Oxfam Briefing Paper
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The Cost of Childbirth

How women are paying the price for broken promises on aid

One women dies every minute as a result of problems in pregnancy or childbirth. The vast majority of these deaths are avoidable. Yet on current trends the international target of reducing maternal deaths by three-quarters by 2015 will be missed. Northern governments could transform the prospects of reaching the target by increasing the aid that they give to the poorest countries. It would cost $4bn extra aid a year to save half a million lives a year. Yet they have failed to act. The G8 countries should signal a shift in priorities by setting a timetable for meeting the UN target of devoting 0.7 per cent of their Gross National Product to aid for human development.

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Summary

One death a minute – half a million fatalities a year. Unlike emergencies caused by natural disasters or armed conflict, maternal mortality does not make the headlines. The suffering that it creates goes unremarked by the international media. Yet deaths during pregnancy and childbirth represent a widespread and systematic violation of basic rights. Each mother's death is an individual tragedy, made inevitable by the inequalities that condition women's lives. But the vast majority of cases have two things in common: they occur in developing countries, and they are avoidable.

The international community has pledged to meet certain Millennium Development Goals (MDGs) by the year 2015; among them is the commitment to reduce maternal mortality by three-quarters. That target is achievable – but on current trends it will be missed by a wide mark. The governments of the world are failing to honour their obligations. And this is an area in which broken promises cost lives.

Most immediately, they cost the lives of pregnant women. Furthermore, problems in pregnancy and childbirth are implicated in more than the deaths of more than three million children each year, and in debilitating sickness for countless millions of women across the developing world.

Women in sub-Saharan Africa account for a large share of the maternal-mortality statistics. They represent 14 per cent of the world's women, but suffer half of all the deaths that occur during pregnancy and childbirth. In a rich country such as the United Kingdom, the lifetime risk of maternal death is 1 in 5,800. In Ethiopia the equivalent risk is 1:14. Across much of Africa and South Asia, pregnancy and childbirth represent the single biggest cause of mortality among women of child-bearing age.

High maternal death rates have multiple causes, but ultimately, they can be traced to deep-rooted inequalities between men and women. Women have fewer opportunities for education; they do a disproportionate share of manual work; they have less influence on policy making; and they are disadvantaged in terms of nutrition and health care. These factors are compounded by chronic under-financing of health systems and inappropriate health-service delivery, which are pervasive features of countries with high maternal death rates. Lack of trained staff, inadequate drug supplies, and the high cost of treatment all contribute directly to the risks faced by women.

Rapid reduction of maternal mortality is possible, as witnessed by the history of rich countries and – more recently – by many developing countries. The provision of trained staff and access to emergency obstetric care are critical factors. Increased finance alone is not a sufficient condition for achieving progress: fundamental changes in women's rights and health institutions are also needed. However, increased financing is a necessary condition for achieving the MDG of reducing death rates.

Small investments can yield high returns in terms of lives saved. The cost of providing basic services for mothers and infants averages $3 per capita in developing countries. This year, 63,000 women will die from obstetric problems in Ethiopia, Mozambique, Tanzania, and Uganda. More than 80 per cent of these deaths could be prevented through basic health-care interventions costed at $411m: roughly $700 for every maternal and child life saved.

Is this investment affordable? For many developing countries, $3 per capita would represent a large increase in health spending. In Ethiopia and Mozambique, for example, annual public spending on health amounts to $2-3 per capita. Governments in most low-income countries can – and must – do more to raise revenue for health services. However, mobilising the necessary resources will inevitably take many years – and people are dying today.

This is why the governments of the rich industrialised world have a responsibility to support their MDG pledges with the finances needed to achieve them. Increased aid is vital. The Commission on Macro-Economics and Health, established under the auspices of the World Health Organisation, estimated in 2002 that the cost of providing comprehensive maternal health services would amount to around $4bn in additional spending each year. The costs have to be measured against the potential benefits: the spending could save around five million lives over the decade to 2015.

The sums involved need to be put in context. Mobilising $4bn per annum would require the investment of 0.01 per cent of gross domestic product for the OECD countries. To address an imminent threat to the lives and security of millions of women would cost one cent for every $100 in income, or around two days' worth of military spending by the G7 group of wealthiest nations.

Financing to improve maternal and infant health cannot be viewed in isolation. According to the projections of the Commission on Macro-Economics and Health, an additional $27bn per annum in aid will be needed to strengthen the capacity of health systems to the point where they can deliver basic health-care packages effectively. Meeting this target would require a five-fold increase in donor spending on health services.

Even this more ambitious target is well within reach. Almost forty years have passed since Northern governments promised to raise their aid to a level equivalent to 0.7 per cent of their national incomes. The current average level is 0.23 per cent. Despite a slight recovery over the past three years, this is still below the level reached in the early 1990s. Reaching the 0.7 per cent target would mobilise an additional $176bn, which would be sufficient not simply to meet additional health-related costs but also to achieve rapid progress on a broad range of MDGs related to the provision of education, the supply of clean water, and the reduction of poverty.

Setting a schedule for achieving the 0.7 per cent target in the near future would signal that Northern governments are seriously committed to meeting the MDGs. However, far more resources must be invested without delay in services that could generate some of the highest benefits in terms of lives saved. That is why the British government's proposed Financing for Development Initiative is so important. In brief, this would enable governments to issue bonds in order to generate immediate increases in aid to the poorest countries. Under the proposal, an additional $50bn per annum would be mobilised for spending in the years up to 2015. In practical terms, the initiative could create an additional $10bn in 2006, with annual increments thereafter. Provided that the proposal is seen as complementary to, rather than a substitute for, a schedule for reaching the 0.7 per cent target, it could bring the MDGs within reach.

Action on other fronts is also needed. Northern governments could start by revising the Heavily Indebted Poor Countries (HIPC) Initiative. In the case of

Ethiopia, a country with one of the highest mortality rates in the world, the $197m spent on servicing the national debt in 2001 could have fully financed provision of a basic package of health care for mothers and children. Tanzania spends $4 per capita a year on debt servicing. Converting this into health-sector investments would increase health expenditure by 50 per cent. And Zambia, with rising death rates among mothers and children, continues to spend $15 per person on debt repayments – a sum which exceeds public spending on health.

Such facts suggest that the financial priorities of creditor governments reflected in the HIPC Initiative are lamentably at odds with their stated development priorities. Debt repayments continue to divert resources from vital social-sector expenditure, including spending on maternal and child health. The HIPC Initiative has brought real benefits, reflected in increased spending on high-priority social sectors. What is needed now is a commitment to ensure that debt repayments are commensurate with achievement of the MDGs.

There are those who reject the case for increased aid. Developing countries, they argue, lack the capacity to absorb more aid, and donors should focus on improving the efficiency of existing aid, not on mobilising new funds. Such arguments lack credibility. National-level studies have shown that a large group of countries could effectively absorb more aid with immediate effect.

When it comes to maternal mortality, it is difficult to believe claims about inadequate absorptive capacity. There is room for improvement in the institutional efficiency of all health-care systems, but in a context where women are dying for want of access to the most basic medicines and treatments, increased aid has the ability to save lives.

This report sets out the scale of the challenge to reduce maternal mortality, identifying causes, and presenting a strategy for reform in five key areas:

- **Increasing aid for health services.** Donors should with immediate effect increase spending on maternal health by $4bn, to ensure that the full costs of basic interventions can be covered. Overall aid to the health sector should increase by $27bn a year, to support the strengthening of institutions and service delivery.

- **Setting timetables for increasing aid to a level equivalent to 0.7 per cent of Gross National Product.** The effectiveness of aid to the health-services sector is conditioned by the strength and quality of overall poverty-reduction efforts. Achieving the full 2015 package will cost up to $100bn – a sum which would be made feasible by meeting the 0.7 per cent target. The G7 summit in 2005 will mark the start of the ten-year countdown for the MDGs – and it will provide a last chance for implementing the requisite increases in aid.

- **Increasing debt relief.** The G7 nations should agree an immediate review of the HIPC Initiative, to assess the adequacy of debt relief against the financing requirements for achieving the MDGs in maternal mortality and other areas.

- **Eliminating user-fees and lowering costs.** Charging for maternal health care costs lives. The phasing out of user-fees for health services should be a central ambition of poverty-reduction strategies.
- **Changing the role of the International Monetary Fund.** The IMF plays a critical role in budget management. At present that role involves tacit acceptance of pledges by donors. The Fund should more actively assess the costs of achieving the health-related MDGs, project the budget requirements for achieving them, and challenge donors to support their commitments with finance.

Introduction

'My life is hard. I have six children, but only three are alive now…One of my children was still-born. I gave birth at home with a traditional birth attendant. If I could have afforded it, I would have gone to the clinic. One of my friends, Zenebexh, died in labour. She just started bleeding and fell down dead. A healer came but couldn't help.' (Tadelech Kesale, 32, Wolayta province, Ethiopia)

'The health care I was offered was really brilliant. I couldn't have asked for better. I always knew there was someone on the end of the phone, whatever time of the night or day if there was anything I was worried about.' (Jo Lazarri, 24, Liverpool, England)

These are the words of two different women living in two different worlds. In rich countries, the threat to life posed by pregnancy and childbirth has been minimised through universal access to health services, improved education, and rising living standards. Across much of the developing world the threat remains. For millions of women like Tadelech in Ethiopia, pregnancy and childbirth can amount to a death sentence.

Unlike drought, or famine, or the loss of life associated with conflict, maternal death receives little attention. It is not a drama investigated by the media and brought to the attention of a worldwide public. Nor is it an event happening in any one continent, country, or city. This is a relentless, invisible tragedy which happens day in and day out to tens of thousands of women. Each death has an individual story behind it. But the vast majority of them are avoidable. This is a tragedy that the world's governments could prevent. The international community does not lack the financial, technological, or scientific means to act. What is lacking is the political will.

Almost two decades have now passed since governments first pledged to take action on maternal mortality. In 1987 the International Safe Motherhood Initiative was launched in Kenya. Bold goals were set, including a commitment to reduce child deaths by half. That target was missed.Today, a new target has been set. Under the Millennium Development Goals (MDGs), governments have committed themselves to reducing maternal mortality rates by three-quarters by 2015. The target is eminently achievable. Yet on current trends it will be missed by a wide margin.

The willingness of governments to tolerate high levels of maternal death represents a gross violation of basic human rights – and it reflects deep-rooted inequalities based on gender. Much of the responsibility rests with national governments. But the governments of the rich industrialised nations could – and should – be doing far

more. The total cost of financing comprehensive maternal health coverage for the whole of the sub-Saharan Africa would amount to around $1.5bn per annum. This amounts to half a day's spending on health care in the United States. Invested in Africa, similar resources would save around 200,000 lives.

This briefing paper examines the problems associated with maternal mortality. Part 1 briefly outlines the scale of the crisis. Part 2 considers some of the underlying causes. In Part 3 we focus on possible interventions to tackle the problem. Part 4 makes the case for increased financing on the part of the international community. Part 5 sets out recommendations for change.

1 The scale of the problem

Measuring maternal mortality is notoriously difficult. Under-reporting, incorrect diagnosis, and poor recording systems make statistics unreliable.[1] Even so, the data that are available tell a clear story. More than any other indicator for health, the figures for maternal mortality reveal huge gulfs between rich and poor countries, and between rich and poor people.

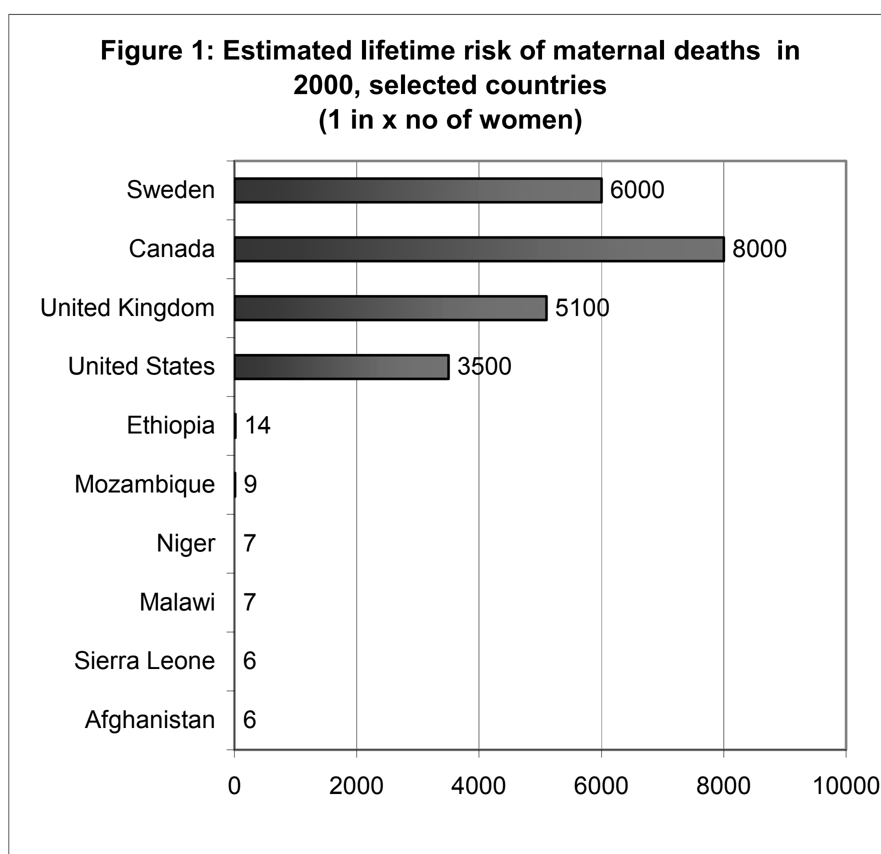
By a conservative estimate, at least 525,000 women die each year from causes related to pregnancy and childbirth.[2] That toll amounts to one death every minute. Infection, blood loss, and unsafe abortion account for the vast majority of fatalities. But even these grim statistics tell only a part of the story. They omit the fact that one in three of the 10 million child deaths that occur each year happens in the first 28 days of life.[3] Many of these neo-natal deaths are a direct consequence of problems faced by women during childbirth.

Severe pregnancy-related complications affect 15 million women each year leading in many cases to long-term disability. And beyond the immediate suffering and grief for the families concerned, maternal deaths diminish the life-chances of a million or more children each year. Death rates for these children, measured over the two years after their mothers' deaths, are between three and ten times higher than for children with both parents still living.[4]

In international conventions, health is treated as a basic human right. In the real world, that right is conditioned by gender, geography, and wealth. For one half of the developing world's population, pregnancy and childbirth represent the biggest single threats to life, accounting for 99 per cent of maternal deaths.

One way of measuring the scale of the threat facing women is to assess the risk of death over the course of a woman's reproductive life. As it takes into account the fact that most women have more than one pregnancy in their lifetime, it is therefore a better indicator of risk than the maternal mortality rate.

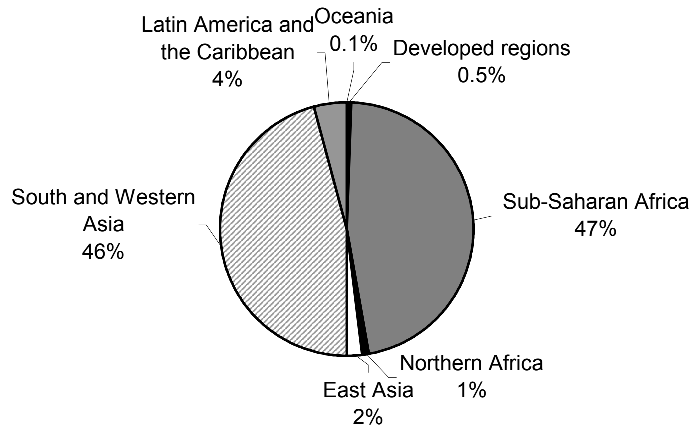
In a developed country like the United Kingdom, the lifetime risk of maternal death is 1 in 5,100. The risk is higher in the USA and lower in Scandinavia and Canada. But in developing countries, the order of risk is of a different magnitude. In Sierra Leone and Afghanistan, a woman's lifetime risk of a maternal death is 1:6. For Ethiopia, the equivalent risk ratio is 1:14 (see Figure 1).



Source: World Health Organisation

Sub-Saharan Africa, the poorest region in the world, accounts for a disproportionate share of maternal deaths. With around 14 per cent of the world's women of child-bearing age, Africa accounts for around half of all maternal deaths (see Figure 2). South Asia accounts for another 40 per cent. Some Latin American countries also suffer high death rates. For example, women in Peru face a 1: 73 risk of maternal death during their lifetime.

Figure 2 Distribution of maternal deaths by region, 2000 estimates



Source: World Health Organisation

Maternal mortality rates (MMRs) are measured by the number of deaths per 100,000 live births. These range from around 1,800 in Malawi to 13 in Britain (see Figure 3). Under the Millennium Development Goals (MDGs) initiative, the aim is for each country to reduce the 1990 national MMRs by three-quarters by the year 2015.

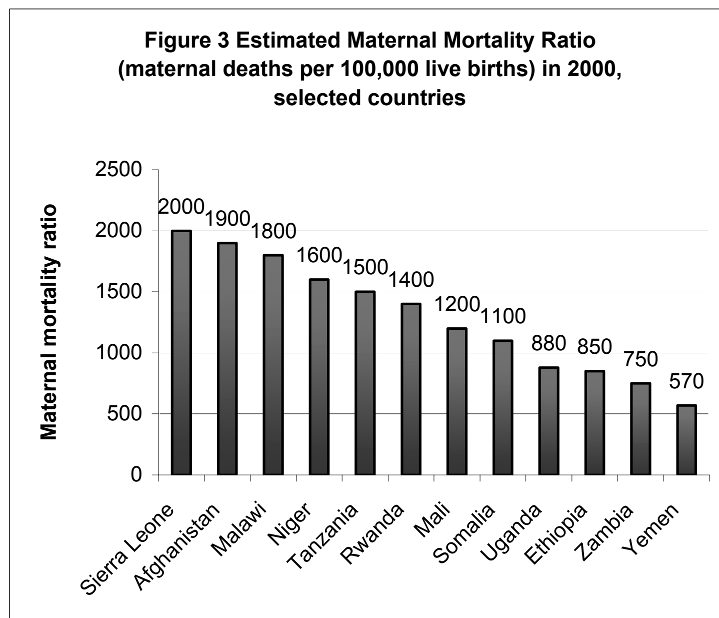


Figure 3 Estimated Maternal Mortality Ratio (maternal deaths per 100,000 live births) in 2000, selected countries

Source: UNICEF

Debate about the MDGs is typically expressed in terms of stark statistics, which point unremittingly to one overwhelming conclusion: namely, that on present trends there is no hope of achieving the targets set. The gap between rhetoric and reality is difficult to measure with any precision, because of the poor quality of the data. However, best estimates suggest that the current rate of progress will have to be accelerated by a factor of three if the MDGs for maternal death are to be met.

Pregnancy and childbirth pose a threat to all women of child-bearing age in the developing world. However, some face greater threats than others. Women from the poorest households have less access to health services. Even when such services are available, they are less likely to use them. In Burkina Faso 86 per cent of wealthy women give birth with the assistance of a trained medical professional, but only 26 per cent of poor women have similar support.[5] One reason for the discrepancy is that poor households cannot afford to pay for treatments. Evidence from Uganda shows that the wealthiest quintile spend six times more on health care than their counterparts in the poorest quintile.[6]

One of the reasons why the rate of progress towards the MDGs is so unacceptable is that limited investments could generate major advances. Reductions in MMRs can be achieved through low-cost treatments for sexually transmitted infections, tetanus, typhoid, and anaemia. As we show in Part 4, spending of $2-3 per capita could eliminate three-quarters of maternal deaths.

2 'A tragedy of multiple causes'

More is known now about the causes of maternal mortality and morbidity than at any time previously. In the late 1980s, many developing countries lacked reliable estimates for maternal mortality rates. Since the founding of the Safe Motherhood Initiative, however, a vast body of evidence has been generated which demonstrates the complexity of the factors that underpin high mortality rates, including the failings of the health-care system and national infrastructures, a woman's legal status and her status within her community, and her access to education and good nutrition. In this section, we consider some of the major risk factors that determine the risk of maternal mortality.

Poor nutrition and limited access to basic services

Many facets of pregnancy can increase a woman's chances of death in childbirth. Pregnancy in adolescence leads to a greater risk of maternal death: girls aged 15 to 19 are twice as likely to die in childbirth as women aged 20-30.[7] A larger number of pregnancies also compounds the risk that a woman will die at some point in her child-bearing years, although having fewer and better-spaced births does not reduce the likelihood of mortality once a woman is pregnant: all it means is that she faces this risk a smaller number of times. An Oxfam survey of access to basic health care in Uganda found that women's general health problems, such as excessive menstrual bleeding and anaemia, were linked to successive pregnancies and heavy workloads.[8]

Both of these risk factors are more likely to occur where there is poor access to family-planning services, yet one evaluation of family-planning programmes in 88 developing countries found that services were provided at a reasonable cost in only 14. Where needs for high-quality contraceptive services are unmet, large numbers of unwanted pregnancies result in greater use of unsafe abortion services, the estimated cause of 13 per cent of all maternal deaths.[9]

Complications

Once a woman is pregnant, she may suffer from a number of complications which are almost impossible to predict in advance. Eighty per cent of women who die suffer from one or more of the following direct causes:[10]

- Haemorrhage (severe bleeding), which is responsible for 34 per cent of maternal deaths by direct causes. This condition normally requires treatment within two hours at a health facility able to provide blood transfusions and other clinical measures.
- Infection (21 per cent of maternal deaths by direct causes).
- Hypertensive disorders (16 per cent of maternal deaths by direct causes).
- Obstructed labour (11per cent of maternal deaths by direct causes).
- And unsafe abortion.

The tragedy is that many of these disorders are easily treatable. Infections are often the result of poor hygiene, while hypertensive

disorders such as eclampsia or convulsions can be treated with relatively simple drugs.

Many thousands of women die as a result of indirect causes, usually diseases that either exist before or arise during pregnancy and are aggravated by the pregnancy itself. One such condition is anaemia, which affects an estimated 60 per cent of pregnant women in Asia and 52 per cent in Africa. Severe anaemia can cause heart failure, while anaemia makes pregnant women more vulnerable to the after-effects of haemorrhage or infection. Combinations such as malaria and anaemia further increase a woman's susceptibility to complications, with pregnant women who suffer from malaria even more likely to suffer from anaemia. Infection with HIV (Human Immunodeficiency Virus) reduces immunity to other diseases, and rising rates of HIV and AIDs (Acquired Immune Deficiency Syndrome) in sub-Saharan Africa have overturned gains that the region had made in reducing maternal mortality.

Box 1: The cost of birth in Ethiopia

In rural areas of Ethiopia, just 2 per cent of all deliveries are conducted by a health professional, while more than 60 per cent are attended only by relatives or members of the community. In Boloso Sore, in one of the poorest provinces in Ethiopia, there is just one midwife for a population equivalent to a city the size of Leicester (UK).

Even if a midwife is available, the costs of consulting her are prohibitive. Families simply don't have the income to send their female relatives to hospital when they go into labour, which would cost 15 birr, or one British pound. Instead they hire a traditional birth attendant, who rubs the woman's abdomen and helps her through the birth. They cost 2 birr – 8 pence – but have no formal qualifications. Compared with this, the cost of private care is astronomical: 2,000 birr for a midwife at a private clinic, but as much as 4,000 if a caesarian section operation is needed.

Tadelech Kesale, aged 32, earns around 2-3 birr a week if she is lucky, making and selling *araki*, the local home brew, and *injera*, a type of pancake. She has had six children, but only three are still alive. Although she gave birth to her first child at 18, it is not unusual for girls from poor rural families to marry at the age of 10 and conceive their first child at 12. When interviewed by Oxfam, she said: *'I don't want to have any more children. It is hard enough with the three I have now. One of my children was still-born. I gave birth at home with a traditional birth attendant. If I could afford it, I would go into a clinic. One of my friends, Zenebexh, died in labour – she just started bleeding after breakfast and fell down dead. A healer came but couldn't do anything.'*

Source: Oxfam GB (Interviews carried out by programme staff)

When a woman suffers complications, the event triggers a process that is critical to her chances of survival, depending on whether she has access to good-quality medical care.The first stage in this process is a recognition by the woman and her relatives, or other community members, that she needs medical attention. This may not happen, because community members may lack the information to recognise the symptoms of complications. However, the evidence suggests that in most extreme cases medical help will be sought.

Whether or not the woman and her relatives can obtain medical care depends on a range of factors, including the distance to the local health clinic and the availability of transport. A male interviewee in an Oxfam survey of health care in Yemen reported: '*Transportation is very expensive and scarce…if someone from us got ill in the evening, even if it is a serious illness we have to wait until morning to rent a car to take him or her to the centre.*'[11]

To the costs of medication and the consultation fee must be added the costs of transport, for the woman and for someone to accompany her, plus the time taken out of work in the home and fields (see Box 1). In Uganda, Oxfam discovered that many women delivered at home because they could not afford to buy the gloves, kerosene, matches, and soap that they were supposed to take with them. High and rising health costs exclude a significant number of the poor from essential services, and expenditure on health is a major factor in forcing poor households into debt and deeper poverty. This is an especially relevant consideration with regard to maternal mortality rates, because the cost of treating obstetric conditions is often very high in relation to household incomes.

All these barriers become even more difficult to surmount in conflict zones, or for the most marginalised women of particular ethnic groups or in the most remote rural areas. In addition, whether a woman wants to be cared for in formal facilities will depend on her previous experiences of the health-care system, or her perceptions about the quality and comfort of the facilities. Many women are deterred from seeking medical care, not only because there is a shortage of staff or drugs, but also because they experience a lack of privacy and emotional support. The Yemen survey quotes the complaint of one woman patient: '*They treat us impolitely…they are always angry and shout…we never saw them smiling*.'

The overall result of all these constraints is that only 53 per cent of pregnant women in developing countries deliver with the help of a skilled attendant.[12]

Box 2: Birth in the UK

Jo Lazarri became pregnant with her first baby when she was 22 years old. As she suffers from a blood disorder called 'Protein C Deficiency', which can be fatal during pregnancy, she received specialist medical care, with regular blood tests. She had access to a 24-hour medical helpline in case of any problems. At birth, she was offered the use of a birthing pool, although she did not use it. The hospital that she used was 2.5 miles from her home, and her partner drove her there for the birth. During the birth there was initially one, then two, midwives assisting, and she was given pain-killing gas and air during the birth. 'The healthcare I was offered was really brilliant. I couldn't have asked for better. I always knew there was someone on the end of the phone, whatever time of the night or day, if there was anything I was worried about.'

The quality of medical care

Even if a woman does reach a health-care facility, she may be kept waiting by staff shortages. A long wait can mean the difference between life an death. Many staff are unqualified; without training, they may make an incorrect diagnosis or take inappropriate actions. Women may prefer to be treated by female staff, but there may be none available. The Oxfam survey in Yemen reported that in one rural district of approximately 85 villages there was only one midwife. Even when trained staff are available, they may lack the facilities or supplies of drugs and blood for adequate treatment. Almost half of maternity services in a study of 49 developing countries were judged so poorly resourced that staff could not carry out the one or more of the life-saving procedures that they were supposed to do.

It is not only the quality of the local centre that is critical: saving women's lives depends on the functioning of the overall health network. If local centres lack the capacity to carry out emergency operations, there should be an effective referral system in place to ensure that women can be transferred to facilities where they can obtain the necessary care.

Box 3: Maternal health care in Ethiopia

Ethiopia has one of the world's highest maternal mortality rates, and the second highest rate in Africa. Health care, including community health care, reaches only 62 per cent of the country, while contraceptives are available in only about 18 per cent.

There is a severe lack of resources in rural areas. Staff are so poorly paid that they leave their jobs. In some areas they may have to walk for days to and from town to collect their salaries. As a result, 50 per cent of obstetricians in Ethiopia work in Addis Ababa, the capital city, not in rural areas.

In Jijiga in the physically remote Somalia region, the Health Bureau reports: '*There is a high shortage of equipment, even of materials as inexpensive as pairs of scissors. The hospital has only one microscope, which can only operate when there's electricity. There's a shortage of dressing materials, operation and delivery sets.'*

However, even at Woreda 17 health centre in Addis, senior staff told Oxfam that they face a severe shortage of trained personnel: just 41 qualified health personnel serve around 288,000 residents. There are no oxygen supplies, and only one vehicle, which is used both for general service and as an ambulance for patients.

In the words of Hiwot Mengistu, the team leader for Maternal and Child Health at the Ministry of Health: *'As a woman and a public health professional, this is unacceptable. In many places we are not talking about supplying ultrasound, but just having a room for a woman to go to give birth in would be a start.'*

Source: Oxfam GB (Interviews carried out by programme staff)

Box 4: Maternal health care in the United Kingdom

Around half a million women give birth in England every year, and most can expect to receive at least one ultrasound scan and a range of screening tests. On her first visit to the midwife, Jane Fox, a 31-year-old mother of one child, living in London, received six blood tests. She had two scans during the course of her pregnancy. She had check-ups every couple of months. She was offered free ante-natal classes and several options for the location of the birth: a home birth, a 'home to home' unit designed to feel less like a hospital, or a bed on a normal maternity ward.Despite the evidence of Jane's experience, even the UK lags behind other developed nations on mortality statistics. Recent recommendations in England have stressed the need to improve choice for mothers-to-be when they receive maternity care. In 2001, the Minister for Health announced an investment of £100m to increase the options for pregnant mothers and their partners during pregnancy and birth.

Education, cultural influences, and legal status

Many of the barriers to accessing care that were described above are raised even higher by socio-economic and cultural factors which affect both the demand for care and the supply of quality services. It

should be stressed that these links are not automatic: despite the low status of women in Bahrain and Kuwait, for instance, maternal mortality levels are quite low, on account of women's excellent access to high-quality obstetric care. However, there is evidence to suggest that poor nutrition, limited education, and inferior status all affect a woman's demand for maternity services:

- Protein or calorie malnutrition in early life can result in stunting, thereby increasing the risk of an obstructed labour.
- Poor education (although the precise effects are hard to determine) appears to have a dual effect: better-educated women tend to marry later and have fewer, better-spaced births, and they are also more likely to use modern health services. So women with seven or more years of education are likely to marry four years later than those with no education,[13] and are also more likely to be better informed about family planning, nutrition, and complications at birth, and more confident about using formal health services. The importance of education is not only confined to the woman concerned: better-educated male relatives and community members can also play an important role in decisions about whether to seek maternity care.
- Women's status affects not only their nutritional and educational condition, but also the importance that is ascribed to female health. This is illustrated by the case of Afghanistan (Box 5). Where women are fully valued as community members, their relatives, and the woman herself, are more likely to give believe that she is entitled to medical care when giving birth. The Oxfam study in Uganda, cited above, revealed that women were the last to seek medical treatment outside the home, because they were too busy and too reluctant to spend money on themselves. In addition, men, not the women themselves, made the final decisions on health expenditure and the site of treatment. Practices like these may be reinforced by community taboos. In some communities in South Asia, women must give birth in sheds because blood lost during delivery is regarded as impure.
- Women's lack of status also contributes to increased violence against them, which may compound health problems in pregnancy. International studies have shown that as many as 25 per cent of all women are assaulted during pregnancy. A study in Bangladesh revealed that 14 per cent of maternal deaths were due to violence.[14]

Box 5: Maternal mortality in Afghanistan

At 1,600 maternal deaths per 100,000 live births, Afghanistan has one of the highest levels of maternal mortality in the world. Levels are even higher in remoter areas with few facilities, as in the district of Badakshan, where the ration rises to a staggering 6,500 – one of the highest rates ever recorded anywhere in the world. Here, a recent study by UNICEF and the Centre for Disease Control (CDC) reports that they found no cases in the district where a woman in childbirth was attended by a skilled health-worker.

Years of war and insecurity in Afghanistan have devastated the country's infrastructure. Many remote villages are accessible only on foot or by donkey, so it is virtually impossible to transport pregnant women in an emergency. The UNICEF study highlights the case of Mohammad, who had to walk for five days in the snow to reach a health-care worker. After his trek, Mohammad returned to find that his wife and unborn child had died.

Previously restrictive government policies have left a legacy of limited mobility for women, who often are not permitted to leave home unless accompanied by a male family member. There are few facilities that cater for women, and virtually no female doctors. Yet in many parts of the country, prevailing social norms mean that women are not permitted to be treated by male doctors.

Source: UNICEF

A woman's status in her own community is not the only critical factor. The way in which women are viewed at a national level also affects the supply of maternal health services, and the priority and resources that are accorded to maternal health care. Women's national status also circumscribes the legal rights of women and determines how they are enforced, with particular reference to the legal age for marriage, laws relating to rape and female genital mutilation, and conventions governing whether access to health care must be authorised by a male relative. Oxfam's report on health and education services in Ethiopia notes: 'Women's reproductive health receives too little attention from government and donors because it is allowed to remain "invisible". Legally, girls can get married at 15, and while Female Genital Mutilation is illegal…it is widely practised. "*We don't know one woman who has not been circumcised, nor one woman who has not had problems during delivery,*" said the women interviewed in Metta.'[15]

Given the importance of a woman's status in determining her chances of surviving childbirth, policy makers and advocates have begun increasingly to take a broader approach, based on the concept of human rights. The International Conference on Population and Development, held in Cairo in 1994, was a significant turning point in that it linked issues of sexual and reproductive health into a rights-orientated framework, a move then upheld at the Fourth World Conference on Women in Beijing in 1995. The importance of the

right-based focus is not only that it brings to light the importance of women's civil, political, social, and economic rights, but that once these are recognised as a right, the State has a legal obligation, as well as a moral obligation, to fulfil them.

3 Actions to reduce maternal mortality

Reaching the MDG target for maternal mortality is an important goal in itself. Maternal ill-health is the largest contributor to the disease burden affecting women in developing countries, and the biggest single cause of avoidable mortality. But there are two wider reasons for focus on the rate of progress in maternal health. First, maternal mortality is one of the most sensitive indicators for the state of a country's health system, including its accessibility to the poor, whether or not resources are allocated to men and women on an equal basis, and the efficiency of the institutions through which services are delivered. Second, disproportionate rates of maternal death are among the largest of all health inequalities dividing rich and poor countries, and rich and poor people. Progress towards greater equality is a litmus test both for the effectiveness of global poverty-reduction efforts, and for the quality of national poverty-reduction plans.

There is another reason for a stronger focus on maternal mortality. It is difficult to think of any other area in which the human costs of failure to reach the MDGs will be so high – or where failure is so readily avoidable. History provides important lessons.

During the last twenty years of the nineteenth century, Scandinavian countries reduced their maternal mortality rates by half. It took Britain and the United States another half a century to catch up. What made the difference were national programmes for the training of midwives who attended women at home. From the 1930s, maternal mortality rates in industrialised countries started to converge at much lower levels, as the health system became more effective in the use of antibiotics to fight infections, administering blood transfusions, managing abnormal bleeding, and lowering blood pressure. Successful developing countries have followed a similar trajectory. Countries as diverse in their income levels and health systems as Sri Lanka, Malaysia, Tunisia, Cuba, and China have all registered rapid reductions in maternal mortality by providing professional midwives, training staff, and establishing health-care systems which integrate ante-natal, delivery, and post-partum care.

Box 6: Reducing maternal mortality in Honduras

Between 1990 and 1997, Honduras reduced its maternal mortality rate from 182 per 100,000 live births to 108. Over the period 1988-1997, shocked into action by a study that revealed the high rates of maternal mortality in the country, the government, assisted by donors, moved from a system that relied upon home births attended by traditional carers, to one that employed trained, skilled birth attendants and ensured the availability of Emergency Obstetric Care.

Some of the key features of the government's interventions were the following:

- A high-level commitment to reducing maternal mortality rates.
- Targeting of regions with the highest maternal mortality rates.
- Increased provision of skilled birth attendants, especially in rural areas, and increased training of personnel throughout the country.
- Improved access to Emergency Care in all regions, and the introduction of birthing centres to reduce the burden on hospitals.
- Improved referral systems through better training of Traditional Birth Attendants; increased community participation and better transport networks; and a strategy of focusing on women at higher risk.
- Improved quality of care.

The move to a model of health care based on increasing hospitalisation is, however, expensive and is not always necessary. The government has therefore since moved away from an emphasis on hospital care to providing more intermediary facilities staffed by personnel trained in obstetrics.

Although the multiplicity of the causes seems to lead to the conclusion that only a critical mass of complementary activities will suffice to reduce mortality and morbidity rates, there are clear examples of interventions that can be confidently backed by donors. Experience has shown that no attempt at better schooling, training traditional attendants, or providing pre-natal care can substitute for an effective health system. And within a wider range of possible interventions, the two specific elements of such a health system that are critical to improving maternal mortality rates are (1) the provision of trained birth attendants and (2) Emergency Obstetric Care, available 24 hours a day, 365 days a year.

This is not to ignore the value of other interventions, but poorly functioning systems are unlikely to provide effective delivery of the interventions needed to reduce mortality rates. Improved education and all-round care, better infrastructure, and greater rights for women will obviously contribute to the uptake for and quality of services at delivery and in the event of complications. The WHO and

UNICEF recommend that women should receive 2-4 pre-natal visits focused on preparing for birth, providing immunisation, and offering nutritional supplements. Tacking high maternal mortality rates comprehensively is not simply a matter of setting up parallel systems but about systemic approaches to improving overall care; in this respect it differs from some other health interventions, such as reducing child mortality or eradicating disease. Indeed, maternal mortality rates are often used as an indicator of a functioning, well-integrated health system for this reason.

Yet in cases of finite resources where prioritisation is key, the first and most vital services to provide are the training of attendants and the provision of accessible emergency obstetric services.

Training skilled birth attendants

Having a skilled attendant at birth often ensures that delivery is clean and medically sound, and that complications are identified and action taken. This mode of care in the local environment also means that the advice given is often more culturally appropriate, and that women in childbirth feel more comfortable than they would feel in a hospital far away from their home. However, given that an estimated 15 per cent of all births are complicated by a potentially fatal condition, it is still important to link trained attendants to a wider, functioning health system that can treat severe cases.

Emergency obstetric care

Emergency obstetric care, as opposed to basic obstetric care, refers to the measures taken if and when complications occur. Basic care can be provided though health centres and small maternity homes, while emergency care is usually administered in district hospitals – yet only 40 per cent of women in the developing world give birth in a hospital or health centre. The main functions of basic care are the administration of antibiotics, the manual removal of the placenta, and assisted delivery. Emergency care facilities should carry out caesarean section operations and blood transfusions, which will require the presence of trained staff, specialised supplies, and a functional operating theatre. Guidelines set down in 1997 by the WHO, UNICEF, and UNFPA state that for every 500,000 people there should be at least four basic facilities and one emergency care facility. It is not expected that all births should take place in these facilities, and the over-utilisation of caesareans and single emphasis on hospitalisation can create its own problems. With this in mind, the WHO recommends that at least 15 per cent of all births should take place in some form of emergency centre. However, the ability to

access care easily, cheaply, and safely should be available to all women in case of unforeseen difficulties.

4 Financing reductions in maternal mortality

It follows from what we have said above that the factors that cause high maternal mortality rates cannot be treated in isolation. Effective interventions have to be delivered by trained, motivated staff with access to adequate supplies of drugs and equipment. And they have to reflect the daily needs and concerns of women themselves. Local health systems need the capacity to respond to the needs of the populations whom they serve.

This in turn implies the presence of institutions that not only operate efficiently and with probity, but also listen to these populations and ensure that the voice of women is heard. Improved institutional and government accountability is a vital part of accelerating progress towards the MDGs. Health services will not deliver if drugs and other resources are siphoned off at higher levels, if staff are unpaid, and if health planners have no incentives to listen to the communities whom they serve. Maternal health services are not exceptions to this general rule.

Gender inequality and poverty are both powerful forces driving maternal mortality. Poor people are more prone to infectious diseases than wealthy people. But women face specific problems: they are more prone than men to anaemia and vitamin deficiency, they bear a disproportionate share of labour, and they face the higher health risks associated with pregnancy.

Against this background, it is clear that increased finance is not a sufficient condition for achieving these goals. It is, however, a necessary condition. As in other areas of development, there are many areas of uncertainty in health policy. What can be said with absolute certainty is that in the absence of increased development assistance for countries with high maternal mortality levels, the Millennium Development Goals will be missed by a wide margin.

The cost of saving lives

The scale of the toll on human life exacted through maternal mortality can create the impression that resolving the problem will require vast financial resources; but such an impression is misleading. This is an area in which modest investments have the potential to generate very high returns in terms of numbers of lives saved.

The World Bank and the World Health Organisation estimate that the cost of providing basic maternal services averages around $3 per person in developing countries.[16] What impact might this investment have at a national level? That question can be partially answered by considering four countries in the front line of the fight to reduce maternal mortality. This year, 63,000 women will die from obstetric problems in Ethiopia, Mozambique, Tanzania, and Uganda. More than 80 per cent of these deaths could be prevented through basic health-care interventions costed at around $411m. Taking into account the child deaths associated with maternal mortality, this translates into around $7,000 for every life saved.

Viewed from the rich world, this is a very modest investment. The total cost of financing comprehensive maternal health coverage for the whole of sub-Saharan Africa would amount to around $1.5bn. This amounts to half a day's total health spending in the United States. Invested in Africa, similar resources would save around 200,000 lives. The cost of providing the basic mother-and-child health package in Afghanistan – a country suffering 20,000 maternal deaths a year – would be around $81m.

Measured against the yardstick of health budgets in Africa and low-income countries more generally, the financial implications of accelerating progress towards the MDG for maternal mortality looks very different. In Ethiopia and Mozambique, public spending on health amounts to between $2 and $3 per person. In other words, both countries would have to double health spending in order to cover the cost of meeting the MDG for maternal mortality.

This understates the full scale of the financing constraint. For reasons outlined above, spending to reduce maternal mortality cannot be separated from the wider financial constraints. The Commission on Macroeconomic and Health estimated the additional cost of providing an essential health package in low-income countries at around $14 per person over and above spending in 2002.[17] To put this figure in perspective, it is more than double the current average budget for expenditure on health.

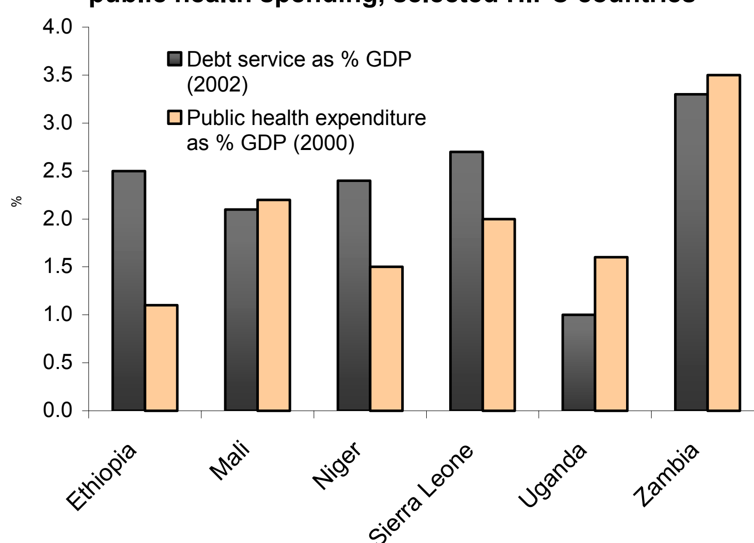
Even if poor countries allocate more resources more efficiently to the health sector, a large gap will remain. The Commission on Macroeconomics and Health assumed that low-income countries could mobilise a sum equivalent to an additional 2 per cent of GDP for health by 2015, with half of this amount coming on-stream by 2007. To put the increases in perspective, even in an optimistic scenario, 2007 spending will still be less than half the level required to cover a basic health package, with a 30 per cent shortfall due in 2015.

Translated into health outcomes, these gaps imply not only that the maternal mortality targets will not be met, but that other targets – on child deaths and HIV/AIDS prevention, to mention two – will also be missed.

Given the limited capacity of low-income countries to mobilise resources, and the shortening time-scale for achieving the MDG targets, Northern governments have a critical role to play, notably in dealing with debt problems and providing aid.

Contrary to the impression given by the international media, the debt problems of low-income countries have not been resolved (see Figure 4). For a wide range of countries – including Ethiopia, Niger, and Zambia – deeper debt reduction could help to finance health spending. In the case of Ethiopia, the $197m spent on debt servicing in 2001 could have fully financed the basic $3 per capita package for maternal and child health. Such facts demonstrate the shocking failure of the Heavily Indebted Poor Countries Initiative (HIPC) to convert debt liabilities into human-development investments.

Figure 4 Debt service payments compared with public health spending, selected HIPC countries



As donors, the richer members of the international community could do far more to help. The annual incremental cost of cutting maternal mortality by the 75 per cent target set under the MDGs is around $4bn. That figure must be viewed in the context of human needs in poor countries, and the resources available to rich countries.

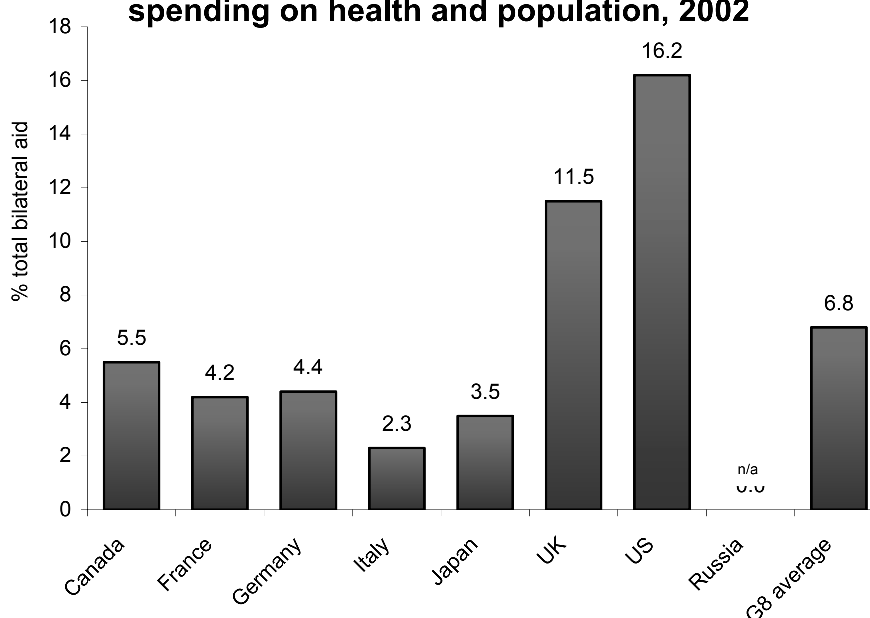
As an approximation, $4bn may be regarded as the global price tag for saving around 412,000 a year. Adjusted for population growth, this amounts to almost five million lives over the decade to 2015,

which is the MDG target date. Achieving this outcome would cost Northern governments an annual sum equivalent to 0.01 per cent of their combined GDP. To put the numbers in perspective, the annual spending involved represents around two days' worth of military spending by the G8 countries.

The stark political question facing Northern governments is whether one cent in every $100 of their national wealth is too high a price to pay for saving five million lives. Increasing spending on aid allocated to health by 0.1 per cent of OECD income would mobilise the full $27bn that the Commission on Macroeconomics and Health estimates is needed to cover the full costs of a basic health package capable of meeting all of the MDGs on health.

There are two ways of assessing the scale of the challenge facing Northern governments as donors. If current aid efforts are taken as the benchmark, they have a very long way to go. In 2002, aid to health amounted to around 8 per cent of total development assistance. Clearly, very substantial increases from this baseline are needed to achieve the spending levels required.

Figure 5 Proportion of G8 bilateral aid spending on health and population, 2002



The other way of assessing the scale of the challenge is to start from the lamentable under-financing of aid programmes. Almost 40 years have now passed since Northern governments first committed themselves to achieving the target of providing aid to poor countries equivalent to 0.7 per cent of their Gross National Product. The current average level is 0.23 per cent. Despite a slight recovery over

the past three years, this is still one-third lower as a share of combined national income than it was in the early 1990s.

National performance in development assistance is varied. The USA is at the bottom of the generosity league table, the UK in the middle, and Scandinavian countries at the top (see Figure 6). If all of the countries in the Group of Seven leading industrial nations set a schedule for reaching the 0.7 per cent target within five years, it would signal a serious intent to mobilise resources behind the MDG commitments.

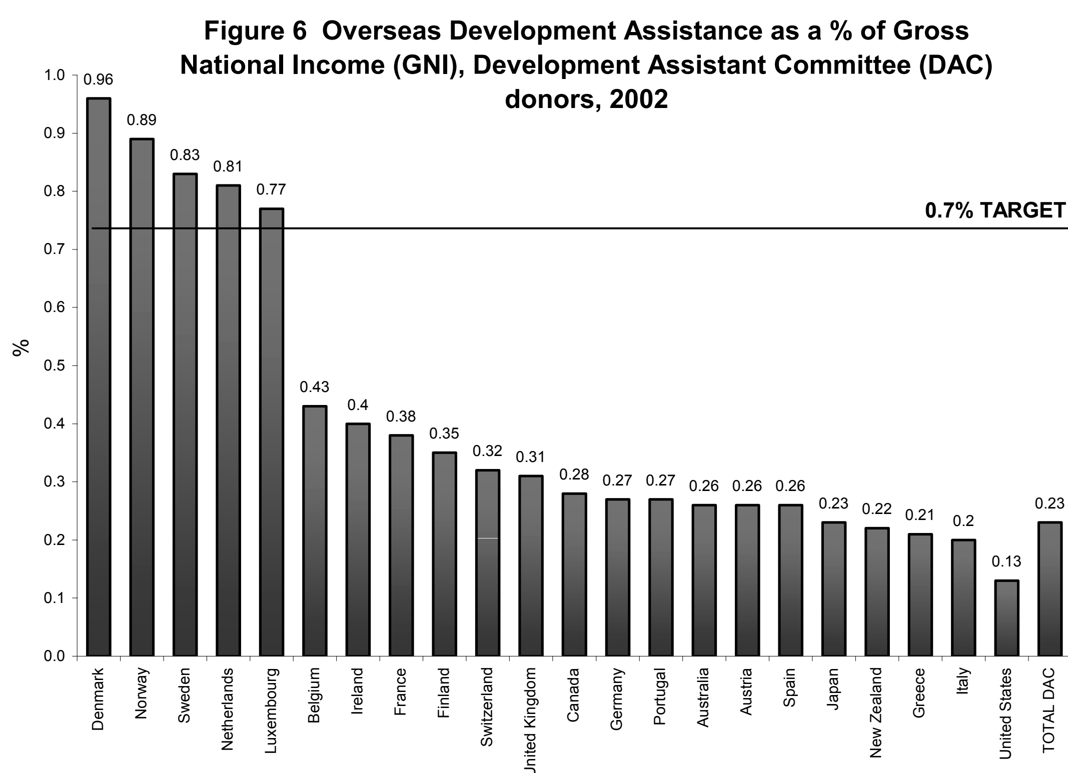


Figure 6 Overseas Development Assistance as a % of Gross National Income (GNI), Development Assistant Committee (DAC) donors, 2002

Unfortunately, a wide gulf remains between rhetorical commitments to the MDGs and real financing commitments. At the Monterrey conference on Financing for Development in 2002, donors committed themselves to mobilising another $15-20bn by 2006. In the (increasingly unlikely) event that they act on this commitment, they will still be less than half way to the 0.7 per cent target.

Within this bleak picture of concerted under-performance, there have been some notable advances. The United States used Monterrey to announce an increase in aid – albeit to levels that are still shockingly low. France has set a target date for achieving the 0.7 target, but not until 2015. Britain has failed to follow this lead. However, it has unveiled a bold new initiative to mobilise an additional $50bn a year through the issue of government bonds. Questions remain about the

detail of the scheme, but its great attraction in terms of poverty reduction is that it would 'front-load' aid increases. That is, it would make additional aid available for immediate investment in human development. An additional amount of up to $10bn could be mobilised in 2006, rising to more than $50bn by 2010.

There are those who remain unconvinced of the case for increased aid. Developing-country governments, so the argument runs, lack the administrative capacity, political will, and economic structures to absorb aid effectively. But this is a view that rests uneasily with the facts.

Several major aid recipients in Africa – Tanzania, Ethiopia, Mozambique, and Uganda among them – are sustaining higher growth rates and achieving notable advances in sectors such as health and education. Research by the International Monetary Fund and the World Bank further confounds the arguments of cynics. In a study of 18 low-income countries, the research concluded that, on a conservative estimate, another $30bn could be absorbed.[18]

The role of the IMF in budget management in many low-income countries compounds the problem of health financing. As the gatekeeper to international aid transfers, the Fund occupies a pivotal position in many countries. It sets stringent limits on public expenditure, linked to the availability of national revenue and donor finance. At one level, this reflects the realities of national finance. However, the Fund could play a far more proactive role in working with others to estimate the cost of financing the MDGs in health and other areas. This would serve to highlight the gaps to be filled through donor financing – and make the Fund a more relevant institution for global poverty-reduction efforts.

Viewed in the context of maternal mortality and the challenges discussed in this paper, claims about limited capacity to absorb aid suffer from a lack of realism. More than 30,000 women a year die from neo-natal tetanus, which also claims the lives of 200,000 babies. Tetanus toxoid is one of the cheapest and most effective vaccines available, costing around $1.20 to provide protection for mother and child. The absence of this vaccine from health clinics in many countries is a testament to chronic under-financing, not to a problem with absorbing money. The same is true of other areas of vital health-sector spending, including staff training.

5 Conclusions and recommendations

The goal of reducing maternal death by three-quarters before 2015 is achievable. Indeed, the goal itself is a very conservative target. Many countries, poor and rich alike, have succeeded in lowering maternal mortality rates far more rapidly than that.

Many of the fundamental changes needed to meet the Millennium Development Goal on maternal health will require radical reform at a national level. Some of these reforms can be introduced with immediate effect by governments. Increased spending on the health sector in general and on front-line maternal health services in particular is an obvious priority. Far greater priority needs to be given to the support of midwives, the provision of comprehensive obstetric facilities, the financing of basic drugs, and the training of medical staff to deal with maternal health problems. At the same time, health-planning systems need to be far more responsive to the needs of women; and health systems need to ensure that services are delivered efficiently and honestly. There is no substitute for good institutional governance. Beyond the health sector, governments, community organisations, and others have a responsibility to challenge the practices that threaten, disadvantage, and disempower women.

Health-sector reforms in many countries are now registering advances in these areas. But domestic reform alone is not enough, especially in low-income countries. Donors should be doing far more to encourage and support reform through five key actions:

- **Increasing aid for health.** Donors should with immediate effect increase spending on maternal health by $4bn, to ensure that the full costs of basic interventions can be covered. Overall, aid to the health sector should increase by $25bn a year, to support the strengthening of institutions and service delivery.
- **Setting timetables for allocating 0.7 per cent of GNP to overseas aid.** The effectiveness of aid to the health sector is conditioned by the strength and quality of overall poverty-reduction efforts. Achieving the full 2015 package will cost up to $100bn – a sum that would be brought in range by achievement of the UN's 0.7 per cent target. The G7 summit in 2005 will mark the start of the ten-year countdown for the MDGs – and it will provide a last chance for registering the necessary increases in aid.

- **Increasing debt relief.** The G7 nations should agree an immediate review of the HIPC Initiative, to assess the adequacy of debt relief against the financing requirements for achieving the MDGs in maternal mortality and other areas.
- **Eliminating user-fees and lowering costs.** Charging for maternal health care costs lives. The phasing out of user-fees should be a central ambition in poverty-reduction strategies.
- **Changing the role of the IMF.** The IMF plays a critical role in budget management. At present that role involves tacit acceptance of donor pledges. The Fund should more proactively assess the costs of achieving the MDGs in health, project the budget requirements for achieving them, and challenge donors to support their commitments with finance.

Notes

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[3] R. Black *et al*.: 'Where and why are 10 million children dying every year?', *The Lancet,* Vol 361, 28 June 2003, London.

[4] Panos Institute, *Birth Rights: New Approaches to Safe Motherhood*, Panos, London, 2002.

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[10] Panos, 'Birth Rights: New Apporaches to Safe Motherhood'

[11] Abdul W. Al Serouri *et al.*: *Cost Sharing for Primary Health Care: Lessons from Yemen*, Working Paper, Oxfam GB, 2002.

[12] A skilled attendant is defined as someone who has been specifically trained in midwifery skills, can manage normal deliveries and also diagnose, manage, or refer complications. Although Traditional Birth Attendants may often receive some instruction to ensure safer birth practices, their education, training, and skills do not usually prepare them to manage all aspects of pregnancy and childbirth (WHO, UNFPA, UNICEF). On the role of skilled attendants, see M. Koblinsky (ed.): 'Reducing Maternal Mortality', Health, Nutrition, and Population Series, World Bank, 2003. See also, WHO/World Bank, 'Resources, Aid Effectiveness and Harmonisation: Issues for Discussion', Mimeo, December 2003.

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17 Commission on Macroeconomics and Health, 'Macroeconomics and Health: Investing in Health for Economic Development', World Health Organisation, Geneva, 2001.

18 IMF/World Bank, 'Supporting Sound Policies With Adequate and Appropriate Financing', Development Committee, 13 September 2003.

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