Efforts under way to stem 'brain drain' of doctors and nurses

The migration of skilled professionals to industrialized countries is one of the factors behind the chronic shortage of health workers in many developing countries. Last year the problem was highlighted at the World Health Assembly; 2005 may be the year when a series of initiatives to address the problem start to gather momentum.

International recognition that the growing shortage of health workers poses a major threat to fighting diseases such as HIV/AIDS and tuberculosis has prompted a flurry of measures to stem the exodus of health professionals from developing countries.

The initiatives — such as ethical recruitment codes to try to limit damage inflicted by the 'brain drain', and exchange and training programmes and projects to tap the resources of what has become known as the 'diaspora' of migrant health workers — remain fragmented but at least mark a start in the search for solutions to the crisis.

"I hope that 2005 will finally be the year when we achieve some concrete results," said Davide Mosca, the International Organization for Migration's (IOM) regional medical officer for Africa and the Middle East.

"Everything has been analysed. We now need action. If we don't address this problem it will be a disaster. It is increasingly difficult to find doctors in many countries and impossible to retain them," Mosca, who is based in the Kenyan capital, Nairobi, told the *Bulletin*.

This year's World Health Assembly in May is expected to discuss how to limit the adverse effects of the migration and to promote fairer recruitment tactics by developed countries as a follow-up to a resolution passed in 2004. It will also hold preliminary discussions on an international code of practice, according to Dr Pascal Zurn, a health economist at WHO's Department of Human Resources for Health in Geneva.

The Commonwealth set a precedent for action in 2003 when it agreed on guidelines "for the international recruitment of health workers in a manner that takes into account the potential impact of such recruitment on services in the source country". But the code of practice has been signed primarily by developing country members rather than importers of health workers such as Australia, Canada and the United Kingdom, who are reluctant to make a formal commitment to provide compensation or reparations.

Thus, negotiations on any international code will be protracted, Zurn and Mosca cautioned. In the interim, WHO, IOM and the International Labour Organization plan to step up their collaboration to gathering statistics and other information to gain a better understanding of the dynamics of health worker migration, which is often clandestine.

"Once you know what is going on, you can find appropriate solutions," said Zurn.

Even countries such as India and the Philippines, which have long encouraged the export of health and other skilled workers because of their return remittances, are increasingly complaining of domestic shortages — especially in the public sector in rural areas. In Africa, it is estimated that an additional one million health workers will be needed over the next decade to deliver basic health interventions.

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The extent to which eastern European countries, especially those which recently joined the European Union, can provide medical staff for the West and thus ease pressure on developing countries, is uncertain, according to Galina Perfilieva of WHO's Regional Office for Europe.

The United Kingdom, which absorbed more than 13 000 foreign nurses and 4000 physicians in 2002, according to figures presented to an IOM seminar last June, is widely regarded as setting the standards for bilateral agreements on ethical recruitment.

Health minister John Hutton announced on 9 December last year that the United Kingdom would toughen its code on international recruitment, which restricts recruitment from over 150 developing countries. The revised code, which will enter into force at the end of this year, prevents hospitals from actively recruiting nurses and other healthcare professionals from developing countries and extends the obligations to the private sector as well as the UK National Health Service (NHS), thus closing a major loophole.

"The revised code will mean the independent sector acts more ethically, but takes account of the right of individuals to move of their own volition," Hutton said when he announced the measure.

Separately the United Kingdom also announced a £55 million (US$ 103 million) Emergency Human Resource Programme to attract and retain health workers, expand training and send volunteers to Malawi as part of a £100 million (US$ 187 million) health package to this country, which is one of the worst hit by shortages.

A memorandum of understanding between the United Kingdom and South Africa is often cited as a good role model for managing migration. It provides for exchange programmes to allow South African health professionals to gain experience by working for a specified period in organizations providing NHS services and for UK clinical staff to work in rural parts of South Africa.

At a meeting with her UK counterpart last August, South African Health Minister Manto Tshabalala-Msimang also cited the success of a bilateral hospital twinning scheme. The twinning between the Oxford Radcliffe NHS Trust and South Africa's Kimberley Hospital, for instance, has allowed 30 South African nurses to be placed in Oxford for theoretical and practical training, while senior nurses from the UK have worked in Kimberley as mentors.

Even so, the South African health ministry describes the continued loss of skilled professionals — partly offset by immigration from other southern African countries — as an "Achilles heel" and it is stepping up efforts to attract more South Africans to return home.

The IOM's Mosca said that many professionals would like to return home but fear losing their residence status in the country where they have been working. He said IOM wanted developed countries to have an open-door policy to allow migrants to go home, but giving them freedom to change their mind. This would then give professionals more confidence to return to work at home without fear of jeopardizing their legal status in the country where they were employed.

The IOM has a programme on Migration and Development for Africa (MIDA), which tries to encourage mobility of people and resources. Launched in 2001, it encourages temporary or long-term return of skilled workers in general as well as "virtual returns" through video link-ups to allow skilled members of the diaspora to teach at home.

Mosca said MIDA projects aiming to capitalize on the resources of the diaspora have been launched in a number of countries including Burundi, Democratic Republic of the Congo, Ghana, Somalia, the United Republic of Tanzania and Zimbabwe. The USA, which is the single largest market for migrant health workers, has many active diaspora communities anxious to help transfer knowledge and technology through such projects, he said.

The Ghana–Netherlands Healthcare Project, one of the MIDA initiatives, is cited by research consultant Christiane Wiskow in an unpublished paper prepared for WHO as an example of a success story. Its objectives are to transfer knowledge, skills and experiences through short-term assignments and projects and practical internships for Ghanaians and to develop a centre for the maintenance of medical equipment in Ghana. It is meant to allow Ghanaian health professionals in the diaspora to offer services, conduct research and implement projects in their home country.

There are more Ghanaian doctors working outside Ghana than in the country itself, according to a paper by Frank Nyonator, Delanyo Dovlo and Ken Sagoe. The paper says Ghana has a doctor–population ratio of 1:17 489 compared with 1:300 for the United Kingdom. In the past decade the country has lost 50% of its professional nurses to Canada, the United Kingdom and the USA.

It recommends increasing training opportunities; retaining workers through better salaries, cheap mortgages, car loans, educational subsidies, incentive payments and pensions; extending the retirement age from 60 to 65; and recruiting more personnel who are older and therefore less likely to emigrate because of family ties.

Similar recommendations were made in a report published last year on the global nursing workforce by James Buchan and Lynn Calman prepared for the International Council of Nurses. The report also urged better advance workforce planning and far greater involvement by nurses in decision-making as one way to stem the drift out of the profession. ■

Clare Nullis-Kapp, *Cape Town*

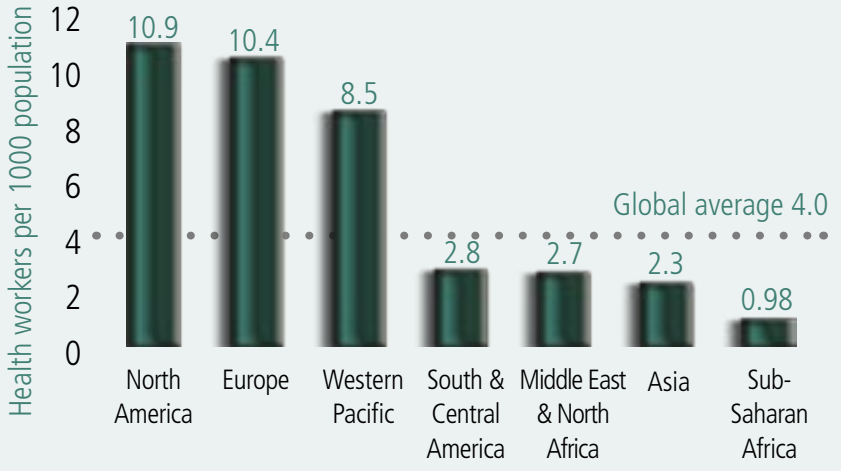
Numbers of nurses from overseas who applied for registration in UK

Country	1998/99	1999/2000	2000/01	2001/02	2002/03	2003/04
Philippines	52	1052	3396	7235	5593	4338
India	30	96	289	994	1830	3073
South Africa	599	1460	1086	2114	1368	1689
Australia	1335	1209	1046	1342	920	1326
Nigeria	179	208	347	432	509	511
Zimbabwe	52	221	382	473	485	391
Ghana	40	74	140	195	251	354
New Zealand	527	461	393	443	282	348
Zambia	15	40	88	183	133	169

Table shows six years of registration of overseas nurses in the United Kingdom. In 1999/2000, overseas admissions to the register started to increase rapidly.

Source: WHO

Workers density by region



Source: December 2004 WHO report entitled: Addressing Africa's Health Workforce

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.

> "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.*

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 interventions 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.

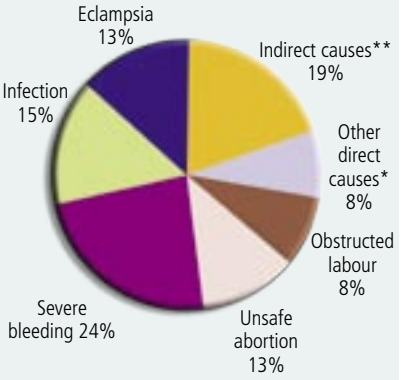
IWHC's Germain said there is evidence to suggest that allowing mid-level health-care workers to perform emergency obstetric procedures, such as caesareans or blood transfusions, is safe but she acknowledged a lot of skepticism in the health field over the practice, and said that more studies need to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

"We have the tools to dramatically reduce the deaths and lifelong disabilities

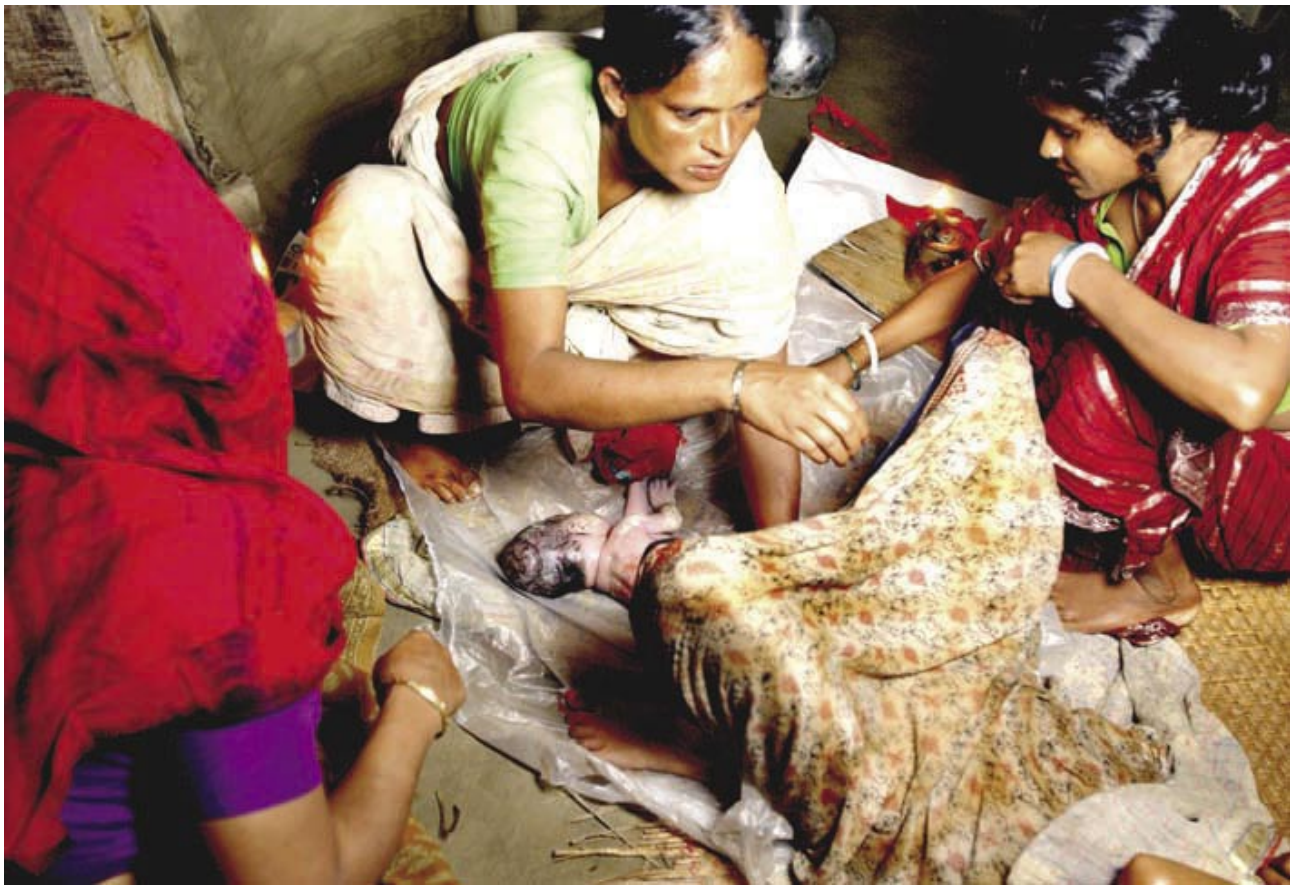
Causes of maternal death worldwide



* Other direct causes include: ectopic pregnancy, embolism, anaesthesia-related causes.

** Indirect causes include: anaemia, malaria, heart disease

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.

> "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.*

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*