frequently;
- They can reflect changes immediately, which permits feedback into programme activities;
- They can be used for an initial situation analysis and also to monitor progress.

Many organizations have identified indicators that can be used to monitor and evaluate safe motherhood programmes, including WHO, UNICEF, UNFPA, the World Bank, and USAID; common indicators include:

- percentage of births with skilled attendant
- percentage of pregnant women attending antenatal care at least once
- percentage of women immunized with tetanus toxoid
- percentage of women receiving postnatal care
- time interval from onset of complication (or arrival at facility) to treatment at referral site
- ratio of complicated obstetric admissions to all deliveries
- case fatality rate
- percentage of adults knowledgeable about complications of pregnancy and childbirth

The process indicator series outlined by Ms. Wardlaw is focused specifically on monitoring whether women who develop serious obstetric complications receive the services they need. The series can be used at different levels, including national, regional, or local; the approach is intended to be simple

and not very expensive to carry out, while still providing enough information to help programme planners and policy-makers. Specifically, the indicators, shown in Table 6 below, are designed to answer a series of questions about the availability, utilization, and quality of care for women with obstetric complications:

Indicator	Minimum Acceptable Level
1. Number of EOC facilities:	For every 500,000 people:
Basic	At least 4 basic EOC facilities
Comprehensive	At least 1 comprehensive EOC facility
2. Geographic distribution	Minimum levels are met in sub-national areas
3. % of births in EOC facilities	At least 15% of all births in the population take place in EOC facilities
4. Met need for EOC: % of women with complications treated in EOC facilities	100% of women with obstetric complications treated in EOC facilities
5. Caesarian section rate	Not less than 5% and not more than 15% as a proportion of all births in the population
6. Case fatality rate	Not more than 1%

1. **Are there enough facilities providing essential obstetric care (EOC) in the study area?** As discussed on page 45, basic EOC facilities must have the capacity to administer intravenous antibiotics, oxytocic drugs, and anti-convulsants; and perform manual removal of placenta, removal of retained products, and assisted vaginal delivery. “Comprehensive” EOC facilities provide all the services as in a basic EOC facility, as well as perform surgery and provide blood transfusions. The minimum number of facilities needed is based on the assumption that 15 percent of pregnant women will develop serious obstetric complications.
2. **How well are EOC facilities distributed?** This indicator is designed to assess whether EOC facilities are equally accessible throughout the country.
3. **Are enough women using the facilities?** The minimum acceptable level of 15 percent is based on the assumption that 15 percent of women will develop obstetric complications. If fewer than 15 percent of births are taking place in an EOC facility, then clearly not all women who need services are being treated.
4. **Are the right women (those with obstetric complications) using the facilities?** Simply because 15 percent of women are delivering in EOC facilities does not mean that women with obstetric complications are receiving adequate care, since it could be that many of the births are normal deliveries. This indicator — the proportion of women with obstetric complications being treated in an EOC facility — is described as the met need for obstetric care.
5. **Are sufficient quantities of services being provided?** Of all the EOC procedures, Caesarean sections are the most commonly recorded in health facilities. The C-section rate was therefore

selected as an indicator of whether EOC facilities are, in fact, providing life-saving obstetric services. However, since C-sections can be overused (see Box M on overmedicalization), both minimum and maximum levels were set.

- 6. Is the quality of services adequate?** The case fatality rate is defined as the number of deaths from obstetric complications as a proportion of all women with obstetric complications. It is a relatively crude measure of performance, and is best supplemented with information from more in-depth analyses such as maternal death audits (see Box S).

The process indicator series has been tested in several countries, including India, Bangladesh, Ghana, and Morocco. Experience has shown that the indicators for which it is most difficult to collect data are those relating to the number of obstetric complications (#4 and #6). In most places, noted Ms. Wardlaw, more effort will have to be invested in improved record-keeping in order to use these indicators. A participant from Bangladesh noted, for example, that it had been necessary to review six forms at the health facilities in order to determine what actually happened to the obstetric cases that had been admitted.

In conclusion, Ms. Wardlaw noted that the process indicator series can be extremely useful for local programme-planning and decision-making, but should not be used for national comparisons.

EVALUATING PROGRAMMES - THE MOTHERCARE EXPERIENCE: Ms. Jeanne McDermott from MotherCare reinforced a number of points made by Ms. Campbell and Ms. Wardlaw in describing MotherCare's experience in evaluating the effectiveness and impact of programmes — specifically an intervention in three districts of South Kalimantan province in Indonesia which focused on:

- 1. Improving the quality of services** through in-service training of midwives in health centres and hospitals, as well as village-based midwives (see Box H);
- 2. Improving referral;**
- 3. Promoting behavioural change** in the community through an integrated information, education, and communication (IEC) strategy; and
- 4. Formulating policies** to support these initiatives.

The problems encountered in conducting evaluation of these interventions included:

- Because a “package” of interventions was being implemented, it was difficult to distinguish between the contributions of each (e.g., whether utilization of services increased because of the IEC campaign or because the quality of services improved).
- Other events in the province could have had an impact on some of the indicators, specifically the use of services; this made it difficult to distinguish the impact of the MotherCare interventions alone.
- Problems with data sources, especially the registers maintained by the village-based midwives, made it difficult to calculate key indicators, especially those related to the number of women with obstetric complications.
- Improved quality of care was extremely difficult to assess, especially in terms of outcomes (case fatality rate). The programme had to rely primarily on such indicators as pre- and post-

test scores for midwives who received training, and skills assessment for a sample of trained versus untrained midwives.

- Evaluation is often perceived as “taking away” from implementation in terms of resources, time, and attention.

ASSESSING PROGRAMME IMPACT - THE MATLAB EXPERIENCE: Additional evidence of the challenges in evaluating safe motherhood programmes was provided by Ms. Carine Ronsmans of the Institute of Tropical Medicine in Belgium in her re-assessment of the evidence on maternal mortality decline in Matlab, Bangladesh. During the period 1987-1989 a programme involving outreach services by trained midwives with an active referral system was implemented in one area of Matlab. During the implementation period direct obstetric mortality declined by 50 percent in comparison to the three years preceding the intervention, and in comparison to an area of Matlab where the intervention was not implemented. In January 1990 the intervention was expanded to cover a portion of the comparison area as well. Various analyses have been conducted of the mortality decline observed during 1987-89, generally attributing it to the role of the midwives.

A re-analysis of the data, however, produces a much murkier picture. First, on re-analysis the decline in direct obstetric mortality in the intervention area was not statistically significant, either for the period 1987-89 or for the period after 1990 when the intervention was expanded to the additional area. In addition, maternal mortality *did* decline significantly in a portion of the comparison area, where the intervention was not implemented, between 1984-86 and 1987-89.

It is possible that other factors may have influenced maternal health indicators in the various areas. For example, during the study period an embankment was constructed to control flooding, which may have facilitated the transport of obstetric emergencies; there may also have been differences in access to and use of essential obstetric care, as well as in the quality of that care, between the intervention and comparison areas. In the absence of more detailed information, concluded Ms. Ronsmans, the study “illustrates the intricacies in interpreting maternal mortality trends over time and the potential fallacies in drawing conclusions from short-term changes in a single indicator”. She recommended that a variety of assessment techniques and multiple indicators be used in order to understand the complex nature of such programmes.

SUPPLEMENTING QUANTITATIVE INDICATORS: ASKING AND ANSWERING “WHY?” As the plenary presentations on “Measure Progress” made clear, quantitative indicators of maternal health status have important limitations. While they may provide information on maternal mortality ratios or case fatality rates, they generally offer little or no insight into why these deaths occur or why the quality of care is poor. To gather such information, other methods must be used, as discussed during the working group session on “Diagnostic Tools (Case Reviews)”, facilitated by Dr. Wendy Graham of Aberdeen University.

A maternal death case review, as defined by WHO, is: “A qualitative, in-depth investigation of the causes and circumstances surrounding a small number of maternal deaths occurring at selected health facilities”. The review process begins at the health facility but also traces events back to the community; reviews may be conducted on a national or local level, on an ad hoc or routine basis. Case reviews, emphasized Dr. Graham, are not designed to produce estimates of maternal mortality, but to provide in-depth information for the following purposes:

- To create awareness on “avoidable factors” within the health service and within the community;
- To identify improvements in the health facility (staffing, supervision, protocols, record-keeping, and procedures) that could avert future deaths.

Conducting case reviews carries other benefits as well, as identified by the working group, including stronger linkages between the facility and the community, and helping to develop and promote a culture in which quality of care can be monitored and improved.

How are the reviews conducted? Dr. Graham outlined 10 steps:

1. Establish a review committee at the facility level
2. Determine the feasibility of the review
3. Select a team to collect data
4. Select cases of maternal death for review
5. Identify alternative sources of data
6. Collect data at the health facility
7. Collect data in the community
8. Synthesize the data
9. Utilize the findings for action
10. Decide whether to repeat the review process at a later date

Focusing on maternal deaths alone has its limitations, noted Dr. Graham. Specifically:

- Maternal deaths are rare events, so case reviews may only be feasible in large referral hospitals with large caseloads;
- The availability and quality of data may be poor, due to inadequate record-keeping;
- There may be strong sensitivities within both the health facility and the community about the process; health staff in particular may be concerned about being blamed or about reprisals.

As such, case reviews need to be approached in a culturally-sensitive manner, involving as many relevant staff as possible in deciding the goals of the review, which data should be collected, and how information should be reported. It is also critical that actions resulting from the review be appropriate and consistent.

Alternatively (or in addition), case reviews can focus on “near-miss” events — life-threatening, serious complications that do not result in death. Other choices are to examine cases relating to a particular problem (e.g. fistulae or sepsis), perinatal death or morbidity, or “positive” outcomes (e.g., normal/uncomplicated deliveries). The latter can also provide useful information and have the added benefit of being able to boost staff morale, unlike reviews of negative outcomes. Detailed guidelines for conducting maternal death reviews are now available from the World Health Organization.

Other methods mentioned by Dr. Graham for collecting in-depth information on maternal deaths include:

- *Verbal autopsies*: An inquiry in which information is collected from lay reporters and relatives to establish the cause of death; data are not collected from health facilities.
- *Confidential enquiries*: A routinely conducted system for identifying avoidable factors in maternal deaths; generally conducted at the national level. Only factors at the health facility are examined.
- *Maternal death audits*: A routine system for examining quality of care issues surrounding maternal deaths in a specific health facility or facilities.

BOX 5: FACILITY-BASED AUDITS AND VERBAL AUTOPSIES: EXAMPLES

An example of facility-based maternal death audits was presented during a working group session by Dr. Mohammed Hefni of Benenden Hospital in the U.K. The national maternal mortality study in Egypt, conducted in 1992-1993, covered 21 of Egypt's 26 governorates. The aim was to identify causes of maternal death and avoidable factors. Multiple sources of information were used, including relatives, any person who witnessed the death, the *daya* (local TBA) involved, and the doctors involved, as well as medical records. The study found that for the vast majority of deaths (92%), there was some "avoidable factor" relating either to the patient's actions (e.g., delays in seeking care), the practices of the medical team, or logistics at the health facility (e.g., lack of blood bank).

Lessons learned from the study included:

- Maternal death audits should be conducted by health professionals, not just researchers;
- A "no blame" philosophy needs to be maintained to provide a safe environment, without fear of provoking sanctions by management or civil litigation;
- Substandard care should be clearly defined and addressed;
- Involving groups outside the health facilities is important, for example:
 - Administrators — to support the improvements being recommended;
 - Politicians — to publicize the need for improvement and mobilize resources;
 - Health care providers — to implement improvements.

Ana Langer from the Population Council described a verbal autopsy study carried out in three Mexican states to explore the factors that contributed to cases of maternal death. A structured questionnaire was administered to close relatives of the deceased women to ask about the circumstances that led to their deaths, focusing on three sets of factors: 1) socioeconomic and reproductive conditions; 2) medical factors; and 3) non-clinical factors, specifically the search for care and access to services. Findings and conclusions included:

- Information on medical causes of death from the verbal autopsy corresponded with cause of death from death certificates in 80 percent of cases, indicating that the technique is a relatively effective means for establishing cause of death. Complications of induced abortion was the major source of discrepancy between the two.
- In almost half the cases, the severity of the woman's condition was not recognized until more than 24 hours after the problem arose, reflecting a high threshold to pain and health problems, and the belief that complications during pregnancy and delivery are a normal, natural event.
- Half of the women went first to a facility where the necessary care was not available; the delay in then referring the woman to an appropriate facility often contributed to the death.

The Power of Partnership

Reducing maternal mortality requires sustained, long-term commitment and inputs from a range of partners. Governments, non-governmental organizations (including women's groups and family planning associations), international assistance agencies, donors, and others should share their diverse strengths and work together to promote safe motherhood within countries and communities and across national borders. Programmes should be developed, evaluated, and improved with the involvement of clients, health providers, and community leaders. National plans and policies should put maternal health into its broad social and economic context, and incorporate all groups and sectors that can support safe motherhood.

“In the last decade of the twentieth century maternal mortality is not a mystery”, noted one of the participants in the Sri Lanka conference. “No new discoveries are needed to save the lives of women from death due to pregnancy-related causes”. The final “action message” discussed at the Safe Motherhood Technical Consultation focused on the difficult task of mobilizing action to do what needs to be done. As the previous sessions illustrated, and as a number of speakers observed, there is no “silver bullet”, no single intervention or technology, that will achieve the goals of the Safe Motherhood Initiative by itself. The challenge, therefore, is to generate and sustain the enthusiasm, commitment, and resources needed at all levels to implement the strategies — some simple, some not-so-simple — that were highlighted during the meeting.

There were two sessions that focused on this challenge: first, three speakers presented case studies on “the power of partnership”, highlighting different approaches to the issue, and different lessons learned (see Box T). A panel of speakers representing key audiences for the Initiative — governments, donor agencies, women's advocates, and the media — then engaged in a discussion about what is needed to move the safe motherhood agenda forward.

THE GOVERNMENT PERSPECTIVE: Dr. Eunice Brookman-Amisshah, the Minister of Health from Ghana, offered a number of recommendations on how to translate the conclusions and findings of the technical consultation into action.

- **Messages need to be clear, concise, and non-conflicting:** For example, answers need to be provided to some broader questions: is it better to focus on safe motherhood specifically or on improving the health delivery system generally? What is the role of safe motherhood in the decentralized systems most health sectors are now adopting? What cadres of health providers should be trained — TBAs or midwives or both? In particular, advocates need to make the case of why safe motherhood deserves and requires a special investment, and what those investments should be.
- **A range of advocates need to be mobilized:** Disseminating information alone will not achieve the necessary changes in policy and programmes. Members of parliament, community leaders, religious organizations, professional medical associations, women's and youth groups, and other NGOs can all play a role as lobbyists and advocates in convincing governments of the need to act. In some cases, the advocates themselves need to be educated and informed as well.
- **Governments are responsible for setting the “enabling conditions” for safe motherhood — i.e., legislation and regulations:** This is an area that is the responsibility of governments alone (although others can advise and apply pressure).

- **Both technical and financial assistance is necessary:** Governments need to set clear priorities, and also need to commit themselves to making the necessary investments in safe motherhood. Nevertheless, the countries where the problem is the worst are those least able to afford the interventions needed to effect change. As such, there is a role for assistance from donors and the international community; these inputs, however, must be properly channelled and coordinated to complement each other and the recipient government's own efforts.

THE MEDIA PERSPECTIVE: Ms. Usha Rai, a journalist with the Indian *Hindustan Times*, pointed out in her presentation the practical difficulties of generating greater media attention to safe motherhood. Development stories in general — whether focused on women, health, education, population, or environment — have never been a priority for newspaper, magazine, and television editors. The media are focused on making a profit, and economic pressures have diminished the sense of social responsibility that once encouraged serious, investigative coverage of development and gender concerns. Journalists themselves — even if they are motivated to cover subjects like safe motherhood — face multiple obstacles: they are required to cover three or four different topics, from crime to health to politics, and have little opportunity to specialize. And when space or air time is limited, there is tremendous pressure to ensure that stories are “news”.

In order to maximize coverage of safe motherhood issues, Ms. Rai suggested, experts in government and international agencies need to be more accessible and, even more importantly, need to understand when information qualifies as news. Stories are most likely to be published or aired if they: present new research findings (such as the effect of micronutrient supplementation; see Box L); are timely (a just-finished conference); highlight controversial issues (TBAs versus midwives); or focus on local events (successful case studies). Those seeking coverage need to understand and cater to these realities in order to achieve their goal.

THE WOMEN'S ADVOCATES PERSPECTIVE: “It is not acceptable”, said Ms. Adrienne Germain of the International Women's Health Coalition, “that after ten years of the Safe Motherhood Initiative, women's death and illness have attracted so little funding and that political will for change does not exist”. Women have mobilized and continue to mobilize nationally and internationally for women's health — at international conferences, through national campaigns, by demanding that governments invest in the social sectors and acknowledge the social costs of structural adjustment, and by campaigning for access to safe abortion and contraceptive choices. The burden of generating political will, however, cannot belong exclusively to women — for reasons of justice, since men should be as concerned as women; and for reasons of practicality, since the policy changes and financial investments that are necessary are beyond women's capacity to mobilize on their own.

Investments in the various interventions discussed during this conference will not be enough to achieve safer motherhood, argued Ms. Germain; “societal and individual respect for sexual and reproductive rights has to be established, and both gender equality and balance in gender power relations must be achieved”. As long as gender inequality prevails, men in the home and in the pinnacles of power must be partners in the struggle for women's health, empowerment, and rights. Women's health begins at home, and men must know the danger signs of pregnancy, and recognize that they do not have the right to beat or rape their wives or partners, or to deny them access to health care. Parliamentarians and officials must know that they are responsible for appropriating meaningful levels of funding for women's health, and supporting appropriate policies. Only by mobilizing men as well will women achieve their goals.

THE DONOR PERSPECTIVE: Dr. Aagje Papineau Salm from the Dutch Ministry of Foreign Affairs offered a series of recommendations for moving the safe motherhood agenda forward: First, she noted, safe motherhood should not be isolated; presenting it as “part and parcel” of reproductive health is key to keeping it on the public health and development agenda. Similarly, advocates must maintain a focus on safe motherhood within the framework of broader health reforms being implemented in many developing countries. Second, it must be acknowledged that funding is not likely to increase; in many cases donors are struggling just to maintain current levels of support. Third, information and materials are needed as ammunition for maintaining the focus on maternal health, and collaboration with the media is essential for translating the information into understandable messages. Fourth, donors need to coordinate with each other — a difficult task, Dr. Papineau Salm acknowledged, and one in which recipient government must play a leading role. Clear statements of priorities from governments will go far in encouraging attention to and resources for safe motherhood.

BOX T: THE POWER OF PARTNERSHIP: LESSONS FROM THE FIELD

Mexico – The National Safe Motherhood Committee: The Mexico Safe Motherhood Committee was established in 1993, following a national Safe Motherhood Conference. Today, noted the Committee’s Technical Coordinator, Ms. María del Carmen Elu, it is a multisectoral and multidisciplinary task force of 25 members, including representatives of seven state-level safe motherhood committees. The committee holds plenary meetings every two months, and is supported by a technical secretariat.

The Committee has carried out a wide range of activities, including:

- Ten state-level safe motherhood conferences which helped increase awareness and stimulated state-level activities to improve women’s health.
- 22 national and state-level workshops on priority issues including quality of care, postpartum and postabortion family planning, gender and power relations, domestic violence against pregnant women, and cervical cancer.
- Production and dissemination of a range of materials, including workshop and research reports and a semiannual newsletter.
- Research projects, including the verbal autopsy project (see Box S) and a model approach to providing antenatal care and risk detection at the community level.
- Public education activities, including a media kit on safe motherhood, a video on safe motherhood produced by the Archdiocese of Mexico City with technical assistance from the Committee, and a radio campaign to combat violence against pregnant women.

Perhaps the Committee’s most unique achievement has been its success in encouraging dialogue, better understanding, and actual cooperation between various sectors, and especially between representatives of the women’s movement and government agencies. Key to this success has been its multisectoral membership and the commitment, enthusiasm, and flexibility of these members.

Bangladesh – Government Commitment to Collaboration: The Prime Minister of Bangladesh has declared May 28 as “Safe Motherhood Day”. The Prime Minister’s declaration, noted Dr. Jahir Uddin Ahamed of the Ministry of Health and Family Welfare, reflects the strength of the government’s commitment to addressing maternal ill-health. In doing so, the government has recognized and supported the roles of a range of key actors, taking advantage of their respective strengths:

BOX 1: THE POWER OF PARTNERSHIP: LESSONS FROM THE FIELD (CONTINUED)

- *NGOs:* Community-based organizations in the fields of family planning, health, and micro-credit have strong roots in the community, helping to mobilize their members and providing channels through which community perspectives can be articulated and fed back into the design of government policies and programmes.
- *Professional bodies and private practitioners:* Medical societies have contributed significantly to developing training and monitoring activities related to essential obstetric care.
- *Women's rights groups:* Women's health activists have been critical in bringing health- and violence-related issues to the forefront of societal debate and action, as well as to disseminating information regarding safe motherhood through their networks.
- *Research organizations:* International research institutes have been able to work effectively with national institutes to incorporate lessons learned into national programmes.
- *Media:* Properly informed and supported, the media can play a powerful role in raising social consciousness about the issues at hand. In particular, they are critical to reaching men, who have traditionally shown little concern and involvement in the area of women's health.
- *Development agencies:* Both technical and financial assistance from multilateral and technical agencies have been essential for developing and implementing appropriate policies and programmes.

International HIV/AIDS Alliance: The mission of this group, explained its Executive Director, Mr. Jeffrey O'Malley, is to enable communities in developing countries to play a full and effective role in the global response to AIDS. In describing the Alliance's work, Mr. O'Malley highlighted the following issues:

- Many key NGO partners are not HIV organizations. As such, it is critical to respect and understand their organizational needs and priorities, as well as those of the communities where they work.
- In developing new initiatives, NGOs need to build on existing strengths — community education approaches they have used before, expanding services they are already providing — rather than venturing into completely new and unfamiliar areas.
- Integrated approaches to programming and funding for reproductive health are of obvious value; however, Mr. O'Malley emphasized, they do not and should not preclude the need for specialized agencies and funding in areas like safe motherhood and HIV/AIDS, for the following reasons:
 - to keep these issues on the political agenda locally and internationally;
 - to help define and promote "best practices";
 - to ensure that these programmes continue to receive the support and investment they deserve while mechanisms for integration are being defined, developed, and implemented.

Forging partnerships, and working within them, raise difficult questions about the roles of different partners. Do partnerships work best when they are based on equality? Who is most appropriate to play a leading role? Participants noted that equal partnerships are generally a myth; because of size, resources, or other factors, members in a partnership are almost always unequal by some standard. However, each member has — or should have — unique advantages to offer; these unique qualities must be recognized and respected by all, or the partnership will not be sustainable.

Conclusion

The Safe Motherhood Technical Consultation in Sri Lanka achieved one of its major goals: that of articulating and presenting programmatic lessons learned from the Initiative's first decade, and identifying clear priorities and strategies for the future. The co-sponsors, along with the participants and other partners who are committed to reducing maternal mortality around the world, are now responsible for conveying those lessons learned to the decision-makers who must take action.

As part of that effort, a broad-based, ambitious communication strategy is being implemented throughout 1998 by the Safe Motherhood Inter-Agency Group to generate greater global awareness of and commitment to the goal of reducing maternal mortality among governments, donor agencies, non-governmental organizations, and the general public. A highlight of this campaign was the Call for Action held on World Health Day (April 7, 1998), during which a series of political leaders made statements to highlight what can and must be done to improve maternal health around the world. Other components of the communications strategy include a series of informational and advocacy materials (see Appendix D), a safe motherhood web site, public service announcements, and a campaign to mobilize media coverage in the published and broadcast media throughout the year.

In closing the meeting, Dr. Fred Sai, professor at the University of Ghana Medical School, articulated the challenge and the commitment on behalf of all those present:

We have traveled a long road together, a road some of us have traveled long before we came to Nairobi. From here we have perhaps an even more tortuous road in front of us, but we have hope, we have courage, we have knowledge, we have good will — and we have a clear and urgent goal.

We must define maternal mortality as a social injustice that reflects society's failure to value and protect women. Women should not die just because they are women. Governments must recognize their responsibilities to provide for the special care that women need, starting from birth, continuing through childhood and adolescence, and particularly during pregnancy and childbirth. The social, cultural, legal, and other inequities faced by women throughout their life cycles must be identified and fought. Education and improved status gives the girl-child more autonomy, so we must increase women's ability to make and act on decisions regarding sex and birth, particularly first births. Women's contributions sustain the family, community and nation. Investing in their survival and well-being makes economic sense as well as being a moral imperative.

Each and every one of us has a role to play in his home, in his work or community. Let us seize the opportunity. Women are, inevitably, charged with the responsibility of replenishing the human resource base. We cannot accept that in performing this task, society should make them put their lives on the line, when the means for making it a safe, joyful, and rewarding experience are available.

APPENDIX A: Action Messages for the Tenth Anniversary

The Safe Motherhood Technical Consultation in Sri Lanka, held in October 1997, was organized around ten “action messages” that distilled the major lessons learned during the Safe Motherhood Initiative’s first decade (1987-1997). The ten messages were:

- 1. Advance Safe Motherhood Through Human Rights:** Defining maternal death as a “social injustice” as well as a “health disadvantage” obligates governments to address the causes of poor maternal health through their political, health, and legal systems. International treaties and national constitutions that address basic human rights must be applied to safe motherhood issues in order to guarantee all women the right to make free and informed decisions about their health, and access to quality services before, during, and after pregnancy and childbirth.
- 2. Empower Women, Ensure Choices:** Governments, community leaders, and women’s advocates need to address social, economic, and cultural factors that limit women’s choices and decision-making abilities. Legal reform and community mobilization are essential for empowering women to understand and articulate their health needs, and to seek services with confidence and without delay.
- 3. Safe Motherhood Is a Vital Social and Economic Investment:** All national development plans and policies should include safe motherhood programmes, in recognition of the enormous cost of a woman’s death and disability to health systems, the labour force, communities, and families. Additional resources should be allocated for safe motherhood, and should be invested in the most cost-effective interventions (in developing countries, basic maternal and newborn care can cost as little as US\$3 per person, per year).
- 4. Delay Marriage and First Birth:** Reproductive health information and services for married and unmarried adolescents need to be: legally available, widely accessible, and based on a true understanding of young people’s lives. Community education must encourage families and individuals to delay marriage and first births until women are physically, emotionally, and economically prepared to become mothers.
- 5. Every Pregnancy Faces Risks:** During pregnancy, any woman can develop serious, life-threatening complications that require medical care. Because there is no reliable way to predict which women will develop these complications, it is essential that all pregnant women have access to high quality obstetric care throughout their pregnancies, but especially during and immediately after childbirth when most complications arise. Antenatal care should not spend scarce resources on formal screening mechanisms that attempt to predict a woman’s risk of developing complications.
- 6. Ensure Skilled Attendance at Delivery:** The single most critical intervention for safe motherhood is to ensure that a health worker with midwifery skills is present at every birth, and transportation is available in case of an emergency. A sufficient number of health workers must be trained and provided with essential supplies and equipment, especially in poor and rural communities.

- 7. Improve Access to Quality Maternal Health Services:** Health services should be located as close as possible to where women live, and must offer affordable, high-quality services. In order to meet required standards, health systems should have: an adequate number of trained staff; a regular supply of drugs, equipment, and supplies; and functioning referral systems. Services should also be respectful of – and responsive to – women’s needs, preferences, and cultural beliefs.
- 8. Prevent Unwanted Pregnancy and Address Unsafe Abortion:** Programme planners should aim to reduce the number of maternal deaths from unsafe abortion by ensuring that all safe motherhood programmes include: client-centred family planning services to prevent unwanted pregnancy; contraceptive counselling for women who have had an induced abortion; the use of appropriate technologies for women who experience abortion complications; and, where not against the law, safe services for pregnancy termination*.
- 9. Measure Progress:** Because it is difficult and costly to estimate maternal mortality accurately, alternative ways of measuring the progress and impact of safe motherhood programmes must be used. Since maternal mortality is directly linked to the coverage and quality of maternal health services, information on such indicators as who cares for women during childbirth, where the delivery takes place, and the quality of services at health facilities should be collected and analyzed.
- 10. Power of Partnership:** Reducing maternal mortality requires sustained, long-term commitment and inputs from a range of partners. Governments, non-governmental organizations (including women’s groups and family planning associations), international assistance agencies, donors, and others should share their diverse strengths and work together to promote safe motherhood within countries and communities and across national borders. Programmes should be developed, evaluated, and improved with the involvement of clients, health providers, and community leaders. National plans and policies should put maternal health into its broad social and economic context, and incorporate all groups and sectors that can support safe motherhood.

* Each of the co-sponsors of the Safe Motherhood Initiative implements these activities according to its specific mandate.

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APPENDIX C: Agenda for the Technical Consultation on Safe Motherhood 18-23 October 1997, Colombo, Sri Lanka

SATURDAY, 18 OCTOBER

REGISTRATION

OPENING CEREMONY

Lighting of the Traditional Oil Lamp

National Anthem

Welcome Address

Pramilla Senanayake, Chairperson,
Inter-Agency Group for Safe Motherhood

Safe Motherhood at Ten: Looking Back, Moving Ahead

Mahmoud Fathalla, Senior Adviser,
Rockefeller Foundation/Egypt

The View from Sri Lanka: Making Motherhood Safer

Professor Harsha Seneviratne,
University of Colombo, Sri Lanka

Women in Jeopardy: Three Stories

Indunil Dissanayake,
Journalist and Newscaster, Sri Lanka

Partnership, the Road to Progress in Sri Lanka

Honorable Professor G.L. Peiris, Minister of Justice,
Constitutional Affairs, Ethnic Affairs and National
Integration, Sri Lanka

SUNDAY, 19 OCTOBER

ADVANCE SAFE MOTHERHOOD THROUGH HUMAN RIGHTS

OVERVIEW: **Rebecca Cook**, University of Toronto, Canada

CASE STUDY: **María Isabel Plata**, Profamilia, Colombia

EMPOWER WOMEN: ENSURE CHOICES

PLENARY CHAIR:

Roberto Bentjerodt, The World Bank/Sri Lanka

OVERVIEW: **Shireen Jejeebhoy**, Consultant, India

CASE STUDY: **Sharon Fonn**, University of Witwatersand,
South Africa

SAFE MOTHERHOOD IS A VITAL SOCIAL AND ECONOMIC INVESTMENT

PLENARY CHAIR:

Mahmoud Fathalla, Rockefeller Foundation, Egypt

OVERVIEW: **Anne Tinker**, The World Bank/USA

CASE STUDY: **Moncef Sidhom**, Ministry of Health, Tunisia

A Historical Perspective on Maternal Mortality Reduction:
Wim van Lerberghe, Institute for Tropical
Medicine, Belgium

A Statement on HIV/AIDS as a Threat to Women's Health:
Awa Coll-Seck, UNAIDS, Switzerland

QUESTIONS & DISCUSSION FOR BOTH MORNING SESSIONS

DELAY MARRIAGE AND FIRST BIRTH

PLENARY CHAIR:

Andrew Arkutu, UNFPA/Eastern and Southern Africa

OVERVIEW: **John Hobcraft**, London School of Economics,
United Kingdom

CASE STUDY: **Sajeda Amin**, The Population Council, USA

OVERVIEW: **Shombi Ellis**, Population Services
International, Botswana

QUESTIONS & DISCUSSION

UNFPA RECEPTION, TAJ SAMUDRA HOTEL

MONDAY, 20 OCTOBER

EVERY PREGNANCY FACES RISKS

PLENARY CHAIR:

Deanna Ashley, Ministry of Health, Jamaica

OVERVIEW: **Wendy Graham**, Dugald Baird Centre for Research on Women's Health, Aberdeen University, Scotland

CASE STUDY: **Raj Karim**, National Population and Development Board, Malaysia

QUESTIONS & DISCUSSION

ENSURE SKILLED ATTENDANCE AT DELIVERY

PLENARY CHAIR:

Susan Holck, WHO/Switzerland

OVERVIEW: **Margaret Peters**, International Confederation of Midwives, Australia

CASE STUDY: **Angela Kamara**, Prevention of Maternal Mortality Network, Ghana

CASE STUDY: **Ruta Nadisauskiene**, Lithuanian Society of Obstetrics and Gynecology, Lithuania

CASE STUDY: **Ardi Kaptiningsih**, Ministry of Health, Indonesia

QUESTIONS & DISCUSSION

WORKING GROUPS

Antenatal Care and Risk Assessment

Nutrition and Safe Motherhood

Life-Saving Skills Content and Program Experience

Role of Traditional Birth Attendants

Referral Mechanisms and Linkages

Managing Major Obstetric Interventions

Roles and Responsibilities of Physicians

Anne Thompson, WHO/Switzerland

Ray Yip, UNICEF/Indonesia

Deborah Armbruster, American College of Nurse Midwives, USA and **Anne Otto**, Uganda Private Midwives Association, Uganda

DEBATE WITH:

Judith Fortney, Family Health International, USA and **Imtiaz Kamal**, National Committee on Maternal Health, Pakistan

Staffan Bergstrom, Karolinska Institute, Sweden

Vivian Wong, FIGO, China

Pius Okong, Nsambya, Uganda, and **Joseph Taylor**, Ministry of Health, Ghana

POSTER SESSIONS/DINNER:

Research tools and other research projects

TUESDAY, 21 OCTOBER

IMPROVE ACCESS TO QUALITY MATERNAL HEALTH SERVICES

PLENARY CHAIR:

Fariyal Fikree, National Committee on Maternal Health, Pakistan

ACCESS

OVERVIEW: **Carla AbouZahr**, WHO/Switzerland

QUALITY

OVERVIEW: **Marjorie Koblinsky**, MotherCare/USA

CASE STUDY: **Godfrey Mbaruku**, Regional Hospital, Kigoma, Tanzania

CASE STUDY: **Ana Langer**, Population Council/Mexico

CASE STUDY: **Carine Ronsmans**, Institute of Tropical Medicine, Belgium and

Nahid Chowdhury, Population Council/Bangladesh

QUESTIONS & DISCUSSION

TUESDAY, 21 OCTOBER continued

WORKING GROUPS

Addressing Financial/Economic Barriers

Charlotte Leighton, Abt Associates, USA

Overcoming Physical Barriers: Transport, Waiting Homes

Francois Farah, UNFPA/Uganda and
Jerker Liljestrand, WHO/Switzerland

Ensuring Client Perspectives

Sharon Fonn, Women's Health Project, University of
Witwatersrand, South Africa

Using Facility-Based Audits for Improving Quality

Mohammed Hefni, Egypt, Benenden Hospital,
United Kingdom

Overmedicalization and Appropriate Technologies

Beverley Chalmers, University of Toronto, Canada and
Ana Langer, Population Council/Mexico

Standard-Setting and Ensuring Professional Competence

Pang Ru-Yan, Ministry of Health, China

Integrated Postpartum Care

Diana Beck, MotherCare/Indonesia

PREVENT UNWANTED PREGNANCY AND ADDRESS UNSAFE ABORTION

PLENARY CHAIR: **Suneeta Mukherjee**, UNFPA/Sri Lanka

OVERVIEW ON "PREVENT UNWANTED PREGNANCY":

Ho Kei Ma, Department of Obstetrics and
Gynecology, University of Hong Kong

CASE STUDY: **Ashok Kumar**, Ministry of Health and
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CASE STUDY: **Shirin Ghazizadeh**, Ministry of Health
and Medical Education, Iran

QUESTIONS & DISCUSSION

WORKING GROUP "MARKETPLACE"/DINNER:

Review of conclusions from working group
sessions to date

WEDNESDAY, 22 OCTOBER

PREVENT UNWANTED PREGNANCY/ADDRESS UNSAFE ABORTION—continued

PLENARY CHAIR: **Beverly Winikoff**, Population Council, USA

OVERVIEW ON "ADDRESS UNSAFE ABORTION":

Khama Rogo, Centre for the Study of
Adolescence

CASE STUDY: **Wanda Novicka**, Federation for Women and
Family Planning, Poland

CASE STUDY: **Sudha Tewari**, Parivar Seva Sanstha, India

QUESTIONS & DISCUSSION

WORKING GROUPS

*Delay Marriage and First Birth: Social Issues and
Provision of Services*

Sajeda Amin, Population Council/USA and
Yvette Delph, Consultant, Barbados

Improving Access to Contraception

Gunta Lazdane, Latvian Association for Family Planning
and Sexual Health, Latvia

*Strategic Implications of New Technologies for
Fertility Regulation*

Paul van Look, WHO/Switzerland

Providing Legal Abortion Services

Ayşe Akin, Hacettepe University Medical School, Turkey

Postabortion Care

Ezzeldin Osman Hassan, Egyptian Fertility Care Society,
Egypt

*Policy and Service Issues: Where Abortion Is Legally
Restricted*

María Isabel Plata, Profamilia, Colombia, on behalf of
Cristina Villareal

WEDNESDAY, 22 OCTOBER continued

MEASURE PROGRESS

PLENARY CHAIR: **Leila Bisharat**, UNICEF/Egypt

OVERVIEW: **Oona Campbell**, London School of Hygiene and Tropical Medicine, United Kingdom

PROCESS INDICATORS:

Tessa Wardlaw, UNICEF/USA

CASE STUDY: **Madina Sangare Ba**, Ministry of Health, Mali

QUESTIONS & DISCUSSION

WORKING GROUPS

Measuring Levels of Maternal Mortality: Surveillance

Hani Atrash, Centers for Disease Control, USA

Measuring Levels of Maternal Mortality: Survey Methods

Cynthia Stanton, Macro International/DHS, USA

Diagnostic Tools (Case Reviews)

Wendy Graham, Dugald Baird Centre, University of Aberdeen, Scotland

Evaluating the Effectiveness/Impact of Programs: The MotherCare Experience

Jeanne McDermott, MotherCare/USA on behalf of **Zahidul Huque**, MotherCare/USA

Measuring Levels of Maternal Morbidity

Judith Fortney, Family Health International, USA and **Veronique Filippi**, London School of Hygiene and Tropical Medicine, United Kingdom

Confidential Enquiry-The Egypt Experience

Oona Campbell, London School of Hygiene and Tropical Medicine, United Kingdom

THURSDAY, 23 OCTOBER

MAKING MOTHERHOOD SAFE:

A. POWER OF PARTNERSHIP

PLENARY CHAIR: **Florence Manguyu**, Medical Women's International Association, Kenya

CASE STUDIES ON THE POWER OF PARTNERSHIP:

María del Carmen Elu, Mexico Safe Motherhood Committee

Jahiruddin Ahamed, Ministry of Health, Bangladesh

Jeff O' Malley, HIV/AIDS Alliance, United Kingdom

QUESTIONS & DISCUSSION

MAKING MOTHERHOOD SAFE:

B. DIRECTIONS FOR THE FUTURE

PLENARY CHAIR: **Sigrun Mogedal**, Diakonhjemmet International Centre, Norway

PANEL DISCUSSIONS ON DIRECTION FOR THE FUTURE:

DONOR PERSPECTIVE:

Aagje Papineau Salm, Ministry of Foreign Affairs, The Netherlands

GOVERNMENT PERSPECTIVE:

Eunice Brookman-Amisshah, Minister of Health, Ghana

WOMEN'S HEALTH PERSPECTIVE:

Adrienne Germain, International Women's Health Coalition, USA

MEDIA PERSPECTIVE:

Usha Rai, The Hindustan Times, India

QUESTIONS & DISCUSSION

CLOSING

Fred Sai, Ghana

APPENDIX D: Order Form for Materials Available from the Inter-Agency Group for Safe Motherhood

THE SAFE MOTHERHOOD CO-SPONSORS:



United Nations Population Fund (UNFPA)



United Nations Children's Fund (UNICEF)



The World Bank



World Health Organization



International Planned Parenthood Federation



The Population Council

GLOBAL SAFE MOTHERHOOD

		Language	Quantity
<input type="checkbox"/> <i>Safe Motherhood Brochure</i>	[Brochure, 1998]	<input type="checkbox"/> English _____ <input type="checkbox"/> Spanish _____ <input type="checkbox"/> French _____	
<input type="checkbox"/> <i>The Safe Motherhood Action Agenda: Priorities for the Next Decade</i> [Technical Consultation held in Sri Lanka, October 1997]	[Conference Report, 1998]	<input type="checkbox"/> English _____	
<input type="checkbox"/> <i>Critical Issues for Safe Motherhood Policy-Makers</i>	[Pocketcard, 1998]	<input type="checkbox"/> English _____ <input type="checkbox"/> Spanish _____ <input type="checkbox"/> French _____	
<input type="checkbox"/> <i>List of International Commitments to Safe Motherhood</i>	[Pamphlet, 1998]	<input type="checkbox"/> English _____	
<input type="checkbox"/> <i>Safe Motherhood Partners: Emphasizing Action</i> [Safe Motherhood Meeting of Partners held in Washington, DC, March 1992]	[Conference Declaration, 1992]	<input type="checkbox"/> English _____	
<input type="checkbox"/> <i>Preventing the Tragedy of Maternal Death</i> [Safe Motherhood Conference held in Kenya, February 1987]	[Conference Report, 1987]	<input type="checkbox"/> English _____ <input type="checkbox"/> Spanish _____	

SAFE MOTHERHOOD TECHNICAL FACT SHEETS [For Program Planners/Managers and Researchers]

		Language	Quantity
[available as set of 11]			
1. <i>Maternal Mortality</i>	6. <i>Ensure Skilled Attendance at Delivery</i>	<input type="checkbox"/> English _____	
2. <i>Safe Motherhood: A Matter of Human Rights and Social Justice</i>	7. <i>Improve the Quality of Maternal Health Services</i>	<input type="checkbox"/> Spanish _____	
3. <i>Safe Motherhood as a Vital Social and Economic Investment</i>	8. <i>Improve Access to Maternal Health Services</i>	<input type="checkbox"/> French _____	
4. <i>Delay Marriage and First Birth</i>	9. <i>Prevent Unwanted Pregnancy</i>		
5. <i>Every Pregnancy Faces Risks</i>	10. <i>Address Unsafe Abortion</i>		
	11. <i>Measure Progress</i>		

SAFE MOTHERHOOD GENERAL FACT SHEETS

[For General Audiences, including Policy-Makers, the Media, and the Public]

Language Quantity

[available as set of 11]

- | | | |
|---|--|---|
| <p>1. <i>The Safe Motherhood Initiative</i></p> <p>2. <i>Maternal Mortality</i></p> <p>3. <i>Maternal Health: A Vital Social and Economic Investment</i></p> <p>4. <i>Safe Motherhood: A Matter of Human Rights and Social Justice</i></p> <p>5. <i>Adolescent Sexuality and Childbearing</i></p> | <p>6. <i>Every Pregnancy Faces Risks</i></p> <p>7. <i>Skilled Care During Childbirth</i></p> <p>8. <i>Good Quality Maternal Health Services</i></p> <p>9. <i>Unwanted Pregnancy</i></p> <p>IO. <i>Unsafe Abortion</i></p> <p>II. <i>Measuring Progress</i></p> | <p><input type="checkbox"/> English _____</p> <p><input type="checkbox"/> Spanish _____</p> |
|---|--|---|

SAFE MOTHERHOOD VIDEOS, 1998

Language Quantity

- | | |
|--|---|
| <p><input type="checkbox"/> <i>Public Service Announcement for Policy-Makers</i>
[one-minute Safe Motherhood segment to raise awareness of maternal mortality and morbidity]
[designated for TV broadcast - NTSC only]</p> | <p><input type="checkbox"/> English _____</p> <p><input type="checkbox"/> Spanish _____</p> <p><input type="checkbox"/> French _____</p> <p><input type="checkbox"/> Arabic _____</p> <p><input type="checkbox"/> Chinese _____</p> <p><input type="checkbox"/> Russian _____</p> |
| <p><input type="checkbox"/> <i>Public Service Announcement for Pregnant Women and Their Families</i>
[one-minute Safe Motherhood segment to raise awareness of danger signs during pregnancy and childbirth]
[designated for TV broadcast - NTSC only]</p> | <p><input type="checkbox"/> English _____</p> <p><input type="checkbox"/> Spanish _____</p> <p><input type="checkbox"/> French _____</p> <p><input type="checkbox"/> Arabic _____</p> <p><input type="checkbox"/> Chinese _____</p> <p><input type="checkbox"/> Russian _____</p> |
| <p><input type="checkbox"/> <i>Safe Motherhood Experiences: A Video Composite from Around the World</i>
[17 minute video profiling Safe Motherhood programs by UNFPA, UNICEF, WHO and World Bank]</p> | <p><input type="checkbox"/> PAL _____</p> <p><input type="checkbox"/> NTSC _____</p> |
| <p><input type="checkbox"/> <i>Summary Video of the Safe Motherhood Technical Consultation</i>
[1 hour video with highlights from selected presentations in Colombo, Sri Lanka]</p> | <p><input type="checkbox"/> PAL _____</p> <p><input type="checkbox"/> NTSC _____</p> |

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