



World Health Organization CH-1211 Geneva 27 Switzerland

## WORLD HEALTH DAY 1998 INFORMATION KIT

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### World Health Day 1998 Safe Motherhood

### Message from the Director-General

This is a very special year for the World Health Organization. Exactly 50 years ago, the nations of the world came together to sign the charter that brought the Organization into being. In pledging to improve the health of the peoples of the world, the founding Member States also affirmed the need to pay special attention to the health of women and children and, in particular, that of mothers. It is therefore, particularly appropriate that this year the theme for World Health Day is Safe Motherhood.

Fifty years on, the peoples of the world are benefitting from considerable achievements in health. These are demonstrated by substantial gains in child survival, falling infant mortality, rising life expectancy, and the elimination of many scourges of the past such as smallpox and – very soon – polio. WHO is proud to have contributed to these successes. We must acknowledge, however, that there are also areas in which success has proved elusive. Sadly, one of these is maternal health. Because of our collective failure to solve this problem, the tragedy of maternal mortality represents a major source of suffering and injustice in our societies.

Pregnancy and childbirth are special events in women's lives, and, indeed, in the lives of their families. This can be a time of great hope and joyful anticipation. It can also be a time of fear, suffering and even death. Although pregnancy is not a disease but a normal physiological process, it is associated with certain risks to health and survival both for the woman and for the infant she bears. These risks are present in every society and in every setting. In developed countries they have been largely overcome because every pregnant woman has access to special care during pregnancy and childbirth. Such is not the case in many developing countries where each pregnancy represents a journey into the unknown from which all too many women never return.

This situation cannot be allowed to continue. The interventions that make motherhood safe are known and the resources needed are obtainable. The necessary services are neither sophisticated nor very expensive, and reducing maternal mortality is one of the most cost-effective strategies available in the area of public health. Access to family planning information and services can help reduce unwanted pregnancies and their adverse consequences. Access to health care, particularly at the critical time of birth, can help ensure that childbirth is a joyful event. It must be recognised that the reduction of maternal mortality is not only a matter of effective health care but also one of social justice. The risks that women face in bringing life into the world are not mere misfortunes or unavoidable natural disadvantages but injustices that societies have a duty to remedy through their political, health and legal systems.

As WHO embarks upon its second half century, the whole Organization at global, regional and country levels is working to renew its Health-for-All policy and fashion it to respond to the challenges of the next fifty years. One of these challenges is to deal effectively with threats to social equity, of which unsafe motherhood is a particularly tragic example. In renewing itself, WHO will intensify its commitment to the health of women when they are most vulnerable – as they bring new life into the world.

It is my hope that this World Health Day will stimulate countries to take a close look at the position of women in society, including their access to resources, education and health care when they most need it. This must, of necessity, involve families, communities and societies as a whole and bring together the public and the private sectors. A strong national commitment is, therefore, a prerequisite for success. It gives me special pleasure to note that in our efforts to make motherhood safer, WHO is joined by other development partners, including The World Bank, UNICEF, UNFPA and many local and international NGOs around the world. This partnership will bring added strength to our efforts to ensure that pregnancy is a safe and joyful event for all women and for their families.



### **Maternal Mortality**

Every day, at least 1,600 women die from the complications of pregnancy and childbirth. That is 585,000 women — at a minimum — dying every year. The majority of these deaths — almost 90% — occur in Asia and sub-Saharan Africa; approximately 10% in other developing regions; and less than 1% in the developed world. Between 25% and 33% of all deaths of women of reproductive age in many developing countries are the result of complications of pregnancy or childbirth.

Of all the health statistics monitored by the World Health Organization, maternal mortality is the one with the largest discrepancy between developed and developing countries. While infant mortality, for example, is almost seven times higher in the developing world, <sup>4</sup> maternal mortality is on average 18 times higher. <sup>1</sup> In addition to the number of deaths each year, over 50 million more women suffer from maternal morbidity — acute complications from pregnancy. For at least 18 million women, these morbidities are long-term and often debilitating. <sup>2</sup>

The goal of the Safe Motherhood Initiative is to cut maternal mortality by half by the year 2000. We know what to do to reduce the tragedy of maternal mortality; what we need is the political will and strong, concerted action.

### **A Global Scourge**

Worldwide, there are 430 maternal deaths for every 100,000 live births. In developing countries, the figure is 480 maternal deaths for every 100,000 live births; in developed countries there are 27 maternal deaths for every 100,000 live births.<sup>1</sup>

The highest maternal mortality figures are found in Eastern and Western Africa, where in some countries more than 1,000 women die for every 100,000 live births. The lowest recorded figures are in Northern Europe, where they range from 0-11 maternal deaths for every 100,000 live births.

These maternal mortality ratios reflect a woman's risk of dying each time she becomes pregnant; because women in developing countries bear many

children and obstetric care is poor, their lifetime risk of maternal death is much higher – almost 40 times higher than in the developed world. <sup>1</sup>

In addition to maternal mortality, half of all perinatal deaths\* are due primarily to inadequate maternal care during pregnancy and delivery. Each year, 8 million neonatal deaths and stillbirths occur, largely the result of the same factors that

\* Stillbirths, fetal deaths after 28 weeks' gestation, and infant deaths up to seven days after birth.

cause the death and disability of their mothers – poor maternal health, inadequate care, poor hygiene and inappropriate management of delivery, as well as lack of newborn care.<sup>5</sup>

### In Addition to Death, the Burden of Disease Is Huge

Forty percent or more of pregnant women may experience acute obstetric problems during pregnancy, childbirth and the postpartum period; an estimated 15% of pregnant women develop lifethreatening complications.<sup>5</sup>

As many as 300 million women – more than onequarter of all adult women now living in the developing world – suffer from short- or long-term ill-

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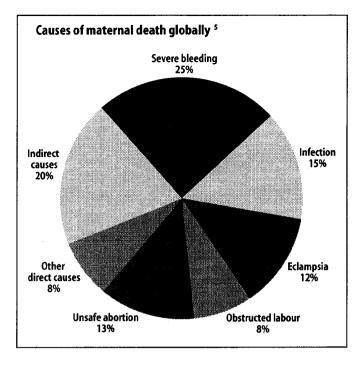
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### Women's lifetime risk of dying from pregnancy-related complications<sup>1</sup>

Region	Risk of Dying
Africa	1 in 16
Asia	1 in 65
Latin America & Caribbean	1 in 130
Europe	1 in 1,400
North America	1 in 3,700
All developing countries	1 in 48
All developed countries	1 in 1,800



ness related to pregnancy and childbirth.<sup>2</sup> Death and disability related to maternal causes account for 18.5% of the burden of disease among women of reproductive age in developing countries.<sup>6</sup> Long-term complications of pregnancy and childbirth include uterine prolapse, fistulae (see below), incontinence, pain during intercourse and infertility.<sup>5</sup>

Up to 80,000 women each year develop fistulae – holes in the birth canal that allow leakage of urine or faeces from the bladder or rectum, making a woman permanently incontinent. Between 500,000 and one million women now live with fistulae; many

become social outcasts, turned out of homes and rejected by their husbands and families.<sup>2</sup>

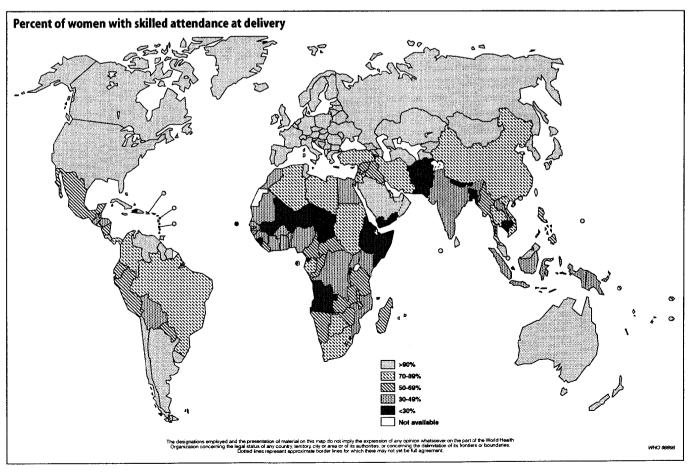
Obstructed labour can result in permanent nerve damage and loss of sensation and muscle deterioration in the feet and legs; women worst affected often become crippled. Infections, including sepsis, can lead to pelvic inflammatory disease (PID), the symptoms of which include chronic pain, damage to the reproductive system, infertility and a range of gynaecological disorders.

### Why Are Women Dying?

Most maternal deaths could be prevented if women had access to basic medical care during pregnancy, childbirth and the post-partum period.<sup>5</sup> This implies strengthening health systems and linking communities, health centres and hospitals to provide care when and where women need it.<sup>8</sup>

Most maternal deaths occur either during or shortly after delivery, yet this is the time when women are least likely to receive the health care they need.<sup>8</sup> Quality health care during and immediately after the critical period of labour and delivery is the single most important intervention for preventing maternal and newborn mortality and morbidity.

**Delivery care**: Each year, 60 million deliveries take place in which the woman is cared for only by a family member, an untrained traditional birth attendant – or no one at all. Only 53% of deliveries in developing countries take place with the assistance of a skilled birth attendant (a doctor or midwife). Yet having a skilled health professional at delivery is essential for making motherhood safer. A skilled birth attendant can ensure hygiene during labour and delivery, provide safe and non-traumatic care, recognise complications and manage them effectively or refer the woman to a higher level of care.



**Postpartum care**: Only a small proportion of women in developing countries – less than 30% – receive postpartum care. In very poor countries and regions, as few as 5% of women receive such care. In developed countries, 90% of new mothers receive postpartum care. Yet the early postpartum period is the time most maternal deaths occur. Care during the postpartum period provides opportunities to check that mother and baby are doing well, provides support to breastfeeding, and enables health workers to detect and manage any problems early.

**Antenatal care**: Millions of women in developing countries lack access to adequate care during pregnancy. Only 65% of women in developing countries receive antenatal care: 63% in Africa; 65% in Asia; and 73% in Latin America and the Caribbean. In developed countries, 97% of women receive antenatal care. Such care can detect and manage existing diseases, recognise and treat complications early, provide information and counselling on signs and symptoms of problems, recommend where to seek treatment if complications arise, and help women and their families prepare for childbirth.

Low utilisation rates for maternal health services are caused by a range of factors: distance from health services; costs, including the direct fees as well as the cost of transportation, drugs and supplies; multiple demands on women's time; and women's lack of decision-making power within the family. The poor quality of services, including poor treatment by health providers, also makes some women reluctant to use services.

#### What Can Be Done

**Ensure access to maternal health services**. Most maternal deaths, millions of cases of disease and disability, and the deaths of at least 1.5 million infants each year could be prevented through: basic maternal care for all pregnancies, including a skilled

attendant (doctor or midwife) at birth; prevention and treatment of complications during pregnancy, delivery and after birth; and postpartum family planning and basic neonatal care. Such care would cost about \$3 per person in low-income countries<sup>10</sup>.

Address gender inequalities and the poverty and discrimination women face throughout the world. Women's status must be improved everywhere and full value accorded to women's reproductive and productive roles, specifically in contributing to household and national economies.<sup>3</sup> Family and community attitudes that prevent women from receiving proper care during pregnancy and delivery must be changed.

- 1. Revised 1990 Estimates of Maternal Mortality: A New Approach by WHO and UNICEF. World Health Organization, Geneva, 1996.
- 2. The Progress of Nations. UNICEF, New York, 1996.
- 3. Preventing the Tragedy of Maternal Deaths: A Report on the International Safe Motherhood Conference. The World Bank, Washington, DC, 1987.
- 4. Progress on Maternal Mortality. UNICEF, New York, 1996.
- Mother-Baby Package: Implementing Safe Motherhood in Countries. World Health Organization, Geneva, 1994.
- Safe Motherhood Progress Report 1993-1995. World Health Organization, Geneva, 1996.
- 7. E. Royston and S. Armstrong, eds., *Preventing Maternal Deaths*. World Health Organization, Geneva, 1989.
- Coverage of Maternal Care: A Listing of Available Information (in press).
   World Health Organization, Geneva 1997.
- C. AbouZahr, Improve Access to Quality Maternal Health Services. Presentation at the Safe Motherhood Technical Consultation in Sri Lanka, 18-23 October 1997.
- Mother-Baby Package Costing Spreadsheet (unpublished). World Health Organization, Geneva, 1997.

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## Safe Motherhood As a Vital Social and Economic Investment

Making motherhood safe for the world's women calls for national governments, multi-lateral and bilateral agencies and non-governmental organisations (NGOs) to make maternal health a top priority and to ensure that the necessary political and financial resources are dedicated to this effort. Safe motherhood is a vital, compelling and cost-effective economic and social investment. Promoting women's health improves not only individual health, but also the health and survival of women's families, the labour force and the well-being of communities and countries.

A series of recent international conferences defined reductions in maternal mortality and provision of pregnancy care as central objectives for all reproductive health services. Making maternal care a priority for a nation's economic and social health agenda will help ensure that millions of women and their children avoid the pregnancy-related death and disability that are still all too common. Over the next ten years, progress toward acknowledgement of safe motherhood as a key social and economic investment will be critical to achieving the goals of the Safe Motherhood Initiative.

### The Consequences of Poor Maternal Health

**The burden:** For women of reproductive age, pregnancy and childbirth are the leading causes of death, disease and disability, accounting for at least 18% of the global burden of disease in this age group. Recent studies in four developing countries suggest that:

- 58 to 80% of pregnant women developed acute health problems; of whom
- 8 to 29% went on to develop chronic health problems as a result of pregnancy.<sup>1</sup>

The costs: While the needless suffering and death of a woman when giving life to the next generation is sufficient cause for action in itself, there are also other significant social and economic considerations. When a woman dies, her family and community are considerably less well off in economic and social terms. Specifically:

- families lose her contribution to household management and provision of care for children and other family members;
- the economy loses her productive contribution to the work force;
- communities lose a vital member whose unpaid labour is often central to community life;

children suffer most: when a mother dies, surviving children are 3 to 10 times more likely to die within two years than children who live with both parents; motherless children are likely to get less health care and education as they grow up.

Women's wages and work within the home – both of which are dependent on women staying healthy – are increasingly important. In addition, the number of female-headed households is rising throughout the world. Already, 20% of households in Africa and Latin America are headed by women, and most include young children. Studies have shown that women are more likely than men to spend their own income on improving family welfare, through additional food, health care, and school supplies and clothing for young children.

## What Is Saved by Investing in Maternal Health?

Reproductive health programmes, including maternal health, are among the most cost-effective investments in health. Providing women in low-income countries with antenatal, postpartum and delivery care, along with family planning, would cost about \$3 each year per person. In Africa and some parts of Asia, the cost may be closer to \$1, or even less. Investing in women's health yields significant savings:



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### Infant and Child Health:

- Poor care of the mother often means death of the child; even if the mother survives, poor maternal health jeopardizes a newborn's chances of survival. At least 30 to 40% of infant deaths 1.5 to 2.5 million each year could be avoided with antenatal and delivery care. An estimated 75% of perinatal deaths, currently 7.5 million each year in developing countries, could be avoided with improved maternal health, adequate nutrition during pregnancy and appropriate management of deliveries.
- Poor maternal health and nutrition contributes to low birth weight infants. Each year, 20 million low birth-weight babies are born 20% of all births. Babies born under-weight die at significantly higher rates than those of normal weight, and are at greater risk for infection, malnutrition and long term disabilities, including visual and hearing impairments, learning disabilities and mental retardation.
- A mother's death makes survival and education uncertain for her children. A study in Bangladesh found that a mother's death sharply increased the chances that surviving children up to age 10 will die within two years; this is especially true for daughters. When mothers die in childbirth, surviving children are less likely to complete their education, or attend school regularly. In Tanzania, a study found that in households where an adult woman had died during the previous 12 months, children spent half as much time in school as children from households where an adult woman had not died. The impact on children's survival and education was not significant when an adult male had died.

### **Productivity and Poverty:**

- Healthy women mean fewer poor women. Women are at the fore-front of household and community efforts to escape poverty and cope with its impact. When women become sick, they cannot work in the home or in the paid labour force. In India, a study found that the female labour force would be about 20% higher if women's health problems were addressed. In addition, costs accociated with pregnancy-related health problems can lead women and families into debt.
- Illness reduces productivity. At least 60% of pregnant women in the developing world are anaemic which reduces their energy and capacity for work and can thus depress their incomes. Studies in Sri Lanka and China among women tea plantation and mill workers have documented reduced productivity due to anaemia and the positive impact of iron supplementation.
- Female poverty means household poverty. When disease and disability reduce women's capacity for work and earning an income, families inevitably suffer. Without women's income, there is less money available for children's health care, education and additional food.

### Long-term impacts:

 Prevention can be cost-effective. Reducing unwanted pregnancies and improving maternal health saves millions of women from

- premature death and long-term disability and can save families and governments the costs of health care.
- Strengthening maternal health services benefits the health system. Ensuring that a health facility is equipped to provide essential obstetric care, such as blood transfusions, anaesthesia and surgery, means that it can also provide care for accidents, trauma and other medical emergencies. This treatment capacity benefits the whole community, not just women.
- Building women's trust promotes preventive care. Women who receive good care during pregnancy and childbirth are more likely to put their trust in other health services for themselves and for their family. As a result, they will use them to ensure children's health, and for family planning and other reproductive health services, including treatment of sexually transmitted diseases. Improved women's health means better family and community health.

### What Can Be Done

Even in low resource settings, improving maternal health is possible. What is needed is a strong political commitment. Governments, international agencies, NGOs and other funders need to make concerted efforts to safeguard maternal health, and the social and economic benefits it provides, by:

- **reallocating** investment in health care to support the most cost-effective interventions;
- investing in maternal health care services and making them available, especially in poor and rural areas;
- strengthening the capacity of community health centres and district hospitals to provide needed care, especially for obstetric complications, through staff training and provision of equipment;
- working with private providers to expand and improve safe motherhood services, for example, by mandating that insurance policies include such care;
- encouraging for-profit providers to provide free or low cost care to those who can't afford to pay;
- supporting NGOs and voluntary organisations that may be able to mobilise private and community support for delivering services to underserved or disadvantaged women.

Strong and sustained government commitment, partnerships among nations, NGOs and multilateral institutions, and well-targeted investments can save millions of lives annually:

- the 585,000 women who die from pregnancy-related causes;
- the 1.5 to 2.5 million infants who die in the first week of life;
   and
- the 1.4 million infants who are stillborn.

### Source:

 A. Tinker, "Safe Motherhood as an Economic and Social Investment". Presentation at Safe Motherhood Technical Consultation in Sri Lanka, 18-23 October, 1997.



# Safe Motherhood: A Matter of Human Rights and Social Justice

Making safe motherhood a reality for all the world's women over the next 10 years is a challenge that calls for significant changes in the way maternal health care is currently provided and in the priorities of national governments, multi-lateral funding agencies and non-governmental organisations (NGOs). In the wake of recent international conferences, reducing maternal mortality and providing care for pregnant women must be seen as integral to reproductive health. But changes in service delivery and accessibility are not sufficient. The goals of the Safe Motherhood Initiative will not be achieved until women are empowered and their human rights — including their rights to quality services and information during and after pregnancy and childbirth — are realised.

### **Empowering Women, Ensuring Choices**<sup>1</sup>

The sluggish decline in maternal mortality and morbidity is rooted in the powerlessness of women, and women's unequal access to resources in families, society and economic markets. These factors set the stage for poor reproductive health and unsafe motherhood even before a pregnancy occurs, and make it worse once pregnancy and childbearing are begun.

Women face multiple barriers to attaining good health. These include:

- Limited information, ideas and options: Women's limited exposure to new ideas and information means that they are socialised to accept pain and suffering as women's "lot", and they do not perceive pregnancy as requiring any additional care. As a result, many women do not recognise danger signs during pregnancy, and do not know where or when to seek medical services.<sup>1</sup>
- Unequal power relations that constrain women's decision-making ability, physical mobility and access to material resources: In some settings in developing countries, the decision to deliver at home is generally made by the husband or other family member. Many women need permission from their husbands to visit a health facility. Women's lack of economic resources constrains their ability to make independent health-related choices, and to gain access to health and other social services.

• Poor quality of interaction with health care providers: Women in many cultures are reluctant to use health services because they perceive health care providers to be rude, patronising and insensitive to the context in which they live. Interactions with providers can be threatening and humiliating, and women often feel pressured to make choices that conflict with their own health and fertility goals.<sup>1</sup>

Empowering women means enabling them to overcome these barriers and to make fully informed choices, particularly in the areas affecting the most intimate aspect of their lives – their reproductive health. Empowerment is critical to securing safe motherhood because it enables women to:

- articulate their health needs and concerns;
- access services with confidence and without delay;
- seek accountability from service providers and programme managers, and from governments for their policies;
- act to reduce gender bias in families, communities and markets; and
- participate more fully in social and economic development.

Empowering women in the area of health requires more than health-related interventions; it requires social, economic, and cultural conditions in which freedom and responsibility are given concrete meaning. Women must have the means – both physical and psychological – to overcome the barriers to safe motherhood. Central to all empowerment is choice, and far too many women still have far too few choices.



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### What Can Be Done1

In order to address the constraints on women, multiple actions will be needed in the private and public spheres to ensure women's empowerment:

- Women must have greater freedom to determine their own health and life choices within families and communities; they must have opportunities to learn about their rights and their health, to question the acceptability of unfair practices and to develop a feeling of entitlement to medical care and other services.
- Women must have access to accurate information about their reproductive health as well as to high quality, women-centred care.
- Women must have expanded access to education and economic opportunities, and control over economic and other resources.
- Adolescent girls must be offered the opportunity to develop life skills, including self-esteem, so that they can act to protect their own health.
- Men must be sensitised to their role in expanding choices for women within households and communities, and in ensuring responsible sexual and family life.
- Women must be supported by policies and laws that promote and ensure safe motherhood, good quality maternal care and gender equality; correspondingly, governments must engage women in planning, implementing, monitoring and evaluating health programs for women.
- Training of providers must stress the importance of preserving women's dignity; encouraging informed choices; recognising the realities of women's lives; and providing sensitive counselling to uncover and treat the conditions that women are accustomed to endure.

Reducing inequalities in social and economic policies, and protecting and promoting women's rights, choices and autonomy are core public activities. They are also critical to reducing maternal deaths and ill-health, achieving the goals of the Safe Motherhood Initiative ten years on, and bringing about sustainable, equitable development for all the world's women and men.

## Advance Safe Motherhood Through Human Rights<sup>3</sup>

Preventing maternal deaths and illness is an issue of social justice and women's human rights. Redefining maternal mortality from a "health disadvantage" to a "social injustice" provides the legal and political basis for governments to ensure maternal health care for all women — care that will save their lives. The challenge in applying human rights to advance safe motherhood is to characterise women's multiple disempowerments — during pregnancy as well as from birth — as injustices that governments are obligated to remedy through political, health and legal systems.

The protection and promotion of the human rights of women can help ensure that all women have the right to:

- make decisions about their own health, free from coercion or violence, and based on full information; and
- have access to quality services and information before, during and after pregnancy and childbirth.

Existing national constitutions and international human rights treaties offer under-utilised opportunities to advance safe mother-hood. Relevant international treaties include:

- Convention on the Elimination of All Forms of Discrimination Against Women (the Women's Convention);
- International Covenant on Civil and Political Rights;
- International Covenant on Economic, Social and Cultural Rights;
- Convention on the Rights of the Child;
- European Convention on Human Rights;
- American Convention on Human Rights; and
- African Charter on Human and Peoples' Rights.

Each of these treaties has a monitoring body that develops performance standards for signatory countries, and monitors their compliance with these standards. Countries are to report regularly to the relevant monitoring bodies on what they have done to ensure the full development and advancement of the rights enshrined in the human rights treaties they have ratified. The Women's Convention, which has been ratified by more than 160 countries and is being used to advance safe motherhood, is monitored by the Committee on the Elimination of Discrimination Against Women (CEDAW).

### The Challenge<sup>3</sup>

Efforts to advance safe motherhood through human rights must build on the existing framework of human rights recognised in most national constitutions and international human rights treaties. These rights include:

- rights relating to life, liberty and the security of the person, which
  require governments to ensure access to appropriate health care
  during pregnancy and childbirth (women's right to life), and to
  ensure women's rights to decide if, when and how often to bear
  children (right to liberty and security of the person);
- rights relating to the foundation of families and of family life, which
  require governments to provide access to health care and other
  services women need to establish families and to survive to enjoy life within the family;
- rights relating to health care and the benefits of scientific progress, including to health information and education, which require governments to provide reproductive and sexual health services and information for women; and
- rights relating to equality and nondiscrimination on grounds such as sex, marital status, race, age and class, which require governments to provide access to services such as education and health care for women and girls – especially for women or girls of a particular marital status, age, minority group or socio-economic status.

### What Can Be Done<sup>2</sup>

Much has been achieved in the past ten years to develop standards of human rights that support and protect women's reproductive health needs. For example, the Programme of Action of the International Conference on Population and Development (1994) states that governments must work to reduce by half the number of maternal deaths by the year 2000, and then reduce maternal deaths by another half by 2015.

Three critical actions needed now are:

- reforming laws that contribute to maternal mortality (e.g., laws that require women seeking health services to obtain the authorisation of their husbands, and laws that inhibit access to safe reproductive health services);
- implementing laws that protect women's health interests (e.g., laws that prohibit child marriages, female genital mutilation and rape and sexual abuse); and
- applying human rights in national constitutions and international conventions to advance safe motherhood (e.g., by requiring states to take effective preventive and curative measures to reduce mortality and to treat women with respect and dignity).

The ICPD Programme of Action in itself was non-binding; however, in 1995, CEDAW agreed to use the Programme of Action in developing performance standards for the Women's Convention. Therefore, signatories to the Women's Convention are obligated to uphold and advance the ICPD commitments, including the right of women and men to decide if, when and how often to reproduce, and to have access to appropriate health services that enable women to enjoy safe pregnancy and childbirth.

States have a legal obligation to account for their practices regarding human rights by reporting to human rights treaty bodies. Where states do not take all appropriate measures to bring laws, policies and practices into compliance with the human rights of women, they have been and can continue to be held accountable by constitutional courts and treaty monitoring bodies for denying women their human rights, which are necessary for their dignity and empowerment.

#### Sources:

- S.J. Jejeebhoy, "Empower Women, Ensure Choices: Key to Enhancing Reproductive Health". Presentation at Safe Motherhood Technical Consultation in Sri Lanka, 18-23 October 1997.
- R.J. Cook, "Advancing Safe Motherhood Through Human Rights". Presentation at Safe Motherhood Technical Consultation in Sri Lanka, 18-23 October 1997.



### **Delay Childbearing**

Pregnancy and childbearing during adolescence — defined by the World Health Organization as the period of life between 10 and 19 years of age — carry considerable risks. Girls aged 15-19 are twice as likely to die from childbirth as women in their twenties; those under age 15 are five times as likely.¹ In view of the risks associated with early childbearing, adolescent fertility rates are alarmingly high in many countries; in fact, about 11% of all births each year — a total of 15 million births annually — are to adolescents.² As a direct consequence of the frequency of early pregnancies, pregnancy-related complications are the main cause of death for 15-19 year old girls worldwide.³

First birth can be delayed by postponing the onset of sexual activity and by using effective methods of fertility regulation. Efforts need to focus on changing individual and societal motivations for early childbearing. Education and employment opportunities play a critical role as alternatives to early motherhood. However, for those adolescent women who do give birth, every effort is required to make motherhood safe for these young women through improved availability, effectiveness and accessibility of services. As was agreed upon at the 1994 International Conference on Population and Development in Cairo, adolescents' sexual and reproductive health needs should be met through appropriate programmes which provide information, counselling and health services. These programmes should address unwanted pregnancy, unsafe abortion, sexually transmitted diseases and HIV/AIDS, gender relations, sexual violence and abuse and female genital mutilation. They also must meet adolescents' needs for information about sexuality, reproduction and contraception.

### Adolescent Sexual and Reproductive Behaviour

Although there is great diversity both between and within geographic regions, most women and men - married and unmarried - become sexually active during adolescence. Whereas in the past, sexual activity was generally associated with early marriage, rising age at marriage and falling age at menarche mean that many more young people now become sexually active before marriage. Surveys in seven sub-Saharan African countries showed that more than half the women aged 15-19 are, or have been, sexually active. A study in Uganda, for example, showed that the mean age of first sexual intercourse for women was 15.5.4 Studies indicate that unmarried women in some parts of Asia and Latin America begin sexual activity later than their counterparts in sub-Saharan Africa; in Singapore, for example, fewer than half of young women report having sex before age 25.5 In Sri Lanka, less than one third of women report having sex by age 20.5 In contrast, 48% of women in Bangladesh are married and sexually active by age 19.4

When sexual activity begins, most adolescents lack accurate knowledge about reproduction and

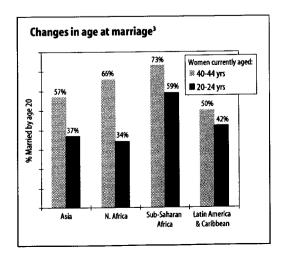
sexuality, and lack access to reproductive health services, including contraception. A Kenyan study found that while 66% of unmarried youth aged 12-19 said they have received some information on reproductive health, fewer than eight percent could correctly identify the fertile period in a woman's menstrual cycle. A recent compilation of reviews of national adolescent reproductive health programmes in nine countries in Latin America, Africa and Asia revealed that restrictive laws forbid



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the provision of reproductive health services to people below a certain age or to unmarried women in many countries, and that even where there are no legal requirements to do so, judgemental health workers withhold these services to adolescents in other countries. <sup>20</sup> Additionally, adolescents often lack the power, confidence and decision-making skills to refuse unwanted sex. Interviews with adolescents in Peru and Colombia revealed that 60% had been sexually abused within the previous year. Similarly, studies in Botswana and Kenya showed that many adolescent women's first sexual experience was forced or coerced.<sup>7</sup>

### **Early Childbearing**

Early childbearing is linked to the age at which women are married, their education levels and cultural norms related to women's social status and roles. The highest levels of adolescent childbearing worldwide occur in sub-Saharan Africa, where more than half of women aged 20-24 have given birth before age 20, and in Latin America and the Caribbean, where about one third of women have given birth before age 20.5

Although not all childbearing occurs within marriage, age at marriage is closely linked to first birth due to cultural norms and expectations, and due to the fact that contraception is less commonly used to delay first births than it is to delay later births. Where women marry later, they have more time to complete their education, learn about reproduction and contraceptive methods and develop marketable skills. Moreover, delayed marriage and first birth means fewer years spent in childbearing, and is often linked to lower total fertility.<sup>8</sup>

Education levels strongly influence adolescent childbearing. More than two-thirds of women with no education in the Dominican Republic, Ecuador, Mexico and most African countries give birth before age 20. Women with some secondary schooling, however, are less likely to give birth during adolescence. Research in Nigeria showed that only 7% of women with seven years of schooling gave birth before age 20, compared to 43% of women with no education. Similarly, in Pakistan, only 16% of women with seven years of education gave birth before age 20, compared to 54% of women with no education.

Young girls in traditional societies are often bound by cultural norms that equate marriage and motherhood with female status and worth. Even the youngest brides often face enormous pressure to prove their fecundity soon after marriage through the birth of a child.<sup>10</sup> In other cases, cultural traditions encourage young women to prove their fertility before marriage.<sup>4</sup>

## Health Risks of Adolescent Sexual Activity and Childbearing

Due to physiological and social factors, adolescent women are more vulnerable than older women to pregnancy-related complications; sexually transmitted diseases, including HIV/AIDS; and unsafe abortion. <sup>11</sup> Sexually active adolescent women experience higher levels of reproductive mortality and morbidity than women in their 20's and early 30's. <sup>4</sup>

**Pregnancy-related and obstetric complications**: Although most adolescent women are physiologically mature enough to become pregnant, their bodies are often not sufficiently devel-

oped to carry a pregnancy to term safely. They are at particular risk for pre-eclampsia and obstructed labour due to cephalopelvic disproportion. Skeletal growth in women is not complete until the age of 18 and the birth canal is not mature until approximately 20 to 21 years of age – although these ages vary substantially with nutritional levels among individuals and between populations.<sup>5</sup>

Physical immaturity increases the risk of obstructed labour, which can result in maternal death, as well as devastating complications such as obstetric fistulae\*. Fistulae are holes from the vagina into the bladder or rectum allowing continuous leakage of urine and or faeces, making the woman permanently incontinent. Studies in Africa and Asia indicate that adolescents are much more likely than older women to suffer obstetric fistulae. In Niger, for example, 80% of fistula cases were women aged 15-19.4

**Maternal mortality**: There is little reliable information on differentials in maternal mortality by age of the woman. However, one study from Matlab in Bangladesh showed that the level of maternal mortality among adolescent women was nearly double that of women aged 20-34.5 Other studies suggest that the risk of dying during pregnancy or delivery is 20 to 200% greater for women aged 15-19 than it is for women aged 20-34.4

**Infant and child mortality**: Children born to adolescent mothers often experience higher risks of death during the first five years of life. A recent comparative study using Demographic and Health Surveys data from 20 countries showed that the risk of death by age five was 28% higher for children born to adolescent mothers than for those born to women aged 20-29.<sup>12</sup>

**Sexually transmitted diseases (STDs)**: Adolescents in general lack knowledge about STDs and their prevention. They face substantial barriers to sexual and reproductive health services, including contraception, that could help them reduce their exposure to STDs and unwanted pregnancy. They also lack skills to negotiate no sex or safe sex. When an adolescent girl's sexual partner is older, which is often the case, there may be an even greater imbalance of power in the relationship that further reduces her ability to negotiate safe sexual activity.

Not only are adolescent women at greater risk for unprotected sex than older women, they are physiologically more susceptible to STDs. The cervix and vagina of an adolescent woman is different from that of an older woman, and makes her more vulnerable to contracting an STD, when exposed. Increased likelihood of tearing of the vagina during sex further augments this risk. Many adolescent women do not recognise the symptoms of an STD or do not know where to seek treatment. If left untreated, STDs can lead to pelvic inflammatory disease, ectopic pregnancy and infertility, and if present during pregnancy, can lead to health problems for children.<sup>11</sup>

**Violence/sexual abuse**: Data indicate that adolescent girls are particularly susceptible to sexual abuse and rape. A study conducted in Kingston, Jamaica found that 17% of 452 randomly selected primary school girls between the ages of 13 and 14 reported having experienced an attempted or actual rape. A national study in Kenya surveyed 10,000 secondary school girls aged 12 to 24 and found that about 40% of those who were sexually active said they had been "tricked or forced" into having sex.

**Unsafe abortion**: Each year young women aged 15-19 account for at least five million induced abortions – many of which are unsafe. Adolescent girls often delay seeking an abortion and typically face significant difficulties in locating and paying for competent providers. They may also postpone seeking treatment

<sup>\*</sup> Fistulae are holes that form in the vaginal wall, communicating into the bladder and/or rectum, allowing continuous leakage and making the woman permanently incontinent.

for complications, especially in countries where abortion is illegal.<sup>4,9</sup>

As a result, in many countries, adolescents account for a significant – and disproportionate – share of women suffering from the complications of unsafe abortion. Studies from Malawi, Uganda and Zambia show that adolescents make up 24% to 37% of all hospital patients receiving treatment for abortion related complications. Studies of urban hospitals in Kenya and Nigeria report that 50% or more of patients with more serious abortion complications (such as sepsis) are adolescents.<sup>9</sup>

## Social and Economic Risks of Early Childbearing

While the health consequences of adolescent childbearing in developing countries are relatively well known, there is much less information on the economic and social consequences. Despite the lack of data, the following premises are generally accepted:

- Early pregnancy and childbearing limit educational opportunity and achievement. Young women are often expelled from school if they become pregnant, and few ever return. A national study in Botswana showed that one in seven women who dropped out of school did so because of pregnancy and only one in five pregnant dropouts returned to school.<sup>14</sup> In Kenya, 10,000 girls leave school each year due to pregnancy.<sup>7</sup>
- Early pregnancy compromises a woman's ability to support herself and her children financially. The responsibility of caring for a young child, as well as lack of education, can limit a woman's access to income-earning opportunities.
- A young woman's opportunities are severely constrained when she becomes a mother and as such her quality of life is threatened. Limited access to education and income-earning opportunities, in conjunction with traditional societal norms, serve to perpetuate the devaluation of girls and women. A young woman's ability to negotiate and safeguard her own needs and those of her children, both within a relationship and within society at large, may be jeopardised.

### What Can Be Done

Policies and programmes to reduce levels of adolescent marriage and childbearing need to address the underlying social, cultural and economic factors that contribute to these patterns. To date, programmes have focused primarily on the health consequences of adolescent sexuality and reproduction and have targeted problems such as lack of knowledge about reproduction and contraception, and – to a lesser extent – access to services.

Programmes need to extend their focus to address longer term variables including the social status of girls in comparison to male peers, physical autonomy, schooling, skill-building opportunities and development of self-esteem, and access to income and other resources. It is only through expanded opportunities and the development of social and marketable skills that young women will be able to make full use of their potential in a variety of roles.

### Policies and programmes need to encourage family and community support for delayed marriage and childbearing.

Mass media campaigns and other efforts that address the importance of investing in girls' education and health must be strengthened. These efforts need to target issues such as early marriage and childbearing, as well as heavy domestic responsibilities, which limit opportunities for young girls.

- Governments may wish to consider providing support and/or incentives to families and communities in making progress toward these goals.
- A key message articulated in the Birth Spacing Project in Oman was that young women endanger their own health and that of their children when they become pregnant before age 18. The health benefits of spacing pregnancies were also discussed.<sup>15</sup>

### Policies and programmes need to expand girls' access to higher quality education and training.

- Educational and training opportunities should be expanded for young women and adapted to reflect their physical and social needs. Initiatives need to be tailored to the communities they intend to serve, and may involve separate (but equal) classes for boys and girls, creating educational alternatives for pregnant girls and adolescent mothers, and developing gender-sensitive curricula.
- ◆ A successful government project begun in Bangladesh in 1994 aims to increase female enrolment in secondary school and delay marriage. Young girls who complete primary school and maintain a certain grade standard are eligible for a scholarship if their families sign a bond stating that they will not be married until 18 years of age. Study results showed an increase in the number of girls attending secondary school; they also indicated that significantly more girls completed primary school as well.¹6

### Policies and programmes need to expand income-earning opportunities for adolescent girls and women.

- Expanding income-earning opportunities for adolescent girls and women will improve their ability to provide for their own needs as well as that of their families, and will empower them to contribute more equally in household, community, and possibly national level decision making.
- A study of the garment manufacturing industry in Bangladesh suggests that providing opportunities for young women to work for income outside of the home can lead to significant social change. In 1996, almost one million women worked in Bangladesh's garment sector; 70% of these women were between 15 and 19 years of age. Study results show that garment workers marry later than women of similar social class who do not work and that many workers are able to save a substantial amount of money by the time they do marry. 16

### Policies and programmes must enable adolescent girls and boys to take responsibility for and protect their sexual and reproductive health.

- Legal, regulatory and socio-economic barriers to sexual and reproductive health information and services for adolescents must be removed. Sex education, or family life education, has been shown to result in higher levels of abstinence, later initiation of sexual activity, greater use of contraception and fewer sexual partners. Of Governments should adopt national strategies to ensure that all young people are accurately informed about sexuality and reproductive health.
- All young people married and unmarried should have access to sensitive, respectful and confidential reproductive health counselling and services. These services should emphasise the prevention of unwanted pregnancy, unsafe abortion and STDs. Programmes also need to help equip young people with life skills that enable them to make informed decisions about sexuality and to negotiate abstinence or safer sex. Research and programme planning should focus on the roles and

- responsibilities of men in the prevention of early and unwanted pregnancy.
- Services should be designed specifically to meet the needs of adolescents, which may vary according to age; sex; marital status; level of sexual activity; religion; ethnicity; culture; school status; geographic location; socio-economic status; and vulnerability to sexual coercion or abuse.
- To identify and address obstacles to adolescents' use of services and appropriate steps for making services more "youth-friendly", young people should be involved in the planning, implementation and evaluation of health programmes.
- ▶ The Mexican Family Planning Foundation established a programme called "GENTE JOVEN" in 1986 to bring information on family planning and sexuality to young people in poor urban areas. It has been successful in promoting informed decision-making by addressing the emotional, social, biological, and clinical issues of sexuality. Video and radio are used to explore gender and sexuality issues, and build negotiating skills.¹¹
- ▶ In 1991, the YMCA in Accra, Ghana developed a "Better Life Options for Girls and Women" programme, which seeks to empower adolescent girls and boys to make informed decisions regarding their fertility, health, education, employment, and civic participation and to enable girls to delay pregnancy. <sup>18</sup> The family life education curriculum covers a range of health issues, including contraceptive use, gender relations, and negotiating skills. A nurse provides confidential individual counselling and medical services and is able to make referrals when necessary. As a range of services are provided at the centre, young people visit without fear of stigmatization. <sup>18</sup>
- ◆ The Youth Information Centre Pilot Project in South Africa provides reproductive health services exclusively for adolescents. Services are designed to help them make informed choices about sexual values and interpersonal relationships, and reduce their risk of unwanted pregnancy, STDs and HIV/AIDS. Staff at the centres are young, friendly, and casually dressed, and the facilities have many posters, music, videos, private counselling rooms, and space for young people to socialize.<sup>19</sup>

- United Nations, "The World's Women: Trends and Statistics 1970-90". New York, 1991.
- The Alan Guttmacher Institute, "Issues in Brief: Risks and Realities of Early Childbearing Worldwide". New York, 1997.

- "Too Old for Toys, Too Young for Motherhood". UNICEF, New York, 1994
- J. Senderowitz, "Adolescent Health: Reassessing the Passage to Adult-hood", World Bank Discussion Papers #272. The World Bank, Washington, D.C., 1995.
- J. Hobcraft, notes prepared for the Safe Motherhood Technical Consultation in Sri Lanka, 18-23 October 1997.
- A.A. Ajayi, et al., "Adolescent Sexuality and Fertility in Kenya: A Survey of Knowledge, Perceptions and Practice". Studies in Family Planning 22(4) 205-16, 1991.
- 7. "Adolescent Reproductive Health", Network, 17(3) Spring, 1997.
- T.M. McDevitt, et al. "Trends in Adolescent Fertility and Contraceptive Use in the Developing World". U.S. Department of Commerce, Washington, D.C. 1996.
- S. Singh, "Adolescent Childbearing and pregnancy in Developing Countries: A Global Review". Workshop on Adolescent Reproduction in Developing Countries: Adolescent childbearing and pregnancy in developing countries, Alan Guttmacher Institute, New York, 1997.
- 10. N. Sadik, State of the World's Population. UNFPA, New York, 1997.
- 11. WHO "Adolescent health investing in the future," Safe Motherhood Newsletter, Issue 22 (3), 1996.
- G. Bicego et. al., "Infant and Child Mortality," DHS Comparative Studies, No. 20. Macro International, Calverton, MD, 1996.
- 13. Population Council, Conference on "Take Back Young Lives," held at The World Bank, Washington, D.C., 1996.
- A. Tinker, et al., Women's Health and Nutrition: Making a Difference, World Bank Discussion Paper 256. The World Bank, Washington, D.C., 1994.
- "Reaching Young People Worldwide: Lessons Learned from Communications Projects, 1986-1995". Working Paper No.2, Johns Hopkins School of Public Health, Center for Communications Programs, Baltimore, 1995.
- S. Amin, presentation at Safe Motherhood Technical Consultation, Sri Lanka, 18-23 October 1997.
- "Development in Practice: A New Agenda for Women's Health and Nutrition". The World Bank, Washington D.C., 1994.
- Population Council, "Innovative Programmatic Approaches Toward Working With Adolescent Girls", compiled by The Population Council for "Take Back Young Lives" Conference. The World Bank, Washington, D.C., 1996.
- R. Trangsrud, "Adolescent Sexual and Reproductive Health in Eastern and Southern Africa: Building Experience." paper prepared for USAID/ REDSO. May, 1997.
- Thematic evaluation of adolescent reproductive health. Evaluation report number 13. UNFPA, New York, 1997.



### **Every Pregnancy Faces Risk**

Every year there are an estimated 200 million pregnancies in the world. Each one of these faces the chance of an adverse outcome for the mother and for the baby. While risks cannot be totally eliminated once pregnancy has begun, they can be reduced through effective, affordable, accessible and acceptable maternity care.

In theory, risk assessment is a logical tool for rationalising service delivery to ensure that those "in greatest need" receive special attention and care. In fact, however, it is becoming increasingly clear that a formal risk approach is problematic and may divert scarce resources away from the majority of women with poor pregnancy outcomes. In the absence of additional data demonstrating the effectiveness of risk screening, therefore, risk assessment should not be relied on as the basis for matching needs and care in maternity services.

### **Defining Maternal Risk**

Maternal risk is defined as the probability of dying or experiencing serious injury as the result of pregnancy or childbirth. All pregnant women, by virtue of their pregnant status, face some level of maternal risk. Data suggest that around 40% of all pregnant women have some complication. About 15% of pregnant women need obstetric care to manage complications which are potentially lifethreatening to mother or infant. Such complications are often sudden in onset and unpredictable.

Although some sub-populations of pregnant women may experience a higher level of maternal risk than others, it is almost impossible to predict, on an individual basis, who will develop a life-threatening complication. It is therefore critical that all pregnant, labouring and recently delivered women have access to high quality essential obstetric services if and when the need arises.

### Re-assessing Risk Assessment

Risk assessment tools usually involve using a list of risk factors and some form of scoring system to separate women into risk categories – typically "high risk" and "low risk" – using cut-off points or thresholds.<sup>3</sup> Risk screening is usually conducted during antenatal care, and involves detecting early symptoms and predicting the likelihood of complications. The intention of risk assessment is to predict problems before they occur and so to take action.

A review conducted in 1992 for WHO's Maternal Health and Safe Motherhood Research Program found that the risk approach is not effective in ensuring the rational use of maternal health services or in preventing maternal deaths. The reasons for this include:

Many risk assessment systems rely on socio-demographic or physical characteristics such as education, age, parity and height, to classify women as "high" or "low" risk. However, these characteristics are not necessarily indicative of obstetric complications. In addition, depending on how the parameters are defined (e.g., age under 18, parity 4+), they can result in a large proportion of pregnant women being identified as high risk.

In fact, however, a large proportion of these women never develop complications (false positives), and a substantial proportion of the women who do develop complications are initially judged to be "low risk" (false negatives). In other words, the sensitivity, specificity, and positive predictive value of risk assessments using such characteristics are poor. 1,5,6 Under- and over-diagnosing women "at risk" has serious implications both for women, who may not receive the services they need, and for health systems, which may spend scarce resources on unnecessary interventions. 3

· For risk assessment systems to be effective, individual risk factors need to be closely linked to and predictive of the outcomes of interest - in this case, maternal deaths and serious morbidity. Some risk factors are more closely linked to these outcomes, such as poor obstetric history (e.g. a history of obstructed labour) and conditions such as vaginal bleeding or malpresentation. However, these risk factors may not be relevant for all women, or may occur so close in time to the outcome of interest that there may not be an opportunity for effective intervention. Risk categories thus are more often based on clinical intuition than scientific study. Weights or scores assigned to individual factors for calculating risk levels are similarly unscientific.1,7



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- A key assumption of risk assessment strategies is that a specified risk (in this case, maternal risk) can actually be defined, and that individuals can be clearly separated into either high or low risk categories. Maternal risk, however, is not constant; a woman can move from low to high risk or vice versa throughout her pregnancy and the puerperium. She may also face different levels of risks with different pregnancies. Furthermore, it is not at all clear where along the risk continuum a low risk pregnancy becomes high risk.<sup>1,3</sup>
- Even if risk screening were an effective tool to identify women who are likely to develop complications, many health systems would not be able to provide appropriate care, either because services and referral mechanisms are inadequate or because women themselves are unable to take appropriate action. Women are not passive recipients of risk labelling; their decisions not only take into account the advice of health care workers, but may also reflect financial difficulties, time constraints or their need to obtain permission from other family members.
- The costs of inefficient risk assessment can be considerable. For women and their families, there are costs related to overdiagnosis (false positives), including direct costs of unnecessary treatment, opportunity costs for time spent seeking unnecessary services and the psychological burden of being labelled "high risk". The cost of missed diagnosis (false negatives) can be even more severe missed treatment which can result in death. There are also costs to the health system: time spent learning and applying the risk assessment tool and overloading services with false positives.

### The Role of Risk Assessment in Maternal Care

Certain sub-populations of pregnant women are at higher risk of obstetrical complications than others. However, as explained above, risk assessment systems are not able to identify accurately which women will experience negative outcomes, and as such are not likely to result in more effective or efficient service provision.<sup>1</sup>

Risk screening can even become a barrier to essential obstetric care for women experiencing complications. When a large proportion of "high risk" women do not develop complications and a substantial number of "low risk" women do, the credibility of the health worker is seriously compromised. As a result, referrals to appropriate medical care may be ignored. <sup>5,6</sup>

The health of low-risk women may also be compromised by such labelling. Women may be lulled into a false sense of security and fail to recognise or respond to complications when they do arise. Their health care providers may also miss early warning signs because of a general tendency to confuse low-risk with no-risk.<sup>5</sup>

### What Can Be Done

Rather than focusing on classifying women as "high" or "low" risk, antenatal care should include the following functions (in addition to standard preventive and curative care):

- Promoting and facilitating the entry of all women into the health care system by ensuring that services are provided as close as possible to where women live.
- Ensuring continuity of care through high quality, integrated reproductive health services.

- Improving women's overall well-being and reproductive health through the provision of prophylaxis (tetanus immunization, iron, etc.), as appropriate, as well as detection and treatment of existing pathologies (e.g. STDs) that contribute to poor reproductive health.
- Education of women and their families about the risk of obstetric complications faced by all pregnant and postpartum women, and about the appropriate action should early warning signs be identified.
- Early identification and appropriate management of obstetric complications during pregnancy, as well as appropriate care for women with special needs (adolescents, nullipara, etc).
- Prompt referral of women with obstetric complications during pregnancy to appropriate medical care, as well as effective motivation of women and their families to agree with these referrals, and assistance to help them comply.

In order to significantly reduce maternal mortality, all pregnant, labouring and recently delivered women must have access to essential obstetric care should complications arise.<sup>6</sup>

- At the household or village level, this means clean deliveries by personnel trained in midwifery; prompt recognition of complications and appropriate referrals; and community transportation schemes that enable women to reach services in a timely fashion, when (and if) the need arises.
- Health centres and maternity homes should offer clean delivery by skilled personnel; prompt recognition of complications and appropriate referrals; and should be able to stabilise a woman experiencing complications until she can be safely transferred to the next level of care.
- A functioning system of communication and transportation between all levels of the health system is essential for the appropriate referral and use of obstetric services.

Even with the best antenatal care, however, women will still die of obstetrical complications if appropriate services do not exist or if they are unable to access these services in a timely fashion.

- B. Winikoff, "Maternal Risk". Paper presented at Berzelius Symposium, Stockholm, Sweden, 1991.
- M.A. Koblinsky, et al., eds., The Health of Women: A Global Perspective. Westview Press, Oxford, 1993.
- W. Graham, "Every Pregnancy Faces Risk". Presentation at Safe Motherhood Technical Consultation in Sri Lanka, 18-23 October 1997.
- C. Rooney, "Antenatal care and maternal health: How Effective Is It? A review of the evidence" (WHO/MSM/92.4). World Health Organization, Geneva, 1992.
- E.A.Yuster, "Rethinking the role of the risk approach and antenatal care in maternal mortality reduction". International Journal of Gynaecology and Obstetrics 50(2), 1995.
- J.E. Rhodes, "Removing Risk from Safe Motherhood". International Journal of Gynaecology & Obstetrics 50(2), 1995.
- "Guidelines for Monitoring the Availability and Use of Obstetric Services". UNICEF/WHO/UNFPA, 1997.



## **Ensure Skilled Attendance At Delivery**

Many women and newborns develop complications during or immediately after delivery that are difficult to predict, and which require a skilled attendant to manage appropriately. Skilled attendants are trained to manage uncomplicated deliveries safely, recognise complications, treat those they can and refer women to health centres or hospitals if more advanced care is needed. In 1996, only 53% of deliveries in developing countries took place with a skilled attendant present. Many countries and most rural areas have a serious shortage of skilled birth attendants, particularly midwives. Studies suggest that having skilled attendants present at delivery is one of the key interventions for reducing maternal and perinatal mortality. In order to provide skilled attendants at all births, targeted programmes of training, supervision and deployment are needed.

### What Is a Skilled Birth Attendant?

Skilled birth attendants are defined by the World Health Organisation as trained midwives, nurses, nurse/midwives or doctors who have completed a set course of study and are registered or legally licensed to practice.<sup>2</sup> Traditional birth attendants, including those who have been trained, are not defined by the World Health Organization as skilled attendants (see box).

The most appropriate person to care for pregnant women is someone with midwifery skills who lives close to the community. People trained in midwifery are qualified to provide preventive care to pregnant women, detect abnormal conditions in mothers and infants, assist women through labour and delivery and prescribe essential drugs. When delivery complications arise, those providing midwifery care — especially at the community level — need to be able to carry out emergency measures if medical help is absent, and get medical assistance or refer women to an appropriate health facility.<sup>2</sup>

Health workers with midwifery skills can also offer social and psychological support to delivering and new mothers; education on pregnancy, delivery and infant care to families and communities; and leadership in administration, management, and research.<sup>3</sup>

## Still Too Common: Unassisted Births

In developing countries, 60 million deliveries take place each year in which the woman is attended only by a TBA, a family member – or no one. In the developed world, skilled attendance at delivery is nearly universal.

Vast disparities exist within regions. In Southern Africa, almost 80% of women have a skilled attendant at delivery; in the rest of Africa, the rate is

### Traditional Birth Attendants

Traditional birth attendants (TBAs) have a role in supporting women during labour, but generally are not trained to deal with complications. Because most "trained TBAs" have had one month or less of training, they are not defined as skilled attendants. Studies in Africa and Asia have found that training TBAs in the absence of skilled back-up support did not decrease women's risks of dying in childbirth.

However, TBAs can contribute to reducing newborn deaths and disabilities, and play an important role in providing assistance to women during delivery. TBAs can offer pregnant women much-needed moral and emotional support. Many women turn to TBAs because doctors and midwives are not available or cost too much, or because TBAs are neighbours or friends who know local customs and respect women's needs. <sup>6</sup>

It is generally agreed that where the use of TBAs is strongly rooted in local customs, it is beneficial to:

- train TBAs to avoid harmful practices during delivery, recognise danger signals and refer complicated cases to higher-level care;
- establish or strengthen linkages between TBAs and the formal maternal health care system; and
- ensure that health centres and hospitals will accept referrals from TBAs.

Still, TBAs are not substitutes for skilled attendants. Long-term investments must be made to develop enough skilled birth attendants, primarily midwives, to meet women's needs.<sup>7</sup>

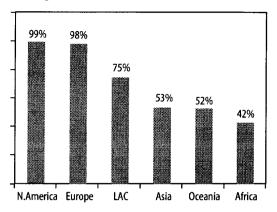


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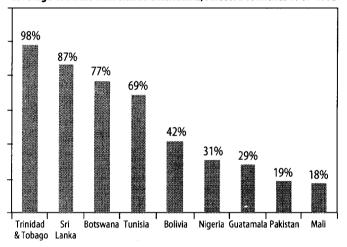
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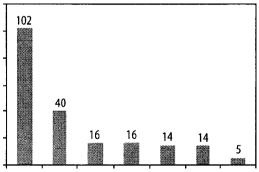
### Coverage of Births with skilled attendants, 1996<sup>1</sup>



#### Coverage of births with skilled attendants, selected countries 1987-19936



### Number of midwives per 100 000 births, selected countries<sup>6</sup>



Dom. India Indonesia Haiti Ghana Nepal Kenya Republic

closer to 40%. In South-Central Asia, only 34% of women deliver with the assistance of a skilled attendant, compared with almost 70% in Western Asia and almost 90% in Eastern Asia.<sup>1</sup>

## Skilled Attendants: Not Enough to Meet Needs, and not in the Right Places

Doctors play an important role in maternal health care, as clinicians, trainers and managers. However, in most countries they cannot be and need not be the sole providers of care for obstetric emergencies, since their numbers are small, demand for their services high and most live and work in urban areas.

Chronic shortages of personnel with midwifery skills persist throughout the developing world, and are most acute in rural areas. In parts of Asia and Africa, there may be only 1 midwife for every 300,000 people, which translates into 1 midwife for every 15,000 births.<sup>3</sup>

Most midwives work in hospitals, and therefore most live and practice in urban areas in or near national and regional capitals. In Kenya, for example, 56% of all health workers, including nurse/midwives, are based in urban areas, with 25% located in Nairobi alone. In Uganda, only 30% of health units in rural areas offer delivery services, and an additional 7,000 professional level staff would be required to meet recommended staff-patient ratios in these facilities. In these facilities.

### **Training and Supervision Are Inadequate**

Curricula currently used to teach midwifery skills – both for midwives and physicians – are often out of date and do not reflect new techniques and research. Many curricula are adapted from developed country models, and therefore do not reflect the reality of working conditions in developing countries – the resources they have (or lack), and the complications they face. Such curricula are often neither community- nor practice-based.

Systems for supervising health care workers and providing refresher training in family planing and maternal health are often inadequate.<sup>3</sup> In Uganda, a study found that only 28% of midwives had participated in any refresher courses at the time of the study.<sup>10</sup>

Few health workers, including midwives as well as physicians, receive training in the skills needed to treat (and save the lives of) the newborn, and women who suffer obstetric emergencies. Examples of these skills, called life-saving or expanded midwifery skills, include: prevention and treatment of haemorrhage; vacuum extraction; prevention and management of shock; prevention and management of sepsis; prevention and management of eclampsia; monitoring the progress of labour; resuscitation of the newborn; management of the complications of abortion and postabortion care. Training programmes should include different components of these skills in both pre-service and in-service training, depending on local needs and regulations. The active support and involvement of various professional groups, including obstetricians, are crucial to successful training in these skills and to the ongoing availability of life-saving obstetric care.<sup>11</sup>

In addition to clinical and epidemiological skills, staff working in midwifery need training in traditional belief systems, counselling, communication, and community organising, which many do not have.<sup>3</sup> Physicians, especially those working at the district level are often responsible for clinical service as well as training, supervision and management; but few are adequately prepared for these roles during pre-service training.<sup>11</sup>

### What Can Be Done

### At the policy level:

 Governments need to promote the training of more personnel with midwifery skills, and launch comprehensive training programmes if such programmes do not already exist. Existing programmes may need to be upgraded in alliance with midwives – in order to better meet women's needs.<sup>10</sup>

- Policy-makers, physicians, midwives, nurses and community representatives should work together to agree on what interventions midwives, nurses and community physicians are authorised to carry out, and to create a supportive environment that enables health care workers to provide at least some components of essential obstetric care.<sup>10</sup>
- ▶ In Lesotho, development of national midwifery protocols was completed by midwives working with obstetricians.<sup>10</sup>
- In Ghana, midwives trained in life-saving skills now provide emergency obstetric care which had previously been provided only by doctors.<sup>12,13</sup>

Governments should review and amend legislation to promote the role of midwives, nurses and community physicians, especially in providing life-saving interventions and prescribing medication.<sup>10</sup>

### At the programme level:

More staff with midwifery skills must be trained to meet existing needs, and deployed in under-served regions, particularly poor and rural areas.  $^{10}$ 

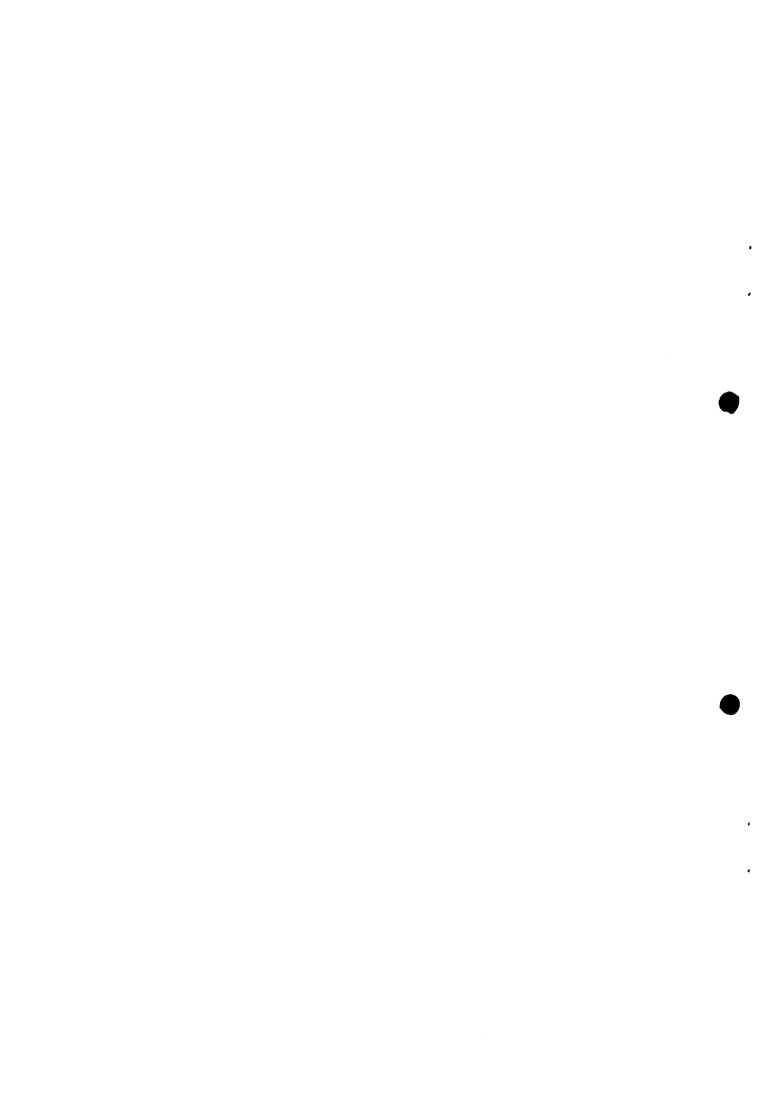
- ▶ In Zimbabwe, where over 30% of deliveries take place without a skilled attendant, the government has launched a national programme to increase the number of nurses trained in midwifery by 50%-60% in rural areas.<sup>5</sup>
- ▶ In Turkey, "health houses", the lowest level of the health care system, all include at least one midwife who serves a population of between 2,000 and 3,000.<sup>14</sup>

Standardised training in essential midwifery skills is vital in order to ensure greater access to quality care. Systems for supervising and supporting skilled birth attendants must be established, including improved emergency referral and treatment, and maintenance of standards and competence through audits and continuing education. Health personnel providing care during delivery in particular need to be able to manage life-threatening complications; both pre-service and in-service training programmes need to incorporate these skills through practical, competency-based training.

Written protocols that clearly define steps for routine management and the management of complications are invaluable as a basis for training and supervision.<sup>3, 10</sup>

▶ In Ghana, the Ministry of Health has developed clinical management protocols for identifying and treating pregnancy-related complications at all levels of the health system. Designed for midwives, nurses, doctors and public health workers, the manual also sets standards for the provision of antenatal care, supervised delivery, postpartum care, family planning, and management of abortion complications. 12

- 1. "Coverage of Maternity Care: a Listing of Available Information" (Fourth edition). World Health Organization, Geneva, 1997.
- WHO/FIGO/International Confederation of Midwives, "Definition of the Midwife", 1992.
- "Midwifery Education: Action for Safe Motherhood, Report of a Collaborative Pre-Congress Workshop", October 1990. World Health Organization, Geneva, 1990.
- WHO/UNFPA/UNICEF, "Definition of Traditional Birth Attendant", joint statement, World Health Organization, Geneva, 1992.
- A. Tinker and M. Koblinsky, Making Motherhood Safe. World Bank, Washington, DC, 1993.
- J. Fortney, "Ensuring Skilled Attendance at Delivery", Family Health International, Research Triangle, NC, 1997.
- Support to Traditional Birth Attendants: Evaluation Report. UNFPA, New York, 1997.
- W. Graham, "A Review of Safe Motherhood: Ministry of Health, Kenya". Options Consultancy Services Limited, London, 1997.
- Uganda: Programme Review and Strategy Development Report. UNFPA, New York, 1994.
- "Strengthening Midwifery Within Safe Motherhood: Report of a Collaborative ICM/WHO/UNICEF pre-Congress Workshop" May 1996.
   World Health Organization, Geneva, 1997.
- Recommendations from the working group on "Life-Saving Skills: Content and Program Experience" and "Roles and Responsibilities of Physicians", Safe Motherhood Technical Consultation in Sri Lanka, 18-23 October 1997.
- "Clinical Management Protocol on Safe Motherhood," Ministry of Health, Accra, Ghana, September 1994.
- J.E. Taylor, "Ensuring Skilled Attendance at Delivery: the Roles and Responsibilities of Physicians". Presentation at Safe Motherhood Consultation in Sri Lanka, 18-23 October, 1997.
- 14. Turkey: Programme Review and Strategy Development Report. UNFPA, New York, 1995





# Improve Access to Maternal Health Services

Vast discrepancies continue to exist in access to maternal health care between the developed and developing world, and between richer and poorer women, urban and rural women, and educated and uneducated women. At least 35% of women in developing countries still receive no antenatal care, almost 50% give birth without a skilled attendant and 70% receive no postpartum care. In contrast, maternal health care is nearly universal in developed countries. A range of barriers limit women's access to care, including: distance, cost, multiple demands on women's time, poverty and lack of decision-making power. Ensuring that women have access to maternal health care, particularly at delivery and in case of complications, is essential to saving their lives.

## What Is Access to Care and Who Has It?

Access means that maternal health care is within reach of women who need it: they can get to it easily and are not deterred from using the services available, either because of cost or poor treatment by staff.

In developing countries, 65% of women make at least one antenatal visit and 53% give birth with a skilled attendant. But, only 30% make at least one postpartum care visit – with rates as low as 5%

Coverage of Maternity Care <sup>2</sup>					
Region	% of pregnant women who make at least one antenatal care visit	% of deliveries with a skilled attendant*			
Global	68	57			
Africa	63	42			
Asia	65	53			
LAC	73	75			
Europe	97	98			
N. America	95	99			

<sup>\*</sup>Doctor, nurse or midwife

When Maternal Deaths Occur <sup>1</sup>					
	Developing countries (%)	USA (%)			
During pregnancy	24	22			
During delivery	16	7			
After delivery	61	72			

in some regions. In developed countries, 97% of women make at least one antenatal visit; 99% deliver with a skilled attendant; and 90% make at least one postpartum care visit.<sup>2</sup>

The proportion of pregnant women who have care during delivery is universally lower than those who receive antenatal care. Yet it is during labour, delivery and the immediate postpartum period that complications are most likely to arise and that care is most needed. Almost half of all postpartum deaths take place within one day of delivery, and 70% within the first week. Poor, rural women in sub-Saharan Africa and South Asia are the least likely to receive antenatal, delivery or postpartum care.

### **Barriers to Care**

**Distance and lack of transport:** In most rural areas, one in three women lives more than five kilometres from the nearest health facility, and 80% of rural women live more than five kilometres from the nearest hospital. The scarcity of vehicles, especially in remote areas, and poor road conditions can make it extremely difficult for women to reach even relatively nearby facilities. Walking is the primary mode of transportation, even for women in labour.<sup>4</sup>

In rural Tanzania, 84% of women who gave birth at home intended to deliver at a health facility, but did not due to distance and the lack of transportation.<sup>5</sup>

In Malawi, a study found that 90% of women wanted to deliver in a health care facility, but only 25% of them did. The most important reason – given by 53% of the women – was that by the time they realised they were in labour, they did not have enough time to get to a health facility.6



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Cost: Fees reduce women's use of maternal health services and keep millions of women from having hospital-based deliveries, or from seeking care even when complications arise. Even when formal fees are low or non-existent, there may be "informal" or under-the-table fees, or other costs that pose significant barriers to women's use of services. These may include costs of transportation, drugs, and food or lodging for the woman or for family members who help care for her in the hospital.<sup>7</sup>

In Zaria, Nigeria a study found that the shift from free to fee-based services for obstetric care reduced admissions overall but significantly increased emergency cases. The number of maternal deaths rose correspondingly.8

The poorer women are, the more likely fees are to affect their use of health services. Studies in Côte d'Ivoire<sup>9</sup> and Peru<sup>10</sup> found that fees deter everyone from using

health services, but deter poor women most of all.

Interactions with providers: Many women describe providers in the formal health care system as unkind, rude, brusque, unsympathetic and uncaring. Where health workers are perceived to be hostile and unfriendly, many women rely instead on traditional healers or traditional birth attendants (TBAs) for antenatal, delivery and postpartum care. This can lead to fatal delays in seeking adequate care for pregnancy-related complications.

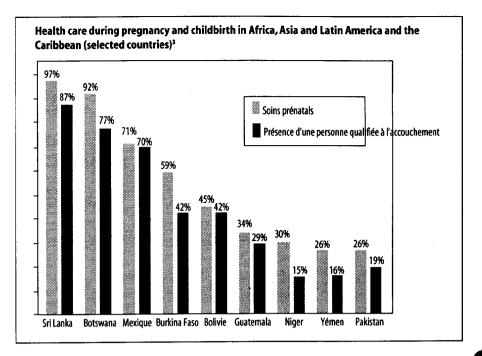
In Tanzania, a study found that 21% of women delivered at home because of the rudeness of health staff – even though they thought delivering in a health facility was safer.<sup>5</sup>

Formal health services can conflict with cultural norms surrounding childbirth, including preferences for privacy, modesty and female attendants. Among Saraguro Indians in Ecuador, hospital-based deliveries are perceived to violate privacy, many health providers are men, which is unacceptable culturally, and birth positions preferred by providers are not those preferred by women in labour. As a result, affordable and accessible maternal health services are under-utilized.<sup>12</sup>

In Sudan, a study found that many women were ashamed of being poorly dressed in front of health workers (who were generally of a higher socio-economic class), and were also afraid the health workers would react negatively to their illiteracy. These feelings deterred many women from using formal maternal health services.<sup>11</sup>

The gender dimension/socio-cultural factors: Women must balance the time they spend on their own health with their multiple responsibilities for care of children, collecting water or fuel, cooking, cleaning, growing food, and trade or other employment. In many parts of the world, women's decision-making power is extremely limited, particularly in matters of reproduction and sexuality. Decisions about maternal care are often made by mothers-in-law, husbands or other family members.

In Ghana, a study of women who died of pregnancy-related complications found that 64% of the women had sought help from an herbalist, soothsayer or other traditional provider before going to a health facility. Families cited cost and the belief that the



woman's condition would improve or that the woman was not ill enough to justify the cost involved, as the main reasons for not taking a woman to a hospital.<sup>14</sup>

In Nepal, mothers-in-law attend most deliveries, and additional care or help is sought only if the mother-in-law decides that such care is needed. One study found that 75% of mothers-in-law did not believe an antenatal check-up was necessary.<sup>15</sup>

A study in Zaria, Nigeria found that in almost all cases, a husband's permission is required for a woman to seek health services, including life-saving care. If a husband is away from home during a delivery, those present are often unwilling to take the woman for care – no matter how pressing the need appears to be.<sup>16</sup>

In Benin, the government put significant pressure on women to have institutional deliveries, including fines. Still, many women continued to deliver at home, due to the honour brought to families if they were seen as "stoic" during labour and childbirth. 18

### What Can Be Done

Governments, non-governmental organisations (NGOs) and funding agencies must recognise that maternal health is of critical importance to women, as well as to overall public health. Providing women with information about the risks of pregnancy and childbirth, and where and when to seek health care, is essential but is not sufficient to assure access to available maternal health care services. What is needed is to:

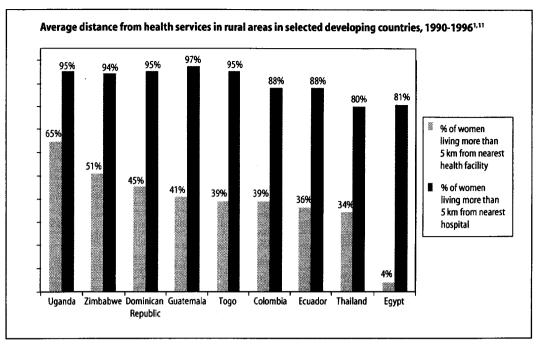
- expand the range and improve the quality of maternal health
- involve women and communities in the design and evaluation of services so that they respond to local needs;
- · create alternative locations to provide care;
- allow care to be given by a wider variety of providers; and
- engage communities in the effort to improve women's access to maternal care. Strategies to increase women's access to maternal health care are most effective when they are locallydeveloped and result from listening to women themselves.

## The barriers of distance and lack of transport can be reduced by:

- Assigning health workers trained in midwifery to the village health post level, backed up by a functioning referral system. Such a system has been instituted in Matlab, Bangladesh, <sup>18</sup> Sri Lanka and Cuba, where maternal mortality has declined.
- Upgrading local health facilities to provide additional services such as obstetric first aid. Providers must be trained, and need a regular supply of drugs and equipment.<sup>21</sup>
- Decentralising care to the lowest level of the health care system that is able to provide it adequately. In Mozambique, nurses have been trained to perform Caesarean deliveries; outcomes are as good as for women who had Caesareans performed by specialist obstetricians. In other countries, midwives have been trained to perform manual vacuum aspiration and remove retained placentae.
- Setting up systems for emergency transport and referral of complications. The involvement of local community members and leaders in designing and implementing these systems is crucial, as is the support and cooperation of the health system. In Uganda, the "Rescuer" project ensures that TBAs have radio communication to call for help, and that local transport can be obtained on short notice.<sup>20</sup> In Sierra Leone and Ghana, community leaders were mobilised to collaborate with the local transport worker's union to set up a roster of vehicles for emergency transportation.<sup>21</sup>
- Establishing maternity waiting homes close to formal health facilities to bridge the gap between women and the health system. Maternity waiting homes can be especially useful for women living in remote areas or where transport is especially difficult, as in mountainous areas. Cuba, Ethiopia and Mongolia are using such homes.<sup>22</sup>

**Costs** of services should be reduced to the minimum level and access for poor women assured through governmental action, including:

- Providing maternal and infant health services for free. Several countries, including Bolivia, South Africa, Bangladesh and Sri Lanka, have made this commitment.
- Instituting fee structures to make services affordable, such as flat fees that cover routine antenatal and delivery care, as well as care for any complications that arise.
- Promoting insurance schemes that are affordable for poor women and their families. Governments can subsidise rates to ensure access.<sup>22</sup>
- When fees are charged, retaining at least some of the funds locally
  and using them to improve the quality of services. Users are
  much more willing to pay fees or increased fees if they see
  the direct impact on the services they receive.<sup>7</sup>



**Providers of care** need to show greater empathy so that women are not deterred from using maternal health services. This will require:

- Training in patient care, counselling and interpersonal skills. Providers need to be sensitive to the cultural beliefs and practices of clients.
- Breaking down structural barriers that make it difficult for providers to offer quality care, including poor working conditions and pay, shortages of supplies, lack of basic infrastructure, overwork, and inadequate security, particularly for health workers in remote areas.
- Overcoming the care vs. cure dichotomy. Pregnancy is not a pathological process; while women may need medical attention at some point during pregnancy, for most their primary need is for empathy and respectful care. Providers need to be trained to listen to women's needs, desires and fears, and to discuss highly personal and/or culture-specific aspects of pregnancy and delivery, such as birth position and the role of family members.

Community education and mobilisation is essential so that women and their families learn about the need for special care during pregnancy and childbirth. Such education must include how to recognise obstetric complications and when and where to seek help. The goal of community mobilisation should be to ensure that appropriate health-seeking behaviour becomes part of local social norms.

- Community education must address traditional beliefs about pregnancy-related complications that are often blamed on a woman's behaviour, fate, evil influences and other factors beyond the reach of the health system.
- Dialogue among communities, policy-makers, and health system staff
  is essential to identify ways of overcoming barriers to women
  seeking maternal care; this strategy is often overlooked.

Women's status and power must be increased. Governments, donors and international agencies can take steps to:

 Increase women's decision-making power within the family and community, particularly by investing in the education of women and girls.

- Raise awareness of the critical importance of women's health to children and families, and the need for women to have the power to make decisions about their own health.
- Reduce women's disproportionate poverty, lack of economic power and lack of education, all of which constrain their ability to seek and receive maternal health care through-out the cycle of pregnancy and birth.

- C. AbouZahr, Improve Access to Quality Maternal Health Services. Presentation at Safe Motherhood Consultation in Sri Lanka, 18-23 October 1997.
- Coverage of Maternity Care: a Listing of Available Information (in press). World Health Organization, Geneva, 1997.
- Women's Lives and Experiences: a Decade of Research Findings From the Demographic and Health Surveys Program. Macro International, Calvetton, MD, 1994.
- 4. World Development Report 1994. World Bank, Washington, DC, 1994.
- G. Biego et al., Survey on Adult and Childhood Mortality, Tanzania. Macro International, Calverton, MD, 1995.
- G.S. Lule and M. Sembataya, "Intention to Deliver and Pregnancy Outcomes". International Development Resource Center, 1996.
- Presentation and working group recommendations on Addressing Financial and Economic Barriers to Improving Access to Quality Maternal Health Services. Safe Motherhood Technical Consultation in Sri Lanka, 18-23 October 1997.
- 8. K. Harrison, Maternal Mortality in Nigeria: the Real Issues. African Journal of Reproductive Health 1(1):7;13, 1997.
- P.J. Gertler and J. van der Gaag, Measuring the Willingness to Pay for Services in Developing Countries. World Bank, Washington, DC, LSMS Working Paper No. 45, 1988.
- 10. P.J. Gertler, Are User Fees Regressive? The Welfare Implications of Health Care Financing in Peru. World Bank, Washington, DC, LSMS Working Paper No. 37, 1988.

- 11. Demographic and Health Surveys, various years.
- J. Leslie and G.R. Gupta, Utilization of Formal Services for Maternal Nutrition and Health Care. International Center for Research on Women, Washington, DC, February 1989.
- A New Agenda for Women's Health and Nutrition. World Bank, Washington, DC, 1994.
- H. Odoi-Agyarko, N. Dollimore, O. Owusu-Argyei, Risk Factors in Maternal Mortality: A Community-Based Study in Kassena Nanhani District.
   Paper presented at the National Consultative Meeting on Safe Motherhood, Accra, Ghana, 19-21 January 1993.
- Challenge for the Nineties: Safe Motherhood in South Asia, report of the Safe Motherhood South Asia Conference in Pakistan. Family Care International, New York, 1990.
- 16. S. Thaddeus and D. Maine, Too Far to Walk: Maternal Mortality in Context. Social Science Medicine 38(8), 1994.
- C. Sargent, Obstetrical Choice Among Urban Women in Benin. Social Science and Medicine 20:287-292, 1985.
- 18. D. Maine, Why Did Maternal Mortality Decline in Matlab? Studies in Family Planning 27(4):179-187, 1996.
- J.O. Djan, et al., Upgrading Obstetric Care at the Health Centre Level, Kumasi, Ghana. Abstracts from the PMM Results Conference, Accra, Ghana, June 1996
- Safe Motherhood Newsletter, Issue 21, World Health Organization, Geneva, 1996 and F. Farah, Making a Difference in Emergency Obstetric Care in Uganda. Presentation at Safe Motherhood Technical Consultation in Sri Lanka, 18-23 October 1997.
- Prevention of Maternal Mortality (PMM) Network, Situation Analyses of Emergency Obstetric Care: Examples from Eleven Operations Research Projects in West Africa. Social Science and Medicine 40(5):657-667, 1995.
- Maternity Waiting Homes: A Review of Experiences. World Health Organization, Geneva, WHO/RHT/MSM/96.21, 1996.
- G. Carrin and C. Politi, Poverty and Health: An Overview of the Basic Linkages and Public Policy Measures. World Health Organization Task Force on Health Economics, Geneva, 1997.



# Improve the Quality of Maternal Health Services

Every year, more than 200 million women become pregnant, and some 15% are likely to develop complications that will require skilled obstetric care to prevent death or serious ill-health. All women, whether their pregnancies are complicated or not, need good quality maternal health services during pregnancy, delivery and in the postpartum period to ensure their health and that of their infants. High quality maternal health services must be accessible, affordable, effective, appropriate for and acceptable to the women who need them.<sup>2</sup>

Attention to the quality of care has been growing in the reproductive health field, and there have been significant efforts to define criteria and develop methodologies to assess the quality of maternal health services. Key determinants of quality include the technical competence of providers, their inter-personal skills, the availability of basic supplies and equipment, the quality of physical facilities and infrastructure, linkages to other health services and the existence of a functional referral system. High quality maternal health services must be part of a continuum of care that spans from the pre-pregnancy to the postpartum period, and in which women and health providers are partners in care.<sup>3</sup>

### What Is Quality of Care?

Good quality maternal health services are those which meet the following criteria:1

- are accessible and available as close as possible to where women live, and at the lowest level facility that can provide the services safely and effectively;
- are acceptable to potential users and responsive to cultural and social norms, such as preferences for privacy, confidentiality and care by female health workers;
- have on hand all essential supplies and equipment;
- provide comprehensive care and/or linkages to other reproductive health services;
- provide for continuity of care and follow-up;
- are staffed by technically competent health care providers who rely on clear guidelines/protocols for treatment;
- are staffed by workers who provide respectful and non-judgmental care that is responsive to women's needs;
- provide information and counselling for clients on their health and health needs;
- involve the client in decision-making, and see clients as partners in health care and active participants in protecting their own health; and

 offer economic and social support to health care providers that enables them to do the best job they can.

High quality maternal health care can be provided in a variety of settings, and does not refer only to hospital-based treatment. High quality care must be assured in whatever environment maternal health care takes place: the home, rural or urban health centres, or well-equipped hospitals in large cities. In order to assure high quality, maternal health services should be evaluated at regular intervals, from both service provider and client perspectives, and improved as needed.

## Why Is Quality of Care Important?

**Good quality services are cost-efficient**: By meeting women's health needs without delay, health systems can avoid having to provide at least some of the more intensive (and more expensive) care at a later stage.<sup>6</sup>

Good quality services are equitable: Health systems have an obligation to provide the highest possible quality of care within the parameters of existing resources to all who need them.

Good quality services are effective: When qualified staff are working with adequate resources and other support, they are able to manage health problems more effectively, reducing deaths and



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### **Elements of Maternal Health Services**

**Antenatal Care**: The World Health Organization recommends that pregnant women should have four antenatal visits for:

- Health promotion: advice on nutrition and health care, as well as counselling to alert women to danger signs and help plan for the birth;
- Assessment: history taking, physical examination, and screening tests;
- Prevention: early detection and management of complications, and where needed, prevention of malaria, hookworm and tetanus; and
- Treatment: management of sexually transmitted diseases, anaemia, or other conditions.

**Delivery care**: WHO recommends a skilled attendant at every birth who can:

- Provide good quality care on an ongoing basis; care should be hygienic, safe and sympathetic;
- Recognise and manage complications, including life-saving measures for mother and baby; and
- Refer promptly and safely when higher-level care is needed.

**Postpartum care**: WHO recommends Integrated postpartum care that includes:

- Identification and management of problems in mother and newborn;
- Counselling, information and services for family planning; and
- Health promotion for the newborn and mother, including immunisation, advice on breastfeeding, and safe sex.

chronic ill-health. In addition, when services are appreciated and valued by community members, they are more likely to be used on a timely basis, reducing the need for emergency interventions and helping to prevent the overburdening of referral facilities.

Good quality services improve staff morale: Health workers are likely to have more positive attitudes toward their work and to perform better when they receive the support and resources they need to provide essential services, and when their work is valued by the community.<sup>6</sup>

**Good quality services save women's lives**: A study in Egypt found that 92% of 718 maternal deaths could have been avoided if standard maternal health care had been provided.<sup>7</sup>

## What Contributes to Poor Quality Maternal Health Services?

The most common factors that contribute to poor quality care include: substandard care, lack of drugs and supplies, delays in referrals, and poor interaction between clients and health care providers.

**Substandard care**: It is often the result of staff being poorly supervised, underpaid and overworked; many have not received adequate training or refresher courses to upgrade their skills. Inconvenient operating hours, services organised around fixed or rigid timetables, and stipulations on who can accompany a woman

to a health facility also detract from the quality of the service. If people have access to more than one facility, the quality of the services often becomes the key decision-making variable.

**Supply shortages and infrastructure problems**: Many facilities lack basic supplies and equipment. A study in Jamaica found that nurses at the main maternity hospital in Kingston were continually frustrated by a lack of basic supplies like gloves, bleach and pens. This frustration affected their interactions with patients seeking care.<sup>10</sup>

**Delays in referrals**: Delays in referring women from community health facilities to hospitals is one of the most important – and avoidable – factors that prevent women from receiving the care that would save their lives.<sup>2</sup> Staff at the community facilities may not recognise the seriousness of the problem. Even if they do, many rural health centres have no means of communication (telephone or radio) with health facilities offering more advanced care, or systems for transporting women to such services.<sup>11</sup>

A study in Masawingo, Zimbabwe found that avoidable factors within the health system – substandard care – contributed to a significant proportion of maternal deaths. Among the main causes were: failure to identify women with severe conditions, including postabortion complications and sepsis, and refer them for treatment at a higher level of the health care system. <sup>13</sup>

Client-provider interactions: Many studies have found that health care workers often treat women in an insensitive manner, not paying adequate attention to their concerns and treating them rudely, particularly when they come late for treatment or do not comply with medical advice. Yet positive interactions between women and health care providers lead to client confidence and compliance. Many studies have found that poor women without formal education are most likely to be poorly treated by health care professionals.

Quality of care may be perceived differently by clients and providers, with providers anxious to ensure technical correctness whereas clients may be more concerned with issues such as birthing position and social support. The two approaches must be reconciled in the search for quality of care.

### An Emerging Issue: Overmedicalisation

In some developing countries, there is a growing trend toward the medicalisation of maternal health care through specialised, generally technology-based models. Such practices as, for example, shaving the pubic area, giving enemas, routine electronic fetal monitoring, routine episiotomy, induction of labour and frequent use of Caesarean delivery, can be expensive and may increase rates of complications.<sup>14</sup>

Overmedicalisation can lead to high rates of unnecessary Caesarean deliveries and other unnecessary surgical procedures during pregnancy and childbirth. In Bangkok, for example, the rate of Caesarean delivery was 26% at a university hospital and 45% in a private hospital, compared to the WHO norm of 5-15% of all deliveries. <sup>15</sup>

Emphasis on a hospital-based medical model of care can contribute to great inequities in the quality of care women receive. Where governments invest in providing advanced technical services in major hospitals for small numbers of privileged people, there are fewer resources available to provide good quality care in health centres serving the majority of the population.<sup>14</sup>

In many settings, hospitals receive the bulk of public health care spending, and health care is designed around curing diseases and is very expensive. Preventive care, including antenatal care and family planning, has generally been underfunded. <sup>16</sup> Overmedicalisation and over-use of invasive procedures can create barriers between clients and providers and prevent women from using health services. <sup>10</sup>

### What Can Be Done

Improving the quality of maternal health services does not require providing services only through sophisticated health facilities. Good quality services can also be delivered through community-based models, including births with skilled attendants in a health unit or centre that offers basic essential obstetric care. A community model may in fact be preferable, since it is likely to be more accessible in terms of distance and cost to larger numbers of people, particularly in rural areas. Policy and programmatic actions include:

**Decentralise services**: Maternal health services need to be available as close to people's homes as possible. In order to make this a reality, facilities need to have supplies and equipment; staff need to be trained in the necessary skills; and written policies and service protocols need to clearly state which obstetric procedures can be carried out by different categories of personnel at various levels of the health system. <sup>1</sup>

♦ In Bangladesh, a mentoring programme links 11 district hospitals with the obstetric and gynaecology departments of 11 medical colleges. The programme emphasises decentralising obstetric care by upgrading skills and facilities, developing clinical protocols and mobilising communities.<sup>17</sup>

**Set standards and ensure supervision**: Service provider teams should set standards for service delivery, management and supervision, in collaboration with representatives of their clients, professional associations, government agencies and training institutes. Standards should cover client satisfaction, provider competence, informed patient consent, appropriate use of technology, availability of medical supplies and equipment and training/certification of providers. Service delivery standards should be made known to all providers and clients, and should be used in regular monitoring of service provision.

**Develop and use protocols for the management of obstetric complications**: Written protocols for the provision of routine maternal care and for the management of obstetric complications provide essential guidance to health personnel, and are useful tools for training and supervision. Protocols — and training in their use — should address interpersonal communication and counselling as well as clinical procedures.

- ▶ In Guatemala, protocols were developed for regional and departmental hospitals to maintain optimal levels of care for patients in out-patient clinics, labour and delivery wards, and those receiving hospital-based postpartum care.<sup>20</sup>
- ▶ In Ghana, the Ministry of Health has developed clinical management protocols for identifying and treating pregnancy-related complications at all levels of the health system. The protocols also set standards for the provision of antenatal care, supervised delivery, postpartum care, family planning and management of abortion complications.<sup>21</sup>

Improve training and upgrade provider skills: Training — both pre-service and in-service — and supervision of health workers needs to address clinical, supervisory and management skills, as well as interpersonal communication skills. Training should be competency-based (focused on ensuring that health providers are

able to carry out the procedures covered in the training) and designed according to the needs of both clients and the health providers themselves.

In South Africa, health providers developed a set of recommendations for improving services, including more training for staff, providing a wider range of services, ensuring adequate supplies in all facilities and treating all patients equitably.<sup>18</sup>

**Improve infrastructure and upgrade facilities**: With relatively small-scale investments, many health facilities can upgrade their physical infrastructure to meet minimum standards. Depending on the type of health facility, changes may include ensuring adequate water and power supplies, constructing or upgrading waiting areas, and upgrading operating theatres.

▶ A generator and blood bank were installed and an unused operating theatre made functional at a hospital in Makeni, Sierra Leone. In addition, drugs and supplies were provided through a revolving fund, all for less than \$40,000. The number of women seeking care for obstetric complications increased by over 200%, and the case fatality rate among those women dropped from 32% to 5%. 19

**Establish or strengthen referral systems**: Without an effective referral system, women will continue to die. A functional referral system, supported by reliable transport, communication, and, depending on the local context, maternity waiting homes, is essential to ensure that women with complications are taken promptly to a health facility capable of providing the appropriate care. Referral mechanisms should link all levels: home/community, health centres, and district and/or regional hospitals. 9,11

In China, a comprehensive referral system has been in place for decades. Rural attendants are linked to city and county health centres, which are in turn linked to specialised municipal, provincial and national maternal and child health services and research facilities.<sup>4</sup>

Establish or strengthen mechanisms to evaluate the quality of services, incorporating both client and provider perspectives: Services should be evaluated regularly for quality from the clients' perspective. Do services meets women's needs? Are they delivered in a caring manner? Are they accessible and affordable? Providers need to be sensitised to the value of listening to clients, and they need to be able to create a supportive environment in which clients are sufficiently informed, confident and encouraged to voice their opinions.

▶ In 1986, Malaysia launched a quality assurance system for hospital care. Hospitals are divided into two categories – those with specialists and those without – and compared on the basis of a set of clinical indicators. Those with poor performance are required to investigate the reasons why and take action to improve services. The effect of these measures on quality of care are monitored by state and national quality assurance committees. <sup>4</sup>

**Develop and use instruments for improving the quality of care**: A range of tools and instruments have been developed and tested to improve the quality of care. These include:

Home-based maternal records: In most health systems, information on a woman's reproductive and obstetric history is kept at her local health facility. However, when a woman moves to a different area, that information is then not available to her new health care providers. Allowing women themselves to keep the information on home-based maternal records offers a number of advantages: it allows a more comprehensive view of her reproductive and general health; it ensures that the information will be available even if the woman moves to a new area; it stimulates

continuity of care over the antenatal, delivery and postpartum periods; and it empowers women to better understand and take control of their own health.

**Partographs**: The partograph is a tool that can be used by midwifery personnel to assess the progress of labour and identify when intervention is necessary. Studies have shown that it can be highly effective in reducing complications from prolonged labour.

Maternal death case reviews and audits: Many health systems have mechanisms for conducting reviews of all or selected cases of maternal death that occur in a health facility. A team (generally composed of staff from the facility) analyses the causes and circumstances surrounding the death. The review concerns itself with identifying avoidable factors, not with attributing blame. The findings can be used to help identify changes (such as training, improvements in referral, etc.) that could help improve the quality of care and reduce the risk of maternal death in that facility. Where such reviews also involve community members, local barriers to health care utilisation can also be identified.

- Mother-Baby Package: Implementing Safe Motherhood in Countries. World Health Organization, Geneva, 1994.
- W. Graham, A Review of Safe Motherhood: Ministry of Health, Kenya. Options Consultancy Services Limited, London, 1997.
- "Quality of Care: Doing Things the Right Way", Safe Motherhood Newsletter, No. 17, March-June 1995. World Health Organization, Geneva.
- 4. M. Koblinsky, O. Campbell, and J. Heichelheim, *Quality of Care: What Does It Mean for Safe Motherhood?* Presentation at Safe Motherhood Technical Consultation in Sri Lanka, 18-23 October 1997.
- Midwifery Practice: Measuring, Developing and Mobilising Quality Care.
   Report of a Collaborative WHO/ICM/UNICEF pre-Congress Workshop,
   Vancouver, Canada, 7-8 May 1993. World Health Organization,
   Geneva.
- L.D. Brown, et al., Quality Assurance of Health Care in Developing Countries. The Quality Assurance Project, Center for Human Services, Bethesda, MD, undated.

- M. Kassas, et al., "The National Maternal Mortality Study of Egypt 1992-1993". International Journal of Gynaecology and Obstetrics Vol. 50 (Supplement 2), October 1995.
- C. AbouZahr, C. Vlassoff and A. Kumar, "Quality Health for Women: A Global Challenge". Health Care for Women International Vol. 17, 1996.
- 9. S. Thaddeus and D. Maine, "Too Far To Walk: Maternal Mortality in Context". Social Science and Medicine 38(8), 1994.
- J. Leslie and G.R. Gupta, Utilization of Formal Services for Maternal Nutrition and Health Care. International Center for Research on Women, Washington, DC, February 1989.
- O. Campbell, M. Koblinsky, and P. Taylor, "Off to a Rapid Start: Appraising Maternal Mortality and Services". *International Journal of Gynaecol*ogy and Obstetrics, No. 48 (Supplement), June 1995.
- Prevention of Maternal Mortality Network (PMM), PMM Results Conference Abstracts, Accra, Ghana, June 1996. Center for Population and Family Health, School of Public Health, Columbia University, New York, November 1996.
- S. Fawcus et al., "A Community-based Investigation of Avoidable Factors for Maternal Mortality in Zimbabwe". Studies in Family Planning 27(6), November-December 1996.
- B. Chalmers, Overmedicalisation and Appropriate Technologies. Presentation at Safe Motherhood Technical Consultation in Sri Lanka, 18-23 October 1997.
- Draft report of Birth Without Borders: 1st ASEAN International Conference on Childbirth in the '90s. Chiang Mai, Thailand, February-March 1997
- Brazil: Programme Review and Strategy Development Report. UNFPA, New York, 1992.
- 17. Progress on Maternal Mortality. UNICEF, New York, 1996.
- S. Fonn, Empower Women, Ensure Choices: South African Case Study. Presentation at Safe Motherhood Technical Consultation in Sri Lanka, 18-23 October 1997.
- Prevention of Maternal Mortality Network (PMM), "Barriers to Treatment of Obstetric Emergencies in Rural Communities of West Africa". Studies in Family Planning 23(5), September-October 1992.
- Obstetric Management Protocols for Regional-Departmental Hospitals. Institute of Nutrition of Central America and Panama & Hospital General de Occidente San Juan de Dios – Guatemala, 1993.
- Clinical Management Protocol on Safe Motherhood. Ministry of Health, Accra, Ghana, September 1994.



## **Prevent Unwanted Pregnancy**

Each year, women around the world experience 75 million unwanted pregnancies.¹ Unwanted pregnancy can happen for two main reasons: either the couple was not using contraception, or the method they were using failed. There are many reasons why people do not use contraception to prevent unwanted pregnancy, including lack of access to family planning information and services; incest or rape; personal or religious beliefs; inadequate knowledge about the risks of pregnancy following unprotected sexual relations; and women's limited decision-making ability with regard to sexual relations and contraceptive use. Similarly, contraceptive methods, even the most effective, may fail for a variety of reasons related to the technologies themselves and/or to the way they are used. Unwanted pregnancies can be reduced by improving people's access to high quality, client-oriented and gender-sensitive information and services that offer a range of methods appropriate for different people at different stages in their lives. Improving women's social and economic status and redressing unequal power relations between women and men are important enabling factors.

## **Unwanted Pregnancies:**The Realities of Women's Lives

There are many reasons a woman may not want to have a child at a particular time in her life. Carrying an unwanted pregnancy to term may force her into an unwanted marriage, result in long-term illness and emotional distress, or constrain her opportunities for education or employment.

Adolescents are particularly susceptible to unintended pregnancy. They are often completely uninformed or, at best, misinformed about sexuality and the risks associated with early and unprotected sexual activity.

In many countries, women's ability to control their fertility is limited. Even where family planning methods are available, a woman may not use them because of financial constraints, personal beliefs, opposition from family members or concerns about the perceived adverse effects on health or future fertility.

Moreover, no contraceptive method is 100% effective. An estimated 8 to 30 million pregnancies each year result from contraceptive failure – either inconsistent or incorrect use of family planning methods or method-related failure.<sup>2</sup> A study in the United States found that 3% of pill users, 1% of IUD users, and 0.3% of injectable contraceptive users became pregnant within the first year of use, as did 12% of women whose partners used condoms.<sup>3</sup>

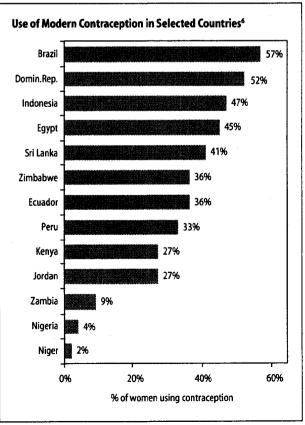
Every year, approximately 50 million unwanted pregnancies are terminated, and some 20 million of these abortions – 55,000 each day – are unsafe. About 95% of unsafe abortions take place in developing countries,<sup>4</sup> causing the deaths of more than 200 women daily.<sup>4</sup>



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### **Emergency Contraception**

Emergency contraception is a method of preventing pregnancy within a few hours or a few days of unprotected sexual relations. Emergency contraceptive pills (ECPs) work by interrupting a woman's reproductive cycle – by delaying or inhibiting ovulation, blocking fertilisation or preventing implantation of the fertilised ovum. ECPs are not considered a method of abortion. ECPs have great potential to reduce unwanted pregnancy. However, they are not yet widely available in many countries.<sup>5</sup>

### Contraceptives: Increasingly Available, But Still Out of Reach to Many

Nearly 60% of women and men around the world now use modern contraceptive methods.<sup>1</sup> Nonetheless, an estimated 350 million couples around the world lack information about contraceptives and access to a range of methods and services.<sup>1</sup> Worldwide, between 120 and 150 million married women who want to limit or space future pregnancies are not using a contraceptive method; this is known as "unmet need". Unmarried women may constitute an additional 12 to 15 million who want to avoid pregnancy but lack the means to do so.<sup>1</sup>

Women's knowledge of where to obtain family planning services remains limited. In eight of 21 countries surveyed in sub-Saharan Africa, fewer than half of married women ages 15 to 49 knew where to obtain a modern method of contraception. Such knowledge varies widely within regions: from 22% in Mali to 96% in Zimbabwe; 45% in Pakistan to 99% in Thailand; 61% in Bolivia to 98% in Colombia and 99% in Trinidad and Tobago.

North America has the highest rate of modern contraceptive use: 67%. Africa has the lowest: 15%; Asia, including China, has the highest rate of contraceptive use in the developing world. <sup>1</sup>

In many settings, adolescents and unmarried women have limited access to contraception and are prevented or discouraged from using reproductive health services, including family planning services.

Use of male methods of contraception remains low. In Brazil, condoms and vasectomy account for less than 4% of total contraceptive use; in Ethiopia, condoms comprise 7% of total contraceptive use; in the Islamic Republic of Iran, condoms comprise 6%, and vasectomy 1%, of total contraceptive use.

### Women's vulnerability

Gender roles, power imbalances between women and men and cultural norms concerning sexuality have important implications for a woman's ability to avoid unwanted pregnancy. Women's vulnerability to rape, violence and sexual abuse puts them at high risk for unwanted pregnancy as well as other sexual and reproductive health problems. 1,10

Opposition from her partner or other family members can make it difficult for a woman to use family planning methods to delay or space pregnancies.

## Family Planning Programmes: Offering People What They Need

Unwanted pregnancy is not simply the result of contraceptive failure or lack of access to a family planning clinic but also reflects the failure of family planning programmes to respond to the needs of their clients.

The 1994 International Conference on Population and Development called for the elimination of barriers to reproductive health information and services and for increased attention to the preferences of clients. <sup>11</sup> A greater focus on clients' needs in evaluating programmes has revealed a number of shortcomings in the quality of family planning services. These include:

- Many services are not yet organised around the goal of helping clients decide the number and timing of their children, and offering them the health services and information they need to do so.<sup>12</sup>
- Access to a range of appropriate contraceptive methods and counselling on risks and benefits is still limited in many areas, and follow-up is often weak. For example, recent studies in a variety of settings in sub-Saharan Africa found that new users of contraceptives were informed about side effects only 25% to 54% of the time.<sup>1</sup>
- Millions of people are using contraceptive methods that are not appropriate for their age, reproductive intentions or health needs and status. Misuse and non-use of contraception is often due to poor information, inadequate discussion of client's needs and health conditions, and limited method choice. In Matlab, Bangladesh, when a full range of contraceptive methods was offered, 80% of the women were still using the same method a year later well above the 40% continuation rate for women when only condoms and oral contraceptives were available. A study in Gambia found that women who said they were not counselled adequately about family planning use and possible side effects were three times more likely to stop using contraception than those who said they received sufficient information about contraceptive side effects. I3
- Decisions on which method to use are too often made by service providers, instead of clients. A study in Kenya found that 46% of clients in family planning clinics had a minimal role in determining which contraceptive method to use.<sup>12</sup>
- Procedures such as pelvic exams, sterilisation and IUD insertions are not always done properly, causing the client unnecessary pain, infection, or other side-effects.<sup>12</sup>
- Links to other reproductive health services women may need, including screening and treatment of STDs, are often weak or non-existent. Lack of information on preventing STDs and HIV/ AIDS, and the importance of early treatment of STDs, can compromise a woman's health and future fertility.<sup>12</sup>

### What Can Be Done

Governments, donors, NGOs and service providers need to make changes at the programme level by:

• Ensuring that all providers of care have the medical supplies, technical skills, information and interpersonal communication skills necessary for offering high quality care.

- Ensuring that all couples and individuals have access to good quality, client-oriented and confidential family planning information and services that offer a wide choice of modern contraceptive methods, including emergency contraception where appropriate. Family planning counselling should be supportive and responsive to clients' needs to ensure confidence and continuity. Services must be based on the goal of enabling women and men to achieve their reproductive intentions while protecting themselves against STDs. Family planning should be part of a comprehensive sexual and reproductive health programme.
- Informing women and their families through a variety of communication channels about family planning including emergency contraception; the importance of prevention and early treatment of STDs and where STD services are available; when and where a pregnancy may be legally terminated; and other reproductive health issues.
- Ensuring that all adolescents and young people receive high quality, comprehensive sexual and reproductive health education that offers information on decision-making skills and gender relations with respect to sexuality, reproduction, contraception, and STDs including HIV.
- Providing confidential reproductive health counselling and services to all sexually active people, including adolescents and unmarried women.
- Offering reliable information and compassionate counselling to all women with an unwanted pregnancy.
- Making high quality, safe abortion services available to the fullest extent allowed by law and ensuring that services are accessible and affordable.
- Ensuring that all women have access to quality services for the management of abortion-related complications, and that postabortion family planning information and services are offered.

### Policy-makers need to encourage broader changes within communities and at the national level to:

- · Ensure gender-sensitive policy-making
- Address regulatory, social, economic and cultural factors that limit women's control over their sexuality and reproduction.

- Take action to stop all forms of sexual violence and to reduce power inequalities between men and women.
- Identify specific actions needed to address the problem of unwanted pregnancy among young people, and to modify attitudes that stigmatise and blame young girls who get pregnant.
- Foster in men attitudes that promote caring, responsible and equitable action in sexual relations, contraception, pregnancy and child care.
- Work to change the power imbalances between women and men and the deep-rooted gender inequalities that foster the neglect of women's health, constrain their choices and ultimately threaten their lives.

- 1. The State of World Population 1997. UNFPA, New York, 1997.
- S.J. Segal and K.D. LaGuardia, "Termination of pregnancy a global view". Ballière's Clinical Obstetric and Gynaecology 4 (2): 235-247, 1990.
- 3. R.A. Hatcher, et al., eds., Contraceptive Technology, 16th Revised Edition. Irvington Publishers, New York, 1994.
- Abortion: A Tabulation of Available Data on the Frequency and Mortality of Unsafe Abortion, 2nd edition. World Health Organization, Geneva, 1993.
- PATH, "Emergency Contraceptive Pills: Safe and Effective But Not Widely Used". Outlook 14(2), September 1996.
- Women's Lives and Experiences: a Decade of Research Findings from the Demographic and Health Surveys Program. Macro International, Calverton, MD, 1994.
- Brazil: Programme Review and Strategy Development Report. UNFPA, New York, 1992.
- Ethiopia: Programme Review and Strategy Development Report. UNFPA, New York, 1993.
- Islamic Republic of Iran: Programme Review and Strategy Development Report. UNFPA, New York, 1994.
- A. Radhakrishna, et al., "Identifying the Intersection: Adolescent Unwanted Pregnancy, HIV/AIDS and Unsafe Abortion". Issues in Abortion Care 4, Ipas, Carrboro, NC, 1997.
- Report of the International Conference on Population and Development. United Nations, New York, 1994.
- Reconsidering the Rationale, Scope and Quality of Family Planning Programs.
   The Population Council, New York, 1994.
- 13. Family Health International, "Counselling about Side Effects Improves Contraceptive Continuation". *Network* 12(2), September 1991.



### World Health Day Safe Motherhood 7April 1998

#### **Address Unsafe Abortion\***

Each year, approximately 20 million unsafe abortions take place around the world, resulting in some 80,000 maternal deaths, and hundreds of thousands of disabilities. The vast majority of these deaths take place in developing countries. Unsafe abortion accounts for at least 13% of global maternal mortality — one in eight maternal deaths — and in some countries is the most common cause of maternal mortality and morbidity. Unsafe abortion is, however, one of the most easily preventable and treatable causes of maternal mortality and morbidity.

At the International Conference on Population and Development (ICPD) in Cairo in 1994, governments recognised unsafe abortion as a major public health issue and called for:

- Prompt, high quality and humane medical services to treat the complications of unsafe abortion;
- Compassionate postabortion counselling and family planning services to promote reproductive health, reduce the need for abortion and prevent repeat unsafe abortions and;
- Safe induced abortion services where they are not against the law.<sup>2</sup>

#### **Unsafe Abortion: A Global Problem**

**Mortality**: Millions of women around the world risk their lives and health to end an unwanted pregnancy. Every day, 55,000 unsafe abortions take place – 95% of them in developing countries<sup>1</sup> – and lead to the deaths of more than 200 women daily.<sup>1</sup> Globally, one unsafe abortion takes place for every seven births.<sup>1</sup>

Deaths from unsafe abortion account for a significant percentage of all maternal deaths, although accurate data are difficult to obtain. WHO estimates that globally, one maternal death in eight is due to abortion-related complications. In some settings a

quarter or more of all maternal deaths are abortion-related.  $^{3}$ 

Many women are afraid to seek treatment for abortion-related complications, leading to countless – and uncounted – deaths outside of hospitals.<sup>4</sup>

**Morbidity**: Between 10 and 50% of all women who undergo unsafe abortions need medical care for complications. The most frequent complications are incomplete abortion, sepsis, haemorrhage and intra-abdominal injury, such as puncturing or tearing of the uterus.<sup>1</sup>

Long-term health problems caused by unsafe abortion include: chronic pelvic pain, pelvic inflammatory disease, tubal blockage and secondary infertility. Other possible consequences of unsafe abortion are ectopic pregnancy and an increased risk of spontaneous abortion or premature delivery in subsequent pregnancies. Such problems can limit women's productivity inside and outside the



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For use by information media: not official record \* The World Health Organization acknowledges that data on unsafe abortion are scarce and subject to substantial error due to methodological constraints inherent in abortion-related research.

#### Unsafe Abortion: Regional estimates of mortality and risk of death<sup>1</sup>

Region	No. of maternal deaths due to unsafe abortion	Risk of dying after unsafe abortion	% of maternal deaths due to unsafe abortion
Africa	33,000	1 in 150	13%
Asia*	37,500	1 in 250	12%
LAC **	4,600	1 <b>in 900</b>	21%
Europe	500	1 in 1900	17%

<sup>\*</sup> Japan, Australia and New Zealand excluded \*\* Latin America and Caribbean

home, constrain their ability to care for children and adversely affect their sexual and reproductive lives.<sup>5</sup>

**Impact on the public health system**: Treatment of abortion-related complications often requires several days of hospitalisation and staff time, as well as blood transfusions, antibiotics, pain control medicines and other drugs. Providing this care depletes funds and medical supplies needed for other types of treatment. As much as 50% of hospital budgets in some developing countries are used to treat complications of unsafe abortion. <sup>6,7</sup>

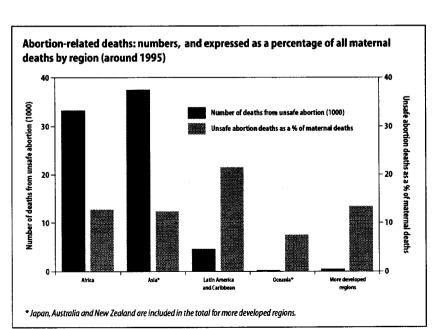
A recent study in Tanzania found that 34% to 57% of all admissions to the gynaecological ward of a hospital in Dar es Salaam were women suffering from complications of abortion. It cost the hospital \$7.50 per day to treat each woman. The national health budget allocated only \$1 per person per year for health care.<sup>8</sup>

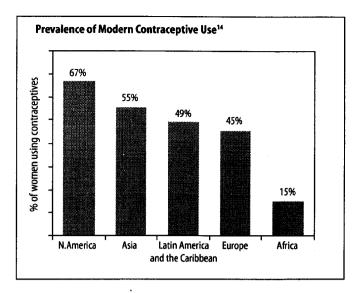
#### Which Women Seek Abortions and Why?

Most women seeking abortion are married or live in stable unions and already have several children; they seek abortions to limit the size of their family or space births, rather than to delay first birth.<sup>1</sup>

Women may find themselves with an unwanted pregnancy for many reasons. Non-use of contraception accounts for the majority of unwanted pregnancies. In addition, between 8 and 30 million pregnancies each year result from contraceptive failure – either inconsistent or incorrect use of family planning methods or method-related failure. Other factors women cite as reasons for an unwanted pregnancy include rape; lack of control over contraception; young age or single marital status; too many children; abandonment or an unstable relationship; mental or physical health problems; severe malformation of the fetus and financial constraints. On 11, 12

Unsafe abortion is a public health problem at all ages but particularly among young women, who often have poor access to family planning information and services, and who are less likely than older women to have the social contacts and financial means to obtain a safe abortion. Also, young women are more likely to delay seeking help and hence seek terminations at more advanced stages of gestation, such as in the second trimester where morbid-





ity and mortality are higher. In many African countries, up to 70% of all women hospitalised for abortion complications are younger than 20.<sup>13</sup>

#### Family Planning: Out of Reach

Despite the fact that family planning services are more effective and available than ever, estimates suggest that at least 350 million couples worldwide lack access to information about contraceptives and a range of modern family planning methods.<sup>14</sup>

Worldwide, between 120 to 150 million married women who want to limit or space future pregnancies are not using a contraceptive method and have an unmet need for family planning information and services. Between 12 and 15 million unmarried women also lack access to services that will enable them to achieve their reproductive intentions.<sup>14</sup>

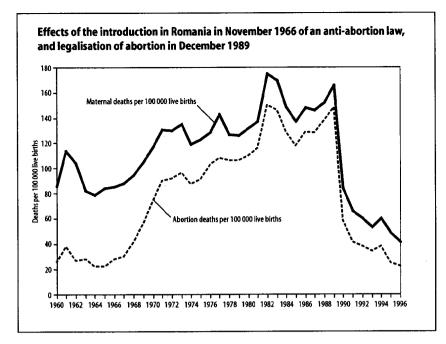
Many women leave hospitals after treatment for complications of unsafe abortion without any counselling on how to prevent future pregnancies, and without a contraceptive method. In Zambia, for example, 78% of women treated for abortion complications indicated they would like to receive information about fam-

ily planning, and 44% indicated they would have liked to receive a method. However, family planning was discussed with only 33% of the women, and none was offered a method to take home.<sup>11</sup>

#### **Legislation and Policies**

National policies and legislation on abortion vary widely. In 98% of the world's countries danger to the woman's life is recognised as a legal basis for terminating a pregnancy. In 62% of countries some provision is made for preserving the woman's physical health as a basis for legal abortion, although definitions of the risk to health are diverse. <sup>15</sup> Only in a few countries is abortion illegal in all circumstances. <sup>16</sup>

The evidence shows that restrictive legislation is associated with higher rates of unsafe abortion and correspondingly high mortality. In Romania, for example, abortion-related deaths increased sharply when the law became very restrictive



in 1966 and fell after 1990 with a return to the less restrictive legislation.<sup>17</sup>

Contrary to common belief, legalisation of abortion does not necessarily increase abortion rates. The Netherlands, for example, has a non-restrictive abortion law, widely accessible contraceptives and free abortion services, and the lowest abortion rate in the world – 5.5 abortions per 1,000 women of reproductive age per year. Barbados, Canada, Tunisia and Turkey have all changed abortion laws to allow for greater access to legal abortion without increasing abortion rates. 16

In order to reduce maternal morbidity and mortality from unsafe abortion, legislation to improve access to abortion services must be accompanied by changes in the health service structure. These should include the development of service delivery standards and, as appropriate, restructuring of the health system to ensure that high quality, safe services are available at the lowest levels compatible with good quality care. Staff must be trained to provide services, and supplies of necessary equipment and drugs must be available.<sup>20</sup>

#### **Inadequate Health Services**

In many developing countries, safe abortion services are not available to the full extent permitted by law. Many health workers, including doctors and nurses, lack vital information about its legal status or do not know how to perform abortions. Many women who would qualify for safe and legal abortion services are turned away due to providers' lack of knowledge about the exact implications of the law, or due to providers' ambiguous attitudes toward abortion, particularly vis-à-vis young people, unmarried women and other marginalised groups. 4, 18, 19

When women experience complications due to unsafe abortion, appropriate medical care is often unavailable or inaccessible. Lack of protocols for postabortion care, misdiagnosis, punitive attitudes on the part of health care providers, and case overload result in life-threatening and costly delays for women seeking treatment from the health system.<sup>5</sup>

#### What Can Be Done

In order to reduce the current heavy toll of abortion-related maternal death and morbidity, governments, international agencies, women's groups and non-governmental organisations (NGOs) must take steps to ensure universal access to family planning; increase the availability of safe abortion services to the extent allowed by law; improve the quality and accessibility of postabortion care; educate their communities about reproductive health and unsafe abortion; and work for changes in policies to safeguard women's reproductive health.

#### **Contraceptive Services and Information**

High priority should be given to the prevention of unwanted pregnancy through comprehensive client-oriented reproductive health services. Non-judgmental attitudes, confidential counsel-

ling and quality family planning information and services should be universally accessible to all women, including emergency contraception where feasible and appropriate. Special attention should be given to the needs of young people, marginalised women, and those living in conflict situations and at risk of sexual abuse, rape and violence (see summary sheet: "Prevent Unwanted Pregnancy").

#### **Quality of Care**

In countries where abortion is legal:

- Services should be safe and available to the full extent allowed by law, particularly in rural and impoverished areas.
- Service providers must be carefully trained to offer high quality services and compassionate counselling. Providers must be wellinformed about the legal status of abortion and protocols for providing services so that women eligible can access them quickly and without unnecessary delays or bureaucratic procedures.
- Available services should be publicised within the community and links should be strengthened with women's groups, health centres and other related organisations to ensure that women who need services are informed about where and when to seek care.<sup>20</sup>
- ♦ At the Hospital Jabaquara in São Paulo, Brazil, safe, legal abortion services were introduced for victims of rape, incest and when the woman's life is in danger. Protocols for routine treatment and counselling include: approval for the procedure; provision of emergency contraception when appropriate; evaluation by a social worker or psychologist; medical examination; pregnancy termination; followup reproductive health services, such as STD screening and treatment; and contraception.<sup>21</sup>

Appropriate technologies must be available both for the management of complications as well as for elective abortion when it is not against the law.<sup>22</sup> New technologies, such as non-surgical abortion, should be made available, where appropriate and feasible.

#### Postabortion Care

Whatever the legal status of abortion, high-quality services for treating and managing complications of abortion should be accessible to all women.<sup>23</sup>

Key elements of postabortion care include: emergency treatment of abortion complications; family planning counselling and services; and links to comprehensive reproductive health services.<sup>24</sup>

To prevent abortion-related mortality, emergency postabortion care must be available 24 hours a day, since many women with serious complications require immediate care. <sup>24, 25</sup> Every facility should have trained and authorised staff, appropriate equipment, explicit protocols for treatment procedures, a coordination mechanism between relevant units/departments and effective referral networks <sup>25</sup>

All women who have had an induced abortion should be offered accurate information on family planning, sensitive counselling, a range of contraceptive methods and referral for ongoing care. However, postabortion care should never be contingent upon acceptance of contraception or of a particular method. <sup>26</sup>

- In Ghana, midwives from community-based health centres and private maternity homes were trained to treat cases of incomplete abortion and to counsel women on postabortion family planning methods.<sup>27</sup>
- In Nigeria, doctors and midwives from the Christian Health Association of Nigeria (CHAN), have been trained to provide postabortion care, as well as other reproductive health services, including screening and treatment for STDs.<sup>28</sup>

#### **Community Education**

Education is critical for reducing the public health problem of unsafe abortion. Health education messages should be based on the incidence and impact of unsafe abortion within communities, and be sensitive to people's existing beliefs, attitudes and practices. They should offer information on: the legal status of abortion; preventing unwanted pregnancy; avoiding unsafe abortion; and recognising and seeking appropriate treatment for abortion complications.<sup>29</sup>

▶ In Bolivia, a government campaign, led by the President and Secretary of Health, was undertaken to raise awareness of a broad range of reproductive health issues, including deaths from unsafe abortion. An evaluation found that the campaign was highly successful, and that the unsafe abortion message had the highest level of recall of all the campaign's messages.<sup>30</sup>

#### Footnotes:

- Abortion: A Tabulation of Available Information, 3rd edition. World Health Organization, Geneva, 1997, in press.
- 2. United Nations, Report of the International Conference on Population and Development. United Nations, New York, 1994.
- 3. World Health Organization. Abortion: A tabulation of available data on the frequency and motality of unsafe abortion, 3rd edition (in press).
- K. Rogo, Prevention of Unsafe Abortion in Africa: A Case for a Community-based Approach. Proceedings: Abortion Matters, International Conference on Reducing the Need and Improving the Quality of Abortion Services, Stimezo Nederland, Utrecht, Netherlands, 1997.

- Care for Postabortion Complications: Saving Women's Lives. Population Reports, Vol. 24, No. 2. September 1997.
- M.A. Koblinksy, et al., eds., The Health of Women: A Global Perspective. Oxford: Westview Press, 1993.
- WHO, Press Release 15 November 1994, WHO to discuss research results on adverse consequences of unsafe abortion in Latin America and the Caribbean, WHO, Geneva, 1994.
- 8. G.S. Mpangile, et al., Factors Associated with Induced Abortion in Public Hospitals in Dar es Salaam, Tanzania. *Reproductive Health Matters*, No. 2, 21-31, November 1993.
- 9. S.J. Segal and K.D. LaGuardia, *Termination of pregnancy a global view*. Baillière's Clinical Obstetrics and Gynaecology, 4 (2) 235-247, 1990.
- Expanding Access to Safe Abortion: Key Policy Issues. Population Action International, Washington, DC, September 1993.
- S.N. Kinoti, et al., Monograph on Complications of Unsafe Abortion in Africa. Commonwealth Regional Health Community Secretariat for East, Central and Southern Africa, Arusha, Tanzania, 1995.
- Clandestine Abortion: A Latin American Reality. The Alan Guttmacher Institute, New York, 1994.
- The Health of Young People. A Challenge and a Promise. World Health Organization, Geneva, 1993.
- 14. The State of World Population 1997. UNFPA, New York, 1997.
- Abortion Policies: A Global Review, Volume 1. Afghanistan to France (1992);
   Volume 2. Gabon to Norway (1993); Volume 3. Oman to Zimbabwe (1995), United Nations, New York.
- S. Henshaw, Abortion Laws and Practice Worldwide, in Proceedings: Abortion Matters, International Conference on Reducing the Need and Improving the Quality of Abortion Services, Stimezo Nederland, Utrecht, Netherlands, 1997.
- 17. Preventing maternal deaths. World Health Organization, Geneva, 1989.
- Facts in Brief: Abortion in the United States. Abortion Factbook 1992 Edition, The Alan Guttmacher Institute, New York, 1992.
- Unsafe Abortion and Postabortion Family Planning in Africa: the Mauritius Conference. International Planned Parenthood Federation, Nairobi, 1994.
- Abortion Laws into Action: Implementing Legal Reform. *Initiatives in Reproductive Health Policy*, Vol. 2, No. 1. January 1997, Ipas, Carrboro, NC 1997.
- 21. I.G. Pereira and C.N. daMota, Manual para o estabelecimento de um serviço de atendimento para aborto previsto por lei, Ipas, Carrboro, NC, 1996.
- H. McKay and B. Hartley, How Can You Combat Unsafe Abortion?: Practical Approaches in Action. Planned Parenthood Challenges, 1993/1. International Planned Parenthood, 1993.
- 23. United Nations, Platform for Action, The Fourth World Conference on Women. New York, 1995.
- Postabortion Care: A Reference Manual for Improving Quality of Care. Postabortion Care Consortium, Baltimore, 1995.
- 25. Complications of Abortion: Technical and Managerial Guidelines for Prevention and Treatment. WHO, Geneva, 1995.
- K.E. McLaurin, et al., Meeting Women's Needs for Post-Abortion Family Planning: Report of a Bellagio Technical Working Group, International Journal of Gynaecology & Obstetrics, Vol. 45 (supplement), 1994.
- 27. K. Otsea, et al., Midwives Deliver Postabortion Care Services in Ghana. *Dialogue*, Vol. 1, No. 1, June 1997. Ipas, Carrboro, NC, 1997.
- Promoting Improved Women's Reproductive Health in Nigeria. Africa Reports, Ipas, Carrboro, NC, 1995.
- Prevention and Management of Unsafe Abortion: A Guide for Action (unpublished draft). Family Care International, New York, 1997.
- Reproductive Health is in Your Hands: Impact of the Bolivia National Reproductive Health Campaign. IEC Report No. 4, JHPIEGO, February 1996.



## World Health Day Safe Motherhood 7April 1998

#### **Measure Progress**

Reducing maternal mortality by 50% by the year 2000 was put forth as a major development goal at the global Safe Motherhood conference held in Nairobi in 1987, the World Summit for Children (1990), the International Conference on Population and Development (1994), the World Summit on Social Development (1995) and the Fourth World Conference on Women (1995). The establishment of this quantitative goal has led to increased pressure on governments to provide accurate estimates of maternal mortality in order to assess progress toward achieving the goal. However, calculating levels of maternal mortality is problematic, and use of alternative indicators for monitoring progress is being increasingly recommended.

#### What is maternal mortality?

As defined in the Tenth International Classification of Diseases, a maternal death is "the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes." There are several indicators of the level of maternal mortality, the most common of which are:

- 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 services that she receives. WHO and UNICEF have called maternal mortality "a litmus test of the status of women".<sup>2,3</sup>
- 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 can be reduced either by making childbearing safer (as is true for the ratio, above) and/or by reducing the number of pregancies.<sup>2</sup>
- **Lifetime risk**: This measure reflects the probability of maternal death faced by a 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.<sup>3</sup>

#### Why Is Maternal Mortality Difficult to Measure?<sup>1</sup>

The frequency of maternal mortality is low: The death of a woman of reproductive age is a relatively rare event. Even in countries with high levels of maternal mortality the actual number of maternal deaths, for a specific place and period, is generally small. Therefore, when survey methods are used to measure maternal mortality, large sample sizes are needed and the costs are correspondingly high.

Maternal deaths are frequently underreported: People in developing countries often die outside the health care system, making accurate registration of deaths difficult. Where records do exist, there may be inadequate attribution of cause of death, or the system may fail to note the fact that the woman was pregnant at the time of death. Studies in both developed and developing countries have found that underreporting can be significant; in many cases the actual number of maternal deaths for the period under study was double or triple what was initially reported.<sup>5</sup>

Maternal deaths are often misclassified: Misclassification is a problem in both developed and developing countries and occurs in part because medical "cause of death" is difficult to determine. Health workers may not know why the woman died or whether she was pregnant or had recently delivered. Even if the attendant does know that a death was related to obstetric complications, this information may not be recorded if the woman died in an emergency or medical ward. Deaths are



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\* This measure has traditionally been called a rate and is so defined in the International Classification of Diseases. However, it is technically a ratio and is now referred to as such by many experts working in the field. It is essential to specify the denominator in order to make the distinction clear. sometimes intentionally misclassified, especially if they are associated with complications of clandestine abortions.

#### How is maternal mortality measured?

In order to estimate maternal mortality, the following information is needed for a specific time period and geographic area:

- number of deaths occurring among women of reproductive age;
- cause and timing of each death;
- pregnancy or recent pregnancy status of each woman who died.

**Vital Registration**: In developed countries, maternal mortality is measured using data on births and deaths collected through vital registration systems, combined with medical certification of the causes of death. Even in these countries this system is by no means perfect, and many maternal deaths are misclassified resulting in underreporting of maternal deaths. Some studies have used multiple sources (e.g., review of hospital records, interviews with hospital staff or community members) to supplement vital registration systems and gather additional data.<sup>5</sup>

In most developing countries, vital registration systems are incomplete and correct attribution of cause of death is the exception rather than the rule. In such settings, other approaches are needed to estimate the level of maternal mortality.

**RAMOS** (Reproductive age mortality surveys): RAMOS studies involve in-depth reviews of deaths among all women of reproductive age, and are considered the "gold standard" for estimating maternal mortality. They are complex and costly to conduct; only 10 developing countries have used RAMOS to date.<sup>3</sup> However, this method provides data not only on the maternal mortality ratio, but also on causes of death, high-risk groups and avoidable factors, which can be used for programme planning and evaluation.

Household surveys using direct estimation: Because maternal deaths are relatively infrequent, very large sample sizes are required when household surveys are used, to provide reliable and representative results. The confidence intervals for estimates of maternal mortality are typically wide, and thus maternal mortality indicators are imprecise. Unfortunately, confidence intervals are rarely calculated or presented in the literature, giving an impression of accuracy that is unwarranted. Because of the imprecision of the estimates so obtained, they cannot be used for monitoring progress in the short term.

A study conducted in Addis Ababa, Ethiopia surveyed over 32,000 households and obtained an estimated maternal mortality ratio of 566 deaths/100,000 live births (based on 45 maternal deaths identified). The 95% confidence interval calculated for this estimate ranged from 374 to 758 deaths/100,000 live births.<sup>2</sup>

Experts have estimated that to establish a maternal mortality ratio of 300 per 100,000 live births, with a margin of error of 20%, 50,000 live births would need to be identified. This could mean visiting some 200,000 households. The cost of such a survey is prohibitive in most countries.<sup>7</sup>

**Sisterhood Method**: This indirect method of estimating maternal mortality involves surveying women of reproductive age and asking them a series of questions about the survival of *all* their adult sisters. The sisterhood questionnaire is usually added to an existing household survey, making the method particularly cost-effective. It requires much smaller sample sizes than direct methods of estimation because information is collected on all the sisters of the respondent.

#### Measuring Morbidity

Obstetric morbidity is more common than mortality and is an important issue to study. Measuring morbidity has sometimes been proposed as an alternative to measuring mortality as a way of assessing programme impact. However, morbidity is difficult to define, interpret and measure. It can be difficult to identify and classify obstetric morbidities, and even medically-trained personnel may differ in their diagnoses.

Studies to assess the accuracy of women's self-reported morbidity (e.g., through surveys) have found that these do not correlate well with medical records or diagnoses. However, women's perceptions of obstetric morbidity are important – and should be studied – because they are central to understanding women's use (or non-use) of health services. An alternative means of measuring obstetric morbidity is to use health facility data. However, the information is usually not representative of the population as a whole.

Therefore, while it is important to try to gather information on the dimensions of maternal morbidity to understand the full scope of maternal health issues, morbidity should not be used as an indicator of programme impact.<sup>6</sup>

Estimates generated by the sisterhood method generally apply to a period 10-12 years prior to the study, depending on the average age of the respondents. A more recent derivation used in Demographic and Health Surveys can produce an estimate that applies to a more recent period; however, this version requires a larger sample size. In other words, the more narrow the time frame for the estimate, the larger the sample size needed.

The sisterhood method does not provide an estimate of current maternal mortality levels and therefore does not reflect changes that may have occurred over the recent past. As with any survey, it is subject to margins of error that relate to sample size; however, it is considerably more cost-effective than household surveys using direct estimation and can provide a good starting point for detailed investigations at a later stage.

WHO/UNICEF Estimates: Because many developing countries do not have national estimates of maternal mortality, and to compensate for problems of underreporting and misclassification, WHO and UNICEF developed a new method of estimating maternal mortality for the year 1990. The method involves a dual strategy: 1) where maternal mortality estimates already existed, the figures were adjusted to account for underreporting and misclassification; 2) where no reliable estimates were available, a model was applied that generates an estimated figure based on fertility rates and the proportion of births that are assisted by skilled personnel. These estimates have wide margins of error and should be seen as providing orders of magnitude only.<sup>3</sup>

#### How should estimates of maternal mortality be used?

With the exception of vital registration (with complete or nearcomplete reporting) and RAMOS studies, the measurement strategies listed above yield imprecise estimates of maternal mortality and have large margins of error. For most household surveys, particularly those that use the sisterhood method, results provide only estimates of orders of magnitude and should only be used to: $^{6.7}$ 

- gain a general sense of the size of the problem;
- sensitise policy makers, programme planners, and others to the magnitude of the problem;
- · stimulate discussion and action; and
- mobilise national and international resources for maternal health.
   Results should not be used to:<sup>5,6</sup>
- monitor trends and/or measure progress on an annual basis (they may be used to monitor trends over more than a decade);
- · evaluate programme impact;
- · compare geographic areas; or
- · allocate resources.

#### How are Policy and Programme Needs Assessed?

In order to develop, implement and evaluate policy and programme efforts, understanding **why** women are dying from pregnancy and childbearing is more important than establishing the level of maternal mortality. A variety of assessment tools have been developed to aid in the formulation of national strategies to reduce maternal mortality and improve maternal health.<sup>8</sup>

Process indicators have also been developed and used to inform policy and programme strategies. Process indicators provide information about the systems in place that either enable or hinder access to and delivery of high quality maternal health services. Some commonly cited indicators include:<sup>9</sup>

- proportion of births attended by skilled health personnel;
- proportion of pregnant women attending antenatal care;
- proportion of pregnant women receiving tetanus toxoid immunisation;
- proportion of births taking place in health institutions; and
- ratio of unbooked to booked deliveries at health institutions.

Each of these indicators has advantages and disadvantages, and health planners need to identify which indicators are most useful for their purposes and which can be most readily collected. In most cases, data for these indicators can be gathered from health facilities and population-based surveys.<sup>10</sup>

Other widely-used tools to assess and monitor the quality of maternal health services are maternal death case reviews and

\* Essential Obstetric Care (EOC): The essential elements of obstetric care needed to manage the major obstetric complications: surgical obstetrics (caesarean 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; medical treatment of sepsis, shock, eclampsia and anaemia; blood replacement; 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.

**Basic EOC:** The elements of EOC that can be provided at more peripheral health facilities such as health centres.

**Comprehensive EOC:** The complete elements of EOC that should be available at the district hospital.

facility-based audits. A maternal death case review is a qualitative, in-depth investigation of the causes and circumstances surrounding a small number of maternal deaths occurring at selected health facilities. A team of people (generally composed of staff from the facility) is established to conduct the review. The process can focus only on what happened at the facility (a facility-based audit); or it can also examine what happened before the woman reached the health facility – that is, circumstances in the community that may have contributed to her death, such as a delay in seeking or reaching care. <sup>11</sup>

One of the major pathways to reducing maternal mortality is through improved access, utilisation and quality of obstetric services. UNICEF, WHO, and UNFPA have developed a series of process indicators that focus specifically on these issues, designed for use by policy and programme planners. The indicators use data that can be collected and analysed at the health facility level and do not require large-scale population-based enquiries.<sup>2</sup>

#### **Process Indicator Series:**

The process indicator series provides information regarding Essential Obstetric Care (EOC)\* coverage (i.e. availability, accessibility and utilisation), and the performance of EOC facilities. The following is a list of the indicators and their minimum acceptable level (see guidelines for discussion and interpretation of these indicators).<sup>2</sup>

#### 1. EOC coverage:

- Quantity of EOC services: One facility providing comprehensive EOC and four facilities providing basic EOC for every 500,000 people.
- Geographic distribution of EOC facilities: One facility providing comprehensive EOC and four facilities providing basic EOC exist within an acceptable geographical area.
- Proportion of all births in basic and comprehensive EOC facilities: A minimum of 15% of all births in the population should take place in an EOC facility.
- Met need for EOC: 100% of all women with obstetric complications should be treated in basic or comprehensive EOC facilities.

#### 2. Performance of EOC facilities:

- Caesarean deliveries as a proportion of all births: Rates of Caesarean delivery are used to assess whether or not facilities are providing life saving obstetrical services because it is often recorded and is therefore easier to gather data on. Experience indicates that 5% of all births in a population may need Caesarean delivery in order to avoid maternal and infant morbidity and mortality. Because Caesarean delivery has been overused in some regions, and like any major surgery carries a risk of injury and even death, an upper limit of 15% is suggested.<sup>2</sup>
- Case fatality rates: The case fatality rate for women with obstetric complications should not exceed one percent when attended in an EOC facility.

The case fatality rate refers to the number of maternal deaths as a proportion of total obstetrical complications in a given facility that provides comprehensive EOC. A study conducted in West Africa showed that in 1995, deaths among hospitalised women with complications ranged from 1.2% to 8%. In contrast, a study of U.S. hospitals in the late 1970s indicated rates as low as 0.03%.<sup>2</sup>

#### What Can Be Done

Health planners should assess to what extent it is necessary to establish the precise level of maternal mortality, how accurate the estimate needs to be and how many resources should be used in doing so.

The techniques currently available to estimate maternal mortality are generally costly to administer and do not necessarily provide precise or reliable estimates. In addition, the correct interpretation of maternal mortality estimates is difficult because the figures are often subject to wide margins of error.

Nonetheless, maternal mortality estimates are important for establishing a general sense of the size of the problem, generating interest and debate, and mobilising both national and international resources. Health planners will have to weigh the need to bring attention and action to this issue against the need to gather data that will help policy and programme planners identify priority interventions and locate weaknesses in the service delivery system.

Where resources are particularly limited and no national estimates are available, the sisterhood method may be a practical choice for providing a retrospective indication of overall levels of maternal mortality. Alternatively, health planners may use the WHO/UNICEF estimates as indicative of orders of magnitude.

Process indicators should be used to ensure that the development, implementation and evaluation of policy and programme efforts are based on reliable information.

Data on process indicators are less complex and costly to collect than maternal mortality data; the information is usually available through routine health information collected at the facility level. Data on process indicators can also be more useful to policy and programme planners than maternal mortality data, since they provide information about factors known to reduce maternal mortality and can support programme management at local levels.

Authorities need to carefully select indicators that are directly relevant to the interventions they plan to implement. The process indicator series developed by UNICEF, WHO and UNFPA is particularly useful in that it addresses one of the major pathways of maternal mortality prevention: availability, accessibility, utilisation and quality of essential obstetric services. Data gathered using this series can be amplified with information generated from ma-

ternal death case reviews and audits, as well as descriptive, qualitative approaches such as community focus group discussions.

Findings from maternal mortality studies, including programme evaluations, can be used with a wide range of audiences and for a broad range of purposes. For example, depending on the type of study, information may be relevant for policy-makers, health care providers, hospitals, medical societies, community groups, and research institutes. It can be used for advocacy and for programme-planning. In all cases, data need to be presented clearly and interpreted cautiously, and recommendations for action need to be stated explicitly, in order to generate strategies that can make a real difference at the service delivery level. <sup>4,6</sup>

#### Footnotes:

- The WHO International Classification of Diseases, 10th Revision, WHO, 1992.
- UNICEF/WHO/UNFPA, Guidelines for Monitoring the Availability and Use of Obstetric Services, October 1997.
- WHO/UNICEF, Revised 1990 Estimates of Maternal Mortality: A New Approach by WHO and UNICEF. WHO, Geneva, April 1996.
- W. Graham and O. Campbell, Measuring Maternal Health: Defining the Issues, London School of Hygiene and Tropical Medicine, May 1991.
- 5. H. Atrash, *Maternal Mortality Surveillance*. Presentation at the Safe Motherhood Technical Consultation in Sri Lanka, 18-23 October 1997.
- O. Campbell, Measuring Progress in Safe Motherhood. Presentation at the Safe Motherhood Technical Consultation in Sri Lanka, 18-23 October 1993
- WHO and UNICEF, The Sisterhood Method for Estimating Maternal Mortality: Guidance Notes for Potential Users. WHO, Geneva, October 1997.
- Safe Motherhood Needs Assessment Methodology, WHO/FHE/MSM/95.1 (draft); O. Campbell, M. Koblinsky, and P. Taylor, "Off to a Rapid Start: Appraising Maternal Health and Services", International Journal of Gynaecology and Obstetrics, Vol. 48, Supplement, June 1995; and Assessing Maternal and Peri-Neonatal Health: Tools and Methods – The MotherCare Experience, MotherCare Project, Virginia, USA, April 1994.
- 9. WHO, Indicators to Monitor Maternal Health Goals. WHO, Geneva, 1994.
- A. Tinker and M. Koblinsky, Discussion Paper 202: Making Motherhood Safe, World Bank, 1993; also Indicators for Reproductive Health Program Evaluation: Final Report of the Subcommittee on Safe Pregnancy, The Evaluation Project, University of North Carolina at Chapel Hill, December 1995.
- J. Ireland and W. Graham, Conducting a Case Review of Maternal Deaths, Dugald Baird Centre for Research on Women's Health, University of Aberdeen, May 1996 (prepared for WHO Safe Motherhood Needs Assessment).





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## World Health Day Safe Motherhood 7April 1998

# What can *you* do to mark World Health Day 1998?

- Organise a walk to the local maternity clinic (5km or so) bringing something useful for the clinic such as soap, gloves etc.
- Organise competitions and offer small prizes to the winners art, music (lullabies), village parties, rallies, sports events
- Organise media events with local personalities, political leaders, media and sporting personalities, first ladies, religious leaders, local business leaders and employers
- Organise fund-raising events for local health care facilities such as raffles, sponsored walks, swims, runs etc.
- Reach out to partners, schools, places of work, men's and youth groups, professional associations, universities, colleges of education, religious institutions, NGOs
- Approach international associations and organisations and their local offices for support
- Organise a children's parliament around the slogan:
   "We want our mother alive."
- Mobilise groups outside the health sector whose involvement is needed such as transport workers, the police, the army
- Work with local NGOs, industries etc. to produce materials that can be distributed widely such as greetings cards, calendars, T-shirts
- Contact local entertainers to produce music, songs, theatre shows around the theme of "Pregnancy is special – Let's make it safe."
- Contact local market stallholders to advertise safe motherhood slogans on their stalls
- Seek sponsorship from local industries and distributers, especially those that are affiliated with major international corporations, and ask for contributions.



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> Ces informations ne constituent pas des documents officiels

#### World Health Day Safe Motherhood 7April 1998

#### Journée mondiale de la Santé Maternité sans risque 7 avril 1998

Meeting women halfway: Ensuring women have access to care during pregnancy and delivery involves reaching out to women in the communities in which they live. In the Philippines, health care workers use locally appropriate means of transport to reach rural communities.

Aller au-devant des femmes: Pour que les femmes reçoivent des soins pendant la grossesse et au moment de l'accouchement, il faut aller audevant d'elles là où elles vivent. Aux Philippines, les agents de santé utilisent des moyens de transport adaptés à la situation locale pour se rendre dans les communautés rurales.



**Shared needs – shared care**: There are two people involved in every birth – the mother and the baby. Both need special care to ensure health and survival. Keeping mothers and newborns together helps promote immediate breastfeeding, ensures the baby is kept warm and reassures the mother that all is well. **Des besoins et des soins en commun:** Toute naissance implique deux personnes – la mère et l'enfant dont la santé et la survie demandent

des soins spéciaux. Ne pas séparer le nouveauné de sa mère aide à promouvoir l'allaitement

au sein dès la naissance, à le garder au chaud et

WHO /J. Mohr



UNICEF/Roger Lemoyne

The right to life: High levels of maternal mortality are not mere misfortunes but injustices that societies are obligated to remedy through their political, health and legal systems. Women and young girls should not risk their lives in giving new life.

Le droit à la vie: La forte mortalité maternelle est une tragédie, mais c'est aussi une injustice que la société a pour devoir de redresser par des mesures politiques, sanitaires et juridiques. Les femmes et les adolescentes ne devraient pas mettre leur vie en danger pour donner le jour à un enfant.



à rassurer la mère.

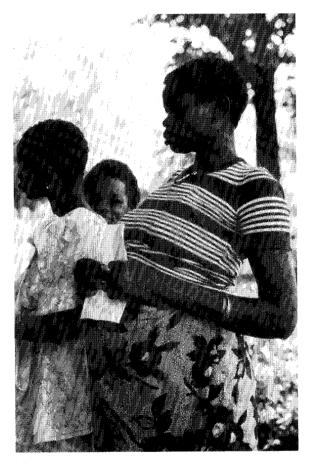
UNFPA

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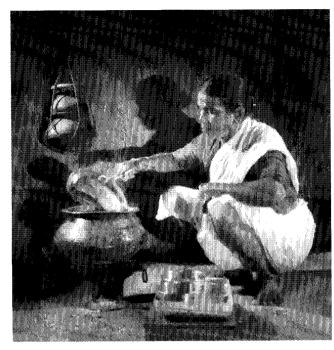
**Note importante à l'intention des rédacteurs**: Ces photos ont été imprimées en trame très ouverte afin de permettre leur reproduction directe au trait par votre propre service d'impression.

**Simple gestures that save lives**: Ensuring clean delivery does not require expensive equipment and supplies. This Indian traditional birth attendant has learned how to sterilise her instruments and ensure hygiene even in remote areas.

Des gestes simples qui sauvent la vie: Pratiquer un accouchement dans de bonnes conditions d'hygiène ne demande pas de matériel ni de fournitures coûteuses. En Inde, cette accoucheuse traditionnelle a appris à stériliser ses instruments et à respecter les règles d'hygiène, même dans une zone rurale reculée.



WHO



WHO/E. Schwab

**Children having children:** Pregnancy before physical and psychological maturity carries increased risks for mother and infant. An early unwanted pregnancy restricts the woman's lifetime opportunities.

**Quand la mère est un enfant**: La grossesse et l'accouchement avant que la mère ait atteint sa pleine maturité physique et psychologique comporte un risque accru pour la mère comme pour l'enfant. Une grossesse précoce, non désirée, restreint les chances de la mère pour le restant de sa vie.

Clean and safe birth: All women should give birth with the assistance of a person trained in midwifery. Where birth takes place at home, as is often the case in Bangladesh, it is important to ensure hygiene, to avoid harmful practices and to know where to go for help should problem arise.

Un accouchement hygiénique et sans risque: Toutes les femmes devraient accoucher avec l'aide d'une personne qualifiée en obstétrique. Lorsqu'elles accouchent chez elles, ce qui est souvent le cas au Bangladesh, il est important d'appliquer les mesures essentielles d'hygiène, d'éviter les pratiques nuisibles et de savoir où s'adresser si un problème surgit.





WHO/AbouZahr

**Choosing quality care**: Good care during pregnancy and child-birth matters to women in developed countries too. Women need to feel involved in the decisions that are taken about care. Over medicalisation and use of unnecessary procedures are challenges that are faced in many countries today.

Choisir des soins de qualité: Des soins de qualité pendant la grossesse et à l'accouchement sont importants pour les femmes, y compris dans les pays en développement. Elles doivent se sentir partie prenante dans les décisions en matière de soins. La surmédicalisation et le recours à des actes superflus sont des problèmes fréquents dans de nombreux pays aujourd'hui.

**Dealing with emergencies:** Most births do not develop major complications. But when they do arise they are often sudden and dramatic, requiring urgent care. Where roads and vehicles are not available, locally appropriate transport methods have to be used.

Agir en cas d'urgence: Les complications graves ne sont pas fréquentes à l'accouchement mais, si elles surviennent, c'est souvent brusquement et de façon dramatique, et la femme doit être soignée de toute urgence. Là où il n'y a ni routes ni véhicules, il faut utiliser des moyens de transport adaptés à la situalocale.



WHO/K. Frucht



Children by choice: Giving people the possibility to choose the number and timing of their children is one of the most effective ways of preventing unwanted pregnancies and their consequences, including unsafe abortion which results in thousands of deaths every year. In Iran, couples decide together about contraceptive methods.

Des enfants désirés: Donner aux gens la possibilité de choisir le nombre de leurs enfants et d'espacer les naissances est l'un des meilleurs moyens de prévenir les grossesses non désirées et leurs conséquences, notamment l'avortement à risque qui est à l'origine de milliers de décès chaque année. En Iran, le mari et la femme décident ensemble la méthode contraceptive à utiliser.



CEDPA Neval

It takes a village: Only women have babies but that does not mean that men have no responsibilities for ensuring that they can do so safely. In Nepal, villages have organised themselves to support pregnant women and new mothers, and have developed "songs for safe motherhood" stressing that safe motherhood is a family responsibility.

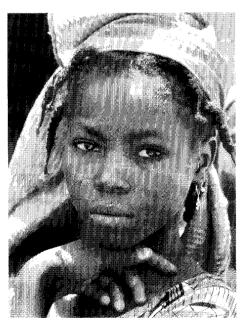
Tout le village est concerné: Seules les femmes peuvent enfanter mais cela ne signifie pas que les hommes soient dégagés de toute responsabilité quant à leur sécurité. Au Népal, des villages se sont organisés pour aider les femmes enceintes et les jeunes mères et ont composé des "chansons pour la maternité sans risque" qui rappellent que la maternité sans risque est la responsabilité de toute la famille.

The power of partnership: Ten years ago, making motherhood safer seemed like an impossible dream. Today, we know that success is attainable. International technical consultations, such as this one to mark the 10th anniversary of the Safe Motherhood Initiative in Sri Lanka, provide opportunities to share lessons learned, and mobilise resources.

La force du partenariat: Il y a dix ans, conférer une plus grande sécurité à la maternité semblait utopique. Aujourd'hui, les gens sont informés et savent que c'est possible. Des consultations techniques internationales, comme celle qui vient de marquer au Sri Lanka le dixième anniversaire de l'Initiative pour une maternité sans risque, sont l'occasion de faire connaître les enseignements tirés et de mobiliser des ressources.



Family Care International



UNICEF/Murray-Lee

Invest in the future: Interventions to ensure safe motherhood are among the most cost-effective in public health and bring benefits to women, infants and communities as a whole.

Investir dans le futur : Les interventions assurant une maternité sans risque sont parmi les plus rentables de la santé publique. Les femmes, les enfants et toute la communauté en bénéficient.