Maternal Health

MATERNAL MORTALITY—A NEGLECTED TRAGEDY
Where is the M in MCH?
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INTRODUCTION

The World Health Organisation (WHO) estimates that 500 000 women in developing countries die every year from complications of pregnancy, abortion attempts, and childbirth.¹ 100–300 maternal deaths per 100 000 births are common in the Third World, and rates are much higher in rural areas.² In contrast developed countries have only 7–15 maternal deaths per 100 000 live births. Morbidity rates are rarely available, but it is certain that for every woman who dies many more have serious, often long-term, complications. Most of the deaths are preventable, yet little is being done to reduce this source of unnecessary suffering and death. Although in recent years much attention has been given to "maternal and child health" (MCH), scrutiny of MCH programmes shows that most of them will do little to reduce maternal mortality. It is difficult to understand why maternal mortality receives so little serious attention from health professionals, policy makers, and politicians. The world's obstetricians are particularly neglectful of their duty in this regard. Instead of drawing attention to the problem and lobbying for major programmes and changes in priorities, most obstetricians concentrate on subspecialties that puts emphasis on high technology. By reviewing the issue here we hope to stimulate those concerned with international lobbying for major programmes and changes in priorities.

MATERNAL MORTALITY IN THE THIRD WORLD

Even in the United States today, official statistics on maternal mortality are thought to underestimate incidence by 20–30%.¹⁰ In developing countries the inaccuracies are much greater. For example, in 1978 the Egyptian government reported a national rate of 82 maternal deaths per 100 000 live-births.¹¹ In 1980–82, however, a well-designed community study in a wealthy area of Egypt found a maternal mortality rate of twice that—190 per 100 000 (ref 12 and Fortney JA, Rogers SM, personal communication). Perfect data, though, are not essential for formulating health policies and programmes. For example, according to WHO, maternal mortality rates in Africa range from 160 to 1100 deaths per 100 000 births.² Even if the true figure is near the lower end of this range, say 200–400, it is still unacceptably high. Another indication of the magnitude of the problem is that about 25% of all deaths among women aged 15–49 in developing countries are maternal deaths, compared with less than 1% in the United States.¹²–¹⁴

WHERE IS THE M IN MCH?

In discussions of MCH it is commonly assumed that whatever is good for the child is good for the mother. However, not only are the causes of maternal death quite different from those of child death but so are the potential remedies.

The major causes of illness and death among young children in the Third World are diarrhoeal and other infectious diseases (such as measles and pneumonia) and malnutrition. To reduce mortality among infants and young children in developing countries, national and international agencies are promoting several relatively simple preventive measures, including oral rehydration, growth monitoring, breastfeeding, and immunisation. Other components of what has come to be recognised as the basic MCH package are food supplementation in cases of malnutrition, and family planning. Only one of these services can substantially reduce maternal mortality—and that is family planning.
FAMILY PLANNING AND MATERNAL HEALTH

Women who have many children, or who give birth at either extreme of their reproductive years, are more likely to die of complications than are other women.¹⁵,¹⁶ Births to older women are common in poor countries. In Ghana, for example, 20% of all births are to women aged 35 or older. ¹⁷

Many people in developed countries still believe that all Third World women want large families or as “many children as God sends”. However, the World Fertility Survey has shown that this is not the case. In many countries—such as Colombia, Dominican Republic, Egypt, Jamaica, Pakistan, and Sri Lanka—40–60% of all married women say that they do not want any more children.¹⁸ Even in Sub-Saharan Africa, where the proportion of women saying that they do not want any more children is smaller than elsewhere, that proportion is at least 15%. In all the countries surveyed the proportion of women not wanting any more children rises sharply with increasing maternal age and parity, as does risk of maternal death—a fortunate convergence between women’s childbearing desires and a factor that could reduce risk of maternal death. Unfortunately, many of these women—from about 50% in Egypt and Indonesia to more than 75% in Pakistan and Lesotho—are not using effective contraceptives, for reasons that need to be explored and addressed. If all women who want to limit their families could do so, maternal mortality would be reduced substantially, by from 15% in Sub-Saharan Africa to 40% or more in Sri Lanka and Pakistan.¹⁹

OBSTETRIC CARE AND MATERNAL HEALTH

The major causes of maternal death in developing countries today are the same as they were in industrialised countries 50 years ago—haemorrhage, infection, toxemia, and obstructed labour (though the ranking varies). Ten studies in developing countries showed that at least 75% of obstetric deaths were attributed to these causes.¹⁹

Another major cause of maternal mortality is illegal abortion. By its very nature, the contribution of illegal abortion to maternal deaths is always difficult to determine but, despite under-reporting, existing data show that the practice is widespread. For example, hospital studies in India and Papua New Guinea showed that more than one-tenth of all maternal deaths were due to abortion.¹⁹ Reports of women requiring hysterectomy as a result of self-induced abortion are commonplace. Even in Sub-Saharan Africa (where induced abortion is believed to be less common than anywhere else in the world) at least 3% of maternal deaths in hospital studies are due to abortion.²⁰ Furthermore, African clinicians report that they are seeing more and more young women with complications of illegal abortion.²¹,²² According to one study in 60 developing countries, an estimated 68,000 women died as a result of illegal abortion in 1977, and it seems that the problem is particularly acute in Latin America.²³ Illegal abortion harms women’s health not only directly, through the high rates of infection and haemorrhage, but also indirectly because treatment of its complications requires resources such as hospital beds, staff time, plasma, and antibiotics, which are often in short supply.

The most important feature of deaths from such complications as haemorrhage and obstructed labour is that the majority cannot be averted by preventive measures, including screening during antenatal care. For example, although it is true that serious post-partum bleeding is commonest among women who have had four or more children, it is difficult to identify the individual in whom this complication will occur. Furthermore, a sizeable proportion of serious complications occur among women with no recognisable risk factors. Nor are some aspects of the management of these complications possible without hospital facilities and highly trained personnel—for instance, blood transfusion, caesarean section (such as for complete placenta praevia or cephalopelvic disproportion), hysterectomy (such as for uterine rupture due to obstructed labour), or the treatment of eclampsia. Screening implies that there is a hospital or clinic to which women can be referred. In many developing countries, this is simply not the case, at least not within reasonable distance or at reasonable cost. What happens now is unnecessary loss of life. For example, a 1977 hospital study in Malawi showed that one-fifth of the maternal deaths in the hospital could have been averted if the women had been brought to the hospital after 12 h of unproductive labour instead of after several days.²⁴ Unfortunately, the solution is not just better transportation and referral. Many hospitals have chronic shortages of trained staff and essential supplies.

There is, of course, an important role to be played by preventive programmes. Health workers and traditional midwives can be taught how to prevent some obstetric complications and how to manage the less severe cases. All midwives can be trained in the use of aseptic procedures, and to avoid harmful drugs or procedures. All can be taught to recognise early signs of sepsis. Where referral for treatment is difficult, midwives and other health workers can be taught to follow “standing orders” (a checklist of indications and contraindications) for prescribing antibiotics intravenously if necessary. They can also be taught to prescribe vitamin supplements and antimarial drugs to prevent anaemia, so that any haemorrhage becomes less life-threatening than it otherwise would be. To be able to cope with post-partum haemorrhage, midwives can be trained in bimanual uterine massage and, somewhat more controversially, to give an oxytocic agent. There is the fear, though, that such drugs may be given during labour to speed delivery, but such abuse can be minimised by proper teaching. Pre-eclampsia can be managed at village level by bed rest. Only rarely is cephalopelvic disproportion recognised antenatally in developing countries, but midwives can be taught to screen for this. It has been suggested that if cephalopelvic disproportion has been identified, prophylactic symphysiotomy will allow the woman to be delivered normally at home rather than by caesarean section. However, symphysiotomy itself has to be done in hospital and should be reserved only for those women for whom institutional delivery remains impossible.

We believe that what is needed is a major investment in a system of comprehensive maternity care. In 1971, Taylor and Berelson outlined such a model.²⁵ For rural areas they recommended small maternity centres serving a population of approximately 4000 with an estimated 160 births per year.

For every 100,000 people, Taylor and Berelson recommended a 20-bed rural MCH centre, staffed by a physician with obstetric experience and several nurse-midwives or other trained health professionals. These centres would be referral centres for high-risk women and women with serious complications. Some women could still die of haemorrhage or eclamptic convulsions before they reached the MCH centre, but a great many lives would be saved.
Unfortunately, at least in the near future, such systems are unlikely to be set up in many developing countries, partly because of lack of financial and human resources but largely because of lack of political will to face this problem. Creating this political will is the responsibility of the international obstetric community.

OUR PROPOSAL FOR IMPROVING MATERNAL HEALTH

At international meetings of obstetricians, where developing countries are well represented, it is depressing to find that the emphasis is almost entirely on the high-technology subspecialties and that sessions on the social issues are usually attended by a small minority of physicians who are already knowledgeable about these problems. Despite publications about the proportion of maternal deaths in hospitals due to haemorrhage, eclampsia, and so on, little thought seems to be given to the deaths from these causes that occur outside the medical-care system. The obstetric community should lead a review of the problem, in conjunction with government health departments and donor agency officials. Improvement of maternal care in developing countries is a long-term undertaking that will require national and international health planning to provide the necessary facilities, personnel, and supplies. UNICEF has taken the lead in promoting effective primary health care for infants and young children; UNFPA in promoting family planning and population programmes for both demographic and maternal/child health purposes; and WHO in promoting overall primary health care. The World Bank has been a leader in describing the ways in which population growth hinders socioeconomic development. Some years ago the Bank established a department of population, health, and nutrition, to which it has committed sizeable resources, but programme and project developments have, in general, been difficult. In part this is because the Bank’s programme is based on loans, an approach that has been successful for large capital projects such as road construction, industrial development, and dam building, but less so for social programmes such as population and health.

We suggest that the Bank makes maternity care one of its priorities. A programme for the prevention of maternal deaths could be built around the building of maternity centres in rural areas, the recruitment and training of staff for the centres, and the provision of supplies and drugs. The programme could be phased so that governments would take over these expenses in time. Loans for these purposes should be seen as an acceptable long-term investment in improving the health of women. In addition, because women receiving maternity care are an appropriate group to whom contraceptive information and services can be offered, our proposal provides an opportunity for the Bank to work toward its goal of reduced population growth rates. Leadership by the Bank, with its enormous resources, could, as an integral part of maternity care, considerably reduce maternal morbidity and mortality and perinatal mortality, and encourage contraceptive practice. In the socialist/communist countries of Cuba and the People’s Republic of China, most women have ready access to maternity care, with effective referral systems for higher-level care. This has been accomplished through the allocation of the necessary resources. Such a system is not beyond the means of most countries, but it requires a dramatic shift in priorities.

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References at foot of next column

A ROSENFIELD AND OTHERS: REFERENCES