Chapter 6

Gender, the MDGs and health research

Section 1

Sex, gender and the 10/90 gap[1]

1. Introduction

The Global Forum believes that a systematic approach to gender issues must be a central part of its strategy for helping correct the 10/90 gap. It is estimated that around 70% of the world's poor are women. The health of these women is often adversely affected not only by their poverty but also by the gender inequalities that continue to divide many of the world's poorest countries. In response, the Global Forum is committed to achieving greater gender sensitivity in all its work.

Ensuring greater gender sensitivity in health-related research does not mean that this is concerned only with women. Men's health too may be affected in fundamental ways by both their sex and their gender and this is reflected in the analysis which follows. It is also important to emphasize that differences in the health problems of women and men are not only related to their reproductive biology or its social implications. Though these are important, it is also clear that more general health problems may be experienced very differently by women and men and may have different implications for their lives. The main emphasis in this chapter will therefore not be on the reproductive health problems specific to women (or men) but on the sex and gender differences in those health problems that affect both sexes.

2. Sex, gender, health research and development

In recent years, gender issues have been highlighted by most organizations concerned with the promotion of development and the enhancement of human well-being. They have integrated these issues into their ongoing work, justifying this with two main arguments.

First, efficiency and effectiveness require that both women and men be at the heart of development. So long as artificial constraints prevent the full participation of both sexes, societies will be unable to reach their potential for meeting the needs of their citizens.

Second, equity requires that both women and men should have the same opportunity to be active citizens, participating in the development process and having equal access to its benefits. Unless this is achieved, individuals will not be able to realize their potential for health and well-being. These arguments are increasingly accepted in the international health arena and policies and practices are gradually being reshaped in recognition of the need for gender sensitivity. However there is considerable confusion about how this should best be done. Though they have many health problems and health care needs in common, women and men are divided by both their biological sex and their social gender.

[1] Adapted from Doyal L. *Sex, gender and the 10/90 gap*, Geneva, Global Forum for Health Research, October 2002 (full text available at: www.globalforumhealth.org).

Unless these differences are taken seriously, the delivery of medical and public health services will be severely constrained in their efficacy and their equity. Under these circumstances it is likely to be women in the poorest communities who will be worst affected.

The level of avoidable sickness and death among poor women remains enormous. Over one third of the years of healthy life lost by women in developing countries are caused by reproductive health problems, especially those related to pregnancy and sexually transmitted diseases. The most immediate indicators of this burden are maternal mortality and morbidity rates. Around 600 000 women die each year as a result of pregnancy and childbearing and many times this number are permanently disabled. The immediate cause of these huge losses is lack of access to effective sexual and reproductive health services, especially in rural areas. However they also reflect more basic social and economic inequalities between women and men.

Women are more likely than men to have less income than they need to sustain the health of themselves and their families. This poverty can have many causes including lone parenting responsibilities, low wages, less access to state benefits and reliance on work in the informal sector. As well as material poverty, women's health may also be damaged by their low status and lack of physical and psychological security. Recent research shows that depression and related disorders are associated with female gender, poverty and low education. Poor women have been shown to be particularly vulnerable to high levels of stress because of their multiple responsibilities, the frequency of domestic violence in many communities and the inequalities in their relationships with men. These examples reflect the fact that women and men have very different experiences of health and illness. However the reasons for this are complex and are not always well understood by medical researchers. Male and female patterns of morbidity and mortality will be shaped by biological or sex differences but at the same time they also reflect gender differences in the social expectations of women and men. The reality of their daily lives will expose women and men to different hazards and will also give them unequal access to the resources necessary to sustain health. Both biological sex and social gender therefore play an important part in shaping the health of all human beings and the next sections will explore each of these in turn. However it is also essential to recognize that these two determinants of health are interconnected in complex and profound ways that need to be carefully explored if health care is to meet the needs of both women and men.

3. Understanding sex and health

The biological differences between women and men are reflected in the health problems they experience. Some of these stem from male and female reproductive functioning, with women facing major hazards as a result of their capacity for pregnancy and childbearing. This gives them 'special needs' for care, which have to be met if they are to realize their potential for health. Other conditions are not directly connected with sexual or reproductive functioning but are nonetheless sex specific because they affect particular organs: cancers of the prostate and cervix, for example.

There are also marked sex differences in the incidence, symptoms and prognosis of a wide range of diseases and conditions that affect both males and females. These are evident in NCDs such as coronary heart disease and lung cancer, and also in a wide variety of communicable diseases including TB and malaria. Recent studies suggest that these

differences are due in large part to previously unrecognized genetic, hormonal and metabolic differences between women and men. More research is needed to map these differences in greater detail. However the following facts give some indication of why biological differences between the sexes need to be taken seriously in all areas of health research:

- Men typically develop heart disease 10 years earlier than women.
- Women are around 2.7 times more likely than men to develop an autoimmune disease.
- Male-to-female infection with HIV is more than twice as efficient as female-to-male infection.

4. Understanding gender and health

Biological differences are not the only ones shaping variations in male and female patterns of health and illness. Women and men often lead very different lives and this too will have a major effect on their well-being. Differences in their living and working conditions and in the nature of their duties and their entitlement to resources will put women and men at differential risk of developing some health problems while protecting them from others.

There is now an extensive literature documenting the relationship between economic, cultural and social factors and women's mental and physical well-being. The gender divisions in domestic work have been highlighted as a potential risk, especially when they are combined with waged work outside the home. The *UNDP Human Development Report 1998* pointed out that there are no societies in which women are treated as equals with men. However it is clear that many of the most extreme gender inequalities are to be found in the world's poorest countries. If the determinants of women's health are to be properly understood and appropriate interventions developed, the impact of these gender inequalities will need to be central in the research agenda.

As the problems faced by women are increasingly recognized, the links between masculinity and well-being are also beginning to emerge. At first glance, maleness might seem to be straightforwardly beneficial to men's health because it offers them privileged access to a range of potentially health-promoting resources. But being a man may also require the taking of risks, which can be damaging to health. In many societies the traditional role of breadwinner continues to put men at greater risk than women of dying prematurely from occupational injuries. In order to demonstrate their masculinity they are also more likely to engage in dangerous and/or violent activities including smoking, drinking to excess, driving too fast and indulging in unsafe sex.

Again, these examples of gendered health risks may be most pronounced in the poorest societies, and researchers need to take them into account if they are to provide policy-makers and practitioners with appropriate evidence. Indicators of the importance of gender as a determinant of the health of both women and men are given below:

- In most countries, more men commit suicide than women, but women are more likely to attempt it.
- Both community-based studies and research on treatment-seekers indicate that women are two to three times more likely than men to be affected by common mental disorders such as depression or anxiety.
- Men are more likely than women to die of injuries, but women are more likely to die of injuries sustained at home.
- The large differences between male and female smoking rates are beginning to narrow as young women are taking up the habit more frequently than young men.

5. Sex, gender and health care

As well as being a major determinant of health, gender also influences the access of individuals to health care. This operates through a number of different routes. In many households there is evidence of gender bias in the allocation of resources. Females of all ages may be assigned a lower status and will have less entitlement to food and health care. This bias will be especially damaging in poor communities where there is little state provision and care has to be bought with cash. Alongside the cultural and material obstacles to care, individuals themselves may feel unable to seek the help they need. In the case of women, this may reflect their socialization into a culture of sacrifice, which means that they see themselves as being of little value. In the case of men, access to health care may be limited by the desire to appear 'strong'. In order to appear masculine, they cannot admit weakness and this may prevent them from seeking necessary help.

There is also evidence that once they have accessed a service, women and men may receive treatment of differing quality. Many women have spoken of the lack of respect they experience from workers in reproductive health care and this seems to be especially severe among poor women. Research in the developed countries has also indicated that women may be offered care that is less effective than that received by men with the same condition. More research is therefore needed to explore both the gendered obstacles to care and the quality of the services received by women and men in different settings.

Recent studies relating to the HIV/AIDS epidemic have highlighted the continuing importance of these issues. Evidence about poor women in high-income countries such as the United States as well as those in sub-Saharan Africa suggests that they have a shorter life expectancy than their male compatriots. This reflects a range of barriers they face in accessing care as well as inequalities in the treatment itself. Studies in a number of countries have shown that women are much less likely than men to be given anti-retroviral drugs for instance, even when their need is at least as great.

6. How can researchers be sex- and gender-sensitive?

Sex and gender are major determinants of health in both women and men. They are closely linked with other variables such as age, race and socioeconomic status in shaping biological vulnerability, exposure to health risks, experiences of disease and disability, and access to medical care and public health services. Researchers who ignore these differences run the risk of doing bad science. Failures to incorporate sex and gender in research designs can result in failures of both effectiveness and efficiency. Practice based on incomplete or misleading evidence is likely to lead to avoidable mortality, morbidity and disability as well as wasted expenditure of scarce resources. It will also perpetuate or exacerbate existing gender inequalities. Lost opportunities of this kind are obviously unacceptable especially in the context of the existing 10/90 problem.

It is therefore essential that all those involved in the commissioning and funding of research take issues of sex and gender seriously. Whether they are private companies, government bodies, research councils or charities, appropriate recognition of gender issues should be one of the criteria used for evaluating both the relevance and the scientific quality of proposals. Researchers themselves need to be aware of gender concerns at all stages of their work from the initial design to the dissemination process. And policy-makers need to look very carefully at the sex and gender implications of all

research findings before deploying them in the development of services.

Strategies for ensuring that research is gender-sensitive will vary depending on the type of study being undertaken. However the overall objective must be to ensure that both sex and gender are incorporated as key variables in all research designs unless there are clear reasons for assuming that they are not relevant to the problem under investigation.

Thus the population of subjects needs to include sufficient numbers of women and men so that any sex or gender differences can be identified in the analysis. Any differences that do emerge then need to be clearly presented in the findings and their implications discussed. In the context of clinical trials this will need to include an assessment of the significance of any differences for the future use of the treatment being evaluated with male and female patients.

Sex- and gender-sensitive studies of this kind will not be easy to achieve without a coherent set of policies to build capacity among researchers. Such policies are now beginning to emerge in a few of the developed countries but if the 10/90 problem is to be tackled in the most effective and equitable way, they will need to be spread more widely. More conceptual work is needed to disentangle the links between biological sex and social gender and their relationship with wider determinants of health. Guidelines and educational tools also need to be developed to encourage greater awareness of these issues among health researchers.

More research will be needed across the biological/social divide. In order to understand the full range of influences on human health, more collaborative studies will be needed with social scientists, psychologists and biomedical researchers working together. In many areas of health care the best knowledge base is one which is produced through a combination of quantitative and qualitative methods. The value of integrated approaches of this kind has been clearly demonstrated in recent years in the fields of sexual and reproductive health and mental health, where new techniques have been developed to explore those intimate concerns of both women and men which are vital to the development of sensitive and appropriate policy.

Finally it is essential that strategies be devised for ensuring the more active participation of women in health research as scientists and as advocates. In most countries there is a marked absence of women researchers and this is especially true in those countries where research capacity is least developed. Policies designed to enhance these capacities should therefore include strategies for removing the obstacles that currently limit the numbers of women able to enter medical research and to proceed through a career structure on equal terms with men.

At the same time it is essential that a broader range of women are enabled to become actively involved in the determination of research priorities and in the design and conduct of individual studies. One way of achieving this is through formal dialogues between researchers and representatives from local communities and women's organizations. Good practice in the conduct of such processes is already being developed in the arena of reproductive health research in particular.

Section 2

Gender and the Millennium Development Goals

"There is no time to lose if we are to reach the Millennium Development Goals by the target date of 2015. Only by investing in the world's women can we expect to get there."
Kofi Annan, Secretary General of the United Nations

In September 2000, 189 nations adopted the United Nations Millennium Declaration, an ambitious document affirming the right of every human being to development and laying out a path towards freedom from want for every woman, man and child. To ensure that progress towards this end could be measured, representatives of UN agencies and other international organizations defined a set of eight goals, 18 targets, and 48 indicators (see chapter 1, section 3) to be achieved between 1990 and 2015 for combating poverty, hunger, disease, illiteracy, environmental degradation and discrimination against women.

The MDGs explicitly acknowledge that gender[2] – i.e. what a given society believes about the appropriate roles and activities of men and women, and the behaviours that result from these beliefs – can have a major impact on development, helping to promote it in some cases while seriously retarding it in others. MDG number 3 is, in fact, specifically about gender, calling for an end to disparities between boys and girls at all levels of education.

There is general agreement that education is vital to development, and ensuring that girls as well as boys have full opportunities for schooling will help improve lives in countless ways. However, it would be wrong to conclude that the relevance of gender to development is confined to the educational sphere. Both women and men participate in nearly every aspect of life in communities throughout the world. As a result, the rules that regulate the behaviours and values of women and men in a given society (i.e. its gender system) have the potential to impact nearly every aspect of life.

Therefore, while only one of the MDGs is specifically about gender, addressing gender is of critical importance to every MDG.

MDG 1: Eradicate extreme poverty and hunger
Target 1: Reduce by half the proportion of people living on less than US$ 1 a day
Target 2: Reduce by half the proportion of people who suffer from hunger[3]

In some parts of the world, a marked preference for male offspring may result in lower investment of resources in girl children, which could lead to girls being nutritionally disadvantaged in at least two ways: girls may receive the second choice of available food, after brothers and/or parents, leading to

[2] Adapted from WHO Department of Gender and Women's Health. *Engendering the Millennium Development Goals*, Geneva, WHO, 2003.
[3] Ibid.

inadequate nutritional intake when resources are scarce; and girls may receive less medical and other care than their brothers, leading to greater ill health with potential nutritional effects. How often this sort of discrimination occurs is not clear, and it may be limited to certain parts of the world.

However, it is something that researchers working on the problem should be considering, most basically by ensuring that all data they collect are disaggregated by sex. Researchers should also watch for and guard against the possibility that, in areas where girls are routinely undervalued, standards of *normal* growth for them (based on average values in the population) may be set at unhealthily low levels.

The definition of poverty has traditionally been based on per capita income. Focusing solely on this indicator, global poverty at present encompasses more than 1 billion people who live on less than US$ 1 a day or, more broadly, over 2.5 billion who live on less than US$ 2 a day. But the definition of poverty has been broadened to encompass other dimensions such as lack of empowerment, opportunity, capacity and security. Meeting the poverty goal will therefore require a multidimensional approach. Because many aspects of gender inequality influence the different dimensions of poverty, interventions that promote gender equality are critical in the design of strategies and actions to meet the poverty goal.

In many poor households, women have relatively little influence over how the available resources are used, and more research is needed into how this "within-the-family" poverty exacerbates the disadvantages that women face in their access to health care, medicines, information, etc.

By raising the productivity of labour and improving the efficiency of labour allocation, gender equality has a direct impact on economic growth and the reduction of income poverty; it also increases economic opportunities and empowers women. The importance of gender equality for economic growth makes it critical in accelerating progress towards achieving the income poverty target. The Poverty Reduction Strategy Papers provide a good forum for adapting the MDGs to country circumstances and for integrating gender throughout a country's poverty reduction strategy.

Not only does gender inequality exacerbate poverty but poverty also exacerbates inequality between males and females. Inequalities between girls and boys in access to schooling or health care are more acute among the poor than among those with higher incomes. Whether measured in terms of command over productive resources, or in terms of power to influence the political process, poor men tend to have less influence in the community than non-poor men, and poor women generally have the least influence. These disparities disadvantage women and girls and limit their capacity to participate in and benefit from development.

MDG 2: Achieve universal primary education

Target 3: Ensure that all boys and girls complete a full course of primary schooling

In its report on the *State of the World's Children 2004*, UNICEF points out that: "Efforts at international development may have left hundreds of millions of girls and women uneducated and unable to contribute to positive change for themselves, their children, or their communities."[4]

[4] UNICEF. *State of the World's Children 2004*, December 2003.

The main points highlighted by the Report are the following:

- Illiteracy rates are still far higher among women than men.
- There is compelling evidence that enabling girls to get a basic education of good quality would improve other indicators of human well-being.
- The majority of countries with the lowest secondary school enrolment rates for girls also have among the highest rates of child mortality – with more than 15% of children dying before the age of five years.
- Girls denied an education are more vulnerable to poverty, hunger, violence, abuse, exploitation and trafficking; they are more likely to die in childbirth and are at greater risk of disease, including HIV/AIDS.
- As mothers, educated women are more likely to have healthy children, and more likely to ensure that their children, both girls and boys, complete school.
- The standard approach to achieving universal education has fallen short because it assumed that generic efforts to enroll more children would benefit all children equally, an assumption that has not examined or addressed the specific barriers faced by girls.
- Nine million more girls than boys are still left out of the classroom completely, and girls who are enrolled drop out faster, on average, than boys.
- Accelerated action is needed to get more girls into school over the next two years.
- Bringing down the barriers that keep girls out of school would benefit both girls and boys as well as their countries.

The report presents an agenda for action with the following recommendations:

(i) Creation of a *national* ethos recognizing the value of educating girls as well as boys
(ii) Education to be included as an essential component in *development plans*
(iii) The *elimination of school fees* of every kind
(iv) Integration of education into national plans for *poverty reduction*
(v) Increased *international funding* for education.

The first of the MDGs to come due is the goal of gender parity in education by 2005. UNICEF argues that major progress towards achieving that goal is still possible with the strategic acceleration of national efforts and international support.

MDG 3: Promote gender equality and empower women

Target 4: Eliminate gender disparity in primary and secondary education by 2005 and at all levels by 2015

According to the World Bank report on *Gender equality and the MDGs*,[5] in no region of the developing world are women equal to men in legal, social and economic rights. Gender gaps in access to and control of resources, in economic opportunities and in power and political voice are widespread.

In most countries, women continue to have less access to social services and productive resources than men:

- Women remain vastly under-represented in national and local assemblies, accounting on average for less than 10% of the seats in national parliaments.
- In most low-income countries, girls are less likely to attend school than boys. Even when girls start school at the same rate as boys, they are more likely to drop out (in many cases after getting pregnant, often due to lack of access to reproductive health services).
- In industrial countries, women in the

[5] World Bank Gender and Development Group. *Gender equality and the Millennium Development Goals*, April 2003.

waged sector earn an average of 77% of what men earn. In developing countries, they earn 73% of the male average. Only about one fifth of the wage gap can be explained by gender differences in education, work experience or job characteristics.

One of the main findings of the *Arab Human Development Report 2002* is that the low empowerment of women is one of three deficits which have seriously hampered human development in the region over the last three decades.[6] Thus, an approach to development that strives to increase gender equality has high pay-offs for human well-being.

The global data for Goal 3 as presented by the United Nations Development Fund for Women (UNIFEM)[7] provides an international cross-country assessment of the situation of women at the beginning of the new millennium. The report compiles and analyses data on all four indicators linked to the gender equality goal (ratio of girls to boys in primary, secondary and tertiary education; ratio of literate females to males; share of women in waged employment in the non-agricultural sector; and proportion of seats held by women in national parliament). Its main findings are the following:

First, only seven high-income countries (Sweden, Denmark, Finland, Norway, Iceland, Netherlands and Germany) have achieved high levels of gender equality on all four of these indicators. Among developing countries, best practices were noted in Argentina, Costa Rica and South Africa. On the other hand, the report finds that countries with the lowest rates of equality for women in education, literacy and non-agricultural wage employment also tend to be among the poorest.

Second, the average presence of women in parliament accounts for only about 14% in 2002. There seems to be no systematic difference between rich and poor countries, and considerable variations exist within each region. In 2002, only 11 countries (Sweden, Denmark, Germany, Finland, Norway, Iceland, the Netherlands, South Africa, Mozambique, Costa Rica and Argentina) had achieved the benchmark of 30% female representation in parliaments set in the Beijing Platform for Action.

Third, there are an estimated 140 million illiterate young people in the world, of whom more than half – 86 million – are young women. In 38 % of countries, mainly in sub-Saharan Africa and South Asia, literacy rates are lower for girls than boys. And in countries where less than 50% of young women are literate, progress has been too slow. At the current rate, none of these countries will achieve literacy for all young women by 2015.

Fourth, women's share of non-agricultural waged employment approaches parity with that of men in less than half of the countries (39 out of 87) for which data are available.

Some evidence suggests that gender gaps persist in pay and conditions even when women's share of jobs approaches parity with men's share. Although women's share is increasing in most countries and barriers to their employment are crumbling, the benefits to women are less clear. The report also points

[6] UNDP Arab Fund for Economic and Social Development. *Arab Human Development Report 2002. Creating Opportunities for Future Generations*, 2002.

[7] UNIFEM. *Progress of the World's Women*, 2002.

to the fact that many of the poorest women are employed in agriculture or informal manufacturing and services sectors, and employment statistics often fail to capture these workers.

Fifth, a majority of countries for which data are available have achieved gender equality in secondary school education or have more girls enrolled at the secondary level (the report does not cover primary school education as it is being tracked in relation to Goal 2). Forty-eight percent have a higher secondary school enrolment rate for girls than boys, often because boys leave school for employment earlier than girls. Thirty-four percent, mainly in sub-Saharan Africa and South Asia, have a lower enrolment rate for girls than boys. The report cautions that although nearly half the countries surveyed had a higher enrolment rate for girls than boys, this does not mean that girls in those countries are more empowered than boys. Nor do the gender gaps in education match the gender gaps in adult life. The Report touches on some of the persisting inequality women face in today's world. The report concludes that the target and indicators selected for Goal 3 provide information only on a small part of women's daily lives.

Despite persistent gender inequalities worldwide, there has been progress since 1975, when the first World Conference on Women was held in Mexico City. In many parts of the world, gender inequalities in schooling and health have decreased, though significant gaps persist in some countries. Progress has also been made in recognizing the cross-cutting nature of gender issues and their relevance to development effectiveness and poverty reduction. There is now a shared understanding within the development community that development policies and actions that fail to take gender inequality into account and fail to address disparities between males and females will have limited effectiveness and serious cost implications.

MDG 4: Reduce child mortality
Target 5: Reduce by two thirds the under-five mortality rate[8]

Worldwide, the under-five mortality rate is approximately equal for boys and girls. In Asia, more young girls die than young boys; in every other region, rates are approximately equal, or young boys die at a higher rate. Health professionals working on this target should keep these differentials in mind and, where they result from preventable causes (son preference in Asia, for example), should seek to eliminate them. Certain diseases (including the MDG target diseases malaria and TB), when they occur during pregnancy, can lead to underweight and premature babies whose chances of survival are diminished. It follows, then, that treating these diseases in pregnant women will also help reduce under-five mortality.

Reducing the amount of heavy physical labour that many poor women continue to perform far into their pregnancies may also contribute to improving under-five survival rates, as may provision of greater financial resources and support to women in their roles as mothers.

Small-scale studies in South Asia find sex differences in the proportion of children who are fully immunized. Generalizing from these studies is difficult but it is possible that, in areas where son preference is common, the lower level of resources devoted to female children might mean that they are less likely

[8] Adapted from WHO Department of Gender and Women's Health. op. cit.

to be vaccinated. Mechanisms need to be established to detect sex differences in immunization coverage, interventions developed to redress these imbalances, and routine monitoring systems established to ensure that immunization systems reach all children.

In the 1990s, all regions except sub-Saharan Africa reduced under-five mortality rates.[9] However, no region is currently on track to meet the 2015 goal. Annual reductions in child mortality of between 5.3% and 7.6% will be required to meet this goal.[10] Fortunately, much is known about the causes of infant and child mortality, including: the importance of clean water and the benefits of oral rehydration therapy for diarrhoea; the role of immunization, especially against measles; the value of insecticide-treated nets and prophylactics for malaria prevention and treatment; the importance of pre-natal and post-natal interventions in reducing mother-to-child transmission of HIV; and the education of mothers in basic infant and young child care.

Progress in under-five mortality has been slowest among the poorest countries, where the problem is most acute. Between 1990 and 2000, 31 low- and middle-income countries reduced their under-five mortality rates fast enough to achieve the goal of a two-thirds reduction by 2015. Of these, nine were upper middle-income, 16 lower middle-income and only six low-income countries. Of the 15 that suffered increasing mortality rates, 10 were low-income countries. However, the regional and income-group averages disguise much variation. Two of the countries making the fastest progress over the decade were Tajikistan and Azerbaijan, both low-income countries, while Botswana, an upper middle-income country that has been badly affected by the spread of HIV/AIDS, saw under-five mortality rates rise from 62 to 100 per 1000 live births in just 10 years.[11]

MDG 5: Improve maternal health
Target 6: Reduce by three quarters the maternal mortality ratio[12]

Although the direct, first-level targets and beneficiaries of maternal mortality interventions by definition are always women, maternal mortality and the conditions that heighten or diminish the problem do have a gender dimension:

- Poor nutrition of girls and women due to gender discrimination can increase the chances of life-threatening complications at the time of pregnancy.
- Societal norms that limit women's mobility, or that require that women obtain the consent of a male family member before seeking health care, can dangerously delay, or even prevent, women's access to life-saving care in the event of an obstetrical emergency.
- Women's education is strongly correlated with positive maternal health outcomes. High rates of illiteracy/low rates of school attendance among women and girls, which are common in some parts of the world, are likely to contribute to maternal mortality.

Furthermore, certain diseases (such as malaria, anaemia, hepatitis and possibly TB), when experienced during pregnancy, can be especially severe and contribute to maternal mortality. Targeted efforts to reduce the incidence of these diseases in women should

[9] World Bank. *World Development Report 2000/2001: Attacking Poverty*, New York, Oxford University Press, 2000.
[10] United Nations. *Road Map Towards the Implementation of the United Nations Millennium Declaration*, New York. 2001 (A/56/326).
[11] UNICEF. op.cit.
[12] Adapted from WHO Department of Gender and Women's Health. op.cit.

have the additional benefit of reducing maternal mortality ratios.

True rates of maternal mortality are difficult to measure accurately. Deaths as a result of pregnancy or childbirth may not be captured in general purpose surveys or those with small sample sizes. Furthermore, maternal deaths may be underreported in countries that lack good administrative statistics or where many births take place outside of the formal health system. Maternal mortality is such a compelling problem because it strikes exclusively young women undergoing what should be a normal process, and because the difference in outcomes is so extreme between those who live in rich countries, where the average maternal mortality ratio is around 21 deaths per 100 000 live births, and those who live in poor countries, where the ratio may be as high as 1000 deaths per 100 000 live births.[13]

Because of the lack of comparable time-series data, it is difficult to assess progress toward this goal. The last global estimates of maternal mortality for 1995 concluded that about 500 000 women died during pregnancy and childbirth, most of them in developing countries.[14]

Data on the proportion of births attended by skilled health personnel are indicative. In Latin America, where the proportion of births attended by skilled health care workers is high, maternal mortality is relatively low, while very high maternal mortality occurs in Africa, where skilled attendants are not readily available.

Significant progress in reducing maternal mortality will, however, require more than increasing the number of skilled birth attendants: deaths in childbirth often involve complications such as haemorrhage that require fully equipped medical facilities. The maternal mortality ratio is thus an indication of the overall capacity of the health care system to meet the needs of the entire population.

MDG 6: Combat HIV/AIDS, malaria and other diseases
Target 7: Halt and begin to reverse the spread of HIV/AIDS
Target 8: Halt and begin to reverse the incidence of malaria and other major diseases[15]

HIV/AIDS affects men and women in different ways. 2002 was the first year when the number of adult women worldwide suffering from the disease approximately equalled the number of adult men, suggesting that the disease is now spreading fastest among women. Indeed, in sub-Saharan Africa, the region worst affected by HIV, prevalence rates among women are already distinctly higher than those among men. These figures reflect underlying realities of sex and gender that programme planners will have to grapple with if they are to meet Target 7 of the MDGs:

- In areas where heterosexual sex is the primary means of transmission, HIV infection rates are usually distinctly higher among young women than among young men. This may be partly due to a combination of biological factors relating to the reproductive tract and to social norms. Those norms facilitate older men having sexual relations with much younger women and men in general having more sexual partners than women.
- The only two widely available means of

[13] Abou-Zahr C. Promotion of Maternal Health and Reduction of Maternal Mortality, Paper presented at: Medicine Meets Millenium, World Congress on Medicine and Health, August 2000.
[14] Shantayanan D, Miller MJ and Swanson EV, *Goals for Development: History, Prospects and Costs*, World Bank, April 2002.
[15] Adapted from WHO Department of Gender and Women's Health. op. cit.

preventing HIV transmission – male condoms and abstinence – are generally available to men independent of their partners' wishes, while they can usually only be practised by women with male co-operation.
- The stigma of HIV may be felt most strongly by women, who are often physically, socially and economically more vulnerable than men.
- Effective prevention of mother-to-child transmission may require involving both mothers and fathers, even though planners of such programmes may be tempted to address only women. Although it is women who must take drugs or avoid breastfeeding to prevent mother-to-child transmission, they may not have enough autonomy or financial resources to do so on their own, without their partners' consent and participation.
- Women and girls bear the brunt of the care giving required in this epidemic, which affects large numbers of adults in the prime of life.

Pregnant women and very young children have unusually high incidence and mortality rates for malaria and warrant specific attention in malaria-control programmes. It is also possible that gender norms may affect malaria prevention and treatment via their influence on sleeping and work patterns, on the use of bednets, and on which family members receive medicines and medical care. The direction of such effects probably varies from place to place, but their existence highlights the importance of recording and analysing all malaria-related data by sex, in order to notice and respond to any patterns that do exist.

Regarding TB, the proportion of cases detected and cured under DOTS worldwide, TB prevalence, as well as latent TB infection rates among adult women, are generally lower than those among adult men. Nevertheless, TB remains a leading cause of death among women of reproductive age. Concerns exist that gender differentials in TB case detection and treatment outcomes may be due to a variety of factors such as differences in reporting of respiratory morbidity, gender-distinctive barriers to access, and stigma. In high-HIV-incidence settings like Africa, more young women between ages 15 and 24 are notified with TB than young men of the same age group.

It appears that women of reproductive age who are infected with TB are more likely than similarly aged men to progress to disease. Furthermore, TB during pregnancy leads to significantly higher rates of poor pregnancy outcome, for both child and mother. Those designing programmes to combat it should keep both of these gender-related aspects of the disease in mind.

Finally, studies suggest that genital TB, a relatively uncommon disease in men, may afflict up to one eighth of women who have pulmonary TB. Genital TB can lead to infertility, which carries shame and stigma in much of the world, and needs to be addressed.

Much research is needed to better understand the factors underlying the situations described above with regard to HIV/AIDS, malaria and TB. Although the paragraphs above deal mainly with specific problems affecting women, just as much research is needed into the factors which are more specific to men, in particular where men are the main group affected or the main source of new infections. Such a gender approach is indispensable to design the most effective and efficient interventions.

Unfortunately, the data on these illnesses, including AIDS, is often incomplete or

collected on an irregular basis. In many countries only one reliable estimate has been made for the HIV/AIDS infection rate, so it is impossible to accurately determine rates of change.

In its *2002 Report on the Global HIV/AIDS*, UNAIDS published the following HIV statistics for the year 2001:

- The number of people infected with HIV was estimated at 40 million, of which 18.6 million men, 18.5 million women, 3 million children below 15.
- People newly infected with HIV were estimated at 5 million, of which 2.2 million men, 2 million women, 800 000 children below 15.
- AIDS deaths reached an estimated 3 million, of which 1.3 million men, 1.1 million women, and 580 000 children below 15.
- The total number of children orphaned by AIDS (having lost one or both parents to AIDS) and living at the end of 2001 reached 14 million.

Overall, it is estimated that 55% of adult infections in sub-Saharan Africa are women, 30% in South-East Asia, and 20% in Europe and USA.[16]

MDG 7: Ensure environmental sustainability
Target 9: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources
Indicator 28: Per capita carbon dioxide emissions[17]

Men's and women's different roles and responsibilities are strongly linked to environmental sustainability. Women's insecure land tenure rights provide one example. Without title to land, women are often denied access to effective technologies and resources such as credit, extension, seed supply and labour-saving devices that would strengthen their capacity to promote environmentally sustainable practices. A recent study of the impact of pest management training for rice farmers in Viet Nam showed that only 23% of female farmers consulted extension service workers while 55% of male farmers did so.

Ensuring that agriculture is practised in sustainable ways requires that female as well as male farmers receive the information and resources they require. Gender-based differences and roles also affect conservation practices and must be understood if policies are to be effective. Because of the gender-based division of labour, women and men often have different knowledge of plants and growing conditions. Men are often experts in primary cash crops while women are experts in 'neglected' species. This has important implications for the conservation of genetic resources because the decision to conserve a plant variety depends to a large extent on its perceived usefulness to the farm household.

The gender-based division of labour is also closely linked to environmental health. More than half of the world's households cook with wood, crop residues or untreated coal, exposing primarily women and children to indoor air pollution because of the female specialization in cooking and other work inside the home. This results in a number of health problems, such as acute and chronic respiratory infections and blindness. In developing countries, nearly 2 million women

[16] WHO, Fact sheet No. 242, June 2000.
[17] Adapted from WHO Department of Gender and Women's Health. op. cit.

and children die annually from exposure to indoor air pollution. In central Kenya, for example, children and women are disproportionately affected by acute respiratory infections, caused by prolonged exposure to indoor air pollution from the combustion of biomass.

Beyond this, in many parts of the world deforestation has meant that wood – the most widely used solid fuel – is increasingly distant from the places where people live. Collecting wood usually falls to female members of the household, who spend more and more time on this activity at the expense of other crucial activities for themselves or their family.

Making available alternative fuel sources (and the means to use them safely) can thus have a particularly positive effect on the health of women, both by reducing their exposure to damaging fumes, and by reducing the burden on them of a particularly taxing and time-consuming form of labour. Time saving may open up opportunities for education and income generation. This may help break a vicious cycle where solid fuel use restricts economic development, while poverty reduces the ability to switch to cleaner fuels. All these issues require much further research.

Research is also much needed into environmental hazards affecting more particularly the male populations, such as crop spraying, mining activities and heavy industry.

Target 10: Halve the proportion of people without sustainable access to safe drinking water[18]

More than 1 billion people presently lack access to clean drinking water, and another 1 billion people lack access to proper sanitation. More than two million children die every year – 6000 a day – due to diarrhoeal diseases including cholera and dysentery. Although there is no reason to believe that there are gender differences in access to improved water or sanitation (since these are generally provided to districts and families, not to individuals), there is still an important gender dimension to water supply.

In places where the source of water (whether improved or not) is distant from the places where people live, the task of collecting water, which falls to female members of a household, is very time consuming. Thus, bringing an improved water supply to somewhere near residential concentrations can both improve the health of a population and reduce the burden of a particularly taxing and time-consuming form of labour, performed largely by girls and women. Improved water supplies located a long distance from homes, on the other hand, might help with the first of these objectives, but not with the second.

In developing countries, coverage of improved drinking water sources rose from 71% in 1990 to 78% in 2000 – leaving an estimated 1.1 billion people without access to safe water. Progress fell far short of the goal set in 1990 to reach universal access to safe water by 2000. Not only was the goalpost moved to 2015, the new MDG target was lowered from universal coverage to halving the proportion of people without access to safe water. Thus, the new target is nearly five times less ambitious than the initial one. At the current rate of progress, the world is on track to reach the new target for safe water by 2015. The fastest progress was made in South Asia; little or no progress was made in the world's poorest nations (the so-called Least

[18] Adapted from Vandemoortele J. *Are the MDGs feasible?* New York, UNDP, July 2002.

Developed Countries). Rural areas lag far behind; the rural-urban gap in terms of access to safe water is greatest in sub-Saharan Africa, where only 45% of the rural population have access – against 83% for their urban counterparts.

During the UN World Summit on Sustainable Development (Johannesburg 2002), countries not only endorsed MDG Target 10 for safe drinking water, but also agreed to commit themselves to a target of reducing the numbers of people who lack access to proper sanitation by 2015. The new commitments agreed to in Johannesburg also call on countries to provide the resources and technical assistance needed to embark on action programmes to meet the goals.

Target 11: Achieve significant improvement in lives of at least 100 million slum dwellers by 2020[19]

Almost 2 billion people currently live in urban regions of the developing world. This figure is projected to double over the next 30 years. It is estimated that up to one third of the world's urban population lives in slums. Slum dwellers face higher developmental challenges such as higher morbidity and infant mortality rates than either non-slum dwellers or the rural population.

There are five key components of a successful programme in slum improvement:[20]

- improved water supply: sufficient amount of water for family use, at an affordable price, available to household members without being subject to extreme effort, especially to women and children;
- adequate access to sanitation: excreta disposal system, in the form of a private toilet or a public toilet shared with a reasonable number of people;
- protection against forced eviction (secure tenure): documentation that can be used as proof of secure tenure status; de facto or perceived protection from forced eviction;
- durable housing: house built on a non-hazardous location, offering protection from extremes of climactic conditions such as heat, cold, rain and humidity;
- sufficient living area: not more than two people share the same room.

Just as under any other target of the MDGs, gender aspects are particularly important to consider under this target, as securing tenure for the household does not necessarily secure tenure for women and children, as women's land and housing property rights:[21, 22]

- are still not recognized by all countries;
- are often blocked by customary laws, traditions and cultural factors;
- are violated more frequently: women are affected disproportionately by forced evictions and resettlement schemes, slum clearance, civil conflict, development projects and globalization policies;
- are violated by additional actors: women, particularly in Africa and parts of Asia, also face evictions by their spouses and in-laws, a situation made worse by the HIV/AIDS pandemic;
- land, housing and property rights are usually registered in the name of the husband;
- awareness of women's rights among men and women is still alarmingly low.

[19] Adapted from UN-HABITAT. *Improving the Lives of 100 Million Slum Dwellers: Guide to Monitoring Target 11*, 2003.
[20] Ibid.
[21] Global Campaign for Secure Tenure. *Implementing the Habitat Agenda: Adequate Shelter for All*, 2003.
[22] UN-HABITAT. *Land and tenure section brochure*, 2003.

This has profound implications for reaching the gender targets under the other MDGs.

MDG 8: Develop a global partnership for development

To develop a global partnership for development is the most inclusive and complex of the MDGs. It consists of seven specific targets where global partnerships can make a difference in quality of life in poor countries and up to 17 indicators that can measure their success on the ground. From partnerships that promote trade and debt reduction to those facilitating decent work for youth and access to affordable drugs in developing countries, Goal 8 requires a commitment of all players to work as partners in a development partnership unparalleled in human history.

Partnerships that are gender-sensitive, and have a built-in component for gender as a cross-cutting issue, will stand a better chance of achieving both their own goals and the MDGs, in an effective and efficient manner.

Section 3

Conclusions

In summary:

- Sex and gender are major determinants of health in both women and men. They are closely linked with other variables such as age, race and socioeconomic status in shaping biological vulnerability, exposure to health risks, experiences of disease and disability and access to medical care and public health services. Researchers who ignore these differences run the risk of doing bad science. Failures to incorporate sex and gender in research designs can result in failures of both effectiveness and efficiency.
- Gender sensitivity means more than just a focus on improving the situation for women. It requires an analysis of the gender-based attitudes and practices of both women and men. It leads also to a recognition of the need to involve men in achieving gender equality and of the disadvantages that men themselves sometimes suffer as a result of gendered attitudes.
- Overall, the MDGs cannot be reached without an explicit, coordinated and systematic focus on the gender dimension of all MDGs. Gender equality is not just one goal, but also a means to achieving each goal. Without a fully integrated gender perspective in the reporting, campaigning, analysis and implementation of policies and strategies developed towards achieving the 2015 target, the MDGs will not be realized and governmental commitments made through the United Nations will remain unfulfilled.
- The specific MDG on gender equality (Goal

3) has been integrated in a single target calling for the elimination of gender inequality in education. Many have pointed out that access to education is an important signpost for gender equality. But as the Beijing Platform for Action recognized, there are many other dimensions of gender equality (or "critical areas of concern") that are equally crucial and need to be addressed.

- The United Nations and civil society should ensure that the wide-ranging commitments made in the Beijing Platform for Action and the 1979 Convention on the Elimination of All Forms of Discrimination against Women remain on the political agenda.
- One of the main challenges facing the inclusion of gender in all processes leading to the achievement of the MDGs is to ensure that the system of national MDG reports takes national commitments to women into account.
- Poverty cannot and will not be eradicated without adopting a gender-sensitive approach. Universal access to education and reproductive health care are crucial steps that can help to eradicate poverty.