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The health of mothers has long been acknowledged to be a cornerstone of public health and attention to unacceptably high level of maternal mortality has been a feature of global health and development discussions since the 1980s. However, although a few countries have made remarkable progress in recent years, the reality has not generally followed the rhetoric. Health and development partners have failed to invest seriously in safe motherhood and examples of large-scale and sustained programmes are rare. Safe motherhood has tended to be seen as a subset of other programmes such as child survival or reproductive health and is often perceived to be too complex or costly for under-resourced and overstretched health care systems that have limited capacity. Despite this, a consensus has emerged about the interventions needed to reduce maternal mortality and there are good examples (historical and contemporary) of what can be achieved within a relatively short time period. The activities of both grassroots organizations and international health and development agencies have helped to build political will and momentum. Further progress in improving maternal health will require outspoken and determined champions from within the health system and the medical community, particularly the obstetricians and gynaecologists, and from among decision-makers and politicians. But in addition, substantial and long-term funding—by governments and by donor agencies—is an essential and still missing component.

Introduction

In the USA in 1900, there were about 700 maternal deaths for every 100,000 births, the same order of magnitude as in many developing countries today. One hundred years later, maternal mortality had fallen to less than 10 maternal deaths per 100,000 births. Similar precipitous declines occurred in other industrialized countries; in Sweden, the decline started well before 1900. By 1950, levels all over the developed world had coalesced at levels well below 100 per 100,000.

How did this change come about? The advent of technologies and drugs to prevent and manage obstetric complications was an important factor.
But by itself, this was not enough. Change came about at different times and rates in different countries, despite the general availability of the new technologies\(^1\). What made a difference was the political will to put the technologies into effect and this required two enabling conditions: the societal recognition that female social, economic and political emancipation was a prerequisite for social development (and its corollary, social peace) and the involvement of medical professionals in promoting that emancipation\(^1,2\).

In the UK, for example, concern among the medical profession about continuing high levels of maternal mortality resulted in the setting up of enquiries into the subject by the Ministry of Health in 1928. These enquiries continued and were eventually turned into the ongoing Confidential Enquiries into Maternal Deaths. During the same period, government committees of enquiry were set up to ‘investigate the general conditions of health among women ... in view of indications that ill-health is more widespread and more serious than generally known’\(^3\). Representatives of women’s organizations were included in the Committee ‘on an entirely non-political basis’. This combination of the energies of the women’s movement and senior medical professionals ensured that no government could afford to ignore women’s health, particularly during pregnancy and childbirth.

There are important lessons to be learned from these experiences as we examine the short history of the global safe motherhood movement over the past half-century.

**WHO, primary health care (PHC) and maternal and child health/family planning (MCH/FP)**

Attention to the health of mothers and children is an explicit element of the WHO Constitution. Efforts ‘...to promote maternal and child health and welfare...' are included among the functions of the Organization. However, global interest in safe motherhood predates WHO’s establishment. The League of Nations Health Section noted concerns about maternal mortality in 1930, reflecting the increasing interest in the topic in industrialized countries and the desire of many colonial powers to transfer to their colonies the benefits of medical progress that were by now so apparent.

It soon became clear that the simple transfer of medical care models from industrialized countries to developing ones was not going to work. This was the premise underlying the 1978 International Conference on Primary Health Care sponsored by WHO and UNICEF in Alma Ata. Countries made an explicit commitment to develop comprehensive health strategies that went beyond just providing services but that also addressed the underlying social, economic and political causes of ill-health.
Primary health care (PHC) would be universal, would address the needs of the poor, would encourage community participation and would focus on the main problems in the community, including maternal and child health care.

PHC fell victim to economics and was compromised by the adoption of selective interventions that attempted to bring technological fixes to health problems without addressing the underlying imbalances that create the problems in the first place. This resulted in the implementation of vertical programmes whose outcomes could be readily measured, such as childhood immunization or growth monitoring. During the same period, concern about burgeoning populations (particularly in the developing world and among the poor) coincided with the development of new technologies for reducing fertility (contraceptive pills, IUDs and long-acting hormonal methods) and resulted in a major global effort to reduce levels of fertility in the developing world.

Population policies in developing countries were supported by UN agencies and a variety of non-governmental organizations (NGOs). Donors, anxious to demonstrate that their aid money was being well spent and in a drive for efficiency and effectiveness, often supported the establishment of free-standing ‘vertical’ family planning bodies, generally quite separate from other related government sectors such as health. In the meantime, other aspects of women’s health, such as safety during pregnancy and childbirth, were neglected.

Where is the M?

During the 1970s and 1980s, advances in statistical techniques and the availability of data from household surveys and censuses resulted in increasing availability and reliability of data on infant mortality. But there had been no equivalent breakthroughs with regard to the measurement of maternal mortality, the dimensions of which remained largely hidden. During 1985, WHO, with funding from UNFPA, provided support to the first community studies on levels of maternal mortality in developing countries. Based on these studies, and what little information was available from vital registration and hospital studies, WHO produced the first ‘guestimates’ of the extent of the problem and announced that half a million maternal deaths were occurring each year, 99% of them in developing countries. By 1987, Dr Hafdan Mahler, then the WHO’s Director-General, was able to assert that ‘Sound estimates based on new data are … the foundation of our current understanding and concern’.

In February that year, WHO, UNFPA and the World Bank jointly sponsored the first international Safe Motherhood Conference in Nairobi.
The conference declared that ‘...something can, should—indeed must—be done, starting with the commitment of heads of states and governments’\textsuperscript{6}. The Conference was the effective starting point of what came to be known as the Safe Motherhood Initiative (SMI). The three original co-sponsors were later joined in the SMI Inter-Agency Group (IAG) by UNDP, UNICEF, IPPF and The Population Council with Family Care International (FCI) serving as an informal secretariat.

A key perception to emerge over this period was the relative neglect of women’s health compared with the attention then being given to child survival and health, a point most forcefully made by Allan Rosenfield and Deborah Maine in their seminal article ‘Where is the M in MCH?’\textsuperscript{7}.

A by-product of child survival?

Two years after Nairobi, the World Summit for Children took place in New York in 1989. In contrast to the Safe Motherhood Conference, the Children’s Summit was attended by heads of state, executive heads of UN agencies, and senior representatives of countries, NGOs and the international development community. The Child Summit included reduction in maternal mortality as one of the goals to be monitored along with increases in antenatal care attendance. However, maternal mortality was viewed almost entirely within the context of ensuring the survival and health of children. As the Executive Director of UNICEF, James Grant, noted, ‘...the emphasis on goals for maternal mortality is largely a by-product of child survival efforts’\textsuperscript{8}.

Where is the W?

The failure to address maternal health as a good thing, in and of itself, independent of its impact on child health, did not pass unnoticed among women’s health advocates. The United Nations Decade for Women, 1976–1985, had helped focus attention on women’s rights and health. The Decade culminated in the formulation of the ‘Forward Looking Strategies’ which called for a reduction in maternal mortality by the year 2000. Women’s health advocates stressed the importance of women’s health in its own right and were suspicious of any hint that women’s interests might be subsumed to those of their infants.

The Women’s Global Network for Reproductive Rights and the Latin American & Caribbean Women’s Health Network/ISIS International, issued a Call to Action on 28 May 1990, declared International Day of Action for Women’s Health\textsuperscript{9}. This campaign was instrumental in drawing attention to the issue of maternal mortality, particularly in Latin America.
The campaign focused particular attention on unsafe abortion and on the poor quality of care meted out to women (particularly poor or indigenous women) by the formal health care system. Maternal mortality was presented as a political challenge with responsibility firmly attributed to high level decision-makers: ‘To cure the health problems of women is to acknowledge that oppression—and health problems—are not determined by biology but by a social system based on the power of sex and class’.

By the early 1990s, NGOs around the world were working in the area of safe motherhood, often at a very local level, engaging in community-based research, participating in awareness-raising or public education campaigns, promoting workshops, meetings or media events and even delivering care.

From MCH/FP to reproductive health

During the mid-1990s, a series of international conferences, organized under the auspices of the United Nations, led to significant re-evaluation of development efforts. At the International Conference on Population and Development (ICPD) in Cairo in 1994, the Fourth World Conference for Women (FWCW) in Beijing in 1995, and the Social Summit in Copenhagen in 1995, attention was focused again on the social, cultural and gender-based determinants of health and development. Safe motherhood was now viewed within a more comprehensive reproductive or women’s health context.

At the same time, a wide-ranging, grassroots movement expressed opposition to the prevailing dominance of demographically driven family planning programmes. These developments signalled a broadening of the women’s health agenda to address previously neglected problems such as female genital mutilation, violence and trafficking. Also by now, the global impact of the HIV epidemic was undeniable, as was its devastating impact on women and children and its fundamental gender dimensions. No longer the ‘gay disease’, HIV was seen to both reflect, and to exacerbate, social inequalities and vulnerabilities. In sub-Saharan Africa above all, and in all settings with generalized epidemics, HIV is a gender issue. Women are more likely to be infected than men, they become infected at younger ages, and they bear, more heavily than do men, the social and economic consequences of illness.

The A-word

The expansion of the women’s health and development agenda had some unintended, and perverse, consequences for safe motherhood. Among some women’s health activists, ambivalence about safe motherhood strengthened. Was safe motherhood really about women’s rights?
and health or was it just a matter of ‘motherhood and apple pie’? Even the name seemed to draw attention to the outcome of the pregnancy rather than to the choice to become pregnant in the first place.

The women’s movement recognized early on that abortion would be the most contentious aspect of efforts to reduce maternal mortality. Almost universally, they identified societal reluctance to endorse the right of women to decide whether and when to have children and to provide both contraceptive and abortion services to enable them to do so safely. This seriously complicated efforts to draw attention to safe motherhood. Among anti-abortionists, safe motherhood was seen as the Trojan horse for the introduction of legal abortion. Funders interested in supporting safe motherhood programmes became wary and today certain donors cannot be approached for support to projects or programmes that include an abortion-related component.

Problems such as these have added to the ambivalence and hesitation of policy-makers. In some countries, for example, although national plans for the reduction in maternal mortality exist, government officials have an ambivalent attitude towards reproductive health which has hampered implementation12.

**Safe motherhood is a human right**

Despite these developments, the combination of the paradigm shifts that happened in Cairo and Beijing, and the reaffirmation of the health and human rights linkages, brought a powerful new dimension to support for safe motherhood. Maternal deaths, it was argued, are unlike other deaths. Pregnancy is not a disease but a normal physiological process that women must engage in for the sake of humanity13. Whereas the elimination or eradication of disease is a rational and laudable endeavour, the same strategy cannot be applied to maternal mortality. There is no pathogen to control, no vector to eradicate. Women will continue to need care during pregnancy and childbirth as long as humanity continues to reproduce itself. Failure to take action to prevent maternal death amounts to discrimination because only women face the risk.

This perception of the different nature of maternal mortality within the general context of illness and disease has stimulated renewed interest in a rights-based approach to safe motherhood. Defining maternal death as a ‘social injustice’ as well as a ‘health disadvantage’ obligates governments to address the causes of poor maternal health through their political, health and legal systems. This raises the option of using international treaties and national constitutions that address basic human rights to advocate for safe motherhood and to hold governments accountable for their actions—or inaction14.
World Health Day 1998

The burgeoning interest in reproductive health and rights during the late 1990s gave further impetus to efforts to keep safe motherhood high on the international health agenda. In 1996, the SMI Inter-Agency Group embarked upon a 2 year effort to bring maternal health to a wider audience and to a higher level of decision-makers. The preparatory phase culminated in an international technical consultation in Colombo, Sri Lanka, in October 1997[15]. The consultation brought together safe motherhood specialists, programme planners and decision-makers from international and national agencies. The discussions at Colombo helped to forge greater consensus on the interventions needed to reduce maternal mortality.

WHO determined that World Health Day 1998 would be devoted to safe motherhood, with the slogan ‘Pregnancy is special: let’s make it safe’. Around the world, street parties, theatrical presentations, marches, media events and poster campaigns focused on safe motherhood. In Washington, DC, USA, executive heads of major international agencies came together with high level politicians from the developing world and the USA first lady to issue a Call to Action for safe motherhood.

The Call to Action represented a significant upgrading of efforts for maternal health. Since then, new entrants to the safe motherhood field have come to add their weight to the growing movement, including the White Ribbon Alliance for Safe Motherhood, and Safe Motherhood Initiatives USA. Others, already involved in safe motherhood, such as Columbia University, PATH, AVSC International and Marie Stopes International have increased their existing commitment. UN agencies have promised greater resources and visibility, for example, through WHO’s Making Pregnancy Safer Initiative, UNICEF’s Women-Friendly Health Services strategy, UNFPA’s Programme Advisory Note for Reducing Maternal Mortality and Morbidity, and The World Bank’s Safe Motherhood Action Plan. Four agencies—WHO, UNFPA, UNICEF and the World Bank—issued a joint statement on the essential strategies needed to reduce maternal mortality and affirming their collective engagement in support of safe motherhood[16].

A professional responsibility

As the international interest in maternal health has grown, so has the commitment of those health care professionals closest to the problem—midwives, nurses and obstetricians. Of all the allies that safe motherhood needs, none is as crucial as the medical community. It was, after all, the alliance of medical professionals with women’s advocates that forged the strong links needed to ensure government commitment to reduction in maternal
mortality in the UK during the 1930s. On the international stage too, medical professional associations acknowledged their roles and responsibilities in safe motherhood early on. International Nurses Day 1988 was on the theme of safe motherhood. Since 1987, the International Confederation of Midwives has regularly organized precongress workshops on different aspects of safe motherhood midwifery before the triennial congresses. The 1990 precongress workshop was instrumental in opening up debate among midwifery associations about delegation of responsibility and the need for training of midwives to deal with emergency obstetric complications. Later workshops addressed issues of monitoring, quality, abortion and HIV/AIDS.

The WHO and the International Federation of Gynaecologists and Obstetricians (FIGO) Task Force was established in 1982 to draw attention to safe motherhood at both global and regional levels. Precongress workshops have tackled a range of reproductive health issues including safe motherhood. But the fine sentiments voiced at such meetings were rarely followed by practical action. A 1998 article in the *Lancet* took the profession to task for failing to assume its responsibilities and leaving Safe Motherhood ‘an orphan initiative’17.

It was not until 1997, however, that FIGO moved from words to specific action with the establishment of the FIGO Save the Mothers Fund, a north–south partnership to support direct training projects between ObGyn associations. In addition to support from UNFPA and the World Bank, the Fund receives funds from Pharmacia-Upjohn, a rare instance of private involvement in safe motherhood. This initiative is illustrative of the increasing role of the ObGyn which has grown with the emerging consensus that effectively addressing the challenge of maternal mortality implies doing something to ensure that all women with complications—whether emergency or not—can access the needed medical care.

At the same time, the medical profession has to contend with frank mistrust on the part of some women’s advocacy groups who have sensed a tendency for doctors to overmedicalize a natural process, a diagnosis supported by the inexorably rising rates of caesarean delivery around the world.

The Millennium Declaration

The consensus on the need to reduce maternal mortality expressed at the international conferences of the 1990s laid the foundation for its inclusion among the health and development priorities that have emerged at the start of the new millennium. In December 2000, representatives of 189 countries collectively endorsed the Millennium Declaration, which explicitly calls for improvements in maternal health and reductions in
levels of maternal mortality. This global commitment has been summarized in the Millennium Development Goals (MDGs), which have been commonly accepted as a framework for measuring development progress, focusing on efforts to achieve significant, measurable improvements in people’s lives, especially for the poor.

The inclusion of maternal health as one of the eight MDGs, the unambiguous focus on a maternal mortality reduction target and the inclusion of a skilled attendant at delivery as an indicator of progress provide an unparalleled opportunity to re-energize safe motherhood efforts. The MDGs are being used to reorient the work of countries, programmes and agencies. Because the eight MDGs are mutually complementary and reinforcing, the opportunities for achieving sustainable progress are greater than they ever have been. In addition to the three goals that relate directly to health outcomes (maternal and child health and communicable diseases), other goals relate indirectly to health because they focus on important determinants—poverty, gender, education, water and sanitation. Thus, working cross-sectorally, with many partners and addressing systemic constraints to progress is the most effective way of achieving progress.

Safe motherhood needs a health system

One of the most problematic issues with which safe motherhood efforts have had to contend has been the preference of donor agencies for ‘vertical’ focused programmes, perceived (often correctly) to be more effective in reaching their target audiences and in delivering their promises. Such approaches have apparently achieved results in the area of child survival—why should they not do so for mothers too?

The answer is that they do not work when it comes to reducing maternal mortality. We know this because they have been tried and found wanting. In the early years of the Safe Motherhood Initiative, many programmes focused exclusively on a single component such as training traditional birth attendants or providing antenatal care. Only in 1997 at the Sri Lanka meeting did a consensus emerge that making motherhood safer required a full panoply of interventions, comprising health care for women throughout pregnancy and delivery and including access to skilled medical care for complications. The implications for health systems are significant. Implementing safe motherhood programmes requires that human resources are in place (trained, deployed and paid), that they have the necessary drugs, equipment and supplies, and that they are able to function in a supportive policy, regulatory and legal environment. Ironically, today there is a growing perception that vertical approaches are of limited effectiveness in dealing with childhood conditions too. And providing care and support to people living with HIV/AIDS faces
similar requirements. The era of single interventions that bypass the health system appears to be well and truly over.

How much will it cost?

Establishing and maintaining functional health systems costs money and it is a common perception that safe motherhood programmes are so complex that poor countries simply cannot afford them. The historical evidence does not support this view however. In Sri Lanka, a country which achieved remarkable reductions in levels of maternal mortality during the second half of the 20th century, total expenditure on maternal health care (recurrent and capital expenditures) averages 0.23% of GDP, or around 12% of total government expenditure on health. Costs were higher at the beginning of the programme during the 1950s and gradually declined as a result of a combination of increased efficiency and the growth of the private sector\(^{19}\). In Malaysia, similar substantial declines in levels of maternal mortality were achieved while maintaining maternal health care expenditures at less than 0.4% of GDP\(^{19}\).

WHO has developed a simple spreadsheet to assist in estimating the cost of implementing a set of safe motherhood interventions at the district level\(^{20}\). The model includes a standard set of assumptions representing a hypothetical rural district population. Using locally collected data, the model can be used to estimate the actual cost of current services, as well as the cost of upgrading the district health system to meet standards of care for the prevention and management of obstetric problems. Included are estimates of total, per capita and per-birth costs for the district. The estimates are further broken down by input (such as drugs, vaccines, salaries and infrastructure), by intervention (such as management of normal birth, haemorrhage, eclampsia and sepsis), and by service location or level (hospital, health centre and health post).

Follow the money

These examples notwithstanding, countries currently facing high levels of maternal mortality will need to find significant sums to put into place the essential health system requirements for safe motherhood. Such resources do not necessarily have to be found from external sources. A recent study comparing expenditures on various reproductive health services in Sri Lanka and Egypt\(^{21}\) found that despite the very different health situations in the two countries, the overall pattern of costs was broadly similar. The authors concluded that although providing safe childbirth and routine obstetric and gynaecological services to women
was the most expensive element of a package of reproductive health services, addressing inefficiencies in health systems would probably offer the most effective solution to the resources dilemma.

The same study also found, however, that the pattern of donor support does not reflect the actual resource requirements for different aspects of reproductive health, and that the provision of care during pregnancy and childbirth remains the neglected area despite all the commitments made at international fora. International funding is mostly targeted at family planning services, and gives minimal support to safe motherhood and inpatient services.

Better targeted and more generous external assistance will be vital if countries with high levels of maternal mortality are to be able to begin to make significant inroads into the problem. In 1987, WHO estimated that less than US$2 out of every US$10 of international resources devoted to health was spent on maternal-child health and family planning. During the preparations for the 1994 Cairo conference, a similar exercise produced rather similar results and more recent estimates have not led to a revision of the basic premise that insufficient funding is available for safe motherhood. Few donor agencies are able to provide clear statements on support for safe motherhood. UNFPA categorizes population programmes and activities into broad groups, with safe motherhood activities grouped under ‘basic reproductive health services given at primary health care level’ along with training of traditional birth attendant (TBAs), antenatal care and eradicating female genital mutilation (NIDI 2000). Several major donors, USAID among them, do not have a separate budget for maternal health. Recent initiatives in donor funding and disbursement, such as SWAPS, encourage basket funding for a range of integrated programme activities and make it harder to track funds specifically allocated to safe motherhood.

Of the UN agencies, only the World Bank has carried out a systematic analysis of its funding for safe motherhood activities and is now the largest source of external assistance for safe motherhood. In recent years, the Bank has shifted its support from programmes focused almost entirely on child health or family planning activities to programmes comprising activities related to safe delivery and management of obstetric complications.

However, there are some encouraging signs on the resources front. The USAID-supported JHPIEGO Maternal and Neonatal Health project, established in 1999, has access to up to US$50 million over the first 5 years. Significant new funding for safe motherhood has been generated through Columbia University’s Joseph L. Mailman School of Public Health with resources from the Bill and Melinda Gates Foundation. For example, UNFPA and Columbia University have signed a pact through which US$8 million will be allocated to improving the availability
of emergency obstetric care in developing countries. The Gates Foundation has also provided significant support to the Aberdeen University Initiative for Maternal Mortality Programme Assessment (IMMPACT). On the other hand, WHO’s Making Pregnancy Safer Initiative has a mere US$3 million from WHO’s regular budget at its disposal for the current biennium (2000–2001) and it is anticipated that additional funds will need to be raised from voluntary contributions. With resources at these kinds of levels, progress towards safer motherhood will inevitably be limited.

Conclusions

The striking reductions in levels of maternal mortality observed in developed countries during the early part of the last century are attributable to the bringing together of technical requirements (data systems, professional expertise and access to technologies) with political enabling conditions (awareness of the problem and commitment to act). Is such a combination of circumstances in place today in the developing world? Certainly the technologies are available and cost-effective. The political will exists, as manifested by the Millennium Declaration, which was endorsed at the highest levels by all countries. Health care professionals and women’s advocates espouse the cause of safe motherhood. Perhaps the missing element is health sector readiness—the combination of financial, human and organizational resources that is needed to provide services required to the people who need them. Both recipient countries and donors will need to invest in this area if the political will that now exists to tackle maternal mortality is to be translated into action.

The views expressed in this article are those of the author and should not be taken to represent those of the World Health Organization.

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