

## Sexual and Reproductive Health 1



# Sexual and reproductive health: a matter of life and death

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Despite the call for universal access to reproductive health at the 4th International Conference on Population and Development in Cairo in 1994, sexual and reproductive health was omitted from the Millennium Development Goals and remains neglected (panel 1). Unsafe sex is the second most important risk factor for disability and death in the world's poorest communities and the ninth most important in developed countries. Cheap effective interventions are available to prevent unintended pregnancy, provide safe abortions, help women safely through pregnancy and child birth, and prevent and treat sexually transmitted infections. Yet every year, more than 120 million couples have an unmet need for contraception, 80 million women have unintended pregnancies (45 million of which end in abortion), more than half a million women die from complications associated with pregnancy, childbirth, and the postpartum period, and 340 million people acquire new gonorrhoea, syphilis, chlamydia, or trichomonas infections. Sexual and reproductive ill-health mostly affects women and adolescents. Women are disempowered in much of the developing world and adolescents, arguably, are disempowered everywhere. Sexual and reproductive health services are absent or of poor quality and underused in many countries because discussion of issues such as sexual intercourse and sexuality make people feel uncomfortable. The increasing influence of conservative political, religious, and cultural forces around the world threatens to undermine progress made since 1994, and arguably provides the best example of the detrimental intrusion of politics into public health.

The international community has been concerned about population growth for more than a century. In 1994, at the most recent of a series of UN conferences devoted to population, delegates from the governments of 179 countries and more than 1200 non-governmental organisations (NGOs) met in Cairo at the International Conference on Population and Development (ICPD) and agreed a 20-year programme of action to improve sexual and reproductive health, foster reproductive rights, and stabilise the world's population.<sup>1</sup>

Unlike previous population conferences, the Cairo conference reflected the growing awareness that population, poverty, health, education, patterns of production and consumption, and the environment are all inextricably linked. Although these links now seem obvious, at the time this awareness represented a major shift in attitude towards population growth. Another major shift in attitudes was in the 15 guiding principles underpinning the programme of action, which incorporated several universally recognised human

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This is the first in a [Series](#) of six articles about sexual and reproductive health

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### Panel 1: Key messages

- 1 The 4th International Conference on Population and Development (ICPD), held in Cairo in 1994, recognised the reproductive and sexual needs and rights of individuals, and called for universal access to sexual and reproductive health services by 2015.
- 2 The eight Millennium Development Goals fatally omitted sexual and reproductive health, which is essential for the attainment of goals 3, 4, and 5; although this situation might be rectified if the recent UN Millennium Project report recommendations are actioned.
- 3 Unsafe sex is the second most important risk factor leading to disability or death in the poorest communities and the ninth most important in developed countries.
- 4 Despite very large increases in the prevalence of modern contraceptive use, in some parts of the world, particularly in Africa, total fertility rates and the unmet need for contraception remain high.
- 5 Hundreds of millions of women every year suffer disability as a result of pregnancy complications, and more than half a million die in pregnancy and childbirth, or following unsafe abortion. Almost all of these deaths are preventable.
- 6 Sexually transmitted infections, excluding HIV/AIDS, are the second most important cause of loss of health in women, especially young women, and are a substantial cause of morbidity in men.
- 7 Adolescents are especially vulnerable to sexual and reproductive ill health as they often have unexpected sex and find access to services difficult or denied.
- 8 Violence against women is common and is a major cause of ill health, and a consequence (and cause) of gender inequality.
- 9 Female genital mutilation is associated with obstetric morbidity and an increased risk of stillbirth and early neonatal death.
- 10 Obstetric fistula, pelvic pain, and faecal and urinary incontinence cause widespread morbidity but receive little attention as public health problems.
- 11 Although a major cause of morbidity and mortality, sexual and reproductive health has been neglected. The increasing effect of conservative political, religious, and cultural forces threatens to undermine progress made since ICPD.

**Panel 2: Cairo definition of reproductive health**

"Reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health therefore implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. Implicit in this last condition are the right of men and women to be informed and to have access to safe, effective, affordable and acceptable methods of family planning of their choice, as well as other methods of their choice for regulation of fertility which are not against the law, and the right of access to appropriate health-care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant. In line with the above definition of reproductive health, reproductive health care is defined as the constellation of methods, techniques and services that contribute to reproductive health and well-being by preventing and solving reproductive health problems. It also includes sexual health, the purpose of which is the enhancement of life and personal relations, and not merely counselling and care related to reproduction and sexually transmitted diseases."<sup>1</sup>

rights. These rights included the recognition that advancement of gender equality and equity and the empowerment of women, and the elimination of all kinds of violence against women, and ensuring women's ability to control their own fertility, are cornerstones of population and development-related programmes.<sup>1</sup>

The link between fertility regulation and development goals in the context of human rights changed the focus of governments and NGOs from classic population-control policies and large-scale family planning programmes to recognition of the needs and rights of individuals. Through the Cairo conference, the notions of reproductive health and reproductive rights were defined and universally applied. The Cairo definition of reproductive health is long and includes sexual health (panel 2). The emphasis on sexual health as a separate public health issue arose later as a result of, inter alia, the HIV pandemic, increasing global rates of sexually transmitted infections, and the growing recognition of the public health importance of issues such as violence against women and girls (panel 3).

Sexual health and reproductive health overlap and, in addition to supporting normal physiological functions such as pregnancy and childbirth, aim to reduce adverse outcomes of sexual activity and reproduction. They are also about enabling people of all ages, including adolescents and those older than the reproductive years, to have safe and satisfying sexual relationships by tackling obstacles such as gender discrimination, inequalities in access to health services, restrictive laws, sexual coercion, exploitation, and gender-based violence.

Sexual and reproductive health services are not only family planning clinics with some treatment of sexually transmitted infections. The five core components of sexual and reproductive health care are: improvement of antenatal, perinatal, postpartum, and newborn care;

**Panel 3: Definition of sexual issues****Sexual health**

Sexual health is a state of physical, emotional, mental, and social wellbeing in relation to sexuality; it is not merely the absence of disease, dysfunction, or infirmity. Sexual health needs a positive and respectful approach to sexuality and sexual relationships, and the possibility of having pleasurable and safe sexual experiences that are free of coercion, discrimination, and violence. For sexual health to be attained and maintained, the sexual rights of all individuals must be respected, protected, and satisfied.

**Sexuality**

Sexuality is a central aspect of humanity and encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy, and reproduction. Sexuality is experienced and expressed in thoughts, fantasies, desires, beliefs, attitudes, values, behaviours, practices, roles, and relationships. Although sexuality can include all of these dimensions, not all are always experienced or expressed. Sexuality is affected by the interaction of biological, psychological, social, economic, political, cultural, ethical, legal, historical, religious, and spiritual factors.

**Sexual rights**

Sexual rights embrace human rights that are already recognised in national laws, international human rights documents and other consensus statements. They include the right of all individuals, free of coercion, discrimination and violence, to:

- the highest attainable standard of sexual health, including access to sexual and reproductive health care services;
- seek, receive, and impart information related to sexuality;
- sexuality education;
- respect for bodily integrity;
- choose their partner;
- decide whether or not to be sexually active;
- consensual sexual relations;
- consensual marriage;
- decide whether or not, and when, to have children;
- pursue a satisfying, safe and pleasurable sexual life.

The responsible exercise of human rights requires that all individuals respect the rights of others.

These working definitions were elaborated as a result of a WHO-convened international technical consultation on sexual health in January 2002, and subsequently revised by a group of experts from different parts of the world. These definitions do not represent an official WHO position, and should not be used or quoted as WHO definitions. ([http://www.who.int/reproductive-health/gender/sexual\\_health.html#3](http://www.who.int/reproductive-health/gender/sexual_health.html#3) accessed July 6, 2006).

provision of high-quality services for family planning, including infertility services; elimination of unsafe abortions; prevention and treatment of sexually transmitted infections, including HIV, reproductive tract infections cervical cancer, and other gynaecological morbidities; and promotion of healthy sexuality.<sup>2</sup>

In 1994, at the ICPD, governments agreed to provide "universal access"<sup>1</sup> to reproductive health by 2015 as part

Poorest countries	Developed countries
1. Underweight	1. Tobacco
2. Unsafe sex	2. High blood pressure
3. Unsafe water and sanitation	3. Alcohol
4. Indoor smoke from solid fuels	4. High cholesterol
5. Zinc deficiency	5. High BMI
6. Iron deficiency	6. Low fruit & vegetable intake
7. Vitamin A deficiency	7. Physical inactivity
8. High blood pressure	8. Illicit drugs
9. Tobacco	9. Unsafe sex
10. High cholesterol	10. Iron deficiency

**Table: Most important risk factors leading to disease, disability, or death<sup>8</sup>**

of a package for improvement of people's health and wellbeing, reduction of population growth, and promotion of sustainable development. Practically, the burden of ill-health can be reduced only if access to affordable services that deliver high-quality sexual and reproductive health care becomes universal. The ICPD consensus was reaffirmed at the UN General Assembly Special Session in 1999,<sup>3</sup> yet the central ICPD goal of universal access to reproductive health was excluded from the 2000 Millennium Declaration<sup>4</sup> and from the eight Millennium Development Goals (MDGs) formulated in 2001.<sup>5</sup> However, this exclusion is becoming recognised as a mistake since sexual and reproductive health is now regarded as essential for achievement of all MDGs.<sup>6</sup> Accordingly, at the World Summit in September, 2005, governments re-committed themselves to achieve universal access to reproductive health by 2015.<sup>7</sup>

Sexual and reproductive health should not be difficult to achieve. We have methods of contraception (including reversible ones) that prevent almost all unwanted pregnancies. Simple technologies that have existed for decades make childbirth in the 21st century very safe. People can be taught skills that enhance safe-sex practices and most sexually transmitted infections are treatable; even HIV is no longer the death sentence it once was. Yet worldwide, the burden of sexual and reproductive ill-health remains enormous.

WHO identified unsafe sex as the second most important risk factor for disease, disability, or death in the poorest communities and the ninth in developed countries (table).<sup>8</sup> Sexual and reproductive health statistics make for sobering reading, although such statistics are at best estimates (and probably underestimates because of stigma associated with sexual issues).

Every year, an estimated 210 million women have life-threatening complications of pregnancy, often leading to serious disability, and a further half a million women die in pregnancy, childbirth, and the puerperium (more than 99% of these deaths are in developing countries).<sup>9</sup> Three million babies die in the first week of life and about 3·3 million infants are stillborn every year.<sup>10,11</sup> More than 120 million couples have an unmet need for

contraception<sup>12</sup> and 80 million women each year have unwanted or unintended pregnancies, 45 million of which are terminated.<sup>13</sup> Of these 45 million abortions, 19 million are unsafe, 40% of them are done on women aged under 25, and about 68 000 women die every year from complications of unsafe abortion.<sup>14</sup>

An estimated 340 million new cases of four common sexually transmitted bacterial and protozoal infections are acquired every year, at least a third of which affect people aged under 25.<sup>15</sup> Such infections contribute to the global problem of infertility, which affects more than 180 million couples in developing countries (excluding China).<sup>16</sup> Nearly 5 million new HIV infections<sup>17</sup> and 257 000 deaths from cervical cancer every year<sup>18</sup> complete this long and dismal record of sexual and reproductive ill-health. Physical and sexual violence, reported by between one in two and one in six women, is an underlying risk factor for many of these sexual and reproductive health problems.<sup>19</sup>

### Antenatal, perinatal, postpartum, and newborn care

Despite some accomplishments, maternal mortality rates in many countries have remained more or less static in the past 15 years, and more than half a million maternal deaths take place each year. Yet, in the 21st century, no excuses can be made for so many women dying in pregnancy and childbirth. The burden of maternal morbidity and mortality shows one of the largest differentials between rich and poor countries.<sup>20</sup> WHO's systematic review of maternal mortality and morbidity points to some important regional differences in the contribution of the major causes of deaths.<sup>21</sup>

The international emphasis on prevention and treatment of postpartum haemorrhage seems well justified in view of data from Africa and Asia, where 33·9% and 30·8 % of maternal deaths, respectively, are attributable to this complication. Additionally, anaemia (12·8%), infections or sepsis (11·6%), and obstructed labour (9·4%) account for substantial proportions of maternal deaths in Asia (figure 1). Hypertensive disorders continue to be a major cause of mortality, especially in Latin America. Unsurprisingly, HIV infection is emerging as an important cause of maternal death in Africa (6·2 %).

Maternal deaths from obstructed labour are consigned to history in the developed world, where cheap and effective interventions to prevent and treat postpartum haemorrhage, infection, and hypertensive disorders of pregnancy have existed for many years.<sup>22</sup> Yet, in the developing world, a third of all pregnant women receive no health care during pregnancy, 60% of deliveries take place outside health facilities, and only about 60% of all deliveries are attended by trained staff.<sup>23,24</sup> As long as effective strategies to increase attendance of skilled personnel at birth, provide emergency obstetric care, and promote institutional deliveries are not implemented (and as long as practice remains poor), to reduce maternal mortality and morbidity will be difficult.

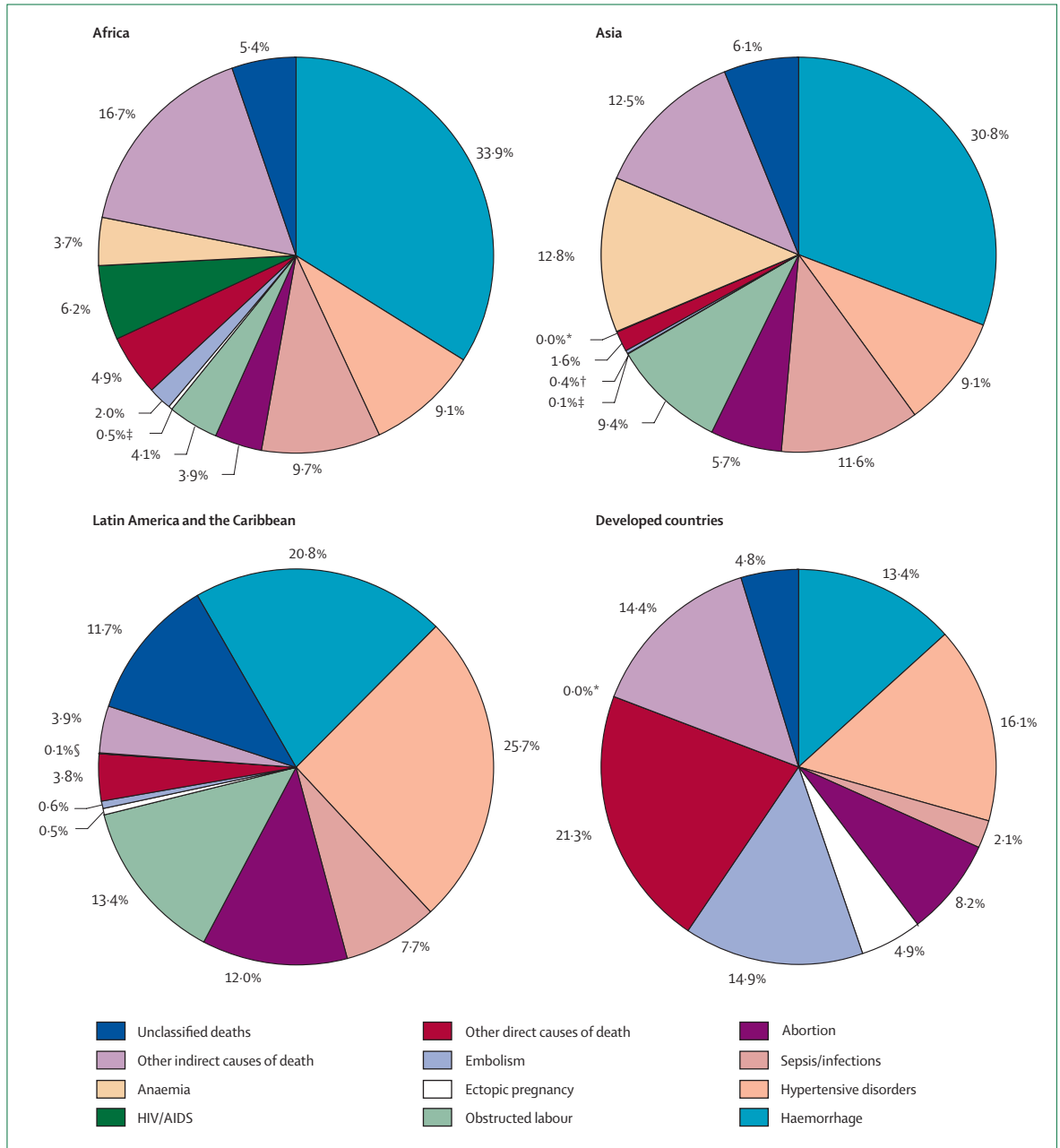


Figure 1: Geographical distribution of causes of maternal death  
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This scandal of millions of avoidable deaths in children and newborn infants in the developing world is familiar to health-care providers in the developed world. *The Lancet* recently devoted a series of papers to these two topics.<sup>25,26</sup> Arguably even more neglected, and undoubtedly more challenging for ensuring political commitment, are the more uncomfortable parts of sexual and reproductive health—ie, sexual intercourse that is not for procreation and not only within marriage.

### Unsafe abortion

Many governments have concerns about rising rates of unintended pregnancy and induced abortion, perhaps especially in developed countries. Although a concern, at least abortion is safe in such places. However, in many countries, access to safe abortion is restricted and, in some of those, unsafe abortion causes more than 30% of maternal deaths. All but 3% of 19 million unsafe abortions estimated to take place every year happen in developing countries (figure 2).<sup>14</sup> The estimated 68 000 deaths from

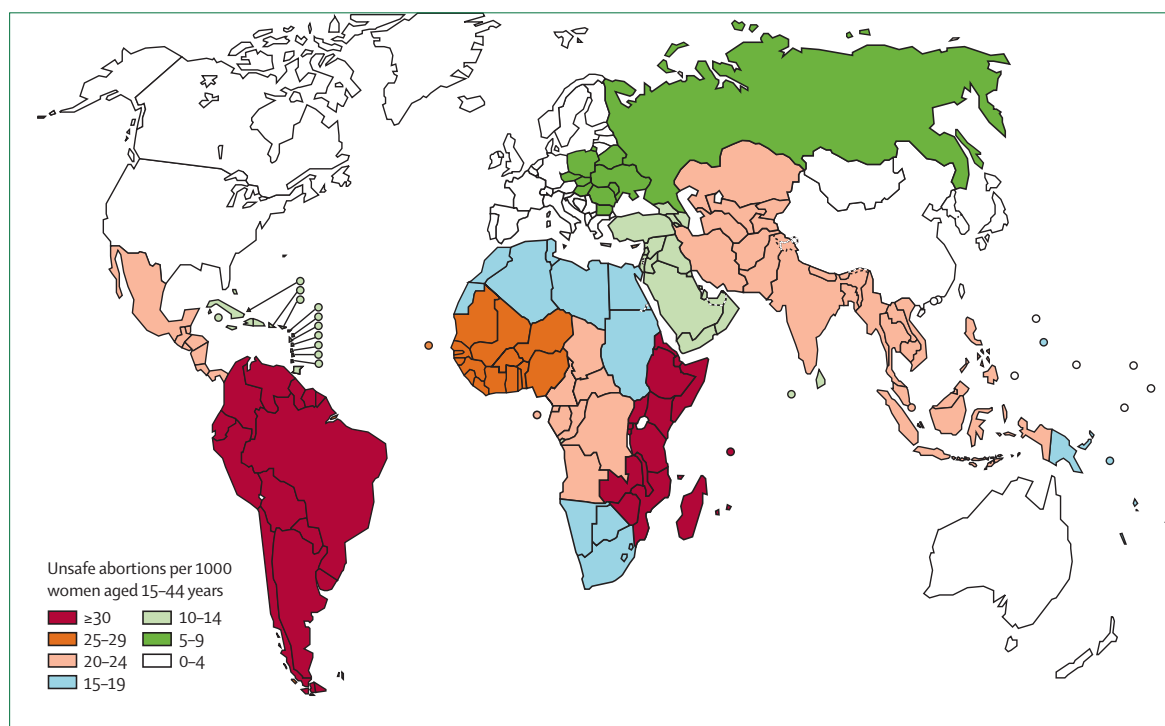


Figure 2: Estimated yearly incidence of unsafe abortion per 1000 women aged 15–44 years, 2000  
Reproduced with permission of WHO.<sup>14</sup>

unsafe abortion equate to the death of every woman who will have an abortion in a year in Sweden, the Netherlands, and Scotland combined. Half the deaths arise in Africa, where one in four unsafe abortions are done in teenagers. Of all deaths related to sexual and reproductive health, those from abortion are most likely to be underestimated and arguably the most preventable.<sup>27</sup>

The frequency of unsafe abortion in a country is affected by the effectiveness of its family planning programmes (to prevent unwanted pregnancies), the abortion legislation and its implementation, and the availability and quality of legal abortion services. Legal obstacles to provision of safe abortion services force women to resort to unsafe abortion when faced with an unwanted pregnancy.<sup>28</sup> Growing evidence suggests that, especially in adolescent girls, unintended pregnancy and unsafe abortion are associated with violence and sexual coercion.<sup>29</sup> At the beginning of the 21st century, of 145 developing countries, abortion was not permitted for rape or incest in 101 countries, for fetal impairment in 108, and for economic or social reasons in 118. In 65 countries abortion was not allowed even to preserve the physical health of the mother.<sup>14</sup> Restrictive legislation is usually associated with a high incidence of unsafe abortion. In Romania, for example, the introduction of laws restricting access to abortion in 1966 led to a five-fold increase in maternal deaths from 20 in 100 000 livebirths to almost 100 in 1974, and the rate rose further to 150 in 1983. After the restrictive abortion law was revoked in 1989, maternal deaths fell rapidly.<sup>14</sup>

### Reproductive tract infections and morbidities

After pregnancy-related causes, sexually transmitted infections are the second most important cause of healthy life lost in women. In 1990 the World Bank estimated that sexually transmitted infections (excluding HIV), accounted for 8.9% of all disease burden in women aged 15–45 years, and 1.5% in similarly aged men.<sup>30</sup> In the same year, the Global Burden of Disease and Injury report<sup>31</sup> estimated that 18.6 million disability-adjusted life years (DALYs) were lost from syphilis, gonorrhoea, and chlamydia—ie, 1.5% of the total calculated global burden of diseases and injuries.<sup>31</sup> However, if one includes sexually transmitted HIV infection, sexually transmitted infections and HIV easily become the leading cause of healthy life lost in many countries.

In 1999, WHO estimated 340 million incident cases of only four curable sexually transmitted infections (gonorrhoea, syphilis, chlamydia, trichomonas).<sup>15,32</sup> Infection rates are not evenly distributed, ranging from a yearly incidence of 2.2% in east Asia and the Pacific to 25.7% in sub-Saharan Africa among the population aged 15–49 years (figure 3). Moreover, there are at least 30 other bacterial, viral, and parasitic sexually transmitted infections, which raise these incidence figures substantially.<sup>33</sup>

Some infections, such as scabies or pubic lice, are of low physical morbidity but are distressing to the affected individual. These, and other more physically damaging infections, such as, human papilloma virus (HPV), herpes simplex virus (HSV), and sexually transmitted hepatitis B

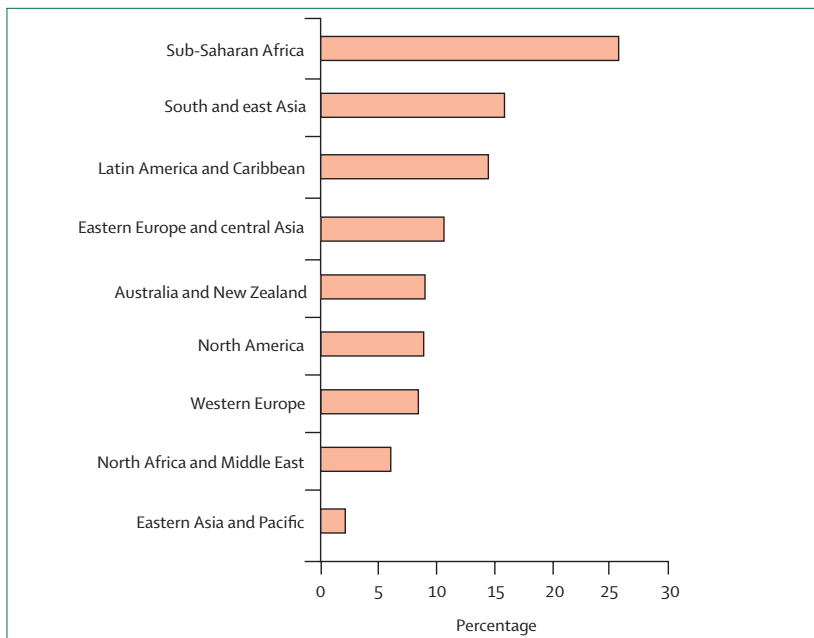


Figure 3: Combined frequency of infection of four curable sexually transmitted infections (gonorrhoea, chlamydia, syphilis, and trichomonas) in people aged 15-49 years<sup>15,32</sup>

virus, are far more widespread in the population than the four common diseases modelled in the WHO estimates (figure 4). Globally, about 20% of women aged under 24 years have a prevalent HPV infection,<sup>34</sup> and more than 25% in populations older than 40 years have been infected with HSV-2.<sup>35</sup> Thus, the yearly number of sexually transmitted infections acquired easily exceeds 1 billion (more than one infection for every three adults aged 15-49 years), which is probably an underestimate.

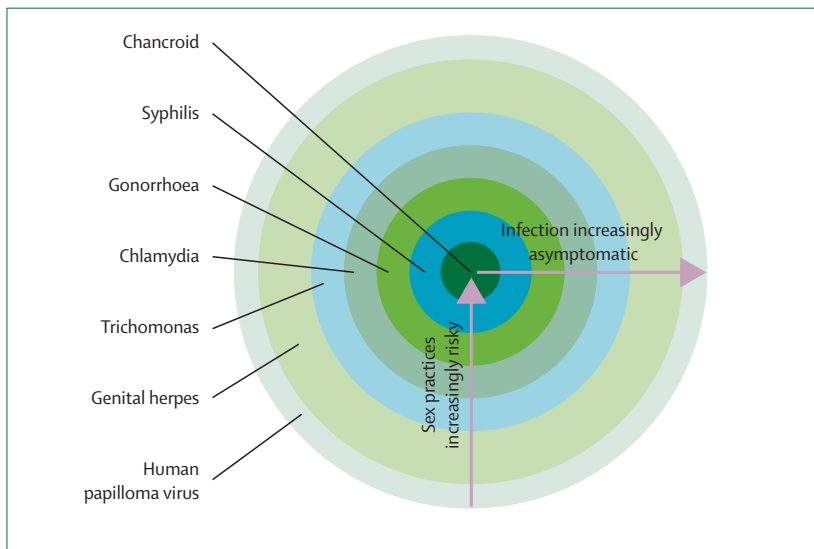


Figure 4: Estimated burden of sexually transmitted infections in society  
Arrows show that infections more likely to be asymptomatic tend to have higher prevalence than symptomatic ones. Infections characterised by high proportions of symptomatic people need increasingly risky sexual practices for transmission to be maintained. Reproduced with permission of WB Saunders.

Many sexually transmitted infections affect the outcome of pregnancy and some are passed to unborn and newborn babies.<sup>36</sup> In sub-Saharan Africa alone, an estimated 1640000 pregnant women have undiagnosed syphilis every year;<sup>17</sup> almost all these women remain undetected.<sup>37</sup> Untreated early syphilis results in a stillbirth rate of 25% and a perinatal mortality of about 20%. An effective screening and treatment programme for syphilis in pregnancy in that region could prevent close to half a million fetal deaths a year, a figure rivalling the number of infants infected with HIV by mother-to-child transmission of the virus, which receives much more attention than does syphilis.<sup>38</sup> Worldwide, up to 4000 newborn babies go blind every year because of maternal gonorrhoea; an unknown number are affected by neonatal herpes or chlamydial conjunctivitis; and the list goes on and on...

Sexually transmitted diseases are to a large extent infections of the young, mainly because their sexual relations are often unplanned, sometimes a result of pressure or force, and typically happen before they have the experience and skills to protect themselves. Although compiled data about sexually transmitted infection acquisition by age are sparse, US data show that young adults aged 15-24 years acquired 48% of all such infections,<sup>39</sup> even though not all young adults this age are sexually active. Perversely, the young have the most to lose from acquiring sexually transmitted infections, since they will suffer the consequences the longest, and might not reach their full reproductive potential.

Industrialised countries, where at one time rates of sexually transmitted infections rivalled those of the developing world today, have much lower rates of bacterial and parasitic sexually transmitted infections, despite sexual behaviour similar to that in the developing world.<sup>40</sup> However, rates of (frequently asymptomatic) viral sexually transmitted diseases remain high in the general population, for example, 22% of American adults have genital herpes,<sup>41</sup> and rates of bacterial and parasitic sexually transmitted infections remain high in specific groups, indicating the need for further progress in the industrialised world. In the developing world, success in controlling sexually transmitted infections can be achieved.<sup>42,43</sup> A commitment to enhanced health care services<sup>44</sup> and preventive measures for both women and men could achieve notable success. In all countries, enhanced efforts to bring services to asymptomatic or mildly symptomatic individuals are important to the success of further efforts.<sup>45</sup> We have only two approaches to reach these people: screening and partner notification. The first is practised poorly in developing countries and the second is practised poorly everywhere.

Other reproductive tract infections, and a myriad of gynaecological problems, make life a misery for many women. Infections arising as a result of unsafe abortion or as a complication of pregnancy and childbirth not infrequently lead to chronic disability and death in some places. The cruel social consequences for women with

vesicovaginal fistula after obstructed labour—divorce, exclusion from religious activities, family separation, worsening poverty, malnutrition and much suffering—are well known. Less familiar are the social repercussions of infertility in many Asian and African societies.<sup>16</sup> Even though the infertility can be related to a problem in the male partner, women might blame themselves and are frequently blamed by both the partner and his family. In a survey of 400 women with secondary infertility attending a hospital in Pakistan, more than two-thirds of the women stated that their inability to bear a child, or to produce a son, had resulted in marital difficulties including threatened divorce (20%), being returned to their parent's home (26%), or the husband remarrying (38%). 10% were being physically and verbally abused by their husbands—and 16% by their in-laws—for being infertile.<sup>46</sup>

Although attention to major causes of maternal death and to sexually transmitted infections has increased somewhat, and unsafe abortion is generally debated at political and religious fora, a silent epidemic of gynaecological morbidity is mostly unnoticed. A systematic review<sup>47</sup> reported dysmenorrhoea in 59% of women and chronic pelvic pain in 6.2% in the general population. Urinary incontinence affects 10–40% of women and is regarded as severe in around a quarter of them.<sup>48</sup> An even more devastating and underreported morbidity is fecal incontinence, affecting a notable proportion of women after vaginal delivery and associated procedures such as episiotomy or vacuum extraction.<sup>49</sup>

### Family planning

Investment in family planning services, together with the development of modern methods of contraception in the second half of the 20th century led to a striking increase in contraceptive use in many countries.<sup>50</sup> In the 1960s fewer than 10% of married women were using contraception, in 2003 the proportion was 60%. In 2003 the total fertility rate—the total number of children a woman would have by the end of her reproductive life if she met the prevailing age-specific fertility rates from age 15 to 49 years—was 2.6 in Asia (including China) thanks to contraceptive use by 52% of married women.<sup>51</sup> In Latin America and the Caribbean where 71% of married women use contraception, the total fertility rate is 2.7 (figure 5).

The fall in total fertility rate in individual countries has been spectacular. In Iran, for example, the average number of lifetime births fell from 6.8 in the early 1980s to slightly more than 2 in 2003. Indeed in some places, especially in Europe where the total fertility rate at 1.4 is well below the replacement rate of 2.1, the governments of 26 countries (61%) regard the birth rate as low. The introduction of modern methods of contraception in the 1960s has been important (figure 6). In Bulgaria, Kazakhstan, and Uzbekistan the pronounced fall in abortion rates has been attributed to the uptake of modern contraceptives in the 1980s and 1990s.<sup>52</sup>

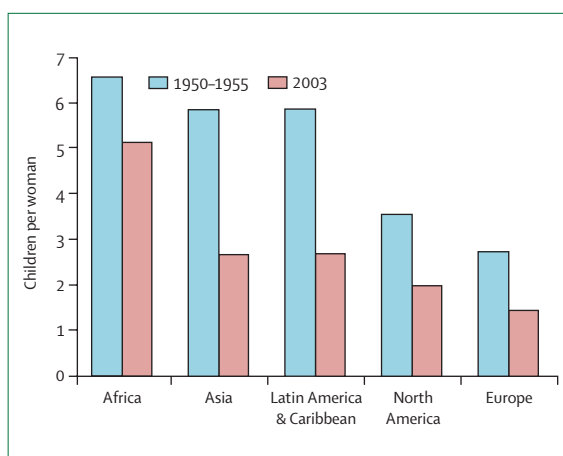


Figure 5: Fertility in major world regions

Reproduced with permission of Population Reference Bureau.<sup>50</sup>

Ironically, this success has led to reduced funding for contraceptive research and most importantly, investment in family planning services.<sup>53</sup> The result of such policies might be somewhat poorer sexual and reproductive health in countries with high contraceptive use, but the disinvestment in contraception in other regions with low contraceptive use rates, particularly sub-Saharan Africa and for groups such as adolescents could be disastrous. Fertility remains high in most of Africa and high population growth is one of the most important factors contributing to economic, environmental, social, and political strain in several countries. In west Africa the average total fertility rate is 5.9, in east Africa 5.7, and in middle Africa 6.3. In 15 countries, the rate remains above 6, and in Niger—one of the poorest countries in the world—it is 8.0.<sup>51</sup> In 18 African countries less than 10% of married women use

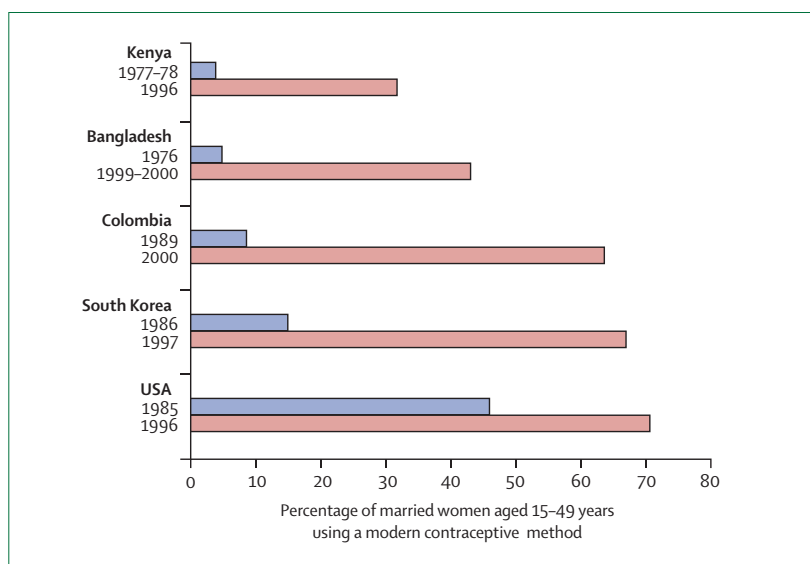


Figure 6: Increase in modern contraceptive use in selected countries, 1960s–2000

Reproduced with permission of Population Reference Bureau.<sup>50</sup>

any contraception, and in 22 countries less than 10% are using modern methods.<sup>51</sup> Family planning is key to the reduction of maternal mortality, not only in terms of prevention of unwanted pregnancy and unsafe abortion, but also through its effect on the composition of childbearing (ie, age and parity of pregnant women, and time between pregnancies).<sup>54</sup>

Most young women and men become sexually active during their teenage years. In many sub-Saharan African countries more than 70% of young women begin sexual activity at this time; these sexual relationships typically lead to formal unions, and more than 20% of adolescents have their first child by the age of 18, usually soon after marriage.<sup>55</sup> In other places, apart from some countries in Asia (eg, Bangladesh and India), fewer teenage girls are married or cohabiting and giving birth at such a young age, and premarital sex is less common than in Africa.<sup>55</sup> Sexual activity in the teenage years is generally unsafe. Adolescents often face many obstacles when seeking contraception. Little knowledge, little access to services and inability to negotiate contraceptive use all result in low uptake and high rates of ineffective use. Even when contraception is used it is often a less effective method such as condoms since they are easier to obtain.

In the developing world, girls aged under 15 years are more likely to have premature labour and are four times more likely to die from pregnancy-related causes than are women older than 20 years. Young women are less likely to receive antenatal care and are more likely to undergo unsafe abortion, especially in countries where legislation is restrictive. Even if abortion is legal young women can face an increased risk of complications if they delay seeking abortion.<sup>55</sup>

Even in the developed world, in which contraceptive use is high, governments are concerned about rates of teenage pregnancy. In many developed countries teenage motherhood means single motherhood, disrupted education, social isolation, and repeat cycles of unintended pregnancy.<sup>56</sup> In these countries uptake of contraception is not the problem, rather it is the widespread failure to use a method consistently and correctly. Even in countries such as the UK, where contraception is available free of charge, at least a quarter of pregnancies ending in abortion are conceived without contraception; most of the rest are the result of incorrect or inconsistent use, or use of less effective methods.<sup>57</sup> As the age of first sexual intercourse becomes younger the age of childbearing increases and desired family size falls, and women (and it is mainly women) spend most of their reproductive lives trying to avoid pregnancy, but the use of contraception consistently is not easy, especially during adolescence.

The HIV epidemic has added further complexity to the promotion of family planning and contraceptive development. The male condom only has been shown to reduce the risk of HIV infection<sup>58</sup> and initiatives to encourage condom use are given high priority, even in

countries with a low HIV prevalence. Condoms, unless used correctly and consistently, have fairly high failure rates for pregnancy prevention. Thus health professionals wishing to prevent unintended pregnancies are reluctant to promote their use as the main method of contraception, even though in some countries condoms are the most used method. Dual protection—use of a condom for sexually transmitted infection prevention with a more effective method of contraception for pregnancy prevention—is even more difficult to promote than condom use alone.

Although the HIV epidemic has led to renewed interest in the development of improved barrier methods and microbicides,<sup>59</sup> which could also have contraceptive properties, all proposed methods rely on daily use, if not use with every act of sex. On the other hand, the development of new contraceptive methods that do not simultaneously protect against sexually transmitted infections, especially HIV, is receiving diminishing attention, yet hundreds of millions of couples are at very low risk of infection. This thinking, together with the widespread view that the population problem has been solved and that contraceptive use is widespread, has led to family planning, and new contraceptive methods development slipping down the political, research, and public health agendas. Although HIV prevention should remain a global priority for public health, especially in sub-Saharan Africa, and safe motherhood should rightly attract considerable funding, family planning (which affects both strategies) must not be neglected. Provision of effective contraception for the 201 million women who have none would prevent 23 million unplanned births, 22 million induced abortions and 14000 pregnancy-related deaths every year,<sup>53</sup> and might be a much more cost-effective way than drug treatment to prevent mother-to-child transmission of HIV infection.<sup>60</sup>

### Violence against women and girls

Violence against women is an important contributor to ill-health of women, especially to their sexual and reproductive health. Such violence is a human rights abuse and a consequence (and a cause) of gender inequality.<sup>1</sup> The most common and better documented types of violence (physical, sexual, and emotional), are intimate-partner violence (domestic violence) and sexual violence (rape, sexual coercion, and child sexual abuse). Abuse by an intimate partner is widespread and happens in both developed and developing countries. Prevalence varies widely between countries and between regions within countries. Such abuse is accepted as normal in many parts of the world, with acts of violence often regarded by families as a private matter and as an inevitable fact of life by the victims.

WHO's Multi-country Study on Women's Health and Domestic Violence,<sup>19</sup> in which specially trained teams obtained data from 24000 women in ten countries,



reported that between 13% and 61% of women who were or had been married reported physical abuse by an intimate partner in their lifetime, and between 6% and 59% reported sexual violence. In Brazil, Ethiopia, Peru, Samoa, and Tanzania, at least one in five women reported severe physical violence (hit with a fist; kicked; dragged; threatened with or attacked with a weapon). The prevalence of sexual violence towards women older than 15 years by perpetrators other than partners was 1–12%, and sexual abuse before the age of 15 (sexual child abuse) ranged was 1–21%.<sup>19</sup> In a review<sup>61</sup> of publications about non-consensual sex, 21% of people aged 10–24 years in Kenya, 18% of 15–19-year-olds in Nigeria, 16% in Thailand (mean age 20 years), and 16% of 15–19-year-olds in Haiti and 14% of that age group in Colombia had had non-consensual penetrative sex.<sup>61</sup>

In some cultures young men have a sense of entitlement to sex. In many countries, both developing and developed, premarital or extra-marital sex is condoned for men but stigmatises women who therefore cannot seek help. In some places, transactional sex (the exchange of material goods in return for sex) has become the norm in adolescent girls, is their main source of income, and often pays for their education. Sexual violence and harassment is also reported in schools, especially in sub-Saharan Africa, and is perpetrated by both peers and teachers, including instances of male teachers using their power to force sex on female students in exchange for good grades.<sup>62</sup> In one Kenyan study,<sup>63</sup> 5% of girls who reported non-consensual sex named a teacher as the culprit.

Violence and the threat of violence affect many aspects of women's health—in particular their sexual and reproductive health. Women living in violent relationships are often unable to make sexual and reproductive choices, putting them at great risk of early and unwanted pregnancy and sexually transmitted infections, including HIV. This absence of choice is either through direct exposure to forced or coerced sex or because they are unable to control or negotiate regular use of contraception and condoms.<sup>64,65</sup>

Sexual abuse during childhood is associated with high-risk behaviours later in life, including alcohol and drug use, early consensual sexual experience, and a high number of partners.<sup>66</sup> Elimination of intimate-partner violence in Colombia would result in an estimated 45 000 fewer unintended pregnancies in that country every year.<sup>67</sup> In the USA more than 32 000 pregnancies yearly are estimated to result from rape, mostly in adolescents.<sup>68</sup> Moreover, growing evidence suggests that violence increases women's vulnerability to HIV infection: studies in Kenya, South Africa, and Tanzania found that HIV-positive women were more likely to report physical partner abuse than their seronegative peers.<sup>69–71</sup>

Violence during pregnancy is common and for some women, can be the first time violence takes place. Violence is more common than hypertension or pre-

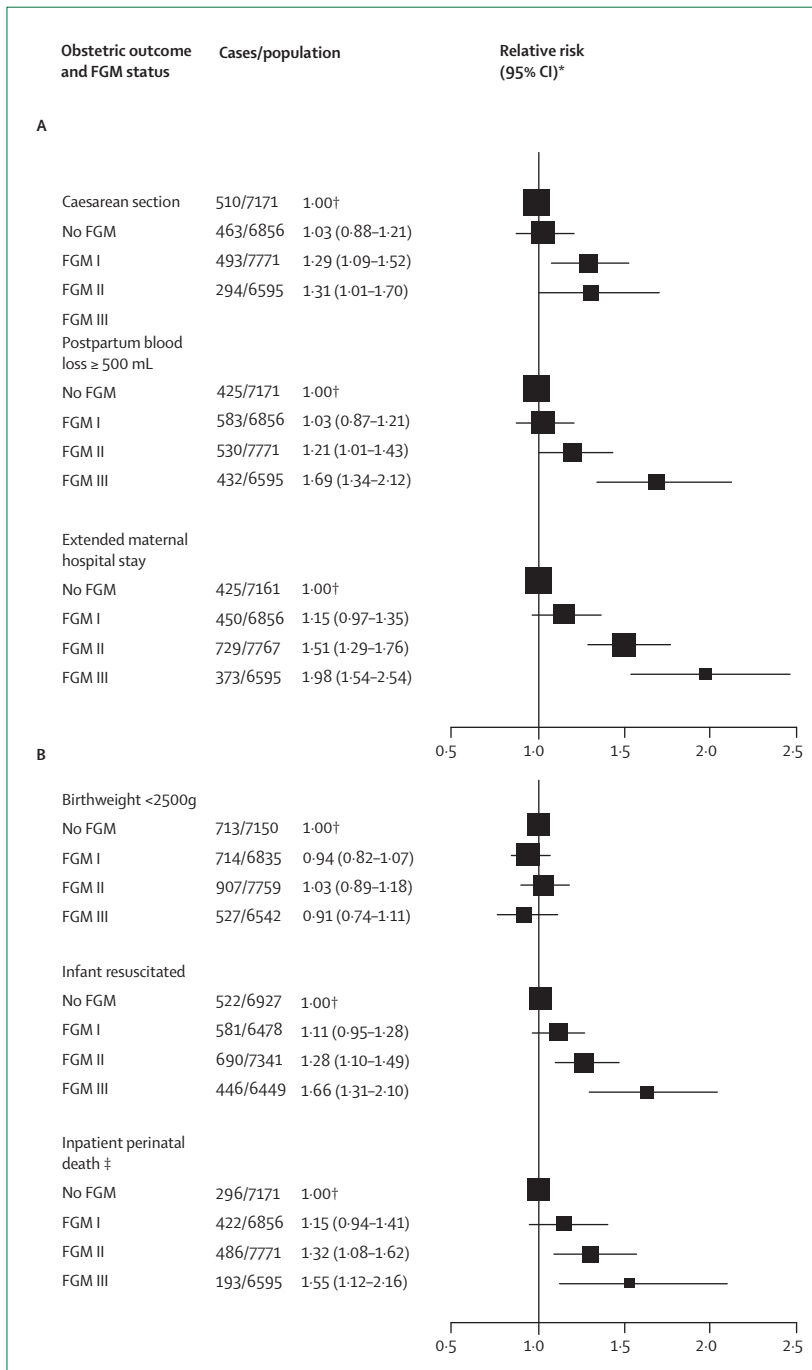
eclampsia, for which pregnant women are routinely assessed. In North America, most estimates of prevalence of such violence fall between 4% and 8%.<sup>72</sup> In developing countries these rates are estimated to be as high as 32%.<sup>73</sup> Violence during pregnancy has been associated with adverse pregnancy outcomes, such as low birthweight, premature labour, preterm delivery, miscarriage, and fetal injury.<sup>74</sup> Such violence has also been associated with increased rates of pregnancy termination in both developed and developing countries.<sup>75,76</sup> Violence against women is also a cause of maternal mortality.<sup>73</sup> In the USA, several studies have suggested that homicide is a leading cause of mortality during pregnancy, with young age, black race, and late or no prenatal care identified as risk factors.<sup>77</sup> A study in Mozambique noted that violence was the fourth largest cause of maternal death.<sup>78</sup>

Sadly, most women remain silent about violence by an intimate partner and do not seek help. They frequently think that this violence is normal or even justified; more than 20% of women in seven sites participating in the WHO study<sup>19</sup> thought that wife-beating was justified if a wife disobeyed her husband, and in five sites a wife's failure to complete her housework was believed to be justification for a beating.

Harmful traditional practices, such as female genital mutilation (or cutting) are also prevalent in countries, especially in sub-Saharan Africa and some countries in southeast Asia. Female genital mutilation is generally done to girls before they reach age 10 years. The procedure is often done under unhygienic conditions and acute haemorrhage and infection are common. Many girls go on to have chronic morbidity, including recurrent urinary tract infections, reproductive tract infections, dyspareunia, and sometimes vesicovaginal fistula, especially with type II and type III mutilation. A cohort study<sup>79</sup> of more than 28 000 women attending for singleton delivery in six African countries lent support to the long-held suspicion that female genital mutilation is associated with obstetric morbidity, including perinatal problems. Compared with women without genital mutilation, women with type II and III (the most severe) mutilation were significantly more likely to have cesarean section, postpartum haemorrhage, and long stay in hospital after delivery. Women with both type II and type III genital mutilation were also significantly more likely to have babies needing resuscitation or to have a stillbirth, or early neonatal death.<sup>79</sup> (figure 7)

### Sexual and reproductive health and men

Much of sexual and reproductive health affects women, and men tend to be seen only as the perpetrators of acts leading to ill-health. However, men are also subject to sexual and reproductive ill-health; they also acquire sexually transmitted infections, including HIV. Male factors account for at least a third of couples attending for infertility treatment, and some young men are victims of non-consensual sex and of intimate partner violence.<sup>80</sup>



**Figure 7: Relative risk (RR) of adverse maternal (A) and infant (B) outcomes in women with female genital mutilation I, II, or III compared with women without mutilation**  
Reproduced with permission of Elsevier.<sup>79</sup>

Men who have sex with men, including those who do not identify themselves as homosexual, contribute to the spread of sexually transmitted infections, including HIV, yet the health needs of homosexual men (and women) are especially neglected in countries where homosexuality is taboo or illegal. An eloquent personal view<sup>81</sup> written by an

Indian medical student in 2005, describes the pervasive attitude of the medical profession to sexuality in general and to homosexuality in particular in his country.<sup>81</sup>

Men also contribute to family planning.<sup>82</sup> Although to persuade men to use condoms is difficult in many parts of the world, in some countries—Japan, Hong Kong, and Singapore, for example—condoms are the main method of contraception.<sup>83</sup> In the UK, where about half the couples wishing to avoid pregnancy are sterilised, more than half those procedures are vasectomies.<sup>83</sup> Nevertheless, to involve men rather than women in improvement of sexual and reproductive health is difficult. Much has been said about the need to involve men (particularly young men) in sexual and reproductive health but little has been done to address their needs and even less to assess the effect of their involvement in, for example, family planning.<sup>84</sup>

### Why is sexual and reproductive health neglected?

Despite the obvious fact that sexual and reproductive illhealth is a major cause of morbidity and mortality, with the exception of HIV and AIDS, the subject has failed to capture broad support from the donor community. Some argue that the notion of reproductive health that was promoted in Cairo was too idealistic, that by emphasising issues such as empowerment of women and reproductive rights rather than the provision of services and “by asking too much, it ended up getting too little”.<sup>85</sup> Others make the point that in the current climate of health sector reform, decisions to use scarce funding are based on the burden of death and disability attributable to a particular disorder on the basis of measures such as DALYs. Sexual and reproductive health is not only about disease, but also about a collection of related health and human-rights issues and many people are still confused about what it consists of. Furthermore, use of DALYs is not appropriate for quantification of the full burden of sexual and reproductive ill health. Pregnancy is not a disease, and associated complications are poorly counted unless they result in death; a stillbirth does not contribute even one DALY; reproductive morbidities are often inadequately measured and are generally under-reported because of associated stigma. Moreover DALYs only measure death, disease, and disability without assigning any value to preventive interventions, such as family planning, that avoid ill health and promote wellbeing, including in sexual matters.

The first of the MDGs is the eradication of extreme poverty and hunger. The view that fertility control would reduce poverty in developing countries has lost support in the past 25 years, and the link between sexual and reproductive health and poverty reduction has been questioned.<sup>86</sup> Nevertheless, good evidence shows that poor women have bad reproductive health outcomes and that early and unintended childbearing—even in developed countries—leads to poverty.<sup>86</sup> Adolescent pregnancy can lead to reduced educational opportunities

for both mother and child. Short intervals between births are associated with prematurity, low birthweight, and an increased risk of infant death.<sup>87</sup> In some countries and settings, unwanted children are more disadvantaged than wanted ones. Children from large families might also be disadvantaged in terms of nutrition, healthcare, and education. Campaigners for HIV and AIDS have been successful in demonstrating links between HIV and AIDS, and poverty. Unlike the ICPD goal of universal access to reproductive health services, halting the spread of HIV/AIDS was adopted as one MDG. Funding for family planning and reproductive health, which represented 70% of total expenditures for population and AIDS at the time of ICPD, has shifted to control and treatment of HIV/AIDS and sexually transmitted infections, which in 2002 made up 43% of total population and AIDS expenditures.<sup>88</sup> Lastly but arguably most importantly, sexual and reproductive health issues frequently make people uncomfortable. ICPD ended with statements in which several government delegations voiced their reservations with respect to specific aspects of the Programme of Action. Areas of contention included abortion, sexual health services for adolescents, the idea of sexual activity outside marriage and family—specifically, union between a man and a woman from which derives children and the rights of individuals rather than couples. Despite these reservations the Cairo ICPD generated excitement and optimism in individuals and agencies working in sexual and reproductive health. Unfortunately the conservative forces that threatened implementation of ICPD recommendations have strengthened substantially since that meeting and are continuously weakening the international agreements about sexual and reproductive health and rights reached in 1994.

On his first day in office, US President George W Bush reinstated the Mexico City Policy of former President Ronald Reagan, meaning that no US family-planning assistance can be provided to foreign NGOs working in abortion. The policy not only prohibits the use of US funds by such NGOs for abortion, but also bans the use of funding from any other source to provide counselling and referral for abortion; to do abortions in cases other than those with threat to the mother's life, rape, or incest; or to lobby to legalise or increase availability of abortion in their country. Similarly, at the UN General Assembly special session on children, held in May, 2002, some delegations (Iran, Iraq, Libya, Sudan, the Vatican, and the USA) wanted the phrase reproductive health services redefined to exclude legal abortion; the family characterised as marriage only between a man and a woman; and to include wording that would have recognised a couple's right to information about family planning but not access to contraception.

Despite these attempts to roll back the agreements reached at Cairo, not all the news is bad. In May, 2004, at the 57<sup>th</sup> World Health Assembly, all WHO member states (except the USA) fully endorsed the WHO global reproductive health strategy, which had been designed to

accelerate progress towards international goals and targets relating to reproductive health, especially those set by ICPD in 1994. Furthermore, a UN Millennium Project report<sup>6</sup> identified 17 so-called quick wins, or straightforward solutions to implement immediately to help reach the goals. The report noted that sexual and reproductive health is essential not only for reaching the three health-related goals, but also for attainment of many other goals including reduction of extreme poverty, ensuring educational opportunities and gender equality, and attainment of environmental sustainability. In May, 2005, the EU stated "The MDGs cannot be attained without progress in achieving the Cairo goal of universal access to sexual and reproductive health".<sup>89</sup> Sexual and reproductive health is fundamental to the social and economic development of communities and nations, and a key component of an equitable society. We can bring sexual and reproductive health care and choice to those who need it most, which will be a vital contribution to making the world a fairer place.

#### Conflict of interest statement

We declare that we have no conflict of interest.

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