chapter three

great expectations: making pregnancy safer

This chapter argues that the three most important components of care during pregnancy are first, providing good antenatal care, second, avoiding or coping with unwanted pregnancies, and third, building societies that support women who are pregnant. Despite increasing coverage in the last decade, antenatal care can only continue to realize its considerable potential by improving responsiveness, breaking down the barriers to access and refocusing on effective interventions. Given the extent of unintended pregnancy and the unacceptably high levels of unsafe abortion around the world, continuing efforts to provide family planning services, education, information and safe abortion services – to the extent allowed by law – are essential public health interventions. Tackling the low status of women, violence against women and lack of employment rights for pregnant women is vital in helping to build societies that support pregnant women.

Pregnancy is not just a matter of waiting to give birth. Often a defining phase in a woman's life, pregnancy can be a joyful and fulfilling period, for her both as an individual and as a member of society. It can also be one of misery and suffering, when the pregnancy is unwanted or mistimed, or when complications or adverse circumstances compromise the pregnancy, cause ill-health or even death. Pregnancy may be natural, but that does not mean it is problem-free.

Rarely is a pregnancy greeted with indifference. When a pregnancy occurs, women, their partners and families most often experience a mixture of joy, concern and hope that the outcome will be the best of all: a healthy mother and a healthy baby. All societies strive to ensure that pregnancy is indeed a happy event. They do so by providing appropriate antenatal care during pregnancy to promote health and cope with problems, by taking measures to avoid unwanted pregnancies, and by making sure that pregnancies take place in socially and environmentally favourable conditions. Women around the world face many inequities during pregnancy. At this crucial time women rely on care and help from health services, as well as on support systems in the home and community. Exclusion, marginalization and discrimination can severely affect the health of mothers and that of their babies.

REALIZING THE POTENTIAL OF ANTENATAL CARE

Meeting expectations in pregnancy

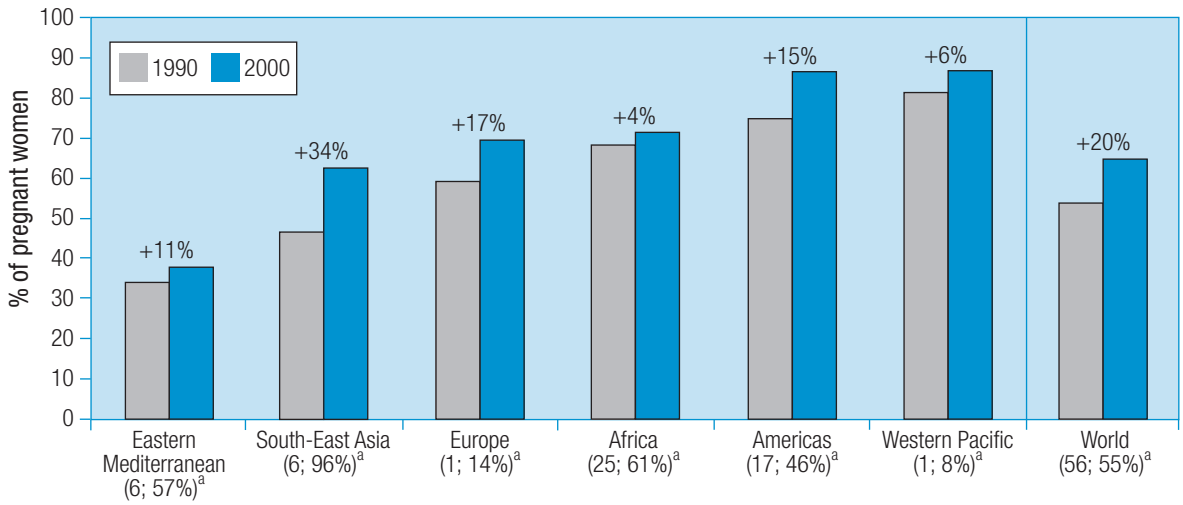
A pregnancy brings with it great hope for the future, and can give women a special and highly appreciated social status. It also brings great expectations of health care that is often willingly sought at this time. This explains, at least in part, the extraordinary success of antenatal care consultations. Women want confirmation that they are pregnant. At the same time they know that pregnancy can be dangerous, particularly in the developing world. In many countries pregnant women are likely to know of maternal deaths, stillbirths or newborn deaths among their own extended family or in their community. It is natural that demand is high for health care that can provide reassurance, solve problems that may arise and confirm the status conferred by pregnancy.

In high-income and middle-income countries today, use of antenatal care by pregnant women is almost universal – except among marginalized groups such as migrants, ethnic minorities, unmarried adolescents, the very poor and those living in isolated rural communities. Even in low-income settings, coverage rates for antenatal care – at least for one visit – are often quite high, certainly much higher than use of a skilled health care professional during childbirth.

There were noticeable increases in the use of antenatal care in developing countries during the 1990s. The greatest progress was seen in Asia, mainly as a result of rapid changes in a few large countries such as Indonesia (see Figure 3.1). Significant increases also took place in the Caribbean and Latin America, although countries in these areas already had relatively high levels of antenatal care. In sub-Saharan Africa, by contrast, antenatal care use increased only marginally over the decade (although levels in Africa are relatively high compared with those in Asia).

While antenatal care coverage has improved significantly in recent years, it is generally recognized that the antenatal care services currently provided in many parts of the world fail to meet the recommended standards. A huge potential thus

Figure 3.1 Coverage of antenatal care is rising



[a]Number of countries and percentage of the regional population included in the analysis.

Data source: Multiple Indicator Cluster Surveys (UNICEF) and Demographic and Health Surveys.

remains insufficiently exploited. Although progress has been made globally in terms of increasing access and use of one antenatal visit, the proportion of women who are obtaining the recommended minimum of four visits is too low *(1)*. The first consultation is often late in pregnancy, whereas maximum benefit requires an early initiation of antenatal care. Antenatal care is given by doctors, midwives and nurses and many other cadres of health workers *(2)*. Little is known about the capacities of non-professional workers such as traditional birth attendants to deliver the known effective interventions during pregnancy.

J. Holmes/WHO

It is October 2004 and Bounlid, from the Lao People's Democratic Republic, is seven months pregnant and feeling tired. She is finding it much harder to work and her family's income has slipped because of this. The rice-cropping season is starting and the rice needs to be brought in soon. When she goes to the fields she has to leave her children on their own, as she does not have the energy to deal with them and work at the same time.

"I've had no antenatal care and I don't expect to have any for the rest of my pregnancy. I plan to give birth at home, as I did with my other four children. It is too expensive for most people in my village to give birth with a skilled attendant at the clinic, which, in any case, has very basic facilities and no telephone or ambulance if there were complications."

Bounlid has not received any professional advice about the birth or nutrition concerning the baby.

Pregnancy – a time with its own dangers

Antenatal care is not just a way to identify women at risk of troublesome deliveries *(3, 4)*. While less prominent than the dangers that can occur during childbirth, those surrounding pregnancy are far from being negligible. Women expect that antenatal care will help them deal with the health problems that can occur during pregnancy itself. If left unchecked, some of these may threaten health and survival before the child is due to be born.

A substantial proportion of maternal deaths – perhaps as many as one in four – occur during pregnancy. Data on mortality during pregnancy, however, are very fragmentary *(5)*. The proportion of maternal deaths during pregnancy varies significantly from country to country according to the importance of unsafe abortion, violence, and disease conditions in the area *(6, 7)*. In Egypt 9% of all maternal deaths occur during the first six months of pregnancy and a further 16% during the last three months *(8)*.

Apart from complications of unsafe abortion, which can be prevented or dealt with by good post-abortion care, three types of health problems exist in pregnancy. First, the complications of pregnancy itself, second, diseases that happen to affect a pregnant woman and which may or may not be aggravated by pregnancy, and third, the negative effects of unhealthy lifestyles on the outcome of pregnancy. All have to be tackled by antenatal care.

Pregnancy has many complications that require care *(9)*. In Lusaka, Zambia, nearly 40% of pregnancy-related referrals to the university teaching hospital were related to problems of the pregnancy itself, rather than to childbirth: 27% for threatened abortion or abortion complications, 13% for illness not specific to pregnancy such as malaria and infections, and 9% for hypertensive disorders of pregnancy *(10)*. In a recent study of six west African countries, a third of all pregnant women were shown to experience some illness during pregnancy, (not including problems related to unsafe abortion) of whom 2.6% needed to be hospitalized *(11)*.

Box 3.1 Reducing the burden of malaria in pregnant women and their children

Each year, approximately 50 million women living in malaria-endemic countries throughout the world become pregnant. Around 10 000 of these women and 200 000 of their infants die as a result of malaria infection, severe malarial anaemia contributing to more than half of these deaths *(14,15)*. Malaria in pregnancy also increases the risk of stillbirth, spontaneous abortion, low birth weight and neonatal death. The risk of severe malaria is increased in pregnant women coinfected with HIV.

More than 90% of the one million annual deaths from malaria are among young African children, as are most cases of severe malarial anaemia *(16–18)*. Severe anaemia probably accounts for more than half of all childhood deaths from malaria in Africa, with case fatality rates of between 8% and 18% in hospitals *(16–22)* and probably more than that in the community.

Interventions against malaria and anaemia are well known, and though not perfect, can do a lot to reduce malaria morbidity and mortality. Maternal, neonatal and child health services are a prime vehicle for such interventions.

Apart from prompt treatment of malaria infections *(23),* maternal, neonatal and child health services can contribute by increasing the use of insecticide-treated nets and providing intermittent preventive treatment.

Insecticide-treated nets limit the harm done by malaria: they reduce parasitaemia, the frequency of low birth weight, and anaemia *(24–26)*. These nets have been shown to reduce all-cause mortality in young children by around one fifth, saving an average of six lives for every 1000 children aged 1–59 months protected each year *(26)*. They represent a highly cost-effective use of scarce health care resources *(27)*.

Intermittent preventive treatment in pregnancy is the administration of a full therapeutic dose of an antimalarial drug (sulfadoxine-pyrimethamine) at specified intervals in the second and third trimesters, regardless of whether or not the woman is infected. This reduces maternal anaemia, placental malaria, and low birth weight by approximately 40% *(28–30).* Intermittent preventive treatment is one of the most cost-effective strategies for preventing the morbidity and mortality associated with malaria *(31, 32)*, and recent evidence suggests that it may be a useful strategy for the control of malaria and anaemia in young infants *(33,34)*. An Intermittent Preventive Treatment in Infants Consortium, comprising WHO, UNICEF, and research groups in Africa, Europe and the USA, is tackling the outstanding research issues.

Classic complications of pregnancy include pre-eclampsia and eclampsia which affect 2.8% of pregnancies in developing countries and 0.4% in developed countries *(12)*, leading to many life-threatening cases and over 63 000 maternal deaths worldwide every year. Haemorrhage following placental abruption or placenta praevia affects about 4% of pregnant women *(13)*. Less common, but very serious complications include ectopic pregnancy and molar pregnancy.

Diseases and other health problems can often complicate, or become more severe during, pregnancy. Malaria worsens during pregnancy, for example, and together with anaemia is responsible for 10 000 maternal deaths and 200 000 infant deaths per year (see Boxes 3.1 and 3.2). Mortality from HIV/AIDS during pregnancy can be significant in areas where prevalence is high. Tuberculosis is frequently encountered among pregnant women and is responsible for 9% of all deaths of women of reproductive age. Maternal malnutrition is a huge global problem, both as protein-calorie deficiency and as micronutrient deficiency. Paradoxically, obesity is also increasingly becoming an issue and leads to diabetes and birthing difficulties *(45)*.

Mental ill-health in pregnancy appears to be more common than previously recognized. Although pregnancy has been regarded as a period of general psychological well-being for women *(46)*, high rates of psychiatric morbidity in pregnant women have been reported, for example in Uganda *(47)*. Pre-existing psychological disturbances can easily surface as depression, substance abuse or attempts at suicide, particularly when combined with a pregnancy that is unwanted. Rates of depression are at least as high, or higher, in late pregnancy than during the postpartum period *(48–51)*.

In addition, many pregnant women are exposed to risks that are directly related to their way of life. Unhealthy lifestyles, including consumption of alcohol, tobacco and drugs, are dangerous for both mother and fetus, as they may lead to problems such as premature detachment of the placenta, sudden infant death syndrome, fetal alcohol syndrome and childhood developmental problems *(52)*. Gender-based violence or exposure to hazards in the workplace may not be readily recognized by pregnant women as problems that health workers can help to resolve, but constitute major and underestimated public health problems (see Box 3.3).

Box 3.2 Anaemia – the silent killer

Anaemia is one of the world's leading causes of disability *(35)* and thus one of the most serious global public health problems. It affects nearly half of the pregnant women in the world: 52% in non-industrialized countries – compared with 23% in industrialized countries *(36)*. The commonest causes of anaemia are poor nutrition, iron and other micronutrient deficiencies, malaria, hookworm and schistosomiasis. HIV infection *(37)* and haemoglobinopathies make important additional contributions.

Anaemia during pregnancy has serious clinical consequences. It is associated with greater risk of maternal death, in particular from haemorrhage *(38)*. Severely anaemic pregnant women are less able to withstand blood loss *(39)* and may require blood transfusion which is not always available in poor countries and is not without risks. Anaemia during pregnancy is also associated with increased stillbirths, perinatal deaths, low-birth-weight babies and prematurity *(40)*. In malaria-endemic countries, anaemia is one of the commonest preventable causes of death in pregnant women and also in children under five years of age *(41)*. Reducing the burden of anaemia is essential to achieve the Millennium Development Goals relating to maternal and childhood mortality. The greatest burden of anaemia falls on the most "hard-to-reach" individuals. WHO has published clinical guidelines in its Integrated Management of Pregnancy and Childbirth series *(42–44)*.

The strategy for control of anaemia in pregnant women includes: detection and appropriate management; prophylaxis against parasitic diseases and supplementation with iron and folic acid; and improved obstetric care and management of women with severe anaemia.

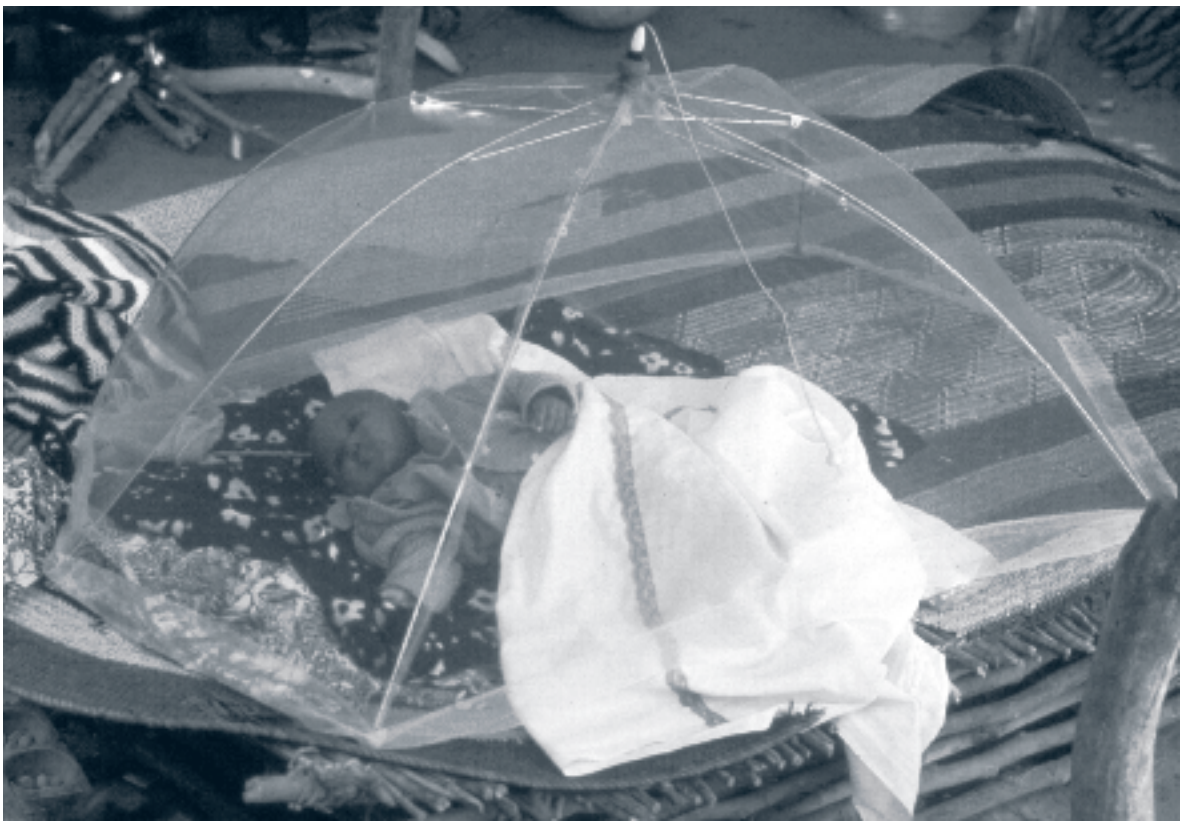
Successful delivery of these cost-effective interventions requires the integrated efforts of several health programmes – particularly those targeted at pregnant women and young children – and the strengthening of health systems, increased community awareness, and financial investment.

Seizing the opportunities

Good antenatal care does more than just deal with the complications of pregnancy. Women are the largest group of health care users actively and willingly seeking care at clinics. This offers enormous opportunities to use antenatal care as a platform for programmes that tackle nutrition, HIV/AIDS, sexually transmitted infections, malaria and tuberculosis, among others. This and other opportunities have so far been insufficiently exploited. Three important opportunities during antenatal care should not be missed.

First, antenatal consultations offer an opportunity to promote healthy lifestyles that improve long-term health outcomes for the woman, her unborn child, and possibly her family. The promotion of family planning is the foremost example of this and can have a positive impact on contraceptive use after birth. Some women actually prefer to discuss family planning methods during pregnancy or as part of postnatal care *(64, 65)*. Another example of an opportunity for prenatal health promotion is that of smoking cessation programmes in pregnancy, which appear to be successful *(66)*. They reduce the risks of low birth weight and preterm birth, and improve the pregnant woman's health in the long term as well.

Second, antenatal care provides an opportunity to establish a birth plan *(67)*. Apart from planning the birth, making the plan is a chance to inform women and their families of the potential for unexpected events. Birth preparedness itself includes planning the desired place of birth, the preferred birth attendant and birth companion, and finding



P. Carnevale/WHO

This young child in Niger is protected by an insecticide-treated bednet.

out the location of the closest appropriate care facility. It also involves securing funds for birth-related and emergency expenses, finding transport for facility-based birth and identifying compatible blood donors in case of emergency. Birth planning has been used in many developed countries for more than a decade with beneficial effects *(68–70)*, and has been introduced with success in developing countries as well, albeit on too limited a scale so far.

Third, the antenatal care consultation is an opportunity to prepare mothers for parenting and for what will happen after the birth. Women and their families can learn how to improve their health and seek help when appropriate, and, most importantly, how to take care of the newborn child. Advice on parenting skills is particularly important for pregnant adolescents and women with low self-esteem *(71)*, and can improve the care that newborns and children will receive in the future *(72)*. It helps to build a healthy family environment that is responsive to the child's needs.

Critical directions for the future

Antenatal care started out in the first half of the 20th century as a means to educate "ignorant" women with an emphasis on the welfare of the infant and child. This was a response to what had been identified as inadequate devotion to maternal duty resulting in the poor physical stock of nations *(73)*. In the 1950s it was used as an instrument for screening, so that women at higher risk of complications could be identified. Although antenatal care turned out to be a poor screening instrument, few people would deny that many pregnancy complications, concurrent illnesses and health problems can be dealt with in an antenatal care consultation that focuses on effective interventions.

Antenatal care has come a long way, but can go much further. Four directions are critical: to rationalize the rituals of care, to roll out antenatal care as a platform for a number of other key health programmes, to establish communication with women more effectively, and to avoid the overmedicalization that can do more harm than good. Most importantly, the unfinished agenda of reaching all women who are pregnant should be tackled.

All too often, antenatal care is still more a question of ritual than of effective interventions. Many of the tests and procedures carried out during a traditional antenatal consultation have very little scientific merit *(74)*. Many ineffective interventions, such

Box 3.3 Violence against women

Violence against women by a partner is a global public health problem and a human rights violation. This violence often persists and sometimes may start during pregnancy, with serious implications for the health of the mother and child. In studies from countries such as Egypt, Ethiopia, India, Mexico and Nicaragua, 14–32% of women report having been physically or sexually abused during pregnancy. The perpetrator is usually their partner *(53)*. In Peru, 15% of women in Lima and 28% in the Department of Cusco have experienced physical violence during pregnancy *(54)*. In Canada, Sweden, Switzerland and the United Kingdom, rates of abuse during pregnancy are between 4% and 11%. Violence during pregnancy can kill: in Pune, India, 16% of all deaths during pregnancy in 400 villages and seven hospitals were attributed to partner violence *(55)*. Apart from physical trauma, violence increases the likelihood of premature labour, low birth weight, anaemia, sexually transmitted infections, urinary infections, substance use, depression and other mental health problems *(56)*.

Antenatal care provides an opportunity for the identification of instances of violence during pregnancy – a first step towards providing support to the expectant mother and helping her to find solutions. Experience shows, however, that this identification is only useful when appropriate support and/or referral can be provided. Health workers must not only be sensitive to the subject, but also need to know how to deal with it. Physicians, nurses, midwives and others involved in the care of pregnant women have to be specifically trained to recognize and know how to ask about intimate partner violence, provide information in a confidential and non-judgemental way, and provide care and support, including through appropriate referral *(57–63)*.

as routine weighing of the woman at each consultation to assess maternal well-being and fetal growth, could be dispensed with *(75)*. They take up valuable time which could be more usefully dedicated to counselling women on healthy lifestyles and health problems such as the detection and management of existing diseases.

This interaction between antenatal care and coping with women's circumstances and pre-existing diseases is the most underestimated aspect of care in pregnancy. The potential for antenatal care to be much more far-reaching in this respect has not been fully exploited. As a platform for other health programmes such as HIV/AIDS and other sexually transmitted infections, malaria, TB and family planning, the resource of antenatal care is invaluable. WHO guidelines are readily available *(42)* to advise on care, prevention and treatment of diseases during pregnancy. Moreover, pregnancy is a time when a dialogue about health and relevant social issues can be established between women and health services staff. Establishing communication with women and linking up the medical and social worlds will make care more human, and ultimately more responsive.

A frequently forgotten issue is that of supply-driven overmedicalization of normal pregnancies, sometimes for reasons of financial gain. Overmedicalized care can needlessly damage the health of both mothers and babies and expose households to unnecessary expenditure. All too often, sophisticated investigations such as ultrasound scanning are performed without justification at every antenatal visit, while useful procedures such as blood pressure measurement are neglected and the establishment of birth plans and counselling on existing health problems are omitted. This has gone to extremes in some countries, where ultrasound is used to detect female fetuses for the purposes of sex-selective abortion.

In terms of coverage, there is some way to go to provide at least four care contacts during each pregnancy, starting early enough to ensure that effective interventions are used. Women need providers who are skilled enough to offer care that is linked into a health care system that has continuity with childbirth care. The barriers to extending coverage are twofold. First, in some areas no services are offered, implying the need for outreach or services that can be physically accessed. Second, services are often not responsive enough. Complaints of unhelpful and rude health personnel, unexpected and unfair costs, unfriendly opening hours and the lack of involvement of male partners are not uncommon. Relatively straightforward changes to the arrangements of how antenatal care sessions are run (for instance not limiting antenatal care to one session per week) can sometimes make significant improvements to uptake. Adolescent girls are particularly vulnerable in this respect. Services that are responsive to them and young women will make a great contribution to the expansion of antenatal care. The question should not be "why do women not accept the service that we offer?", but "why do we not offer a service that women will accept?" *(76)*.

NOT EVERY PREGNANCY IS WELCOME

Planning pregnancies before they even happen

Many women intend to get pregnant. Each year an estimated 123 million succeed. But a substantial additional number of women – around 87 million – become pregnant unintentionally. For some women and their partners this may be a pleasant surprise, but for others the pregnancy may be mistimed or simply unwanted *(77)*. Of the estimated 211 million pregnancies that occur each year, about 46 million end in induced abortion (see Figure 3.2) *(78)*.

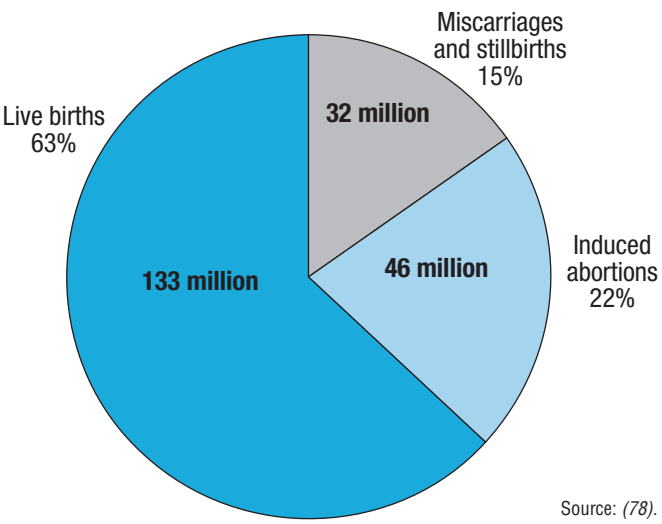
Despite the large number of unintended pregnancies, many more women than ever before control their reproductive life by spacing their pregnancies more widely or limiting the number of pregnancies. Some 30 years of effort to bring contraceptive services within people's reach have not been in vain. In developing countries, contraceptive prevalence has risen from around 10% in the early 1960s to 59% at the turn of the millennium *(79)*. Despite falling international financial support, there has been a 1% annual increase in contraceptive prevalence over the last 10 years worldwide *(80)*. A corresponding global drop in fertility has been seen, with the current average number of children per woman standing at 2.69, compared with 4.97 in the early 1960s *(81)*.

Nevertheless, as more women than ever before reach reproductive age, millions who do not want a child or who want to postpone their next pregnancy are not using any contraception *(82)*. This growing unmet need may be due to the lack of access to contraceptives, an issue in particular for adolescents, or it may result from women not using them. The most commonly given reason – in about 45% of cases – for not using a contraceptive method is a perceived lack of exposure to pregnancy. Fear of side-effects and cost is a reason for non-use in about one third of cases. Opposition to use is a lesser but still significant reason for non-use, frequently attributed to the husband *(83)*. For all of these reasons, uptake of contraception is still very low in many parts of Africa, and patchy in other continents. According to recent survey data some countries are actually experiencing a reversal in family planning coverage.

Even if all the needs for contraception were met, there would still be many unwanted and mistimed pregnancies. Although most modern methods of contraception are highly effective if used consistently, advice and counselling on their correct use is often not available. If all users were to follow instructions perfectly, there would still be nearly 6 million accidental pregnancies per year. The fact is that with typical, real-life use of contraceptives, an estimated 26.5 million unintended pregnancies occur each year because of inappropriate use or method failure *(84)*. In addition, dissatisfaction with methods can lead to discontinuation, which is often associated with lack of choice, incorrect use or fear of side effects, all symptoms of poor quality family planning counselling and services.

What the research on unmet need for contraception and on contraceptive failure does not capture well is the role of unequal power relations between men and women. These contribute substantially to both unwanted sex and subsequent unwanted pregnancy *(85)*. Young women are at particular risk of unwanted sex, or sex in unwanted conditions, particularly when there are large age differences between them and their partners *(85)*. Between 7% and 48% of adolescent girls report that their first sexual experience was forced *(86, 87)*. Adolescent girls are more likely to be pressured into sexual activity at an

Figure 3.2 The outcomes of a year's pregnancies



Source: *(78)*.

older man's request or by force, and often must rely on the man to prevent pregnancy. Women who are coerced into sex or who face abuse from partners are less likely to be in a position to use contraception, and are therefore more exposed to unintended pregnancy than others. Women who have experienced a sexual assault often fear pregnancy and delay medical examination or health care. There is increasing evidence that violence is associated with unintended pregnancies. Up to 40% of women attending for pregnancy termination have experienced sexual and/or physical abuse at some stage of their lives *(88, 89)*.

Unintended and unwanted pregnancies – owing to unmet need for contraception, to contraceptive failure, or to unwanted sex – if brought to term, carry at least the same risks as those that are desired and deliberate. It is estimated that up to 100 000 maternal deaths could be avoided each year if women who did not want children used effective contraception *(90)*. When maternal illnesses are also taken into account, preventing unwanted pregnancies could avert, each year, the loss of 4.5 million disability-adjusted life years *(91)*.

The implications of unwanted pregnancy are substantial enough, but there is also evidence to suggest that effective contraception can contribute to better maternal health – above and beyond averting these deaths and disabilities – in two ways. First, because unwanted pregnancies carry a greater risk than those that are wanted. By tackling unmet need for contraception for young girls and for older women and also for those who want to space their births, high-risk pregnancies that are unwanted can be avoided. Moreover, there are benefits for the child. Spacing pregnancies by at least two years increases the chance of child survival *(92)*. Second, there are some indications that women whose pregnancy is wanted take more care of their pregnancy than others: they are more likely to receive antenatal care early in pregnancy, to give birth under medical supervision, or to have their children fully vaccinated *(90)*. Finally, a major contribution of contraception to reducing maternal death and disability is through its potential to decrease unsafe abortions.

Unsafe abortion: a major public health problem

Of the 46 million pregnancies that are terminated each year around the world, approximately 60% are carried out under safe conditions. From a public health viewpoint the distinction between safe and unsafe abortion is important. When performed by trained health care providers with proper equipment, correct technique and sanitary standards, abortion carries little or no risk. The case fatality is no more than 1 per 100 000 procedures *(78, 84)*, which is less than the risk of a pregnancy carried to term in the best of circumstances.

However, more than 18 million induced abortions each year are performed by people lacking the necessary skills or in an environment lacking the minimal medical standards, or both, and are therefore unsafe *(93, 94)*. Almost all take place in the developing world. With 34 unsafe abortions per 1000 women, South America has the highest ratio, closely followed by eastern Africa (31 per 1000 women), western Africa (25 per 1000 women), central Africa (22 per 1000 women), and south Asia (22 per 1000 women) *(93)*. The fact that women seek to terminate their pregnancies by any means available in circumstances where abortion is unsafe, illegal or both, demonstrates how vital it is for them to be able to regulate their fertility. Women pay heavily for unsafe abortions, not only with their health and their lives but financially as well. In Phnom Penh, Cambodia, for example, the going rate for an abortion – legal,

but most often unsafe – ranged between US$ 15 and US$ 55 in 2001: the equivalent of several months' salary for a public sector nurse *(95)*.

Unsafe abortion is particularly an issue for younger women. Two thirds of unsafe abortions occur among women aged between 15 and 30 years. Around 2.5 million, or almost 14% of all unsafe abortions in developing countries, are among women under 20 years of age. The age pattern of unsafe abortions differs markedly from region to region. The proportion of women aged 15–19 years in Africa who have had an unsafe abortion is higher than in any other region and almost 60% of unsafe abortions are among women aged less than 25 years. This contrasts with Asia where 30% of unsafe abortions are in women of this age group. In the Caribbean and Latin America, women aged 20–29 years account for more than half of all unsafe abortions *(93)*.

Everywhere, though, and in all age groups, the consequences are dramatic. The risk of dying from an unsafe abortion is around 350 per 100 000, and 68 000 women a year die in this way. In addition, the non-fatal complications and the sequelae contribute significantly to the global burden of disease *(96),* not to mention the emotional turmoil that goes with so many unsafe abortions *(97)*. Unsafe abortions also result in high costs for the health system. In some developing countries, hospital admissions for complications of unsafe abortion represent up to 50% of obstetric intake *(98, 99)*. In Lusaka, Zambia, they represent 27% of non-delivery referrals to the obstetric-gynaecological services *(10)*. The mobilization of hospital beds, blood supplies, medication, operating theatres, anaesthesia and medical specialists is a serious drain on limited resources in many countries *(84)*. The daily cost of a patient hospitalized as a result of unsafe abortion can be more than 2500 times the daily per capita health budget *(100)*.

DEALING WITH THE COMPLICATIONS OF ABORTION

At the 1994 International Conference on Population and Development (ICPD) in Cairo, unsafe abortion was identified as a major public health concern and governments agreed to work for its elimination. The plan of action included better access to modern contraceptive methods, to high-quality post-abortion care (needed for treating the complications of miscarriages as well as those of unsafely induced abortions), and to safe abortion services to the full extent permitted by local laws. The United Nations General Assembly's special session in 1999 (ICPD+5) stated that "in circumstances where abortion is not against the law, health systems should train and equip health-service providers and should take other measures to ensure that such abortion is safe and accessible" *(101)*.

Safe and comprehensive post-abortion care for the complications of induced abortion, and the provision of abortion services to the extent permitted by law, remain severely restricted by the deficiencies of health systems and lack of access. Women, particularly adolescents, the poor and those living in rural areas, often do not know where to find services that are safe and legal. They may lack the resources, time or decision-making power to avail themselves of such services, or be deterred by lack of privacy and confidentiality and by the attitudes of health care providers *(102)*. The result is that many women, particularly in developing countries, may then resort to unqualified providers or "quacks" and put their lives in danger. A particularly dramatic case is that of refugees, in a context where systematic rape is increasingly used as a weapon of war. Most countries permit abortion in such circumstances, yet women as well as health care providers are often unaware of this, and humanitarian assistance, for example in refugee camps, tends to neglect this issue *(103)*.

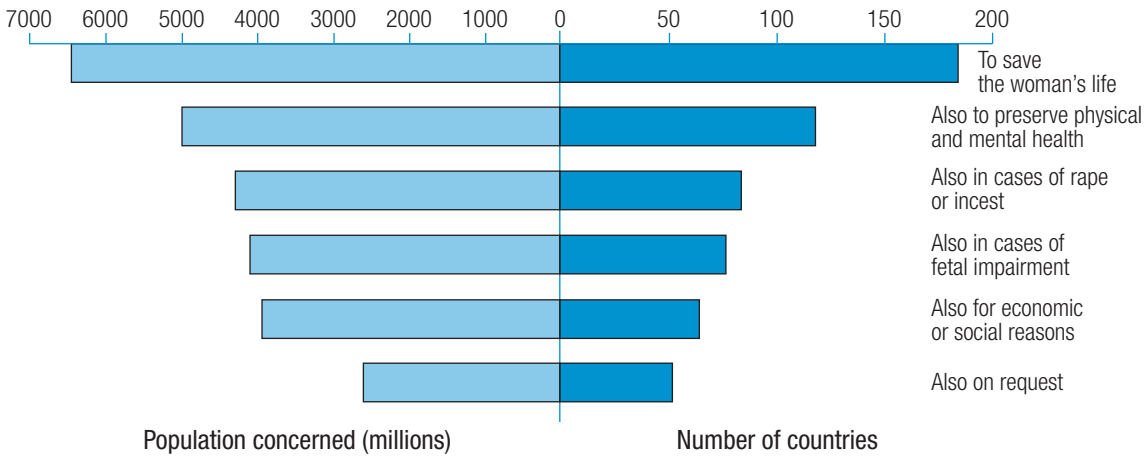
Abortion is legal, on varying grounds, in many countries (see Figure 3.3), but even policy-makers and professionals are often only vaguely aware about what the law permits and what it does not. Where legislation is less restrictive, there are, in principle, more possibilities for women to terminate an unwanted pregnancy under safe conditions. Yet, services may be poorly equipped or health personnel inadequately trained, even though the training, equipment and policies needed to ensure that women eligible under law have access to safe care are neither complicated nor costly *(84)*. In India, for example, where a liberal abortion law has been in place since 1974, unsafe abortions still outnumbered safe abortions by a factor of 7 in the early 1990s, as a result of administrative barriers and lack of information, with deaths from unsafe abortion accounting for 20% of all maternal deaths. But where, to the extent permitted by law, measures are taken to train and equip professionals and facilitate access to safe services and information, as recommended by the United Nations General Assembly, women are less likely to resort to unsafe abortion.

Every year, many millions of women experience the distressing event of an unwanted pregnancy. Continued investment in education, information, and public provision of contraceptive services can go a long way to keep this to a minimum – although no family planning policy will prevent all unwanted pregnancies. But it is possible to avoid all of the 68 000 deaths as well as the disabilities and suffering that go with unsafe abortions. This is not only a question of how a country defines what is legal and what is not, but also of guaranteeing women access, to the fullest extent permitted by law, to good quality and responsive abortion and post-abortion care.

VALUING PREGNANCY: A MATTER OF LEGAL PROTECTION

Even in societies that value pregnancy highly, the position of a pregnant woman is not always enviable. A social environment that accords poor status to women generally also tends to marginalize pregnant women. An extreme expression of this is violence against women, a major public health challenge all over the world *(54)*. Women abused during pregnancy are at increased risk of miscarriage, murder and suicide, and their babies are prone to low birth weight and fetal distress *(105)*.

Figure 3.3 Grounds on which abortion is permitted around the world



Data source: *(104)*.

Since the United Nations International Conference on Population and Development (ICPD) Programme of Action in 1994, many countries have elaborated or refined their laws to support the ICPD goals. For instance, many countries have passed laws criminalizing violence against women, and several have passed legislation outlawing female genital mutilation. As these laws are gradually implemented, they serve to protect girls and women who are pregnant, but also to promote their overall health.

Protection for women who are pregnant cannot be provided without the support of a legal and policy framework. Some of the most obvious laws and policies include establishing a minimum age for marriage, criminalizing violence against women, prohibiting harmful practices such as female genital mutilation, and enforcing birth registration. All countries have ratified at least one (and many have ratified all) of the international human rights treaties. These place the legal obligation on countries to take measures to ensure that their citizens' rights are protected and fulfilled, and provide a starting point for effective protection.

Based on such frameworks, a wide range of specific legal and regulatory measures can be taken to improve the protection of women who are pregnant. These rights include the provision of information on sexual and reproductive health, establishing mandatory routine audits and reviews of maternal, perinatal and neonatal deaths, and legal measures for the financial protection and support of pregnant women. The latter concern coverage of medical expenses as well as measures to guarantee their income.

The International Labour Organization's Maternity Protection Convention (adopted in 1919 and last revised in 2000) sets a minimum standard for what should be included in national legislation in this regard *(106)*. The Convention provides for protection against dismissal of women during pregnancy, maternity leave and the breastfeeding period, and also for cash benefits. It encompasses coverage of antenatal, childbirth and postnatal care and hospitalization care when necessary, and working hours and tasks that are not detrimental to mother or child. It calls for 14 weeks of maternity leave, of which six weeks must be postnatal leave to safeguard the health of mother and child. This aspect of the Convention covers all married and unmarried employed women, including those in unusual forms of dependent work. This can be interpreted broadly to cover women in all sectors of the economy, including the informal sector, but in practice legislation usually covers only women who are employed in the formal sector. With increasing urbanization and the development of the formal economy, compliance with these minimum standards is increasingly becoming an issue, in developing as well as developed countries.

On the other hand, existing laws, policies and regulations that limit access to health services for unmarried women or for those under a certain age, effectively screen out many women in need. The same is true for services that require up-front payment and exclude those too poor to pay. There are still health services that require third-party authorization (usually by a husband) for treating a woman, pregnant or not, even if no such requirement exists in the national law. If all women who are pregnant are to be protected, these kinds of situations need urgent attention, which often requires the revision of policies and regulations. Environmental, social and legal circumstances can be unfavourable for pregnant women. Referring to the overarching human rights frameworks can do much to eliminate sources of social exclusion, and is as important as providing antenatal care.

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