Over the past several years, AIDS prevention has mainly focused on access to funding and treatment, especially antiretroviral (ARV) drugs. Although the situation has improved significantly, developing countries are facing another challenge that is just as crucial as access to medication: namely the lack of human resources to fight the epidemic.

The healthcare personnel crisis in developing countries is largely the result of several decades of under investment in the health sector and of sectoral reforms designed to limit government recruitment and salaries. The crisis is further compounded by the increasing emigration of healthcare professionals from their native countries.

According to the International Labour Office, 77 million people—over twice the number as in 1975—currently live and work outside their country of origin. The growing number of emigrants is having a significant impact on the less developed countries (LDCs) because it often means the departure of their best-trained citizens. Although healthcare professionals do not account for the greatest proportion of qualified emigrants, the departure of nurses, doctors, psychologists, laboratory technicians and pharmacists nonetheless represents a real threat for the health systems of developing countries, already seriously weakened by the burden of HIV/AIDS.

This exodus of healthcare workers is most significant on the African continent. According to the United Nations Economic Commission for Africa (UNECA) and the International Organization for Migration (IOM), 20,000 Africans have emigrated each year to high-income countries since 1990. In Zambia, Zimbabwe and Ghana, over 50% of recently graduated medical students have either already emigrated or are making arrangements to do so. According to Kenya's Health Department, only 10% of the 6000 doctors trained in public hospitals stay on to practice in their country. This fact is all the more alarming given that Africa is the continent most affected by the HIV/AIDS pandemic. But the problem is not contained to Africa; the Caribbean, South and Southeast Asia, and several South American countries are also experiencing a serious brain drain.

The aim of this fact sheet is to examine some of the main issues related to the causes and effects of this exodus of healthcare professionals. The fact sheet also examines the approaches being considered to solve this problem and possible solutions for the management of international migration that would be less detrimental to healthcare systems in developing countries.

### 1. Global Challenges

#### 1.1 Countries of destination: situation and attraction

First and foremost, the migration of healthcare workers is the result of the increasing demand in high-income countries. In lieu of training more workers, the tendency has been to recruit workers from other countries.

In the past, emigration followed patterns corresponding to linguistic or colonial ties. But times have changed, and except for the United Kingdom, the major “importers” of healthcare workers (the United States, Canada, New Zealand and Australia) are currently not the former colonial powers.

The shortage of healthcare workers in high-income countries has occurred for two main reasons. Firstly, it is a direct consequence of
poor human resource planning by the healthcare systems of industrialized countries. The lack of adequate training opportunities and training institutions has long been denounced by the health workers themselves. Government measures over the past decade have been unable to attain the required level of certified workers. Consequently this has had a substantial repercussion on the development and preservation of health infrastructures in high-income countries.

At the same time, the population of these countries is steadily aging, thereby entailing an unprecedented increase in long-term healthcare needs and case management. For example, it is estimated that Great Britain will need to nearly double its number of healthcare attendants by 2008, and that the United States will require an additional one million registered nurses by 2010.

The second reason is that, in most of these countries, national healthcare professionals are also emigrating to other countries with better working conditions and higher salaries. For example, Canada, where doctors and nurses are being actively recruited from abroad (especially to fill vacant positions in rural areas), is also experiencing an annual exodus of its Canadian-trained doctors to the United States. Like their British colleagues, these doctors are drawn to higher income levels in the U.S. and a more advantageous tax system. Canadian nurses also tend to either emigrate, or simply change jobs, given the difficult nature of their working conditions.

Even when they do stay on, national healthcare workers are usually reluctant to work in rural areas or tend to avoid certain areas of specialization. As a result, foreign workers fill the positions that others refuse to accept. Sometimes, they are encouraged to do so with specific benefits; for example, in the U.S. and Canada, immigrant workers may obtain their permanent resident status in exchange for a commitment on their part to work in remote areas.

In an effort to fill the growing gap between these needs and available personnel, high-income countries have implemented attractive strategies, especially through private recruitment agencies and new communication technologies capable of reaching a wider range of workers more rapidly.

The existence of this demand has a significant impact on the decision-making process of workers in LDCs who are constantly attracted by higher salaries and better working conditions in high-income countries. Disparities in income level can be considerable: a doctor or a nurse in Canada can earn 25 times what he or she would earn in Zambia.

As for working conditions, although the status of immigrant workers may not equal that of their colleagues trained in the host country, the country of origin is simply unable to offer the same advantages, such as the possibility of continuous professional development and of promotions, ongoing training, research and publication opportunities.

**Canada: A Case Study**

According to the 2006 WHO World Health Report, Canada currently needs 16,000 nurses, and will need 113,000 by 2011, yet the country is not training enough professionals to meet its needs. To compensate for this shortage, they recruit people internationally. Up to 45% of doctors who practice in some Canadian provinces, such as Saskatchewan, were trained abroad. Thus, South Africa, after losing some 1338 doctors who emigrated to Canada in 1998, went so far as to launch an appeal to Canadian health ministers to stop recruiting in their country. Since then, health ministers from both countries have worked together more closely and are currently planning a healthcare worker exchange program based on specific objectives. But in spite of recent efforts to improve the management of healthcare workers trained abroad, the Canadian situation is nonetheless complex: its health system is not managed federally but provincially, which hinders the adoption of international laws on international recruitment. Furthermore, the validation
process of foreign diplomas is very arduous, long and costly, and varies from one province to the next. Hence the paradox: whereas Canada is campaigning for highly skilled workers from abroad, foreign doctors and other healthcare workers have great difficulty exercising their profession in several Canadian provinces once they arrive in Canada, and are often obliged to work in other fields. In other words, Canada is "removing" healthcare workers from countries where the need for them is the most pressing and yet unable to meet their employment needs at home.

This shortfall is all the more glaring given that the varied immigrant communities living in Canada are currently expressing the need for culturally appropriate healthcare needs (especially in terms of HIV/AIDS) that could be provided by healthcare workers from the same communities.

1.2 The growing crisis in developing countries:

If the demand from high-income countries is an undeniable incentive for candidates to emigrate, so too are the reasons for their departure. Living and working conditions in their native countries may be particularly difficult. Furthermore, while the decision to emigrate is essentially personal, the social, economic and political context in which this decision is made must also be considered.

Each country's migration pattern reflects factors that are specifically linked to the national context in terms of development, access to basic services, and security, among others. As for healthcare workers, this trend is also closely linked to occupational restrictions and to their income level. The poorer the conditions are, the greater the trend towards emigration, and the fewer the healthcare workers, the heavier the workload—it becomes a vicious cycle.

For over two decades, the World Bank and the International Monetary Fund have imposed a reduction on human-resource investment in developing countries. This policy was a failure, and even though some changes have begun to emerge, the consequences are not being felt any less.

The health sector in the LDCs has thus been in a serious crisis for over a decade. Absenteeism is its most visible manifestation, as a result of lower salaries or of workers' purchasing power. When salaries are paid, which is not always the case, they do not allow healthcare workers to meet their needs or those of their families. Other macro-economic factors only aggravate the problem. For example, following the devaluation of the CFA Franc in Central and West Africa, countries such as Cameroon experienced a 70% drop in salaries, meaning that an entry-level non-permanent doctor in Cameroon's public service earns the same as a nurse from the Philippines, i.e., $75.00 per month.

Healthcare workers are therefore obliged to supplement their income with various activities: jobs in the private market during working hours normally reserved for the public service, illicit resale of medication, and participation in meetings or workshops paid for by international organizations. In Cambodia, for example, private employment represents up to 90% of healthcare workers' income. Such absenteeism significantly weakens the quality and quantity of care provided by the public sector and represents a heavy financial burden for the countries involved. But this crisis also affects the private sector to a certain extent: workers there often report unsatisfactory salaries and working conditions, given that most patients are unable to pay for private care.

Health workers are also greatly discouraged by poor working conditions, obsolete equipment, the lack of professional development opportunities, and the absence of security measures. Furthermore, conditions are sometimes exacerbated by corruption and nepotism dashing any hope of personal advancement within the system. In a worst case scenario, many health workers are forced to leave their homeland as a result of the collapse of the country's constitutional state, as was the case in Zimbabwe.
The Philippines provides an interesting example of a country that contributes to the global supply of health workers. It exports the largest number of qualified nurses in the world. Thus, out of the 7000 nurses who graduate each year, 70% emigrate to higher-income countries while 30,000 positions remain unfilled in their own country. If these mass departures may be considered as a significant source of revenue for the Philippines, the exodus of healthcare workers is a real catastrophe for other countries. In Ghana, 50% of graduates emigrate after 4.5 years, and 75% emigrate after 9.5 years, while over 42% of doctors' positions and over 25% of nursing positions remain vacant.

**South Africa: A Case Study**

Ironically, while South Africa is a source of medical personnel for some countries, 80% of the doctors in its rural areas are foreign. Unfortunately, South African healthcare workers are leaving the public sector for the private sector where conditions are more comfortable and affluent. But they are also leaving the country. Since 1991, the number of nurses emigrating to other countries has risen eight-fold, half of whom have left for the United Kingdom. This situation is all the more alarming given that the country is on the front-line among nations affected by HIV/AIDS. Between 1989 and 1997, over 23,300 South Africans left the country to move to Great Britain, the United States, Canada, Australia and New Zealand. The migratory flow has not eased during the past nine years. Because of the excellent training they receive at home, South African healthcare workers are in great demand and many countries, including Canada, have engaged in active recruitment campaigns to attract them. Following an urgent appeal from South African authorities, Great Britain has entered into an international agreement with the South African government to better control emigration and encourage healthcare workers to return home. This initiative appears to be gaining success, despite the fact that private recruitment agencies continue to advertise widely and without restriction.

**2. Repercussions to the global health system**

For supporters of the Washington paradigm, the emigration of workers is a positive feature of globalization and of the service-sector liberalization. The reason for this is that most of these emigrants remit a considerable portion of their wages to their families and communities back home. But according to the International Organization for Migration, the International Labour Office and development agencies, these cash infusions hardly cancel out the disastrous effects of emigration on health services. Whilst these remittances do contribute to the financial well-being of the families and communities of the emigrant workers, they do not replace the initial investments that were made to the health systems by their countries of origin.

The consequences of the South-North displacement of personnel are overwhelmingly negative. The health systems suffer from the loss of their personnel, which leads to a reduction in the quantity and quality of care provided, to poorer hospital and health centre management, and to an increased deterioration of public service.

This displacement represents a heavy financial burden for countries in the South. From a strictly financial perspective, this burden is estimated to be at least $4 billion per year on the African continent alone. The situation is exacerbated by the limited number of training opportunities in most of the poorer countries. For example, there are only 87 medical schools in the 47 countries that make up Sub-Saharan Africa. Eleven countries have none, and 24 countries have only one; furthermore, in the latter group, not one of these medical schools provides complete training.

When the training is provided by the state, the departure of graduates represents a significant loss in terms of public investments. Given the length of most types of training (for doctors, pharmacists, psychiatrists), even the loss of a small number of healthcare workers may be catastrophic. The loss of a single doctor will
have a far greater impact in a developing country than it would have in Canada. For example, when a Canadian institute recruited one of only two anaesthetists from the Boxburg Centre for Spinal Injuries in Johannesburg, South Africa, the Centre had to shut down because no replacement was available.

Whenever a colleague emigrates, the remaining healthcare workers experience increased stress levels because they have to cope with the same amount of work with fewer team members. In some parts of Africa, since all public employees have left the city to go abroad or quit the health sector altogether, only charitable or missionary workers are left to provide basic healthcare.

Within the context of the HIV/AIDS pandemic

The pandemic has only added to the burden of healthcare workers, within a context described above as demoralizing and where the risk of accidents is even greater. Recently deployed efforts to put more patients on ARV treatment, as well as the need to manage some HIV-related chronic diseases, such as tuberculosis and cancer, to introduce new healthcare practices (PMCT, DOTS, STI syndrome management etc.), all require a growing number of well trained health workers. The mass exodus of health workers is occurring just when many countries experience their greatest need for skilled workers in the health sector. Although local AIDS initiatives have provided new funding sources (The Global Fund, the 3 by 5 Initiative, etc.), the management of new programs has only added to the burden of the already over-taxed healthcare workers.

The human resources crisis in developing countries is undeniably compounded by an infection rate that is often high among healthcare workers. HIV/AIDS is responsible for 19% to 53% of deaths among government workers in Southern Africa. Over 50% of these workers have already died of HIV in Malawi. In Zambia, the mortality rate among nurses represents nearly 40% of losses among trained personnel. Even though not all countries are affected to such a degree by this disease, the situation is nonetheless alarming. Healthcare workers who benefit from preventive measures following exposure to HIV infection at work are few and far between. Those who have access to long-term anti-retroviral treatment are even rarer.

Uganda is a "perfect" example of what the combination of a high rate of HIV contamination and the brain drain can entail. Consider the case of Makerere Medical School: out of 77 medical graduates in 1984, 11 have died of AIDS, five have committed suicide, and 19 have left the country to go abroad. Only 36 doctors are still working in Uganda. In this country, the number of doctors per inhabitant has fallen from 1 per 10,000 to 1 per 24,700.

Without a preferential and coherent integration of the workforce in all AIDS prevention programs, this situation will only worsen in the 57 countries considered by the WHO to be crippled with a major work-force crisis in the health sector. Thirty-six of these countries are located on the African continent.

3. Crisis-avoidance scenarios and recommendations

To meet the Millennium Objectives on the African continent, experts believe that the current number of healthcare workers should be tripled. According to the WHO, 4 million healthcare workers will be needed to meet everyone's needs. Furthermore, analysts believe that the brain drain in the health field will maintain its current pace-and perhaps even increase for the foreseeable future. On the one hand, unless governments address the many human resource issues affecting the supply and support of healthcare personnel, there will continue to be a serious shortage of locally trained health workers to service the aging populations of high income countries. On the other hand, the socio-political and economic status of many countries in the South is deteriorating, thereby encouraging greater emigration from those countries which can least afford to loose their professional staff.

If, in the short term, this brain drain continues unabated, the imposition of certain measures
may be required to address the situation. Nonetheless, these solutions cannot come from sponsor countries alone. They must be decided upon and implemented jointly with their southern partners.

3.1 The South: the need for structural reform and better retention

In an attempt to retain their skilled workforce, developing countries must improve both working conditions and income levels. Higher salaries for healthcare workers are needed especially in rural areas. Ghana, where the World Bank helped raise salaries by 15% to 35% to encourage the introduction of healthcare workers in disaster areas, could serve as a model for a greater number of countries.

As for improving the working environment for health workers, the upgrading and recognition of their work, as well as improved support in the event of their own illness, could reverse their exodus from the health sector. Improved safety conditions are a priority; this involves purchasing gloves, garbage cans, and disinfectant products; building incinerators for syringes; and ensuring access to post-exposure prophylaxis and to therapeutic management in case of contamination/infection.

In the long term, more emphasis needs to be placed on training and education. Improving primary and secondary education is key. Malawi, for example, has introduced remedial courses to compensate for the shortcomings of secondary-school education. This has helped increase the annual number of medical-school applications from 20 to 60. Furthermore, access to university studies in the health field could be dependant on a student’s willingness to remain in the public sector for a specified number of years after graduation, as is the case in Cuba for example. However, these restrictive measures are often unsuccessful unless they are accompanied by a program of incentives, such as rural bonuses or free university tuition.

In the medium term, one response that has already been adopted by some countries—especially in rural areas—could be extended and improved. It involves hiring substitute healthcare workers to perform tasks that go beyond the scope of what they have generally been trained for. Thus, in many Sub-Saharan countries struggling with the HIV/AIDS epidemic, a growing number of nurses and healthcare workers are replacing doctors in the provision of basic care. Similarly, some short-term training programs help train healthcare workers to replace colleagues with more advanced diplomas, as is the case in Ghana where general practitioners are replacing specialists after 18 months of training.

The advantage of this replacement system is that it curbs emigration, since these intermediary diplomas are not recognized internationally. These shorter training periods are also less costly and justify slightly lower salaries. Finally, insofar as they are trained locally and very much part of the community, these substitutes tend to stay where they are employed, even in rural areas.

Finally, to handle the shortage of healthcare workers, the use of trained and supervised community workers and traditional therapists to provide basic treatment is already being successfully tested in some countries. The training of these community healthcare workers normally lasts from several days to several months. This substitution helps free some time for the healthcare workers who are better qualified and who can therefore assume more technical activities. Similarly, the patient associations that have been created over the past several years in many countries, especially for and by HIV/AIDS patients, are providing crucial prevention services, psycho-social follow up and supportive care at home. These groups should be provide with financial support and access to regular and certified training.

3.2 The North: implementing ethical recruitment practices

If higher salaries are capable of stemming the emigration of healthcare personnel, the recruitment policies of high-income countries also need to be amended. In many northern countries, the health sector is still under state or
provincial jurisdiction, and despite the proliferation of private recruitment agencies, which are more difficult to control, the process should begin with government-enforced measures. It is inexcusable that school principals and university deans in Africa are receiving bonuses from high-income countries so that they will encourage their highly skilled graduates to emigrate to North America and Europe.

Furthermore, countries in the North must commit to improving their own human resource programs and policies. They must be prepared to finance the training of a greater number of healthcare professionals and become less inclined to recruit from poorer countries which can ill afford to lose their trained personnel.

Other measures may also be considered. These include:

- The implementation of a “charter of good practice” that would ban the recruitment of health professionals from those developing countries which are facing a crisis in the health sector. The WHO has already compiled such a list. All of the member countries of the United Nations system would be obliged to sign it, and varying sanctions could be considered for countries not respecting this charter.
- The signature of bilateral agreements between source countries and countries of destination of healthcare workers, stipulating, for example, that the high-income country undertakes not to recruit healthcare workers who have not completed a mandatory minimum number of years of service in their country of origin.
- The implementation of agreements between source and destination countries to encourage recycling of skills: the financing of posts for visiting professors or "rotating" specialists to allow healthcare workers who have emigrated to return regularly to their country of origin; the promotion of common research projects between both countries to include temporary exchanges of specialists; and the creation of specialization scholarships in countries in the North.

However, these measures will not prevent candidates who want to emigrate. Countries of origin should also introduce policies and retention packages which will encourage workers to remain at home. Some examples of successful compensation packages are outlined in the next section. Under no circumstance should the freedom of movement of healthcare workers ever be questioned.

3.3 Establishing a compensation system

The payment of financial compensation to countries that have suffered as a result of the loss of their healthcare workers is often considered as an alternative to ethical recruitment. However, given the controversial nature of the issue, no high-income country is currently prepared to commit to it. Any calculation of the amount to pay is very complex. Does one calculate the amount of lost income to the health system over the long term or does one focus solely on the reimbursement of the training costs? In the case of South Africa, for example, for the year 2000, the cost of training alone was higher than the entire amount of bilateral and multilateral aid earmarked for education.

As for the calculation of the loss in income at the health service level, it is difficult to assess the losses related to the disintegration of an entire health system and of its repercussions over several decades. In fact, many fear the consequences of implementing such a compensation system: could it result in the creation of policies designed to support the “sale and exportation” of health workers, policies that run counter to the philosophy and the priorities of the national health systems and of the public service?

Most of these measures, if adopted, will take a long time to implement – and their results will only be quantifiable in the mid- or long-term. In the meantime, it is crucial that we appreciate the acute labour problems that many countries are
experiencing. In addition to revising recruitment policies, high-income countries must be prepared, through their development assistance and AIDS prevention programs, to set aside funds to contribute to the salaries and benefits of the health care professionals in the developing world. Such financial support has rarely formed a component of multi and bi-lateral programming.

In May 2004, the 192 countries represented at the World Health Assembly adopted a resolution (57.19) urging member states to:

1. "frame and implement policies and strategies that could enhance effective retention of health personnel including, but not limited to, strengthening of human resources for health planning and management, and review of salaries and implementation of incentive schemes;"

2. "establish mechanisms to mitigate the adverse impact on developing countries of the loss of healthcare personnel through emigration, including means for the receiving countries to support the strengthening of health systems, in particular human resource development, in the countries of origin."

It is high time these resolutions were implemented.

### Resources

- African Medical Research Foundation (AMREF): [www.amref.org](http://www.amref.org)
- MEDACT: [www.medact.org](http://www.medact.org)
- Physicians for Human Rights: [www.phrusa.org](http://www.phrusa.org)
- Human Resources for Health: [www.human-resources-health.com](http://www.human-resources-health.com)
- World Health Organization: [www.who.int](http://www.who.int)
- International Organization for Migration: [www.iom.int](http://www.iom.int)
- International Labour Organization: [www.ilo.org](http://www.ilo.org)
- Canadian Information Centre for International Medical Graduates: [www.img-canada.ca](http://www.img-canada.ca)
- Canadian Nurses Association: [www.cna-aiic.ca](http://www.cna-aiic.ca)
- International Council of Nurses: [www.icn.ch/french.htm](http://www.icn.ch/french.htm)

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Ce feuillet d'information est aussi disponible en français.