

## How can health research help to save 500 000 mothers?

Reducing high levels of maternal mortality is widely recognized as vital for development and economic prosperity but, while treatment for childbirth complications exists, not enough is known about what is stopping life-saving treatment from reaching the millions of women who need it.

More than half a million women die in childbirth annually worldwide from treatable complications associated with pregnancy and delivery.

Treatment for these problems exists, international health officials say. What's missing is research into why these interventions are or are not being applied.

More study is required into what the barriers are in health-care delivery systems and what stops women, particularly those who are poor, from accessing them.

While clinical research into maternal mortality is vital, its findings do not address the problem of millions of mothers who are not receiving the health care they need.

These deaths are caused by a several complications.

Eclampsia causes 13% of maternal deaths globally while severe bleeding causes 24%, infection 15% and obstructed labour 8%, according to a 2002 report by the International Sexual and Reproductive Rights Coalition.

It also found that unsafe abortion causes 13% of pregnancy-related deaths. A further 19% were due to indirect causes resulting from diseases that are aggravated by pregnancy, such as malaria, and the remaining 8% to other direct causes, such as ectopic pregnancy.

Recognized as a key to development and economic prosperity, maternal health was one of the main themes at the annual meeting of the Global Forum for Health Research in November 2004 in Mexico City where 700 health professionals from around the world gathered to discuss how research — especially into health systems — can help combat basic health problems.

“Every minute a woman dies from pregnancy- and childbirth-related causes, and at least 20 more women

each minute suffer injury or disease as a result of childbirth, often with long-term consequences,” Anna Coates, research fellow for social sciences at the University of Aberdeen, Scotland, told the conference.

Coates described how the Initiative for Maternal Mortality Programme Assessment (IMMPACT) was set up in 2001 to improve maternal health and survival through targeted scientific research.

She said 99% of maternal deaths occur in developing countries: women in northern Europe have a 1 in 4000 chance of dying from pregnancy-related causes, while for women in Africa the risk is 1 in 16.

Adrienne Germain, president of the International Women's Health Coalition (IWHC) in New York, told the *Bulletin*: “We don't have that large a differential in any other human development indicators”.

IMMPACT is doing a seven-year global study of the effectiveness and cost-effectiveness of safe motherhood intervention strategies, Coates said.

Other low-cost strategies are available but haven't been studied. One example is a non-inflatable anti-shock garment, which may help prevent the drop in blood pressure and shock resulting from haemorrhaging during delivery, the major cause of maternal death during labour.

A team from the University of California told the Forum that the garment can keep a woman alive for up to 50 hours, giving her time to reach a treatment facility. The garment appears to be effective but could use further study, the Californian group said.

Officials in Mozambique began focusing on emergency obstetric care in the mid-1990s, after other inter-

ventions failed to reduce maternal mortality: 500 doctors and nurses were trained, 2500 maternity kits were distributed and assistant medical officers received training in emergency surgery, health minister Francisco Ferreira Songane told the Forum.

IWHC's Germain said there is evidence to suggest that allowing mid-level health-care workers to perform emergency obstetric procedures, such as caesareans or blood transfusions, is safe but she acknowledged a lot of skepticism in the health field over the practice, and said that more studies need to be done.

Dr Paul Van Look, Director of WHO's Department of Reproductive Health and Research, said more research into health systems was needed to test, adapt and refine, evaluate and scale up effective interventions to find ways to make these accessible to the people who need them.

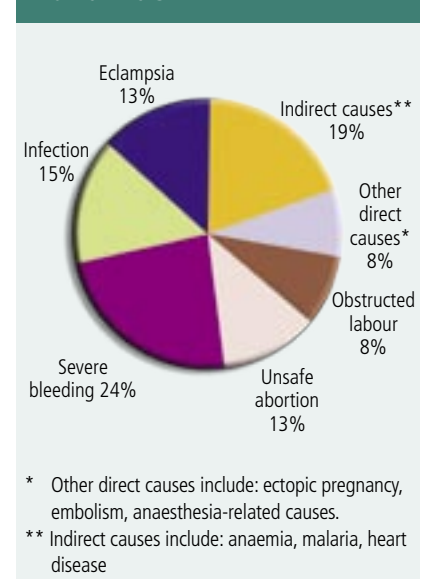
He said more biomedical research was also needed to improve preventive and therapeutic treatment for mothers and infants in poorer countries.

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### Causes of maternal death worldwide



Source: 2002 report by the International Sexual and Reproductive Rights Coalition.



WHO/E. Hoyland

Birth of child in Netrakona, Bangladesh. Women in Bangladesh have a 1 in 59 chance of dying in pregnancy or childbirth during their lifetime, the same chances in Afghanistan are 1 in 6 and in the UK 1 in 3500. Maternal mortality rates vary widely and tend to be high in developing countries and low in industrialized countries.

among mothers and newborns due to pregnancy and childbirth in the developing countries,” Van Look said, adding: “But we have not yet quite figured out how best to use these tools in the challenging and usually resource-constrained settings prevalent in developing countries”.

Jean-Pierre Habicht, professor of epidemiology in the division of nutritional sciences at Cornell University in Ithaca, New York, breaks the lack of research down into two “understudied” areas: delivery and utilization.

Delivery, as in training midwives to wash their hands to avoid maternal infection and in treating infection should it occur. But utilization — which means getting women to seek the care of a midwife who is versed in correct procedures — is equally important, Habicht said.

Besides the annual deaths are an untold number of postpartum problems that can debilitate mothers.

In a paper that they presented at the Forum, Dr Kirti Iyengar and Sharad D. Iyengar of the nongovernmental organization Action Research and Training for Health in Udaipur, India, said that information on postpartum problems has been a by-product of studies on maternal mortality but these problems need to be studied in their own right.

International organizations are increasingly giving priority to maternal health.

UNICEF chose child survival, which is dependent to a large extent on maternal health, as its top priority for 2004, and WHO’s *World health report* this year

will be devoted to maternal and child health.

There are economic reasons for making this a priority, the IWHC’s Germain and others said.

According to the Alan Guttmacher Institute of New York City in a 2003 study, providing maternal health services at low cost eliminates costly problems later. The idea is that research is not a cost but an investment.

Hosted by Mexico’s Ministry of Health, the Global Forum for Health Research conference was held parallel to the Ministerial Summit on Health Research, organized by the Ministry and WHO.

Habicht and other experts said that it is known that improving maternal health improves the lives of families as a whole. From that standpoint, empowerment of women plays a major role.

“Tell me where the research is on that? None. There’s no research,” Habicht told the *Bulletin*. “This is an obvious place for research”.

Theresa Braine, *Mexico City*

“We have the tools to dramatically reduce the deaths and lifelong disabilities among mothers and newborns due to pregnancy and childbirth in the developing countries.”

Dr Paul Van Look, Director of WHO’s Department of Reproductive Health and Research.